Serin Geambazu

YENI ISTANBUL:
A SYSTEM OF MEGAPROJECTS

an assessment of the dimensions of the new megaprojects in global cities situated at the periphery of Western capitalist economies from a governance and planning process perspective

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LIST OF ACRONYMS

GDP - Gross domestic product
EIA - Environmental impact assessment
IMM – Istanbul Metropolitan Municipality
IMP - Istanbul Metropolitan Planning Office, Bimstas s.a.
DHMI - The General Directorate of the State Airports Authority of Turkey
IGA - Istanbul Grand Airport
TOKI - State Housing Authority of Turkey
KOS - Kuzey Ormanlar Savunmasi (The North Forest Defense)
SIA - Social impact analysis
EIA – Environmental Impact analysis
UN - United Nations
UNDP - United Nations Development Program

FORWARD

This thesis contributes to an emerging global research field into the impact of neoliberal economic retructurings on urban governance: "Megaprojects" have been seen as a key element in a global turn towards municipal entrepreneurialism (Harvey) and signify attempts to position cities on a global economic map as Global Cities (Sassen) through often highly controversial signature projects.

In the past decades, critiques have been formulated by (often Neomarxist) scholars from the fields of social, economic, and political science. Only in the last few years, architects and urban planners have argued for the need to build a more "grounded" and relational understanding of the local impact of these projects.

It is here, where I see the key contribution of this thesis: Resisting the tendency to apply "singular explanatory logics" (Ong) such as "neoliberalisation" Ms Serin brings sensitivities, questions, and methodologies of an architect/ urbanist to the fore.

Applying an impressively varied and extensive combination of quantitative and qualitative (Istanbul case study) she can develop a complex and locally embedded understanding of the emergence of new governance constellations and planning processes.

The thesis is a powerful intervention in a still little-understood ongoing planning governance transformation process in Turkey. Here, typical attributes of "Global City"

planning merge with specific local planning traditions and institutional frameworks, that have been significantly weakened through the gradual sliding towards authoritarianism and the weakening of institutional checks and balances. The result is effective planning at a troublesome social, political, and environmental cost.

- Excerpt by
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PREFACE

For me, the spirit of this book lies exactly in its social constructivist and relational way, how the megaprojects and the territory are constructed, how anything is constructed. The shifting role of planners, their practice and politics and the transformation of urban planning as a substantive of a desirable future into a process makes this not a stop, but a milestone in the process, a small part of a journey that continues.

Serin Geambazu

Keywords: megaprojects, governance, urban planning process, performance, impact and risk

INTRODUCTION

The recreation of cities through megaprojects is not a new trend, the history repeats itself under the umbrella of neoliberalism, many cities responding to the economic pressure and the process of globalization through a reinterpretation of large-scale urban development projects. The predominance of the experience of the Western examples in the literature on megaprojects raises a concern as to whether the same characteristic can be generalized to the non-Western locales.

This study aims to contribute to the more general, theoretical contention on the new emerging megaprojects that enable the expansion of global cities, in locations situated at the periphery of West-capitalist economies, in understanding and analyzing them through the concepts of governance and planning process. Hence, it tackles dimensions of megaproject planning in Istanbul, Turkey, by exploring city's expansion to the north and its newest infrastructure project, Istanbul Airport megaproject is presented. Among the results is the assessment to which extend the top-down, but also bottom-up governance forms influence the planning process and outcomes of the project, providing future policy recommendations.

The book provides an overview of the phenomenon of the new megaproject development, its characteristics and main shortcomings, impacts, and risks. A statistical exploration of a sample of 150 infrastructure megaprojects is done with the scope of enlarging the findings in the literature review and test their accurateness. The theoretical framework that underpins this study is derived from the discourse on the

new forms of urban governance including private, public, and civic actors that influence planning processes and outcomes of megaprojects. Analytical tools included are: decision-making process, the legal framework, actors, their relations, and discourse analysis, and from a normative perspective, collaborative planning is proposed to inform a desirable, more inclusive future planning process. Both primary and secondary data were collected through: literature review, review of documents, plans and laws, articles from media, 20 interviews, 40 questionnaires, and a workshop, observation and research done by the author while working at Istanbul Metropolitan Planning office. The study provides also a reflection on Istanbul's urban transformation policies and the institutional framework at the city and national level that facilitate them to understand the planning context.

The triangulation strategy acknowledges that no one measure in the social sciences is free errors and biases. Triangulation refers to the use of multiple measures to capture a construct (Heath,2001) and in this book, three types of different analyses are undertaken for the study of actors in their relationships: stakeholder analysis, mapping through Graphcommons and discourse analysis.

Graph commons[1] is a tool for dynamic mapping and it was used for the discourse analysis, the stakeholder analysis, and the exploration of the data about the relationships among actors. The actors were mapped online, as they engaged in the planning process of the project, when they were linked.

The book concludes on the new wave of megaprojects at the periphery of capitalist economies that successfully surpass the main concern in the literature review, considering the

[1] Graph commons was designed for the project Mülksüzleştirme Ağları (traduced: Dispossession Networks), where the author was a volunteer. Online source: http://mulksuzlestirme.org/

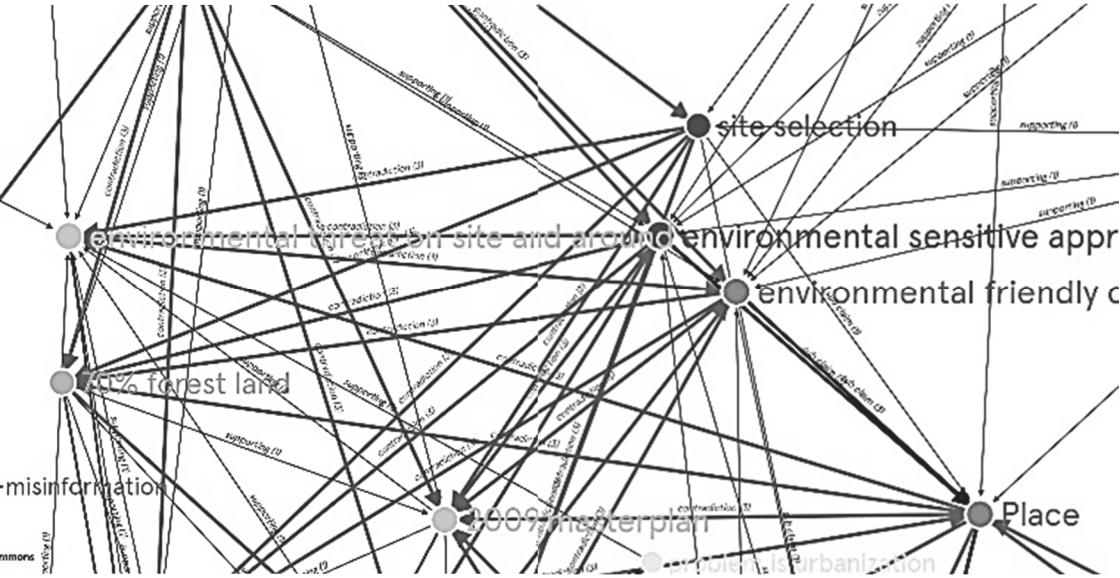
performance dimension: the cost overruns and time delays, although it seems not so different from the western examples, implemented through sudden, top-down decisions that do not sufficiently account for environmental protection or consultations with citizens. The study argues that only through a change of a more inclusive planning approach, along with targets of improvement on policy level and its integration into the traditional institutional planning system, into bigger scale plans, the megaproject will be able to escape the current deadlocks and collisions between government, investors, and resistance, and might have a chance to set an urgently needed precedent of a new planning culture in Istanbul.

Lastly, the research proposes a desirable planning process model for the new megaprojects, situated at the periphery of West-capitalist economies.

Meeting challenges in the field is common for any study. Limitations here were: time, resources and issues related to the context in which the study was done, the current political setting of Istanbul, in which several protests occurred against megaprojects. The topic of urban transformation and governance are hot issues in Turkey and especially in Istanbul.

Therefore, conducting interviews with representatives of IGA was hard to obtain and a lot of time was spent on this purpose. Moreover, the author was in Istanbul during the 2016 coup. Also is to be noted that the author had the financial support of a mobility grant given by the Ministry of Education and Ministry of Research of Romania.

The research process and research design that stayed at the base of the study can be found at the Annexes part of the book.



| Fig. 1
Caption from Graphcommons, Map of actors and their relationships [2] generated by the author in Graphcommons. Source: author

[2] The graphs done in the Graph commons program is open to public and can be found at the links:
https://graphcommons.com/graphs/c1e1558b-b6e9-4732-9e1c-b2dca078f16d (Discourse analysis)
https://graphcommons.com/graphs/aff94cc2-590f-4b53-9607-7517ceb273c2 (Actor Network Analysis on Istanbul Airport megaproject)

GOVERNANCE AND PLANNING PROCESS OF THE NEW MEGAPROJECTS



| Fig. 2
The Tower of Babel
Source: adapted by author –
https://www.britannica.com/topic/Tower-of-Babel

RELEVANCE OF THE STUDY

In the context of the urban age, where more of the half of the globe's population lives in cities, the spread of neo-liberal political and economic ideology and the proliferation of global capital have created new opportunities and challenges for cities everywhere (Sassen, 2012).

Within the discourse of urban planning, it is generally assumed that globalization leads to the same type of transformations and urban development trends everywhere in the world. However, it cannot create a certain prototype for spatial development or a new spatial order for cities. Rather, it gives a variety of spatial patterns, also called "*global urban forms*" that contribute to the expansion of cities. Recently, these forms have identified themselves spatially within a series of "*megaprojects",* their intensity being felt in today's global cities, North-American and West-European, but with a domino effect, progressively in the global cities situated at the periphery of these capitalist economies. This type of projects is used as a tool to establish exceptionality norms in planning and policy procedures, part of a neoliberal new urban policy approach associated with new forms of governing spatial interventions (Rodriguez and Swyngedow, 2002).

Total global infrastructure megaproject spending values is $ 6-9 trillion annually, or 8 % of the world's GDP, which stands for the biggest investment numbers reached in human history.

In the last two decades, we witness a renaissance and reinterpretation of megaprojects within the global cities as an exclusive model for urban development (Swyngedow et al. 2004). In the European and American context, after a hiatus during the 1980s, many cities have responded to the economic pressure and the process of globalization through major projects and mixed-use developments to attain investment opportunities, building new CBDs for multi-national companies and new sites for living. Here, the definition of megaprojects or better explained as "*the new megaprojects*", is a comprehensive one; it includes essentially extensive costs and procedures, complex in all its dimensions, the reconstruction or the regeneration of an area, but also construction and development of areas, symbolic structures or buildings. The implementation of these projects expands within a long period, involving a multitude of actors from different milieus: public/ private. A fundamental condition is the change of functions of the existing territory and the impact at the city level and beyond. The concept of "*new*" is recognized with the meaning of "*recent*". This study does not assume from the start that the new megaprojects are different in scope and consequences to their forerunners.

Considering that they are poorly integrated into the wider urban process and traditional planning system, their multiple forms, and local conflicts, as well as their impact on the city as a whole system, remain ambiguous (Swyngedow et al. 2004).

Are we facing the same top-down planning typologies with benefits just for the developers, as the past examples?

To what extent did the planners learn from previous criticism? Following a holistic comparison, what could be the new guidelines for future interventions?

These become valid questions to be explored.

Essentially fragmented, these forms of interventions go hand in hand with an eclectic planning style where attention to design, detail, morphology, and aesthetics is paramount. The emblematic project captures a segment of the city and turns it into the symbol of the new restructured and revitalized global city cast with a powerful image of innovation, creativity, and success.

However, generally, these type of developments have been critically examined by many scholars, many of which share the belief that the megaprojects are often not addressing the underlying, deep-rooted problems of the cities and furthermore, ignoring the socially and economically unstable landscapes in which they often occur, contribute to the escalation of inequality, polarization, and deprivation (Harvey 1989; 2005; Brownill 1990; Gordon 1997b; Hoyle 2000; Saarinen and Kumpulainen 2005; Butler 2007).

Surpassing these critics on the left, critics on the right argue that these developments are an unnecessary intrusion of the forces of the government and have led to unjustified expropriations of private property. (Anderson 1964) These kinds of projects often take place within fragmented and entrepreneurial forms of governance (Harvey 1989; Healey 1997; Gordon 1997a, 1997b; Feldman 1999; Feinstein 2001; Granath 2005; Butler 2007) represented by public-private partnerships, in a societal environment of increased capital mobility and inter-urban competition (Malone 1996).

Hence, it is argued, that megaprojects have been examples of **new governance styles and policy targets**, but also object of intensive local planning debates and conflicts based on different actors (authorities, planners, residents, environmental groups, developers, etc.) holding an equal number of views (Hoyle, 2002) which are often difficult to reconcile. Brenner and Theodore (2004) argue that an important analysis aspect to identify the impact is the role of the state in these kinds of interventions (provision of subsidies, land, or special treatment in the tax, etc.) and the level of involvement and its loyalty towards the goals for the public.

Looking at the new wave of new megaprojects, especially their governance and planning process, could be considered a prism through which broader societal transformation processes and related planning challenges can be understood.

The focus on the peripheral global cities is a valid choice here. Compared to the ones in advanced capitalist markets, these cities have been through a much recent radical neo-liberal transformation. At the periphery, the lack of the necessary institutional framework, the vulnerable position of local government and its eagerness to close the gap in the capital accumulation process, along with the strong advantages given to any external actors to enter the market, lead to a new wave of these complex developments, impressive megaprojects.

Moreover, the predominance of the experience of the North-America and Western European examples in the literature review raises a concern as to whether the previously described dimension of megaprojects can be generalized to the non-Western locales.

To understand the megaproject planning in Istanbul, a reflection must be done upon the peculiarities of the institutional framework and the new urban transformation national policies. Turkey has been experiencing a neoliberal reconfiguration of space, that is now in its final stage, configuring a new market-friendly role of the state.

The city has seen unprecedented growth, materialized into a series of megaprojects that although promise the upgrade of the building environment and improving living conditions, the top-down approach, reduce the projects to just transformation of physical space and neglecting the social, economic, and environmental dimensions, which along with the unwillingness of government to allow grassroots participation in the planning process become the focus of discontent and protest. (Geambazu, 2004)

Until the construction of the Istanbul Airport, the north of Istanbul has been left out of the planning agenda for ecological reasons, also declared a natural protected area in the last Istanbul General Masterplan in 2009, there being forests with rich fauna and flora, natural lakes, the city's water basins, and other natural resources. Today, a series of megaprojects in that area pushing urbanization to the north.

CONCEPTUAL FRAMEWORK: URBAN GOVERNANCE

In the last two decades, the shift from government to governance is becoming more popular in the urban arena and present in the development speech. Debated through a wide range of theories within the urban and spatial development discourse, the concept of governance is often explained by how actors at different scales of power come together with the state for building coalitions and engaging in collaborative action: e.g., Molotoch 1976, e.g., Stone 1993. These coalitions or freshly named collaborations emerge as proof of weak state power, the outcome of the 1980s radical economic restructuring, followed by the rapid expansion of international trade along with the emerging advanced communication and information systems, referred to also as the process of globalization. Therefore, for redefining the links between markets, political authority, and civil society, *"urban governance"* is being grafted (Rosell 1999, Merrien 1998), hence the transformation of the government into a 'governance' by hollowing out the power of the state to other non-state actors.

For the question: *"who governs?",* there is the answer *"no one in particular"* (Dahl 1961 cited in Parker 2004 p. 123) with the argument of the rising coalition-building behavior

and group mobilization that ensure no one group monopolization of power. Still, this pluralistic view can be contested, looking at the example of United State cities given by Bacharach and Baratz (1962) where powerful local interest was dominating policy keeping the non-elite interest out of the agenda. Therefore, although no group is governing because of the change in society's behavior towards a resilient and entrepreneurial position, still powerful groups can exclude and monopolize the interests of the others. In my opinion, the debate itself of *"who governs?"* can be changed into*" who does not govern?"* therefore *"who is kept out of the decision-making agenda and why?"*

Manuel Castles, David Harvey, along with political economy writers (e.g., Michael Storper and Richard Walker 1989, Sandercock 2004; Eisinger 2000) point to *"the capitalist imperative"* as a reason. While the managerial city was focused on the local provision of services, facilities, and benefits for urban populations, an entrepreneurial city is pushed by driving forces of city competitiveness within the rise of new entrepreneurialism allowing coalitions and partnerships to gain ground in the city (Harvey 1989, Harvey 1973). Cities change the way they operate taking upon qualities like risk-taking, inventiveness, promotion and profit motivation which reflect on their governance structures. These emerge as coalitions theorized for growth and validate non-state actors in the act of governance. According to these theories, city advertising is a kind of place marketing and redevelopment is regeneration (Harvey 1973; Eisinger 2000).

For example, *"growth machine"* (Molotoch 1987) politics coalesce among the private sector and a government, represented by ambitious mayors seeking to boost the values of property and land holding (Parker 2004). Methodologically the growth machine model is also

associated with what has been termed *"new urban politics*" in its emphasis on a case-by-case analysis, a strong focus on the local context, and bottom-up approaches to the study of policy formation (Jessop et al, p. 144, 1999). The question of "*who governs*" shifts this way to "*for what?"* (Logan and Molotch in Fainstein and Campbell, p. 291, 1996). Since the 19th century, the growth of cities such as Chicago, Atlanta or Las Vegas would not have been possible without the cooperation among ambitious mayors, property owners, railway directors, and entrepreneurs. With the growth machine model, the idea is that city managers must "*imagineer*" (Rutheiset, 1996) their cities by selling their virtues and attractions to potential businesses and residents while at the same time keeping their existing political and business constituencies on board.

In contrast, "*urban regime theory*" (Elkin 1987, Stone and Sanders 1987, Stone 1989) represents an attempt to respond to the criticisms of the growth machine model, focusing on the nature of informal coalition behavior and acknowledging the lead role played by city administrators in establishing such partnerships. It welcomes not only private sector, but also non-governmental organizations and other community- based organizations in the act of governance. Urban regime theory takes from pluralism the idea that no group monopolizes power at the local level, but it also backs elitist accounts of urban power by pointing to the existence of tight-knit coalitions of urban "movers and shakers". Stone's pro-growth regime is like Logan and Molotch's growth model because the main objective of such an expansion-oriented regime is to build its economy by attracting business and real estate development, and hence local taxes.

The 1999 United Nations Development Report emphasizes that cities are major nodes in the new emerging forms of governance around the world, withal being also more and

more fragmentized by the forces of globalization foreseeing them to act as territorial units in the competitive process (Sassen 2001, Parker 2004). This points again to the changing nature of government, the redistribution of government's power accomplished through a "*three-fold reorganization*" (Swyngedouw 2005 p. 1998). UN portraits pressure coming from the private sector that wants an accessible market environment and support by the state, but also the citizens that demand accountability and responsiveness (UN Development Program 1994).

The internal organization of government is being changed, the nature of the relation between different levels of government and redistribution of government's power and responsibilities (Parker 2004). Lefebre sees the tension between the global integration and the contested reconfiguration among geographical scales as a *"generalized explosion of space*" (Brenner 2000 pp 362); the 21st-century intense reterritorialization leading to profound fragmentation of social and economic life in the cities. This because, as an outcome of decentralization, local governments, now with delegated power, do not have enough leadership capacity to meet service needs, nor financial resources and to fulfill their mandates and therefore reach out to the private sector (Sassen 2001; Parker 2004) through privatization, externalizing some state functions.

It is observed that in the neoliberal society that we live in, the concern for land value and therefore land speculations lead to uneven market development in the city, making it harder for the poor and working-class to remain within the city (Harvey 1973; Sandercock 2004). This exclusion led to urban social movements which enabled workers, students, and other city dwellers to mass protest, reclaiming the streets and other public spaces as terrain of conflict (Parker 2004).





| Fig. 3
Jane Jacobs' protest in the 1960s, the author of “The Death and Life of Great American Cities”
Source https://www.beachamjournal.com/journal/2021/07/jane-jacobs-protest-in-the-1960s
| Fig. 4
Tacheles Art House, bottom-up, occupy movement -Berlin Source https://www.iheartberlin.de/2017/01/26/the-story-of-the-tacheles-art-house-in-berlin/

Across urban history starting with the bohemian avant-gardes in Paris, famous squatting movements in Europe, the feminist marches in reclaiming the streets and many other, urban social movements gave birth to an alternative civil society that *"were denied their rights to the city, but were finding new inventive ways to make their demands heard."* (Idem, p.132).

The processes of up-scaling and down-scaling of governance: delegation of regulatory tasks to higher scales of governance (NATO, United Nations, European Union, World Bank, etc.) and from national governments to local levels towards neighborhood level, incorporate new actors with great power towards policy-making, administration, and implementation. These new ways of governance challenge profoundly the parameters of political democracy by grassroots empowerment, inclusionary and horizontally organized innovative structures promising to achieve "*good governance*", promoted widely as a normative concept by international organizations. (Swyngedow 2005, Brenner 2000). UN, UNDP, UN-Habitat, UNESCAP and World Bank reveal a certain key attribute of good governance: participatory, accountable, transparent, responsive (to the needs of the people), equitable and inclusive and follows the rule of law, stressing over benefits as: reducing inequality and social tension, incorporating the knowledge, productivity, social and physical capital of the poor and disadvantaged in city development are put forward (Weiss 2000).

Of course, such an idealized-normative model of horizontal, non-exclusive, and participatory (stake)holder-based governance is symptomatically oblivious to the contradictory tensions in which these forms of governance are embedded. (Swyngedow 2005) Swyngedow portrays the new governance forms of "*governance-beyond-state" as "Janus- faced"* because of their lack of accountability

disposed of through the stake-holder position of the participants (Swyngedow 2005 pp.1993). Therefore, the non-state actors and groups representing civil society and its demands, engaging in governance, reinforce their power position, remaining still exclusive in reaching all the citizens in comparison to the old governance forms of the welfare state. (Swyngedow 2005)

Therefore, urban governance arrangements are based on a common and distinctive set of features:

*"Horizontal interaction among presumptive equal participants without distinction between their public or private status; Regular, iterative exchanges among a fixed set of independent but interdependent actors; Guaranteed (but possibly selective) access, preferably as early as possible in the decision-making cycle; Organized participants that represent categories of actors, not individuals. "(*Schmitter, 2000, p. 4).

ANALYSIS OF THE URBAN PLANNING PROCESS FROM A GOVERNANCE PERSPECTIVE

Spatial planning is the process in which decision is made over the societies land use, considered the competing demands of the market. Therefore, it can be referred to as a clear part of urban governance and consequently welcoming non-state actors in the planning activities of the city. In this context, Forester argues the shifting role of planners, their practice and politics and the planning as a substantive of a desirable future to a process. (Forester 1989; Healey 1997, 2006)

In the art of city planning, without the right questions, planners cannot find the right answers. How would be possible to implement participation in an urban environment constructed out of gated communities and segregated suburbs, privatized public land and monitored downtown streets and shopping malls, thanks to the *"shadowy form of governance called business partnership?"* (Harvey 2008 p.1; Harvey 1973) Others seek to assert a strong idea of the good city or the good society in planning (like Forester 1989, Innes and Booher 1999, Hilier, Hoch and Mandelaum), Healey develops*" collaborative planning"* (1997, 2006), in search for more inclusionary governance processes, contributing to the bigger spectrum of

communicative planning theory inspired by Habermas's discourse ethics and the concept of communicative rationality (1992).[3]

The question raised to planners is:

"Is it possible to construct a public realm in which we can debate and manage our collective concerns in an as inclusive way as possible?" (Healey 2006 p. 58)

The answer revealed ways to manage the challenges arising from the co-existence of stakeholders and their relational webs in shared spaces. Using a governance perspective with a systematic reflection on planning (inspired by Gidden's structuration theory) practices together with a focus on the process and the treatment of power, planning is defined as:

"(I understood planning as) a governance activity occurring in complex and dynamic institutional environments, shaped by wider economic, social and environmental forces that structure, but do not determine, specific interactions" (Healey 2003 p.104; modified by author).

This is possible by recognizing the complexity of power relations and discourse within the governance forms of planning process generated by the multiplicity of social worlds, rationalities, and practices. In defiance of these struggles and interactions, governance through collaborative processes. The argument that all planning activity involves some interactive relation, and some kind of governance process (Healey 1973; Innes and Booher 1999), enhances the importance of analyzing the actors

[3] Habermas's approach evolves from Hegelian idealism and Marxist critical analysis to Wittgenstein's scrutiny of language, positioning the ideal speech situation as a criterion by which to surpass the inherent distortion in most interactions.

emerging in the planning process, their discourse and their relationship with each other, the inclusion or exclusion which takes place in the struggle occurring in the fine grain of these processes.

Influenced by the multi-level power dimensions of the relations from Giddens's structuration theory [4], Healey introduces the webs of relations, the networks, more precisely the social networks that overlap and intersect in complex ways (Healey 2006). In the collaborative planning steaming landscape of new groups representing the business sector, NGOs, community representatives or all these at once involved in the planning process, break traditional hierarchical and bureaucratic models. Healey believes that governance gives planners perspective in understanding and ground planning society and a window for action in planning, adopting a pragmatic approach in their practices (Healey 2006). The nature of planning as a style of governance is characterized by a policy-driven or planning approach of how far this may co-exist with specific governance forms. Therefore, through analyzing governance, planners can understand the planning approach and seek for opportunities to create more inclusive and collaborative ways of planning reflected by consensus-building over matters of collective concern.

The strong connection between governance and the paradigm shifts in planning theory: from synoptic via the incremental to the discursive ideal of planning is reflected by the goals and rationalities of governance modes. (e.g., Friedman 2008; Innes and Booher 1999; Healey 1997, 2006).

[4] One of the pillars of the contemporary social theory, it refers to the analysis of the agent and the structure, nor micro or macro are of more importance, but the products of their constant interaction.

The portrayed *"planning"* in collaborative planning is about strategic approaches to the *"governance of place."* It involves attention to the process, the "*good city*" and its *"good governance,"* understood in a social constructivist and relational way (Healey 2006, p.29).

Healey reveals pillars in which collaborative inclusionary planning processes are most effectively promoted:

1. Broadly- based rights of voice and influence;
2. Provision to ensure that all parties who can demonstrate a stake in the issue can challenge decisions made in the governance arenas;
3. A right to good quality information available to all parties;
4. A right available to all parties to call any governance agency, formal or informal, to account for failure concerning duties and responsibilities which apply to the exercise of governance responsibilities. (Healey 1997, 2006 p.279)[5]

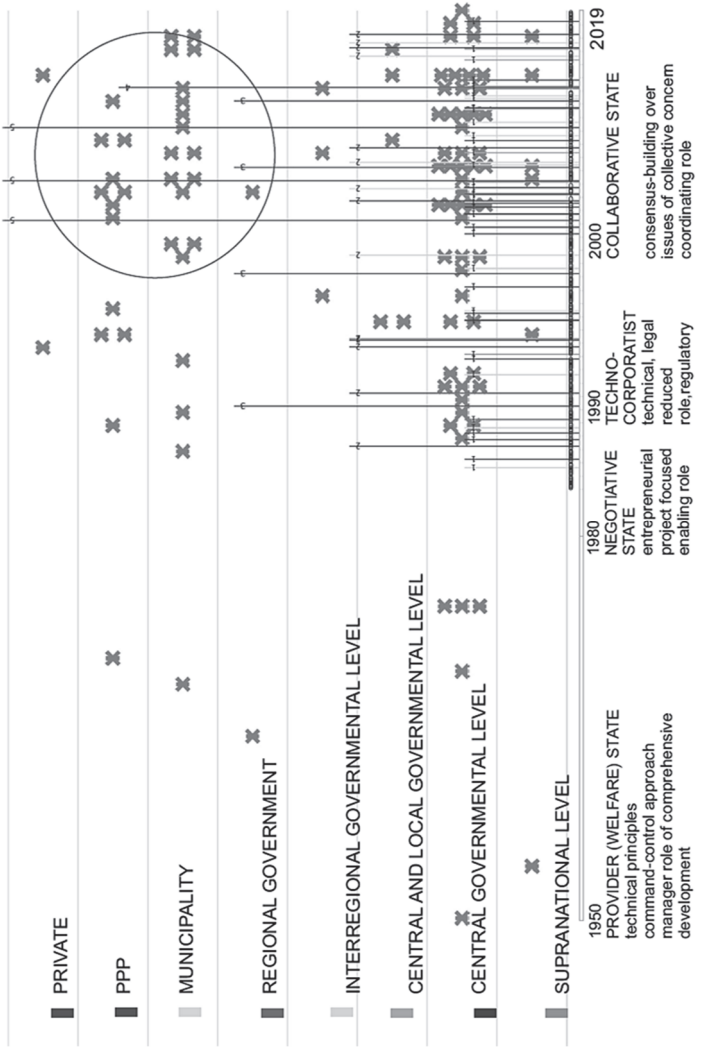
In conclusion, governance can be materialized in a tapestry of valid perspectives: from the opposite of government, the economization of social welfare managerial state provisions and withdrawal of the old state to empowerment of international organizations, collaborations and coalitions between state, private sector and civil society to the new innovative good governance forms promoted by urban social movements, non-governmental organizations and other civil society groups, which are not able to represent a true democratic position, but are seen as an opportunity in enhancing democracy and creating debate.

[5] Healey's work is supported by profound empirical work on planning policies in the 1980s, at the shift from blue-print spatial planning to a policy planning with regulatory norms to guide land and property development processes during the politics of high Thatcherism, stigmatized by privatization processes and project-based urban regeneration.

They trigger a change in the choreographies of civil society and fill a gap between citizens and government, playing a great role in today's governance structures. (Shepard and Hayduk 2002; Swyngedow 2005)

GOVERNANCE MODE	GOAL AND RATIONALITY	PLANNING APPROACH
Welfare populist	Definitiona of an optimal, rational, final state;	*Synoptic ideal of planning*
	Goal-oriented rationality and scientific knowledge	
Managerial or pluralist	Formulation of strategic guidelines, realization of project	*Incremetalism*
	Political and economic rationality, management of competences	
Pluralist or populist	Open communication process (pluralistic institutional framework)	*Discursive planning*
	Communicative rationality, based on interaction (agents and interests)	

| **Table 1**
The Paradimes of Spatial Planning (governance point of view)
Source author adapted from Nuissl and Heinrichs 2010, inspired by Healey (1997), Keim (2003) p.6



| Fig. 5
Governance modes overlapped with 130 infrastructure megaprojects separated by: timeline, initiator
Source: the author (Governance modes adapted after Healey 1997,2006)

To analyze spatial planning through a governance lens, Nuissl and Heinrichs (2010) propose attention to" actors" by identifying the relevant institutions, organizations or individuals that shape *"decision-making in the planning process"*; *"relationships"* by studying the relationships between these actors and the cognitive references by finding the social constructs that are mobilized in the planning process. After identifying the actors and their different positions in the planning process, it is crucial to understand their relationships: opposition or collaboration given by converging or conflicting interests, but also their organizational aspects: hierarchical -defined through the territorial responsibilities, marked-based-contractual arrangements, or horizontal networks. Institutional framework is not enough in analyzing *"decision making process"* and special attention should be given to how actors collaborate or resolve their conflicts, how they balance their interests and how they deal with relevant data or flow of information revealing the communication side of the planning process.

In contemporary planning theory, normative approaches of how should planning looks like come close to good governance discourse (Healey 1997, 2006; Friedman 2008; Fainstain 2000). Discourse is a broad exchange of ideas and points of view among various individuals in a particular situation. In urban planning, a discourse might include the set of working papers, plan documents, media coverage, written or spoken statements expressing points of view on planning challenges and proposed ways of addressing them. Therefore, it has important implications in policy analysis and planning itself.

Critical theories of Habermas, Derrida, and Foucault often provide the substantive underpinnings of discourse analysis. Many scholars such as Healy (1992b) and Forester (1989) have placed their *planning analysis within the*

communicative rationality of Habermas[6], referring to the capacity to engage in argumentation under conditions close to *"an ideal speech situation"* (*"discourse"* in Habermas' terminology), to achieve consensus (Dews, 1998). Boyer (1983), on the other hand, employed Foucault's idea of a *"genealogical framework"*[7] to study how planning evolved over the years. In *Dreaming the Rational City*[8], she focuses on the *"new areas for public policy"* and *"apparatus of planning*", meaning the relationships between professional discourses and scientific discoveries in the field, governmental institutions, and their administrative steps, laws, architectural and urban planning plans, etc. (Boyer, 1983, p.207). In contrast to the Hegelian and Marxist philosophies of history, Foucauldian *"genealogy"* is not a holistic view but a perspectival one, a history of tracing *"origins"* and reveals the *force relations* operating events and historical developments. It is also often described as an

[6] "Communicative rationality carries with its connotation based ultimately on the central experience of the unconstrained, unifying, consensus-bringing force of argumentative speech, in which different participants overcome their merely subjective views and, owing to the mutuality of rationally motivated conviction, 11 assure themselves of both the unity of the objective world and the intersubjectivity of their lifeworld" (Habermas, 1984, p. 10, cited in Rienstra and Hook, 2006, p. 11).

[7] Foucault's genealogical history seeks to deconstruct what was previously regarded as unified (i.e., history as a chronological pattern of events emanating from a mystified but all-determining point of departure), while also attempting to identify an underlying continuity which is the product of "discontinuous systematic ties."

[8] *Dreaming the Rational City* is both a history of the city planning profession in the United States and a major polemical statement about the effort to plan and reform the American city. Boyer shows why city planning, which had so much promise at the outset for making cities more livable, largely failed. She reveals planning's real responsibilities and goals, including the kind of "rational order" that was foreseen by the planning mentality, and concludes that the planners have continuously served the needs of the dominant capitalist economy.

"effective history." [9](Focault, 1984, cited in Sembou, 2011, p.2) Building upon this characteristic, Fairclough and Wodak's (1997; 1992; 1995) *critical discourse analysis* is derived from Foucault's archaeological and genealogical works, but it explores the nature of discourse and its relationship with power. In the same manner, Flyvbjerg (1998) who studied extensively the *new megaprojects*, employed the Foucauldian notions of power in planning discourse and concluded that rationality is often determined by power and not by ideals of reason or democracy.

The idea of a *"discourse coalition"*[10] is put forward by Hajer (1993), which he presents as a group of actors who share a social construct. To dominate a given political realm, a discourse coalition must fulfill two conditions:

1. It dominates the discursive space (discourse structuration) that is, central actors, are persuaded by, or forced to accept, the rhetorical power of a new discourse;
2. It is reflected in institutional practices (discourse institutionalization) that is, the actual policy process is conducted according to the ideas of a given discourse. (Hajer 1993, p. 48).

Linked to these coalitions, Moore Milroy's (1989) deconstructing discourse analysis reveals what was unsaid in planning policy, a certain *"tacit"* knowledge. A

[9] M. Foucault, "Nietzsche, Genealogy, History", in *The Foucault Reader*, ed. P. Rabinow (Harmondsworth: Penguin, 1984), pp. 87-90.
[10] Varied applications of discourse analysis in the urban policy context are demonstrated, Mienhof and Richardson's (1994) collection of essays explores the discourse on poverty in Britain in the 1990s drawn mainly from the mass media. Other approaches for studying discourses include the use of "*rhetoric*" (Throgmorton,1993), "*framing"* (Rein and Schon, 1993), and "*storytelling"* (Forester, 1989; Kaplan, 1986; Mandelbaum, 1990; 1991).

systematic approach to deconstructing and analyzing arguments in planning has been proposed by various scholars (Dunn, 1993; 1994; Fletcher and Huff, 1990; Gasper and George, 1998) and in each of these instances, an argument is deconstructed, its components mapped by some criteria. According to Toulmin (1922), arguments are a combination of six parts:

1. Claims (ideas that the arguer would like the audience to believe);
2. Grounds (ideas that lend support to the claim and make it more likely that the audience will believe);
3. Warrants (the logic of the argument);
4. Backing (reasons why the audience should believe the warrant);
5. Qualifiers (modify the claim by indicating a degree of reliance on, or scope of generalization of the claim, given the grounds, warrants, and backing available);
6. Rebuttals (possible exceptions to the conditions under which a claim holds).

Although there has been much written about the methodology of analyzing discourse in planning and its potential value in planning scholarship and practice, there is less evidence that it has been used to produce substantive advances (Kumar and Pallathucheril, 2004). Kumar and Pallathucheril developed a graphical discourse index[11]that is used in this research, with some modifications considering the specific empirical case study, Istanbul Airport. To discern between the main claims and sub-claims, the claims are further classified into their types.
Using this method, the authors have identified many fallacies within the discourse of planning. They can be deliberate or accidental, considering the distortion in

[11] Original graphic made by Kumar and Pallathucheril – Annexes No. 1

communication (Forester, 1989), but result in an inconsistent decision-making process and adversity in the planning process (Kumar and Pallthucheril, 2002). Fallacies divided into five types: from missing grounds; from irrelevant grounds; from defective grounds; unwarranted assumptions (Toulmin et al's, 1979, pp 132).
(See Annexes No. 1)

In conclusion, an important debate, also for the particular case study of this research, is the one made by the *urban regime theory* (Elkin 1987, Stone and Sanders 1987, Stone 1989) in contradiction with the *growth machine model* (Molotoch 1987) or the "*new urban politics*" (Jessop et al, p 144, 1999) pointing to the important role of city managers in incorporating not only private sector to the creation of space, but also other actors such as NGOs, social movements, community representatives, etc. The role of planners is not to be forgotten, as Forester (Forester 1989) accurately identifies, it is a changing one from an instance of the futures and vision towards a process, a planning process. Therefore, planning as a governance process comes with a new set of normative demands as: broadly-based rights of voice and influence in decision-making, accountability and good quality information (Healey 1997), but also analytical tools such as: *actors* and their *relationships*; *institutional framework*; *decision-making process*; *discourse analysis* - an important way of understanding how power is mediated and of identifying fallacies that result in defective decision-making process in the planning process. The *discourse coalition* concept (Hajer 1993) has implications for the case study of this research, Istanbul Airport, as it leads to the construction urban policy in line with the given discourse.



| Fig. 6

Golden Gate
Source: https://www.flickr.com/photos/charliethejuicer/387167601/

THE NEW MEGAPROJECTS

GENESIS OF MEGAPROJECTS

It is known that megaprojects have been constructed since ancient time, if we should look at the Maya cities in Mexico or the pyramids in Egypt or the road networks of the Roman Empire, but the first time they were acknowledged as a concept, was in the 1970s in order to describe large scale projects by Canadian government and the American contractor Bechtel, who is also the company that constructed The Channel tunnel between England and France, the longest undersea portion of any tunnel in the world. *(*Merrow et al., 1988; 2011*)*. After WWII, the Fordist state engaged in a series of *"megaprojects"* for the restructuration of urban tissue, the efforts to create a modern society with expressways and high-rise buildings.

In the *"great mega-project era"* of the 1950s and 1960s (Altshuler and Luberoff, 2003; Fainstein 2000; 2001; 2008; Orueta and Fainstein, 2009), the projects were monolithic constructions with little attention for citizen participation and environmental issues. On the other hand, surpassing these critics on the left, critics on the right argue that these developments were an unnecessary intrusion of the forces of the government and led to unjustified expropriations of private property (Anderson 1964). However, overcoming

the social movements of the 1960-1970s, the restrictions of the government and the decentralization associated with neoliberalism, these types of developments unwind, but they do not totally disappear (Altshuler and Luberoff 2003; Orueta and Fainstein, 2009).

The word *"mega"* originates from the Greek and is a prefix or root word. In the Oxford Advanced Learners Dictionary (1990) it is connected to the number of one million. Furthermore, it is a synonym for very large, vast, big, high, tall, mighty, or great (e.g., megaphone) and used for things that are extraordinary examples of their kind (e.g., megastar). Connecting the word "mega*"* to "project*"* emphasizes the uniqueness as well as the greatness in the material sense of the project. In technical terms, it means millions, however, it does not mean that projects cost millions of dollars, this being changed altogether with the Cold War and Space Race and megaprojects like Apollo program (1961-1972), values are estimated in billions of dollars. According to Merriam-Webster, in the city planning context, before megaprojects the term *"mega"* is found in *"megacity"* since 1968.

However, these developments are not enlarged or multiplied versions of smaller projects; rather they are a totally different type of projects considering their level of complexity, ambition, time taken to develop and stakeholder involvement (Flyvbjerg, 1998; 2004; 2014). Bauman sees the new mobility pattern realized through megaprojects as the most powerful differentiating factor in our society (Bauman, 1998). Therefore, today's infrastructure megaprojects play a key role in nothing less than the creation of what many see as a new world order where people, goods, energy, information, and money move with unprecedented speed (Flyvbjerg, B., Bruzelius, N. and Rothengatter, W., 2003; Flyvbjerg 2005a; 2014). These projects are in the center of the new politics of distance as

infrastructure is progressively being built as megaprojects. Thus, the past decade has seen an increase in the importance, number and geographical spread of extensive infrastructure projects, supported by a mixture of national and supranational government, private capital and development banks, namely multibillion-dollar infrastructure projects such as: airports, high-speed rail, urban rail, tunnels, bridges, ports, motorways, dams, power plants, water projects, oil and gas extraction projects, information and telecommunications technology systems, and so on. Never in the history of humankind have we built more, or more expensive, infrastructure projects. To put it in numbers there was a growth from: *"1.5 to 2.5 % annually in real terms of the past century "(*Flyvbjerg, 2014, p.5).

But how big is this whole megaproject industry?

McKinsey Global Institute (2013b) evaluated it with a spending need of a total of 57 trillion in between 2013-2030 (McKinsey Global Institute, 2013a). The Economist estimates a total of 20 trillion until 2030 and calls infrastructure megaprojects: "*the biggest investment boom in history*". (Flyvbjerg, 2014, p 5; 2005a; 2004) Furthermore, these types of projects have proven themselves recession-proof, the downturn of 2008 was not even close abating to their relentless drive and with so many resources and side effects tied to them, their study, understanding and management have never been more important. (Flyvbjerg el al., 2003; Flyvbjerg 2004; 2014)



| Fig. 7
Mexico City New Airport
Source: https://static.dezeen.com/uploads/zeen-hero-852x479.jpg

THE OLD VS. THE NEW MEGAPROJECTS

The *"new"* megaprojects take the form of vast complexes characterized by a mix of uses, a variety of financing techniques, and a combination of public- and private-sector initiators *(*Lehrer and Laidley, 2008*)*. The construction of new transport infrastructures, or the extension of existing ones, and complex building projects are examples of these new megaprojects *(*Orueta and Fainstein, 2009; Fainstein 2000;2001;2008*)*. They involve a transformation of urban space, its built form and its specific land use and changes the social practices in these urban landscapes (Van Marrewijk, 2015*;* Lehrer and Laidley, 2008*;* Del Cerro Santamarıa, 2013*)*. Importantly, new megaprojects are often undertaken by state actors operating in collaboration with private interests in the pursuit of the gentrification of city-regions within a competitive global system *(*Lehrer and Laidley, 2008; Orueta and Fainstein, 2009*)*

Leher and Laidley *(*2008*)* make a distinction between *"old"* and *"new"* megaprojects. The current model of differentiates itself from its predecessor by its flexibility and diversity rather than singularity and monumentality. However, the diversity offered by this new approach, excludes quite a range of social practices, reproducing rather than improving inequalities and transiting from collective to more individualized public benefits. (Leher and Laidley, 2008; Bornstein, 2010; Swyngedouw, E.*,* Moulaert, F. and Rodriguez, A., 2002)

The new wave of megaprojects assumes two main typologies:

1. Major constructions with symbolic value for the city on a global level (Hamnett and Shoval 2003);
2. Huge development sites, complex in result (mixed-uses, smart technologies etc.) (Orueta and Fainstein 2009)

This existing new wave of megaprojects does not represent disappearance of old types of large-scale urban interventions, the major infrastructure (dams and reservoirs, river diversions, power plants, etc.), which are closely related to urban development. These, together with the construction of highways, tunnels, high-speed trains are connecting the urban areas (Naredo 2006, cited in Orueta and Fainstein 2009) and are part of the contemporary development model.

Depending on the type of the intervention, the new megaprojects can be included in one or more of the following categories: urban waterfront regeneration; re-use and transformation of industrial sites; construction of new transportation infrastructure or extensions of the existing ones; renewal of old city centers and close neighborhoods; usually for attracting the middle-upper class (Zukin 1998; Fainstein 2000; 2001);

If we consider the question of to what extent megaprojects are different from other projects, as they both differ from any other form of organizing in their intended temporality and their accomplishment (Söderlund, 2013), the answer is hard to find. Megaprojects share the general nature of a project, which is in the traditional literature on project management, perceived to be a temporary aggregation of stakeholders working together to get objectives delivered within time, scope and budget (Morris, P.W. G., Pinto, J.K. and Söderlund, J. 2011).

According to Williams, T. and Samset, K. (2010), the answer lies in their structural complexity, which is the interaction and interdependency of elements in a project, and uncertainty, resulting from a lack of clearness and agreement over project goals and the way these goals have to be researched.

In a concluding manner, Frick identifies some major characteristics of the new megaprojects and terms them as the *"Six Cs"* (Frick, 2005): colossal - in size and scope; captivating - due to the magnified size, the innovation done at engineering level or design, but also because it captures the imagination of the public and the ones involved in the project; costly - usually projects outrun the first estimated cost; controversial - involves multiple actors with different stakes in the project and also almost always has multiple impacts be it the displacement of population or environmental impacts;complex - because of the risks-financial, engineering or design-wise; laden considering the control of who, how and what agency/ agencies/ actors manage/fund the project.

A further look into the literature on megaprojects (Van Marrewijk, Clegg, Pitsis and Veenswijk, 2008*;* Flyvbjerg et al., 2003*;* Merrow et al., 1988; 2011; Williams and Samset, 2010*)* adds to the previously mentioned characteristics with new ones such as: geographical dispersion, citizen resistance towards the project, the period of inception until realization often covers decades, embeddedness in a national political context which can change over time, incorporation of many uncertainties, mixture of joint organization and sub-contracting to legally separate partners.

But what drives the megaproject boom? Why are megaprojects attractive to decision-makers?

The response to this are the so-called *"four sublimes"* of megaprojects:

1. Political (megaprojects are seen as political tool because they draw attention to their promoters, can strech over one mandate and capture the citizens imagination of a better future and vote again the project's promoter. Megaprojects are often

attractive to political leaders because of their grandiose scale, but also with the image brought by overcoming the technical obstacles);

2. Technological, one could see it at Miller (1965) and Marx (1967) in the relation to the technological interest in the American culture during the 19th and 20th centuries. Howevever, Frick (2008) coins the term in the study of megaprojects and defines it as the interest of engineers to push the boundaries of technology and innovation in order to build large structures which seem imposible to acomplish);
3. Economic (megaprojects are asigned with enormous budgets and they create many jobs during the implementation and after);
4. Aesthetic (represented by iconic megaprojects, know all around the world for their unique design, militated by architects and designers. Some examples would be: San Francisco's Golden Gate Bridge, Guggenheim Museum, Sydney Opera House. For the aesthetic sublime, there is a striking physical similarity of the development of space-involvement of innovative design forms and international architects. However, these last three aspects are stated to be passive towards the geographic and political context. (Flyvbjerg, 2014, p.8; 2004; 2005a).

One popular example for the technological sublime in the decision-making of a megaproject, is the Bay Bridge in San Francisco Bay. Considering the “six Cs” of Frick (2005), the “captivating” and “colossal” characteristics come forward in its regional design process (Frick, 2005).

The initial purpose of the megaprojects was the replacement of the bridge’s east span that fell during the 1989 Loma Prieta earthquake. However, it transformed shortly into a signature bridge megaproject to represent the technological

and aesthetic image of the region. The project was completed in 2013, counting nearly a quarter of a century that passed while various actors had different conflicting views on the premise of this project: mega landmark, a world-class structure, seismic improvement, additional travel capacity that came forward in the public debate, etc. The final cost was $5.4 billion, meaning a cost overrun of approximately $4 billion compared with the first $1.5 billion estimates in 1998. It was the positive overview about the schedule and time surpassing the technological complexities that brought the over cost and delays. (Frick, 2008, Priemus, Flyvbjerg and Wee 2008; Flyvbjerg, 2004; 2005a; 2014)

Thus, the economic repercussion, the consequential relation to individual businesses and agencies, even the wealth of whole cities when we think of the Athens Olympics (2004), the project contributing to the country's debt fault in 2011, or the Hong Kong new international airport opening resulting in the decrease of GNP, is an urgent impact to improve or resolve (Flyvbjerg, 2004; 2005a; 2014). Cost overruns of 50% -100% in real terms are common in megaprojects; overruns above 100 % are not common (Flyvbjerg, Bruzelius and Rothengatter, 2003).

A known and a much-suited case point is The Channel tunnel (1994) with a construction cost of £ 4.7 billion. During its implementation, it took several near-bankruptcies, construction cost overruns of 80%, financing costs of 140% higher than in forecast and revenues less than half of the initial ones.

Denver’s new international airport that opened in 1995, is another case with nearly 200% cost overrun, $5 billion, and with half of the projected passenger traffic. So far demand forecasts that are wrong by 20% to 70% compared with actual developments are common (Flyvbjerg, B., Bruzelius,

N. and Rothengatter, W. 2003; Premius, Flyvbjerg and van Wee, 2008; Flyvbjerg, Holm and Buhl 2006) Flyvbjerg calls this, the *"iron law of megaprojects"*, representing not only over budget, but also over time that leads to this faulty use of resources (Flyvbjerg, Bruzelius and Rothengatter, 2003, pp 32-48; Flyvbjerg, 2014)

| Fig. 8
Photos of Athens Olympic village and abandoned site
Source:
https://cdn.newsapi.com.au/image/v1/17a04f0b5d5ded353bb7cba5881e50 and https://placesjournal.org/assets/es/gade-olympic-villages-homepage_525.jpg





MEGAPROJECT PLANNING AND GOVERNANCE

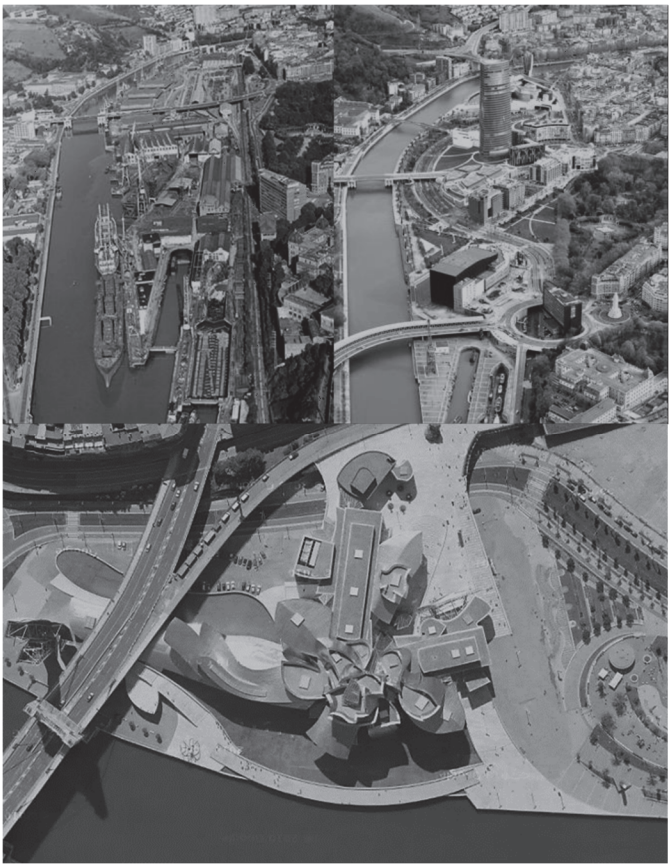
Generally, infrastructure megaprojects have been critically examined by many scholars, many of which share the belief that they are often not addressing the underlying, deep-rooted problems of the cities and furthermore, ignoring the socially and economically unstable landscapes in which they often occur, veritably contributing to the escalation of inequality, polarization and deprivation in the city (Harvey 1989; 1992; 2008; Brownill 1990; Gordon 1997b; Hoyle 2000;2001; Butler 2007; Saarinen, R. and Kumpulainen, S.(2006). Often environmental and social effects of projects are not taken into account during project development or are severely miscalculated and such problems often destabilize habitats, communities and the megaprojects themselves if not dealt carefully. (Vickerman, 1994)

Brenner and Theodore (2002) argue that an important analysis aspect to identify the impacts is the role of the state in these kinds of interventions, with the provision of subsidies, land or special treatment in the tax, etc. and the level of involvement and its loyalty towards the goals for the public. Megaprojects differentiate themselves by the way they combine social and environmental goals with the economical ones, the planning process and impact, reflecting at the same time the level of commitment that the host city has towards the concept of social equity (Fainstein 2000; 2001; 2008).

Today's globalized world is so interdependent and nations might be affected in terms of economy or environmental scale by the failure or success of a single megaproject (Flyvbjerg, Bruzelius and Rothengatter, 2003; Flyvbjerg 2004; 2005a; 2009). However, there are still good megaproject examples in terms of performance like the Basque Abandoibarra urban regeneration project, including the Guggenheim Museum which was built on time, budget,

and benefit. Therefore, megaprojects worth undertaking, with high benefits and correct estimated cost and time are a reality, the tangled planning process, governance dynamics, megaproject advocates and promoters that "*create a distorted hall-of-mirrors*" for their projects are the trouble (Flyvbjerg, 2014, p.18).

Complex and extensive civil engineering and construction megaprojects frequently attract societal attention: newspaper headlines, TV specials, and parliamentary inquiries inform the public about nuisances, failures, budget overruns, time delays, citizen resistance, and resigning politicians. Megaprojects rarely remain uncontested, particularly if pursued within a democratic political context, as they are perceived not only as costly, but also as significant threats to local quality of life. For example, the construction of a new Mexican airport *(*Dewey and Davis, 2013*)* and the extension of the Stockholm rail *(*Corvellec, 2001*)* never came to execution due to citizen resistance. In another example, the revalorization of the Stuttgart 21 railway station undermined important policy objectives such as historic preservation, environmental protection and primarily benefited already affluent individuals and groups (*Novy and Peters, 2012*). Therefore, Flyvbjerg et al. (*2003*) call mega infrastructure projects '*political and physical animals'.* Hirschman (1967, pp 22) on the other hand, in a softer academic way, calls megaprojects *"privileged particles of the development process"*, underlining their *"trait making*" characteristic. Megaproject are **designed to change the structure of society**, as opposed to other typical, smaller project that fit into the pre-existing planning institutional framework.



| Fig. 9
Guggenheim Museum megaproject: Masterplan for Bilbao urban waterfront regeneration before/ after and top view of the museum
Source: https://i0.wp.cgenheim.orged.jpg?w=1170&zoom=2, https://i0.wp.com/www.guggenheim.org/wp-content/up

Name of the Megaproject	Cost overrun %
Suez Canal, Egypt	1,900
Furka base tunnel, Switzerland	300
Boston's Big Dig artery/tunnel project, USA	220
Denver international airport, USA	200
Panama Canal, Panama	**200**
Minneapolis Hiawatha light rail line, USA	190
Humber bridge, UK	180
Dublin Port tunnel, Ireland	160
Montreal metro Laval extension, Canada	160
Copenhagen metro, Denmark	150
Boston-New York-Washington railway, USA	130
Great Belt rail tunnel, Denmark	**120**
London Limehouse road tunnel, UK	110
Brooklyn bridge, USA	100
Shinkansen Joetsu high-speed rail line, Japan	100
Channel tunnel, UK, France	**80**
London Jubilee Line extension, UK	80
Bangkok metro, Thailand	70
Mexico City metroline, Mexico	60
High-speed Rail Line South, The Netherlands	60
Great Belt east bridge, Denmark	**50**

| Table 2
Cost overrun- infrastructure megaprojects
Source author adapted from by Flyvbjerg (2014)

The framework of *"exceptionality"* associated with these initiatives favors a more autonomous, if not autocratic, dynamic marked by special plans and projects that relegate statutory norms and procedures to a secondary and subordinated place. Exceptionality is a fundamental feature of the new urban policy, based on the primacy of project-based initiatives over regulatory plans and procedures. These changes involve the emergence of new policy tools, actors, and institutions, and they have important consequences for urban policy-making in general and local democracy in particular, considering the increasing inequality in access to decision-making. (Flyvbjerg et al., 2003; Hall 1980; 2006)

Often megaprojects are represented by public-private partnerships (PPPs), part of fragmented and entrepreneurial forms of governance (Harvey 1989; 1991; 2008; Healey 1997; Gordon 1997a, 1997b; Butler 2007), in an urban environment characterized by the rise of capital mobility and inter-urban rivalry (Malone 1996). Hence, as argued before, megaprojects represent new governance styles and policy targets, but also local planning debates and conflicts based on different views of stakeholders (authorities, planners, residents, environmental groups, developers, etc.) holding equal rights (Hoyle, 2000; 2001) challenging to reconcile. Therefore, explicit attention is needed in the context as an interpretive framework for the environment(s) of organizational actors in megaprojects. Traditionally, the government was the main actor engaging in the development, finance and management of megaprojects (Hall, 1980; Swyngedouw, E., Moulaert, F. and Rodriguez, A., 2002)[12].

[12] The study of 13 large-scale urban development projects in 12 European Union countries showed that megaprojects are almost all state-led and often state-financed (Swyngedouw E., 2002, p 542),

Considering planning process and decision-making process in megaprojects, two main problems that come forward as a result are, like concluded in the previous chapter: cost overruns and poor operating results (Flyvbjerg et al., 2003; Altshuler and Luberoff, 2004; Morris and Hough, 1987; Short and Kopp, 2005a; Wachs, 1989; 1990).

Recent studies propose some attributes from a governance perspective, that are typical for megaprojects. Altshuler and Luberoff (2003, pp 6–7), investigate infrastructure megaprojects: highways, airports and rail transit systems, and for the scope of this study, four characteristics are put forward:

1. Megaproject form coalitions; usually business enterprises with immediate interests at stake are involved;
2. Megaproject ideas frequently originated in the public sector and when it comes from private groups, energetic and skillful public-sector leadership is still required for: public support, secure resources at higher levels of government, and manage conflict- *"public entrepreneurship"*. Also, when projects are financed and managed at central governmental level, the idea originated at the local level- *"bottom-up federalism "*;
3. All megaprojects generate negative impacts;
4. From an economic perspective, the different PPPs usually are made to avoid the increase in local taxes - *"locally painless project financing "*. (Altshuler and Luberoff, 2003, pp 219–47)

In the literature on megaprojects, power, politics, conflicting and opposing interests are generally excluded.

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but contractually are often defined in terms of PPPs (Van Marrewijk et al., 2008; 2015)

Civil society does not have the same say in this arena of public life as it does in others. Megaprojects often come draped in a politics of mistrust, characterized often by a *"democracy deficit"* [13]. People fear that the political inequality in access to decision-making processes will lead to an unequal distribution of risks, burdens and benefits, due to lack of accountability in the project's decision-making process (Boholm and Lofstedt, 1999; Flyvbjerg, Bruzelius and Rothengatter, 2003)

Therefore, one of the main issues that are both complex and likely to stir controversy is the question of whether megaprojects should be publicly or privately led. For major infrastructure projects one could argue an either/or position on public versus private leadership: either such projects should be placed entirely within the public sector – for example in a government department, an agency or a state-owned enterprise – to ensure accountability through the rules of transparency and public control that apply to the public sector; or such projects should be placed entirely in the private sector – for example by means of build-operate-transfer (BOT) or other concession arrangement – to ensure accountability through competition and market control (Flyvbjerg, Bruzelius and Rothengatter, 2003).

To achieve accountability through transparency and public control, Flyvbjerg, Bruzelius and Rothengatter (2003, pp. 9–11) put the following recommendations:
1. The national-level government should offer block grants, to local governments, and let local political officials spend the funds according to their priorities;
2. Forecasts must be peer reviewed;
3. Forecasts, peer reviews, benchmarking and all documentation must be public as they are produced; Public

[13] term coined by Scandinavians (experiencing the construction of many megaprojects during the past decade).

hearings must be organized to allow actors interested or affected to voice criticism and recommendations;
4. Projects with poor performance must stop if a recalculation doesn't reach the benefits and projects with good performance, should be rewarded; Professional penalties must be enforced and example of such penalty could be exclusion from the profession, as a violation of code of ethics; (Wachs, 1989; 1990; Flyvbjerg, Bruzelius and Rothengatter, 2003).

The question wheatear planners have or not have a professional responsibility in these kinds of megaprojects will maybe define the future planning system. Urban planners should provide accurate and real information for the citizens and decision-makers and work in the public interest and considering that the forecasts are wrong by the same margins of 20% to 70% for almost 70 years (Flyvbjerg, Bruzelius and Rothengatter, 2003; Flyvbjerg, 2004; 2005a; 2009), it is clear that we don't do enough in terms of planning megaprojects and this not only jeopardizes our work ethics, but also our profession in general.

Taking into consideration the private sector accountability, it reveals itself through market control. Flyvbjerg (2005a; 2014), among his studies, recommends at least **1/3 of the project to be with private capital**, as in this way, the ones who own it will for sure critically scrutinize what planners and managers do with the money. He and his team declared that the private sector is better in enforcing financial accountability comparing to the public sector where the errors and risks are passed to the taxpayers (Flyvbjerg 2004; 2005a; 2009; 20014). According to Clegg (2013) and Kreiner (*1995*), the power in megaprojects has to be understood as a relational effect, not as a source that can be held by partners. Project design, including contractual arrangements, and project cultures play a role in

determining how managers and partners cooperate to achieve project objectives to a greater or lesser extent (Van Marrewijk et al., 2008). Therefore, Cicmil and Hodgson (2006), suggest a more critical approach to understand the planning process of projects by exploring how the relationships between individuals and the project organization are produced and reproduced, how power relations create and sustain social relations. Premius, Flyvbjerg and van Wee, 2008 (2008) suggest us to focus on something else, which is the initial stage of decision-making in megaprojects. He argues that first, the initiators find a solution which seeks afterward its problem. Therefore, it is hard to consider the early decision-making process as based on thorough analysis, alternatives and impartial evaluations. Throughout the planning process, alternatives suggested by opposing groups are not taken into account or given serious consideration.

The initial questions are: what is the problem(s)? How is this problem going to evolve if not resolved now and lastly, for whom is this a problem? (Premius, 2008, p. 107). Hence, "the values and criteria; the objectives of the parties and the political bodies who bear responsibility; the boundaries and constraints" must be specified from the beginning (Premius,2008, p.108) A megaproject is not always the right answer to the defined problems (Ministeriean Verkeer en Waterstaat, 2004). One example on this point is the Betuwe Link megaproject, a freight rail link between Rotterdam Harbour and the Ruhr Area. From initial phase of the project, the solution was a dedicated rail link to improve the hinterland connection, to boost the competitiveness of Rotterdam Harbor. In some late phases of the planning process, alternatives proposed by opposition were consulted. It was too late and the Netherlands Bureau for Economic Policy Analysis concluded that the investment costs of a rail link will mostly never be covered. (Priemus, Flyvbjerg and Wee, 2008). It is imperative that

megaproject planning process should start with a sound problem analysis (Hall 1980. 2006; Premius, Flyvbjerg and van Wee, 2008). Priemus (2008) believes that the adoption of systems analysis can improve the results, considering these steps:

1. Formulating the Problem
2. "Designing and Screening the Alternatives
3. Building and Using Models for Predicting the Consequences" (Premius, 2008, p. 114)
4. Comparing and Ranking Alternatives

Signs of improvement in megaproject governance and planning process appeared when the tacit consensus on false estimations stopped, shortly after President Obama recognized in a public statement: "*the costly overruns, the fraud and abuse, the endless excuses*" in megaproject planning, as the key policy problems (White House, 2009), a discourse that changed everything. Change is on its way also in developing countries like China, where corruption and safety issues of a high-speed rail megaproject, costing $300 bn., led to minister's resignation.

"This is the 'tension point' where convention meets reform, power balances change, and new things are happening. In short, it is the place to be as a megaproject planner, manager, scholar, owner, or interested citizen." (Flyvbjerg 2014, p.22)

STATISTICAL EXPLORATION OF 150 INFRASTRUCTURE MEGAPROJECTS

Many studies in this field focused on finished, constructed projects, the majority before year 1990 and mainly infrastructure projects because they are the most built ones (Altshuler and Luberoff, 2003, Flyvbjerg; Bruzelius and Rothengatter, 2003). For the scope of this research, an exploration of **150** megaprojects constructed, but also under construction, comprising of **infrastructure megaprojects** solely like: roadways, railways, airports, metro lines, seaports, rapid transit, bridges, tunnels and hybrid ones that encompass construction of new transportation means together with urban development, **is done with the scope of enlarging the findings in the literature review and test their accurateness from a performance, planning process and governance perspective.** The projects are chosen with a conception year from the 1950s until 2019, excluding statistical outliers. Also, it is important to note that the social infrastructure, utilities and other are kept out.

In line with the literature review, the study enhances the conclusion that although 1950s and 1960s are considered the megaproject era, there is a powerful increase in their development, in numbers, after the 1980s until today. The main differences between the already constructed megaprojects and the ones in construction are the growing budgets, not as trend line, but as a quantitative percentage of much costlier megaprojects. While the trend considering the costs for the projects already constructed is decreasing, the new wave of megaprojects, starting with mostly the year 2000, is rising, excluding the possible cost overruns until the completion of the project, which could lead to a sizable growth itself.

The most expensive project under development is the High-Speed 3-Northern Powerhouse Rail (33 billion $ with an

unrealistic 8 years estimation time until its finalization) and for the category of the already constructed ones, it is the AVE - Spain's high-speed railway network (44 billion $, within 24 years).

In contrast with the literature review, there is a **decrease considering the period** as a trend line, this being relatable to the technological advancement or the more efficient management tools employed in the planning process. However, when we look in detail at the highest values of the constructed and under construction megaprojects, the latter ones will last so much longer than their ancestors: the King Shaka International Airport is completed after 40 years, with the cost of 1 billion $ and having a break from 1982 until its revival in 1990 and the Berlin-Brandenburg International Airport is the lengthiest so far for those under development, with already 24 years so far for the planning process and implementation and 11 years delay from the initial finalization date. Breaks within the planning process are due to: poor construction planning; execution, management; as well as corruption led to a cost overrun of 7 billion $.

General conclusions in line with the literature review:

1. Increase in the number of megaprojects after 1980s;
2. Growth in budgets since 2000;
3. Just as Merrow et al. (1988) stated before and Flyvbjerg (2011,2014) differentiates them in the railway sector, interestingly, developing countries did not do better or worse than developed countries in executing megaprojects, the trend lines are close;

New conclusions or in contrast with the literature review:

1. the decrease in period and cost as a trend line;
2. the small difference in performance between projects are: for developing countries - shorter time frames, but bigger budgets (The rapid development could be associated with a majority of megaprojects done in the public sector in a top-down manner to planning with no impediments from the civil society and the bigger budgets can be a tapestry of reasons from size to technological aspects, etc.); for the developed side of the world - smaller budgets, but longer time period for development (The small budgets might be because of the involvement of the private sector in PPPs, better in managing finances or the experience the public sector earned and the longer time period might be a sign of the governance dynamics, conflicts, urban social movements challenging the process or participatory planning processes that are lengthy);

Analyzing the graph on types of megaprojects already constructed, when we look at the trend lines, we can observe that any delay in a railway project becomes costlier than any delay in a canal megaproject and considering all trend lines, airport megaprojects are the costliest in terms of any setback or suspension.

The main conclusions of the comparison on the type of megaproject, constructed and under construction: roadways, railways, airports, metro lines, seaports, rapid transit, bridges, tunnels, and hybrid ones:

1. the disappearance of the canal projects;
2. the presence of seaports;
3. most expensive type of projects: rail (< year 1990), hybrid (> year 1990);

4. the lengthiest type of projects: canal (< year 1990), airport (> year 1990);
5. airport megaprojects are the costliest in terms of any setback or suspension;
6. the abrupt decrease in construction of bridges, roads, metro lines;
7. the increase in rapid transit, tunnel, and hybrid projects.

Type of project	Average cost _ $bn	Average period _ years
canal	5.8	16.0
hybrid	12.4	9.7
road-highway	3.3	6.7
rail	10.4	11.1
metro	4.4	9.0
rapid transit	8.2	10.2
bridge	4.4	6.1
tunnel	6.0	9.8
seaport	2.0	2.5
airport	8.0	9.8

| Table 3
Table average cost/ period infrastructure megaprojects
Source author

If we look at the most expensive projects under construction from the last three types of projects that gained popularity lately, the general picture doesn't look so promising in terms of governance dynamics, planning process and overall project performance: Stuttgart 21- Germany (hybrid-railway and urban development) with a cost overrun of 2 billion euros and delay of 2 years so far and many problems considering the governance dynamics with opposition and heated debate on costs and benefits and environmental concerns; Grand Paris Express- France (rapid transit) with an unclear target date as 2030.

In a broader governance perspective, looking at the sample of 150 infrastructure megaprojects, one can notice 8 different types of actors involved in their planning process, including private-public partnerships and 2 types of collaborations at the state level.

At a governmental administrative level:

1. Supranational- cooperation between countries for cross border projects;
2. Central government;
3. Central and local government;
4. regional;
5. Interregional within bodies of the state in the same country;
6. Municipality;

Forms involving the private sector, are:

1. PPPs- public-private partnership; mostly there is an involvement of the central government, representing the public side;
2. Private;

General conclusions in line with the literature review:

1. Most megaprojects are state-led projects; the literature review pointed to the fact that most projects are conceived at the local level, in the public sector and then support is requested from the central government or private entities;
2. Any delays in a project developed at the central government level will be costlier than any delay in a PPP;
3. Increase of PPPs state starting with the 1990s and a more collaborative planning process.

New conclusions or in contrast with the literature review:

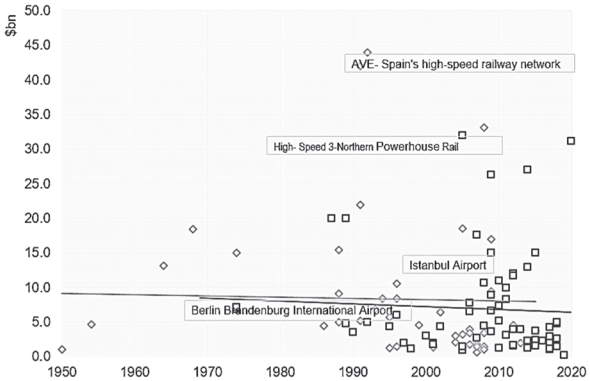
1. The increase in megaproject development starting with the 1990s coincides with the phenomenon of globalization and decentralization processes in many countries, this being reinforced also by the involvement of the municipality in this kind of projects;
2. Most infrastructure megaprojects are led by central government ~50%, followed by the municipality with ~20% and PPPs with ~14% (increase starting with 1990s);
3. Emerging countries have a predominant centralized management of megaprojects, but they also have a strong private sector;
4. Developed countries have all levels of the state are involved;
5. Although the literature shows us a tendency in decentralized forms of governance, collaborative planning etc., the megaprojects are still in their majority, a central government concern;
6. Airports are mostly built by the central government considering the importance or the administrative boundary;

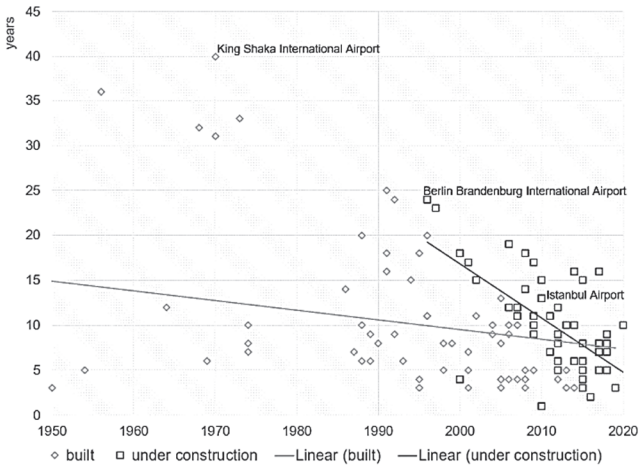
7. PPPs are a management model mostly for: airport, tunnel, bridge, rail, and highway type of megaproject;
8. Considering the performance aspect, it can be noted that the lengthiest and most expensive projects are developed by the central government;
9. Considering all trend lines, the most resilient to delays are the projects done within the collaboration of the local with the central government;
10. As the original case study of this research is an airport project, Istanbul Airport, conclusions on this type of project on governance level are: noticeable increase in their number after 1990s and increase in budgets for the ones developed as PPPs and decrease in time;

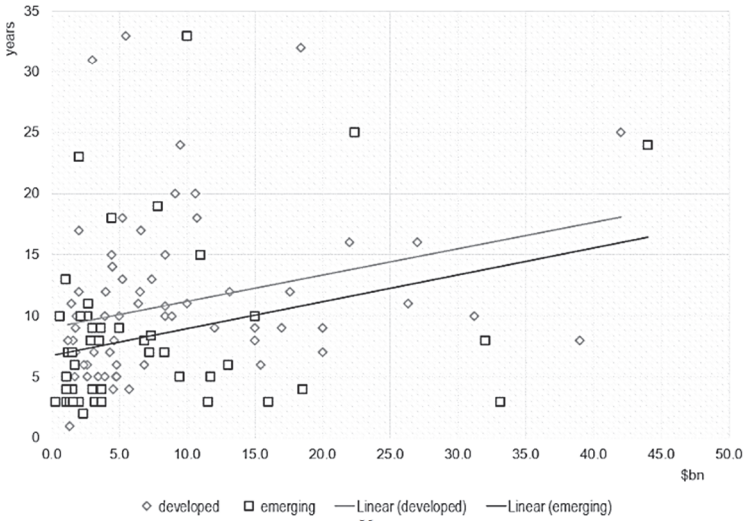
Actors	Megaprojects in developed countries	Emerging countries
supranational	3%	10%
central government	47%	64%
central-local government	6%	-
interregional	3%	-
regional	3%	-
municipality	23%	10%
PPP	10%	12%
private	1%	2%

| Table 4
Actors in megaprojects in developed/ emerging countries
Source: author

| **Fig. 10**
In this order:
Built and under construction infrastructure megaprojects
(1950-2020)
Xaxis: period
Y axis: time
Built and under construction infrastructure megaprojects
(1950-2020)
Xaxis: cost
Y axis: time
Infrastructure megaprojects done in developed and emerging countries
(1950-2020)
Xaxis: period
Y axis: cost
Source author


$bn
AVE- Spain's high-speed railway network
High- Speed 3-Northern Powerhouse Rail
Istanbul Airport
Berlin Brandenburg International Airport


years
King Shaka International Airport
Berlin Brandenburg International Airport
Istanbul Airport
built
under construction
Linear (built)
Linear (under construction)


years
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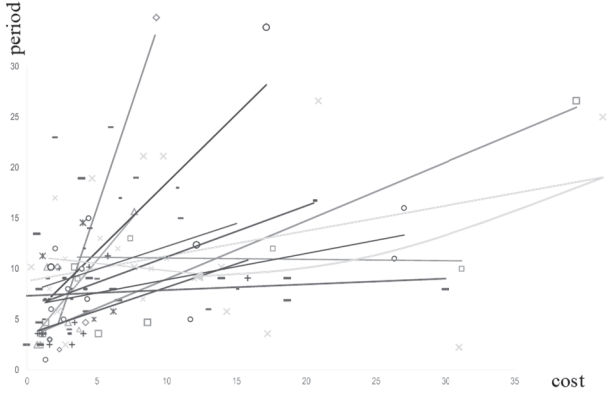
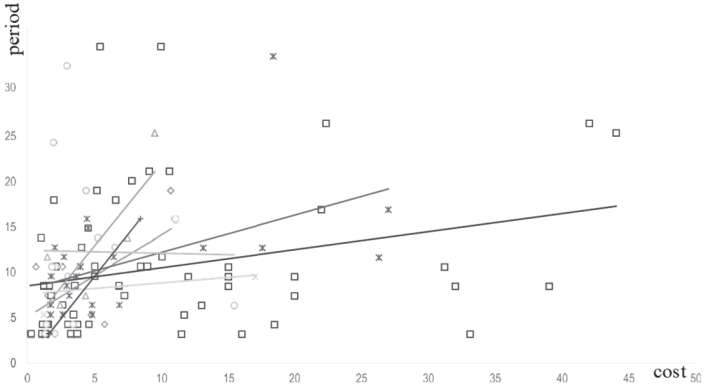
developed
emerging
Linear (developed)
Linear (emerging)

| **Fig. 11**
In this order:
Built and under construction infrastructure megaprojects by type (1950-2020)
Xaxis: period
Y axis: cost
Built and under construction infrastructure megaprojects by type (1950-2020)
Xaxis: period
Y axis: cost
Source author



PERFORMANCE ON TYPE OF PROJECT

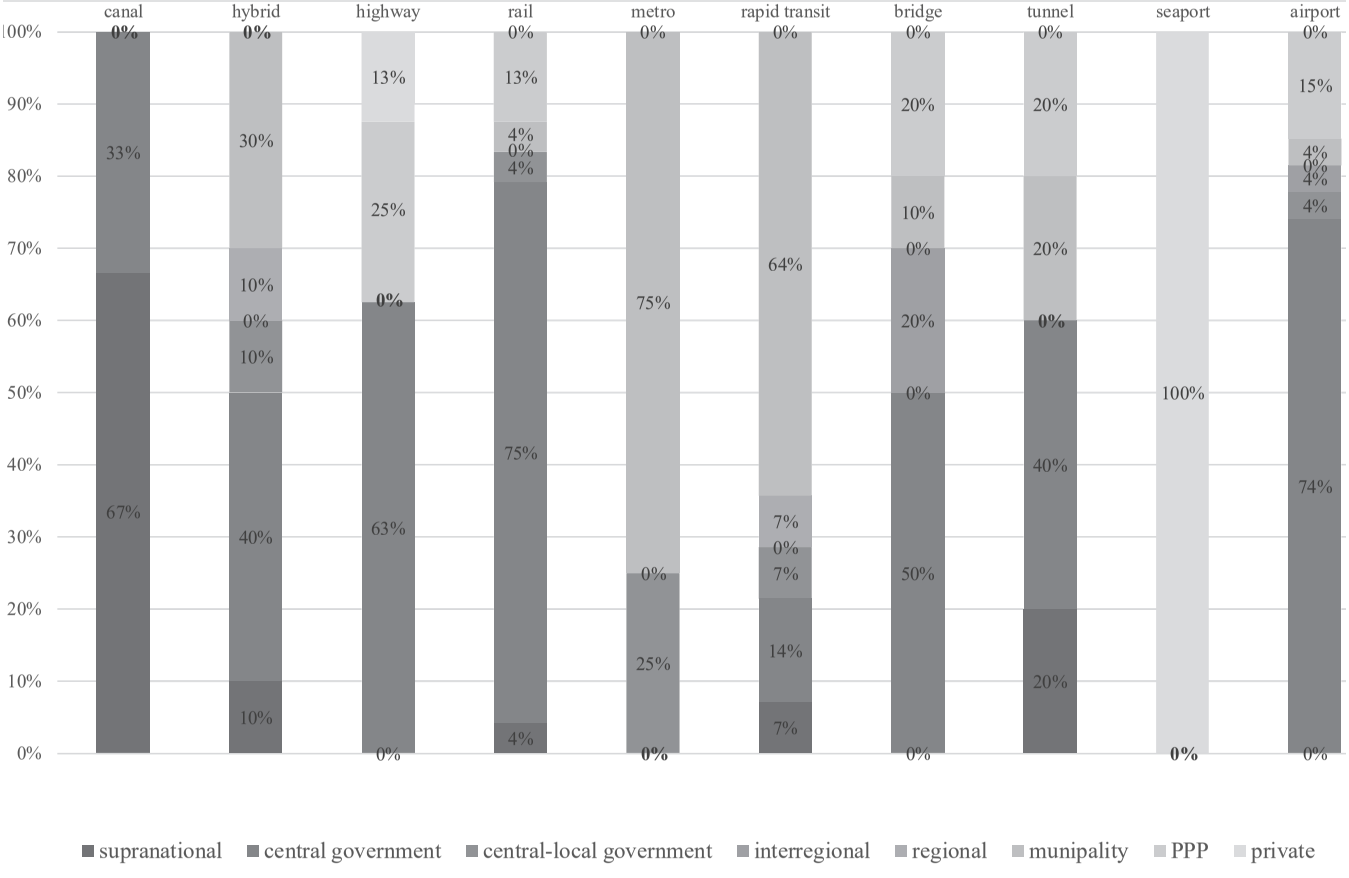
- CANAL
- METRO
- HYBRID
- RAPID TRANSIT
- ROAD-HIGHWAY BRIDGE
- RAIL
- TUNNEL
- AIRPORT
- SEA PORT/ WATERFRONT
- DEVELOPMENT



PERFORMANCE ON TYPE OF ACTORS INVOLVED IN PLANNING

- SUPRANATIONAL
- INTERREGIONAL
- PPP
- PRIVATE
- CENTRAL GOVERNMENT
- LOCAL GOVERNMENT
- CENTRAL AND LOCAL GOVERNMENT

| **Fig. 12**
Timeline governance model (1950-2020)/ detailed caption after 1980
Xaxis: timeline
Y axis: number of projects built
Infrastructure megaprojects on type and % of the governance model (1950-2020)
Source author


canal
hybrid
highway
rail
metro
rapid transit
bridge
tunnel
seaport
airport
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90%
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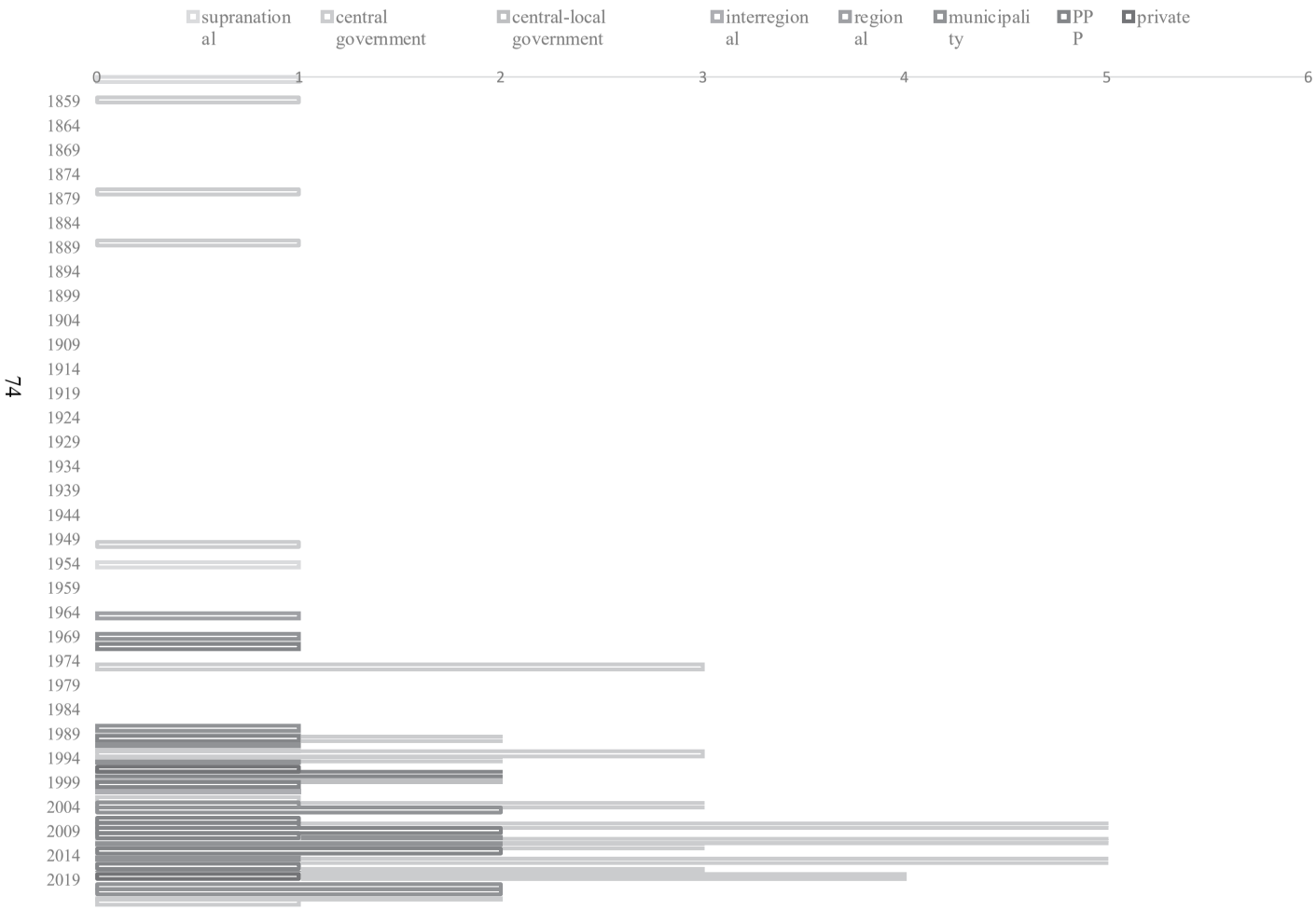
central-local government
interregional
regional
munipality
PPP
private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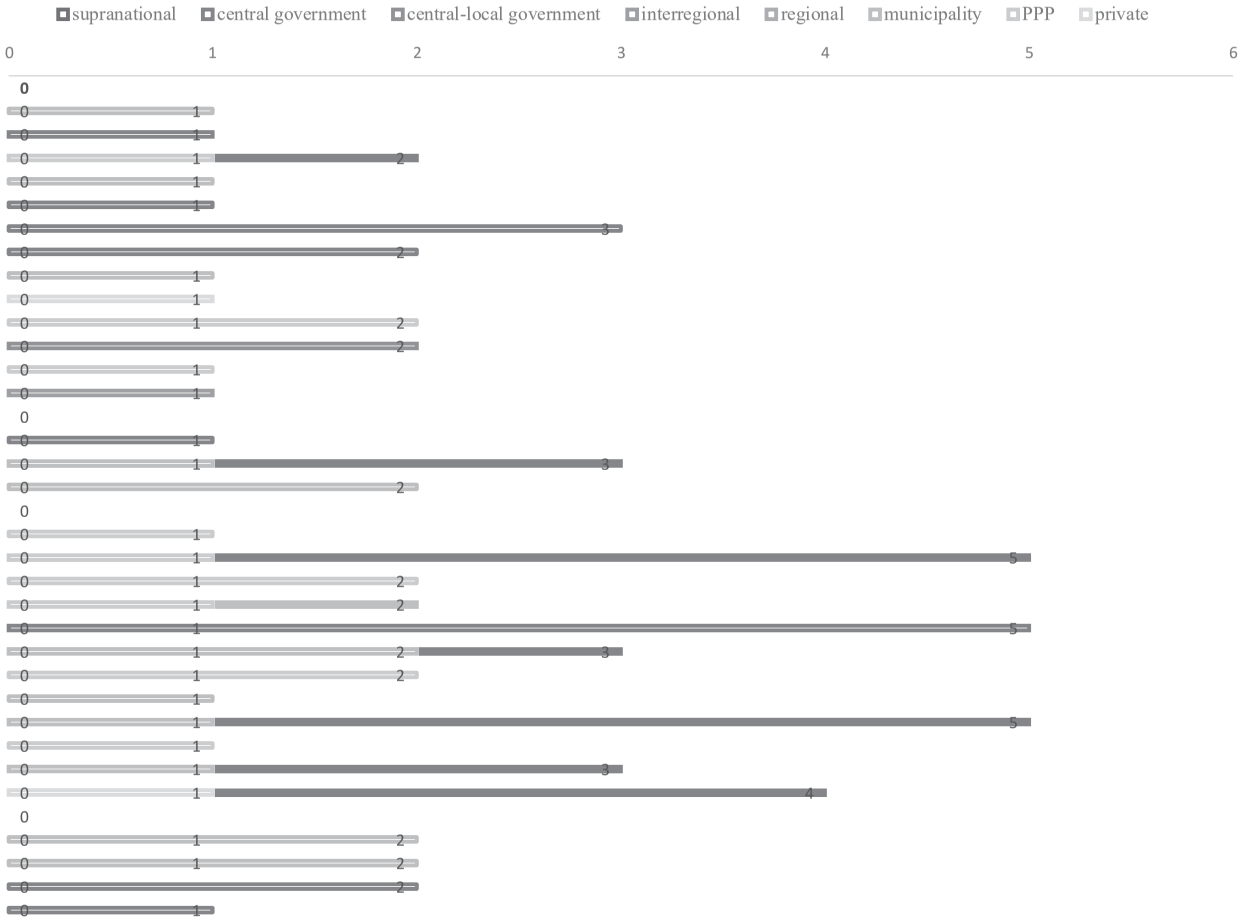
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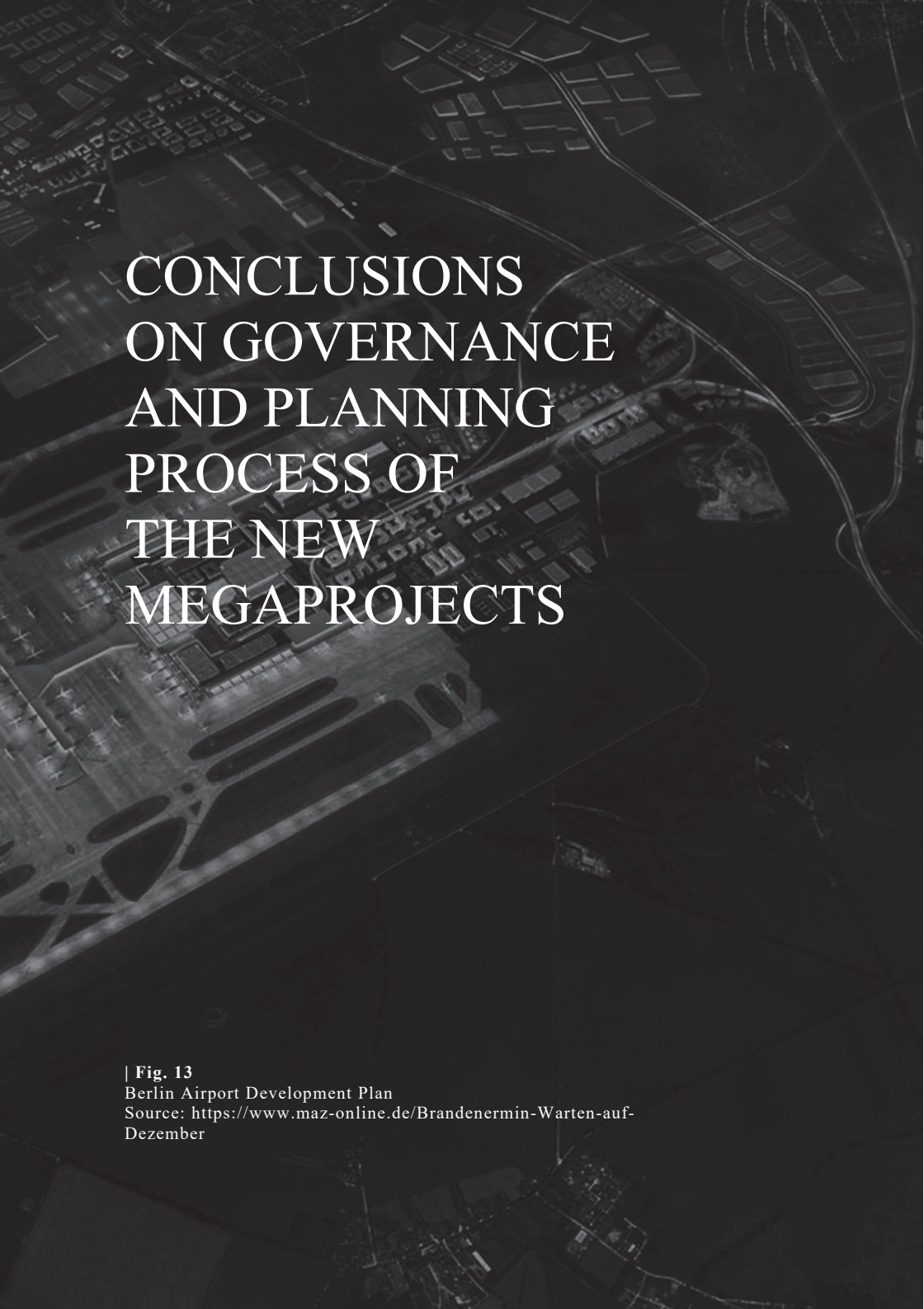
CONCLUSIONS ON GOVERNANCE AND PLANNING PROCESS OF THE NEW MEGAPROJECTS



| Fig. 13
Berlin Airport Development Plan
Source: https://www.maz-online.de/Brandenermin-Warten-auf-Dezember

The new megaprojects are large-scale, complex ventures that typically cost a billion dollars or more, take many years to develop and build, involve multiple public and private actors, are transformational, and impact millions of people. The new wave of projects is still as flawed as its predecessor, underestimated costs and delays are still frequent regardless of their geography, program or even size and due to conflictual planning processes (Flyvbjerg 2009, 2014, 2017), misinformation and lack of transparency considering the governance dynamics, the political inequality in access to decision-making processes, there is an unequal distribution of risks, burdens, and benefits from projects (Flyvbjerg et al. 2003). Four "*sublimes*" – political, technological, economic, and aesthetic – are identified to explain the increased size and frequency of megaprojects since the 1980s. They are used as a political tool, push the boundaries of technology and innovation, enhace the economy during their development and after and become iconic projects, landmarks, and symbols for the host city/ country, “the will of an epoch translated into space” (Mies van der Rohe)

Most new megaprojects are infrastructure projects and represent the biggest investments in the human history. In the exploration of 150 infrastructure megaprojects one can see a shift to hybrid developments; the developed countries did better at budgets, but took longer planning time; the lengthiest new megaprojects being the airport constructions. On the governance level, new findings were that considering all trend lines, the most resilient to delays are the projects done within the collaboration of the local with the central government, lengthiest and most expensive projects being developed by the central government. A solution can be blocking grants from central government, rather than project-based financing.

Considering the environmental impacts, social effects and economic risks, they are often not taken into account or miscalculated and end up in destabilizing habitats, communities and sometimes megaprojects themselves. (Westport, CT: Praeger Publishers, 1998; Paris: OECD, 1993; Roger W. Vickerman, 1994). Therefore, EIA (Environment impact analysis), SIA (Social impact analysis) and cost-benefit analysis are crucial analyzes before the implementation starts. The **exceptionality** characteristic of megaprojects benefiting from **special laws and new urban policies** are held responsible for these shortcomings. It is recommended that the planning process of a megaproject should start with a system analysis: sound problem analysis, identification and screening of alternatives, impact analysis, alternatives ranking and comparing. (Premius, 2008)

In the end, on a governance and planning process level, megaprojects differentiate themselves by the way they combine social and environmental goals with the economical ones, the planning process, and impact, reflecting in the same time the level of commitment that the host city has towards the concept of social equity (Fainstein 2000; 2001). This has reached a tension point where tradition is challenged and reform is emerging.

Final conclusions on governance dynamics and planning process of the new megaprojects are:

Analytical tools to study governance and planning process of megaprojects:

1. The actors and their relationships: identify the role of the state: provision of subsidies, land or special treatment in the tax, etc.; reasons for conflict and opposition of the actors against the development;
2. The discourse on the planning process;
3. Institutional framework;

4. Decision-making process: the initial stage of decision-making is crucial and must start with a sound problem analysis, the purpose of the project must be clear and its realization monitored along the planning process;

Normative framework to follow for the governance dynamics and planning process of the new megaprojects are:

1. Transparency during the planning process is essential;
2. Participation with decision making power; Participation is crucial at the initial stage in deciding how the megaproject can and will improve the quality of life of the citizens and growth of the local economy to receive the public support and acceptance;
3. Building trust between all actors involved is important;

Governance of megaprojects	**Planning process of megaprojects**
_Temporary aggregation of actors _Complex coalitions, actors with different views: private -PPPS, public, NGOs, etc. Contested - the project can be canceled due to citizen's resistance; _New policies, new laws facilitating the planning process _Lack of accountability and transparency in the decision-making process _From collective to a more individualized form of public benefits	*Long inception period* *_Risk of uncertainty in objectives and goals* *Misleading forecasts of demand and cost* [14] *Poor performance:* cost/ time overrun (miscalculated forecast) *Breaks due to:* ▪ poor execution ▪ management ▪ corruption ▪ citizen's resistance *Impact* ▪ social effect: local - displacement, increase inequality-poverty ▪ environmental impact: international, national, regional, local; no post-audit ▪ economic risk: international, national, regional, local *Trait making:* special plans, projects, policies, institutions (development agency)

[14] ~ wrong cost forecasts- 50% -100% over cost very common, demand forecasts wrong by 20-70%.

Governance and planning process of megaprojects

Normative	*Analysis*
transparency in decision making, good quality information available to all parties	actors and their relationships
accountability and quality checks on the planning outcomes	institutional framework
inclusion: broadly-based rights of voice and influence of all actors	decision-making process
interactive planning–policy learning process	discourse analysis
EIA, SIA, cost-benefit analysis, sound problem analysis, screening alternatives	

| Table 5
Governance and planning process analytical and normative tools on megaprojects
Source: author

MEGAPROJECTS IN ISTANBUL



| **Fig. 14**
Megaprojects of Istanbul mapping
Source: author

ISTANBUL: THE CONTEXT OF PLANNING, A CONTROLLED DECENTRALIZATION

Turkey, as other developing countries have been experiencing a neo-liberal reconfiguration that is now in its final stage. First the liberalization phase in the 1980s, second the implementation of neo-liberal reforms in the post 1990s period and with the year of 2000, a process of configuring a new market-friendly and regulatory role of the state, by abandoning the institutions of the old state, began (Temizel 2007; Dincer 2011a; Enlil 2011; Erbas and Erbil 2012). In this manner, in the last decade, Turkey enjoyed unprecedented growth in comparison to Europe (Pierini,2013). Today, Istanbul is one of the largest urban agglomerations in Europe. The entire urban area covers 5461 km2 (IMM, 2013) with half of the city in Europe and Asia separated by the Bosphorus strait (Tema Vakfi Report, 2014)

Istanbul had and still has an important role in the global economy and it serves as a gate between two continents: Asia and Europe along with being an important metropolis at the regional level. Through its history, the city played a primary role in the region: the 19th century and in the 1920s, it was the center of transportation and trade and after the

1960s becomes a Metropolitan City, the link of the country with the global market, holding the burden of the national economy. International capital sees Istanbul as likely to be the command-and-control center for the Balkans, the Middle East, the Black Sea Region, and some of the Central Asian Republics of the former Soviet Union. From this point of view, it has a strategic geographical location that promotes a competitive economy at the EU level. (Erbas and Erbil, 2010; 2012) At national level, Istanbul is the biggest city in Turkey with a population of 13.854.740 (2012) and a growth rate of 3.45% (3CD 2005), a metropolis with 39 district municipalities under the authority of Istanbul Metropolitan Municipality and the heart of Turkish economy: 23% of Turkey's Gross National Product, handles almost half of Turkey's exports and imports and hosts almost 50% of the 18,000 foreign companies active in Turkey , 42 of the 49 foreign banks; contributing with the 40% of all taxes collected at national level. (Istanbul Kalkinma Ajansi 2011 p.61). The city's wider area is home to some 25 percent of the country's total population. (Pierini, 2013)

If one wants to detect a relationship between urban development and political change in Istanbul, from the 1920s, since the formation of the Turkish Republic, as Ankara is chosen the capital city, a single-party regime is established and urban physical re-shaping starts to accelerate. The government has control of municipalities and a process of modernization along with westernization, related to integration with Europe, commences (Akpinar, 2014; Dogan and Stupar, 2016). The city of Istanbul re-gained attention from the government in 1937, also known as the period of Prost's Masterplan[15]. (Akpinar, 2014)

[15] the world-famous urban planner of Paris is invited to prepare what today is known to be the first masterplan of Istanbul.

Starting with the 1950s, because of rapid industrialization and population increase, the growth of the city through the peripheries introduces the need to link urban areas through transportation systems. The construction of the E-5 motorway and the first bridge over the Bosphorus (in the 1970s) triggers urban sprawl instead of providing a sustainable solution, and Istanbul becomes an *"overgrown industrial city"* by the 1980s (Güvenç, 1993, p 75; Erbas and Erbil, 2010b).

Since the 1980s, the change from the industry-oriented economy to a service-oriented economy is reflected in Istanbul's aim of becoming a competitive global city and its 2023 Vision (OECD 2008; Erbas and Erbil 2010; Pierini, 2013). The national policy intends to make Istanbul the focal point of a neo-liberal strategy approach to integrate the Turkish economy with global markets. These economic transformations are visible also in the accelerating transformation of urban space, making Istanbul the showcase of the country's new era of internationalism (Enlil 2011; Uzun 2010) and in the introduction of the privatization model (Uzun 2007; Yerliyurt 2008; Öztaş 2005). This period is marked by the shift of the state's policymaking towards urbanization projects (Enlil 2011; Keyder, 1993; Onncu, 1993; Dogan and Stupar, 2016), pushed almost single-handedly by the ambitious mayor of the Metropolitan Municipality (1984–89). Meanwhile, the Central Business District (CBD) developing in the north (Büyükdere - Maslak axis), led to the construction of a second bridge over the Bosphorus in 1988 (Dogan and Stupar, 2016; Keyder, Öncü, 1993).

In the pace of decentralization as a solution for more effective forms of governance, in 1994, the authority to make and approve plans concerning estates included in the privatization program was transferred from local authorities to the Privatization Administration (OIB). This not only

provided exceptional development rights to the owners of these valuable properties located in city centers, but also marginalized the authority of the traditional planning and administration institutions, creating major social, economic and cultural impacts (Dincer 2011a; Erbas and Erbil 2010a; 2010b; 2012).

Until 2000, planning was predominantly centralized. Urban planning framework in Turkey is based on the Land Development Planning and Control Law (No. 3194), which was enacted in 1985 and accordingly, the planning process goes through 3 levels of documentation:

1. Regional (prepared by State Planning Organization - SPO, defining socio-economic trends, development potential and action-oriented strategies)
2. Environmental order plans (related to settlements land use directing the low-ranking plans)
3. Land development plans (master and implementation plans). (Dogan and Stupar, 2016; Uzun,2010)

The EU accession process, pushed the planning system into an open one, integrated and decentralized. In this manner, overlapping functions of the central and local government and the lack of the participatory and consultative tools as well as experience with them, resulted in a problematic planning environment, a combination of some centralization policy-making powers with decentralized policy implementation. Bayirbagi calls it “controlled decentralization” (Bayirbag, 2013, pp 1141). This controlled decentralization of urban planning powers unwraps in property markets responding to the dynamics of neoliberal urbanization: new housing mechanisms and legislative reforms facilitated a construction-oriented economy. (Taşan-Kok, 2007; Erbas and Erbil, 2010 a, b; 2012) Housing constitutes 80% of the construction sector,

in which TOKI (State Housing Authority of Turkey) operate under the supervision of the ministry, dominate the market with the right to privatize and confiscate public urban land (Ertem and Yılmaz, 2014; TOKI, 2015; Dogan and Stupar, 2016). By 2000, other leading structural changes as the integration of urban fringe to the core, de-industrialization, urban sprawl, renewal of historical areas and re-development of brownfield areas have been introduced through a complex agenda of urban transformation policies into the urban planning practices.

The central government created additional laws to enable megaprojects as an exclusive planning tool and therefore making it a debated planning issue in the last decade. (Temizel 2007; Dincer 2011a; 2011b) In line with the national policy on urban transformation, empowered by the Land Development Planning and Control Law (Law No.3194)[16], Istanbul Metropolitan Municipality built its globalization target on a particular study named "2023 Istanbul Projects" (Istanbul Metropolitan Municipality annual report 2002) focusing on projects such as: Urban Development, Urban Rehabilitation and Urban Transformation[17], Metropolitan Area Corridor Projects, Projects of New Settlements and Specialized Cities, Urban Transformation Projects, as a continuation of some pilot projects of the Earthquake Master Plan for Istanbul.

After 2005, most of the debates starting with this period are concerned with the new laws of urban transformation and their major impacts (Dincer 2011a; 2011b; Ergun 2004). These new laws, part of the national policy, endow local

[16] According to Main Law of Construction No. 3194 (Imar Kanunu)- adopted 3.05.1985

[17] The aim is to strengthen and rehabilitate earthquake risk areas, transform geologically weak zones and unhealthy constructed building as well as to create master projects for rehabilitation and transformation of historical areas;

authorities with *"new powers to intervene and regenerate locked-in, dilapidated historic neighborhoods where market forces alone are not sufficient or too slow to gentrify and transform them".* (Enlil 2011 pp. 21)

Institutions established by the central government, engaging in urban transformation and development projects are empowered to prepare their specific local plans for areas under their ownership or relevant for their specialties. This brings a wide range of problems concerning implementation along with impacts at the social and economic level, as the approach fails to fully integrate and even excludes civil society in the process. The new legal agreements are made within ad-hoc solutions and case-specific design, empowering central state organizations such as State Housing Authority (TOKI) and Privatization Administration (OIB) (Dincer 2011a, Karaman 2012, Erbas and Erbil 2012). Under the justification of the two major earthquakes (1999, 2011), the new zone-specific laws, that enable urban transformation, are: the Law of Conservation (Law No. 2863)[18] ; the Law of Renewal (Law No. 5366); the Law of Earthquake Risk (Law No. 6306). (Erbas and Erbil 2012; Uysa, 2012).

Therefore, what distinguishes the present-day scope and scale of urban transformation from the previous regimes of liberalization and opening of Istanbul to the global economy is the massive support it is getting from the central government in Ankara. In achieving this task, the Istanbul Metropolitan Planning (IMP) office is created in 2004 as a planning and design center (Istanbul Kalkinma Ajansi 2011). The center was formed as an advisory body of IMM, entitled to prepare strategic development plans focusing on ecological, social, economic, and physical

[18] According to Law of Conservation No.2863 (Kültür ve Tabiat Varlıklarını Koruma Kanunu)- adopted on 21.07.1983

components (Kaptan, n.d.). It was funded through a public-private partnership that presents itself as an affiliate company of the Istanbul Metropolitan Municipality, but managed by Bimtas s.a., a private company.

In 2006, with a comprehensive planning approach, the IMP office, consisting of 400 experts, academics and key municipal members collaborated to realize the Istanbul Environment Plan at the 1/100.000 scale, which was approved in 2009 to set a vision of the city: *"becoming a knowledge society that is able to compete globally, with high standards of living"* (Aksoy, 2015, p.16)

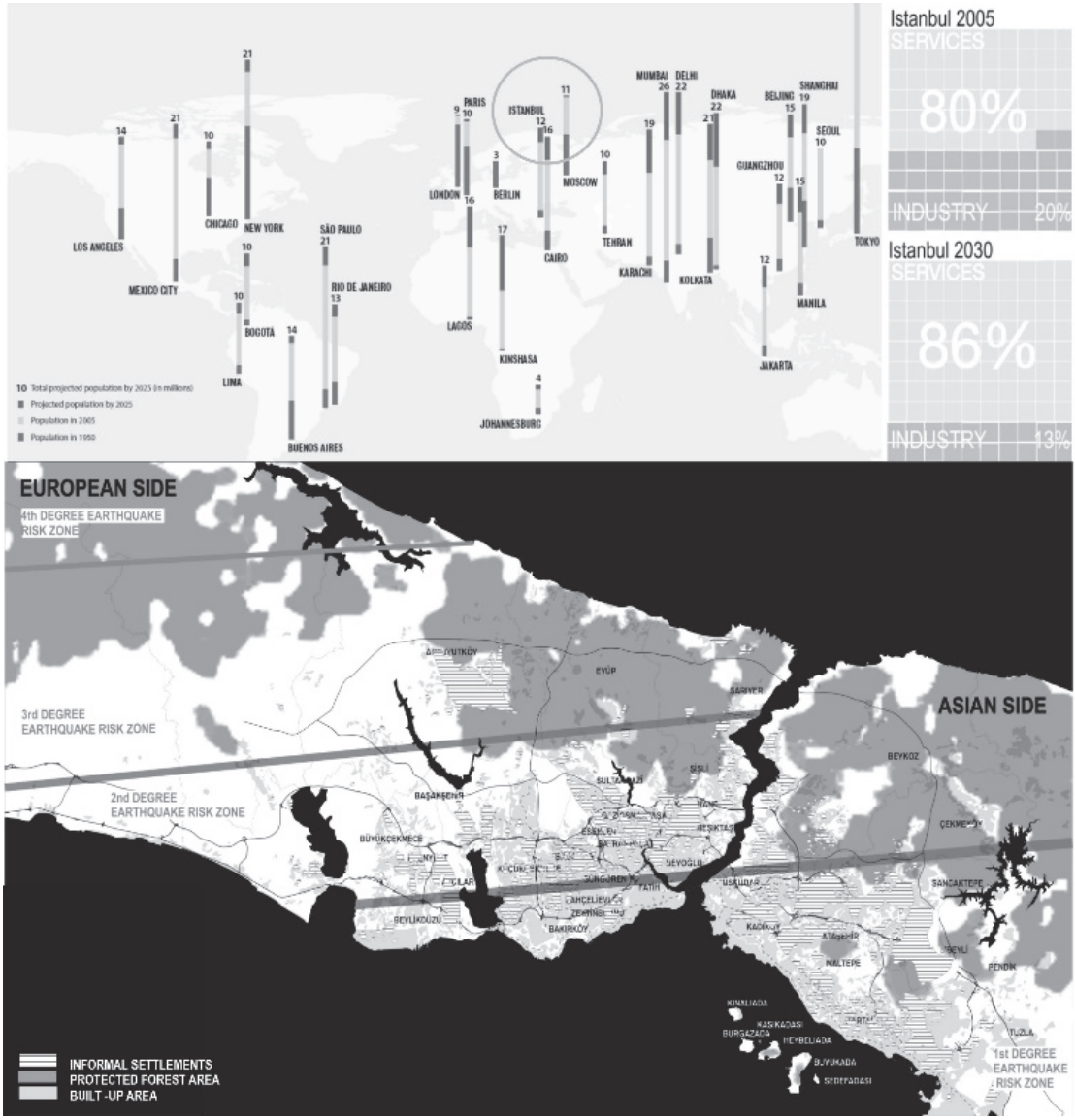
The plan emphasizes the issues of quality of life, global positioning and competitiveness and it is important to note that the plan was thought for 20 years[19]. Problems of urban growth and the pressure of construction in historical areas are addressed, suggesting a linear development along the East-West axis, which would control expansion towards the north. The "*protection of ecological balance and fostering of sustainable and disaster-resistant development*" was stressed through safeguarding forestlands and water basins in the north (IMM, 2011b), whilst none of the megaprojects discussed in this study were included.

In 2011 Istanbul Transportation Plan done also by IMP, a highways system, the Northern Marmara Motorway (Kuzey Marmara Otoyolu) and a 3rd bridge were approved, besides the Marmaray railway crossing and the Euroasia road crossing indicated in the 2009 plan. All these changes are criticized as being with a top-down approach to planning, reducing to just a transformation of physical space and neglecting the social, economic and environmental dimensions (Dogan and Stupar, 2016; Akpinar, 2014; Uzun 2010; Bayırbağ 2013) Moreover, the government has been

[19] Interview Ervin Sezgin, ITU, governance expert.

extensively amending the legislative, and administrative frameworks for these megaprojects, controls are reduced and consultations done in a superficial way: EIA regulations were amended in 2011, allowing for more exemptions and diminishing their predicted impact. (Pierini, 2013; Erbas and Erbil, 2010a, b, 2012; Keyder, 1999)

These aspects along with the unwillingness of the government to allow any participation of civil society become the focus of discontent and protest of many engaged in resistance towards these projects. (Erbas and Erbil 2010a; 2010b; 2012; Temizel 2007). Strong opposing governance forms come together: non-governmental organizations, neighborhood associations, chambers, and urban social movements.



| Fig. 15
Istanbul: globally and locally
Source author

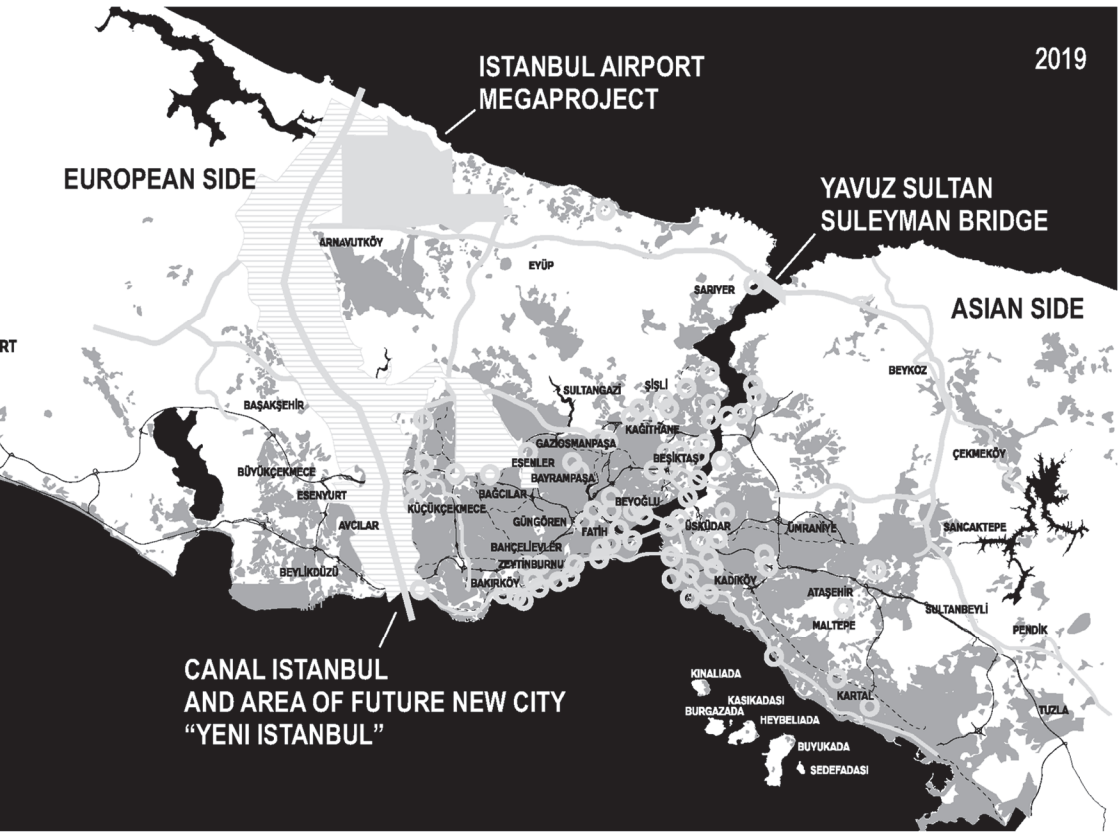
This situation culminates with the events of 28 May 2013 when thousands of people protested the "*neo-liberal urban development agenda of the government*" (Taksim Dayanismasi 2013)[20] and stopped one project in the city center, Taksim. A key difference between the planning system of the 1950's Istanbul and that of today is the development of the built urban tissue due to the strong migration of the industrialization process, whereas now it is a fight of capital accumulation at the expense of the local communities. Akif Burak, head of Chamber of Urban Planners states: "*planning becomes a tool on loading the economic responsibility of these megaprojects to the city*".[21]

[20] Online Source: http://taksimdayanisma.org/?lang=en
[21] Interview Akif Burak Atlar, Head of Chamber of Urban Planners

	Renewal zones	*Law no. 3194*	*Zone specific laws*
Central Government	***x***		***x***
Ministry of Environment and Urbanism		***x***	
Ministry of Culture and Tourism	***x***	***x***	
State Housing Authority -TOKI	***x***	***x***	***x***
Privatization Administration		***x***	***x***
Municipalities	***x***	***x***	***x***
Private sector	***x***	***x***	***x***

| Table 6
Table of actors in charge of decision-making in urban transformation projects in Istanbul until 2012;
Source: author modified after Erbas; Erbil 2013

| Fig. 16
Maps of megaprojects in Istanbul
Source: author


2019
ISTANBUL AIRPORT
MEGAPROJECT
EUROPEAN SIDE
YAVUZ SULTAN
SULEYMAN BRIDGE
ASIAN SIDE
ARNAVUTKÖY
EYÜP
SARIYER
BEYKOZ
SULTANGAZI
ŞİŞLİ
BAŞAKŞEHİR
KAĞITHANE
GAZIOSMANPAŞA
ESENLER
BEŞIKTAŞ
ÇEKMEKÖY
BÜYÜKÇEKMECE
BAYRAMPAŞA
ESENYURT
BAĞCILAR
BEYOĞLU
KÜÇÜKÇEKMECE
AVCILAR
GÜNGÖREN
FATIH
ÜSKÜDAR
ÜMRANIYE
SANCAKTEPE
BAHÇELIEVLER
ZEYTINBURNU
BEYLIKDÜZÜ
BAKIRKÖY
KADIKÖY
ATAŞEHIR
SULTANBEYLI
MALTEPE
PENDIK
CANAL ISTANBUL
AND AREA OF FUTURE NEW CITY
“YENI ISTANBUL”
KINALIADA
KARTAL
KASIKADASI
BURGAZADA
TUZLA
HEYBELIADA
BUYUKADA
ŞEDEFADASI


2009
EUROPEAN SIDE
ASIAN SIDE
ARNAVUTKÖY
EYÜP
SARIYER
BEYKOZ
SULTANGAZI
ŞİŞLİ
BAŞAKŞEHİR
KAĞITHANE
GAZIOSMANPAŞA
ESENLER
BEŞIKTAŞ
ÇEKMEKÖY
BÜYÜKÇEKMECE
BAYRAMPAŞA
ESENYURT
BAĞCILAR
BEYOĞLU
KÜÇÜKÇEKMECE
AVCILAR
GÜNGÖREN
FATIH
ÜSKÜDAR
ÜMRANIYE
SANCAKTEPE
BAHÇELIEVLER
ZEYTINBURNU
BEYLIKDÜZÜ
BAKIRKÖY
KADIKÖY
ATAŞEHIR
SULTANBEYLI
MALTEPE
PENDIK
KINALIADA
KARTAL
KASIKADASI
BURGAZADA
TUZLA
HEYBELIADA
BUYUKADA

2023 VISION, A SYSTEM OF MEGAPROJECTS IN ISTANBUL

In 2011, "2023 Vision" was announced by President Tayyip Recep Erdogan (AKP) comprising specific economic objectives to be achieved until the country's centennial in 2023. The 2023 milestone came first into the discussion in the Istanbul 2023 Projects document, also mentioned in the previous sub-chapter. However, this time it is brought forward as a goal for the development of the entire country and the main target is to make Turkey one of the world's 10 largest economies by its centenary, in 2023. (Erbas and Erbil, 2010a; Kayagil, 2015)

After analyzing the 2023 Vision document, some measures come forward as defining the pro-growth direction the country is going through. Some clear targets of bringing forward the role of the private sector, privatization, construction of new megaprojects, attract foreign investment, utilize public land for economic growth come to light. For example, for the Public Expenditure and Investment point, priority will be given to infrastructure investments which will support economic productivity in the medium and long term (highway, railway, airports, dams, irrigation, ICT) (2023 Turkiye Vizyonu/ Extract from 2023 Vision of Turkey)

Therefore, one major factor that contributes towards whether Turkey will reach its targets is believed to be the construction of megaprojects. Focusing mostly on Istanbul, most projects are based on the public-private partnership (PPP) business model, that calls for private investors (Property Turkey, 2018, ISPAT, 2013, p. 17, Ertem and Yılmaz, 2014; Kayagil, 2015). However, Kargı (2013) underlines the strong correlation between GDP and overall construction expenditure, which makes the construction sector highly dependent on economic stability; whilst Perouse (2014) claims that any possible devaluation of Turkish currency and growing financial difficulties would jeopardize the megaprojects. (Erbas and Erbil, 2010a, b; 2012; Dogan and Stupar, 2016)

Since around the year 2000, in a time frame of 20 years, 70 megaprojects are planned by different governmental bodies or PPP schemes.

It is an enormous number which can give us a picture of how big this transformation business is. Mucella Yapici, secretary of Chamber of Architects: *"Actually from the 1950s towards the present, Istanbul is the biggest megaproject of Turkey"* [22] She points out that three months after the 1999 earthquake, without even approving the Earthquake Masterplan, "2023 vision" for Istanbul appeared on the agenda. Architect Kadir Topbas, Mayor of Istanbul Metropolitan Municipality (Istanbul Büyükşehir Belediyesi-IBB) of those times, declares the goal of making Istanbul a "corridor city" (Yapici, 2017). Yapici identifies this vision of corridor development in three important and costly megaprojects placed at the north of Istanbul: 3rd

[22] Interview with Mucella Yapici, secretary of Chamber of Architects

Bridge over Bosporus (completed), Istanbul Airport (first phase complete) and Canal Istanbul (planning phase)[23].

3rd Bridge: In the history of Istanbul, each of the bridges predicted the construction of the next one. The **3rd Bridge** project was realized without an over budget and with just one-year delay, a total period of construction of three years (Megaprojeleristanbul.com). It is realized through a PPP, the BOT model, its tender for 10 years won by the consortium Ictas Insaat Sanayi Ticaret AS, Astaldi OGG, Saryapi, ESA Insaat, and ISDEM Yapi, with the value of construction of almost 3 bln $[24] (Megaprojeleristanbul.com). Some main unique and symbolic features in line with the new global image of Istanbul, as in any megaproject, come forward: the only suspension bridge in the world with motorway (8 lanes) and railway (2 lines), all on the same level; widest suspension bridge in the world; suspension bridge with the tallest towers in the world, taller than the Eiffel Tower; longest suspension bridge in the world whose deck features a railway line. The design was made by international experts: Jean-François Klein (project leader) and Michel Virlogeux. [25,26]

The 3rd bridge is also of importance in terms of the international processes and decisions since it will provide the third major arterial connecting Europe and Asia, which generates many opportunities to groups retaining the vast capital stock; the project opens land to development raising its value from 0 to $350 bn (TMMOB, 2010). The critique

[23] Interview with Mucella Yapici, secretary of Chamber of Architects

[24] http://www.astaldi.com/en/press-releases/astaldi-inauguration-third-bridge-over-bosphorus-bridge-firsts

[25] http://www.astaldi.com/en/press-releases/astaldi-inauguration-third-bridge-over-bosphorus-bridge-firsts

[26] https://megaprojeleristanbul.com/#

raised by the professional Chambers is that it is in contradiction with numerous laws, codes and regulations: national laws- compliance with the 9th National Development Plan; zoning law (code no 3194); the Code of Bosphorus in terms of preservation of natural environment; Environmental Impact Assessment Regulation, as the project was left out of this procedure; the Code of the Preservation of the Natural and Cultural Assets (Code No. 2863); it was not included in the 2009 Istanbul Environment Plan, but it was built. (Dogan and Stupar, 2016; TMMOB, 2010)

Istanbul Airport is another megaproject that will bring Turkey among the top 10 economically powerful countries, part of the 2023 Strategy. The airport is under construction on an area of 7650 ha in the north, 35 km away from the city center, in Arnavutköy near Lake Terkos, and promises to be the world's biggest airport and the largest BOT project in the country's history (CAPA, 2016; IGA website; Tepav Report, 2013; Dogan and Stupar, 2016). Regarding the location of the airport, Prof. Ozhan Ertekin, transportation expert, underlines some of the advantages: the planes do not fly above the city, traffic goes outside of the city, pollution goes outside, etc. and also cheap to develop as it was public land and mining area. [27]

Istanbul Airport megaproject completes its first phase and opens on 29th October 2018, which took place on the 95th anniversary of Turkey's establishment as a republic. The first phase is finalized with two runways and one terminal (90 million -passenger capacity) and with just one-year delay and no over budget. The whole construction will be done in four phases until 2025, the airport will host flights

[27] Interview with Prof. Ozhan Ertekin, ITU, transportation planning expert

to more than 300 destinations with an annual capacity of 200 million passengers (IGA website).

The project receives a total of 12 awards in terms of design architecture, economic and environmental and social sectors. The international architects employed by IGA, Nordic and partners developed the concept design of the airport with much care for the global vision, but also for the local history, elements from the Islamic culture designed by the world-renowned architect Mimar Sinan of Istanbul being incorporated in the design of the ceiling and control tower along many other elements and local products were used like wood or natural stone. (IGA website; Media Archive Annex no 2)

On this subject, even the actors in opposition, representatives of academia, chambers or NGOs admit the detail put into its design as a distinctive feature compared to other megaprojects[28] . With an annual passenger capacity of 200 million (DHMI, 2013), the airport will respond to the growing needs of the city, which could no longer be fulfilled by the two existing airports (Turkish Forum Archive, 2010). Furthermore, this project is planned to be extended by an airport city (CSB, 2014) with a central innovation district, hotels, retail and commercial office spaces, logistic center, an exposition, and convention center, public space, and metro and high-speed rail connections to Istanbul (CAPA, 2016).

[28] Interview with Eda Bayazit, ITU, transportation planner; Esin Köymen, head of Chambers of Architects; Akif Burak Atlar, head of Chambers of Urban Planners



| Fig. 17
Yavuz Sultan Suleyman Bridge
Source: https://dosya.megalimani-etaplar.jpg
| Fig. 18
Construction phase Istanbul Airport
Source: megaprojeleristanbul.com

The true distinctive feature of the new airport comes from an economic perspective; the expected added value it will offer to the Turkish economy: direct and indirect employment of 225,000 employees and a rise of the household income to $ 4.4 bn (message from the Board of Directors- IGA website).

However, with just 20% consisting of mining area, a 72% of the development site is forest area and another 8% percent lakes (Dogan, Stupar, 2016; TMMOB, 2014), 7650 hectares of land being of Yenikoy, Tayakadin, Ağacli and Akpinar villages, protected areas in the 2009 Istanbul Environment Plan (Durmaz, Bayrakdar,2014; Karacor and Korshid, 2015), the project faces strong opposition and many experts warn about the environmental and social threats. (Perouse 2013; TMMOB, 2014) It is known that one of the main reasons to develop that area was that a big part of it was a state-owned.[29]

The new airport development is presented and marketed as a victory for the whole country; the political sublime being a known feature of megaprojects: *"Bugün aslında biz sadece bir havalimanı değil, bir zafer anıtı inşa ediyoruz."* / *"Today we are not building just an airport, but rather we won a victory"*- a fragment from the speech of Recep Tayyip Erdogan at the opening ceremony of Istanbul Airport Recep Tayyip Erdoğan (2018).

Another big project hitting the news and not included in the 2009 Istanbul Environment Plan is the **Canal Istanbul** megaproject, an artificial sea-level waterway, and an alternative route to the Bosporus which the Turkish

[29] Esin Köymen, head of Chambers of Architects; Akif Burak Atlar, head of Chambers of Urban Planners; Kerem Arslanli, ITU, real-estate expert; Prof Ozhan, ITU, transportation planner; Prof. Azime Tezer, ITU, environmental planning;

government stated as overcrowded and polluted thanks to the enormous number of tankers passing through it daily. This waterway would allow the passage of vessels up to 300.000 dwt (Kundak, Baypınar, 2011; Benmayor, 2013), creating a gateway connecting Asia and Europe. The estimated cost to build this megaproject is $10 bn and it is announced that the financing for the development has already been allocated by the Turkish Treasury. (Altun, Akiner 2011; Dogan and Stupar, 2016) Many experts say this is an understatement, but looking at the exploration of 150 megaprojects from previous chapter, canal projects have been with an average cost of $5.8 bn. The megaproject is at planning phase and it is expected to be finished also for the 2023 Vision. (Keller,2011; Altun, Akiner 2011)

Canal Istanbul, was announced during the 2011 election campaign, could be perceived not merely as a large transport and infrastructure megaproject, but as a part of a geopolitical strategy bypassing the Bosphorus Strait, leading to violation of the Montreux Convention (1936) (ORSAM, 2013; Keller, 2011; Dogan and Stupar, 2016). Since the public announcement of the Canal megaproject, land speculations began and even other projects have been constructed or are in phase of planning, which results in a fragmentized development of the area.

The land around Canal Istanbul is declared Renewable area and TOKI has the right to nationalize the land to develop or privatize it, leading to displacement and deepening the socio-economic inequality in the city. It is to be noticed that half of them is a hybrid type of megaprojects, a characteristic of the new megaprojects and considering the governance aspect, they are predominantly state led, developed by local or central government or in schemes of PPP: privatization revenues sharing, concession of land, BOT.



| Fig. 19
Istanbul Airport megaproject
Istanbul Airport City proposal
Source: megaprojeleristanbul.com

Name	Type	Institutionl ramework	Actors
Bioistanbul	hybrid (commerce, housing, healthcare)	*state-led*	TOKI, Ministry of Environment and Urbanism
Tema Istanbul	hybrid (commerce, housing, recreation)	*private/ privatization*	Mesa Holding, Artaş Grubu, Kantur & Akdaş A.Ş.
Batışehir	hybrid (housing, commerce)	*PPP / concessions of land*	TOKI, EPP, Emlak GYO, Ege Yapi
Viaport Venezia	hybrid (housing, commerce)	*PPP / revenues*	Kiptas, IMM, Bayraktar&Gursoy
İkitelli Şehir Hastanesi	heathcare	*PPP (bot)*	Health Minsitry, Rönesans Holding
Bosphorus City	housing	*private/ privatization*	x
Ayazma Kentsel Dönüşüm	housing	*PPP / concessions of land*	IMM, Kucukcekmece Municipality, TOKI, Emlak GYO A.S
Istanbul Saraylari	housing	*private/ privatization*	x
Küçükçekmece İç-Dış Kentsel Yenileme	tourism	*state-led/ urban renewal*	Kucukcekmece Municipality
Tepeüstü Kentsel Dönüşüm	commerce	*state-led/ urban renewal*	TOKI, IMM, Kucukcekmece Municipality

| Table 7
Canal Istanbul megaprojects
Source: author

IMPACT ASSESSMENT AND RISKS OF MEGAPROJECTS IN ISTANBUL

Environmental and social impact assessment are two of the key issues in megaproject development. For environmental and social effects of projects, one similarly finds that such effects often have not been considered during project development, or they have been severely miscalculated, such problems often destabilize habitats, communities, and megaprojects themselves, if not dealt with carefully. (OECD, 1993; Vickerman, 1994)

Combined impact of the 3rd Bridge, Istanbul Ariport and Canal Istanbul megaprojects are:

1. Deforestation in Belgrade Forest;
2. 630 ha + 2513341 trees cut/ moved;
3. 70 species destroyed from lakes and ponds;
4. Pollution of Terkos Lake, a drinking water source for Istanbul;
5. Destruction of protected coastal areas;
6. The devastation of the Black Sea and Mediterranean ecosystem;
7. Increase air pollution with 120% in the period of the construction process;
8. Displacement of almost 4 million people;

9. Destruction of topography and unique silhouette of Istanbul;
10. Decline with 40.5% in forested areas and 83.2% in agricultural (cellular automata estimation).

In line with the popular global awareness of the sustainability concept and other climate and ecological threats, the environmental impact comes always as a burning issue. The three projects presented in the previous chapters make no exception to the rule, in fact, the major environmental impact is what differentiates them from other megaprojects around the world. (Güneralp, Tezer and Albayrak, 2013; Bayrakdar, Durmaz,2014).

Traditionally and intuitively, Istanbul has a history of protecting the forests and watershed areas to the north of the city from development in terms of masterplans and other regulations since 1950s (Güneralp,Tezer , Albayrak 2013) The key issue is losing natural habitat and ecosystem over business development, in this case, deforestation in Belgrade forest: 80% of the area of the Istanbul Airport and nearly 35 km of the route of connected motorways with 3rd bridge, pass through Bosphorus Key Biodiversity Area (KBA), according to the ESIA report (AECOM Turkey, 2013; Kundak and Baypinar 2011; Tezer, 2013; Bayrakdar, Durmaz,2014; TMMOB, 2014; Dogan and Stupar, 2016). Deforestation is a serious concern when the scale of the projects is taken into consideration and one of the direct effects of deforestation is anthropogenic climate change and the heat island effect. Balbo (2013) draws attention to the expected rise in regional air pollution when the natural carbon cycle is interrupted (AECOM Turkey, 2013).

The EIA report of the 3rd bridge, realized by AECOM, point out the losses: approximately 345 hectares of oak dominant forest within the 60.5m wide construction corridor of the project, approximately 284 hectares of conifer plantation.

(AECOM, p 9) The Istanbul Airport (2013) impact in numbers: 657.950 trees are planning to be cut down whereas 1.855.391 trees are planning to be replaced; more than 70 species will be destroyed from the lakes and ponds (CED airport report, p 35). Both the Istanbul Airport project and the Canal Istanbul project are a threat to the city of Istanbul for the loss of water basins, ecologically protected (CAPA, 2016, CED airport report, p42) and pollution of Terkos Lake and other dams who are sources for the drinking water in Istanbul (CED airport report, p34) Moreover, Canal Istanbul's reversal of the hydrologic balance between the cold and fresh waters of the Black Sea and the warm and salty waters of the Mediterranean Sea, will alter marine life (Saydam, 2013) If the Canal Istanbul project were to proceed, it would potentially impact a major ecosystem affecting not only Istanbul, Turkey, but several other countries around the Black Sea and the Mediterranean: Bulgaria, Romania, Ukraine, Russia, Georgia, and Greece. (ORSAM, 2013)

The Istanbul Airport is built on the migration routes of birds, which is hazardous for the ecosystem. (CED report, EK19). This not only violates the Bern Convention (1979), but also causes possible airplane crashes (Arslangündoğdu, 2014; Dogan and Stupar, 2016; Güneralp, Tezer and Albayrak, 2013). Considering the Airport City along the Black Sea coast that is supposed to relieve the population pressure away from the central metropolitan areas of İstanbul, it will extend the metropolitan area along the Black Sea coast, decimating in the process the coastal and forest ecosystems, some of which are also important conservation sites (Arslangündoğdu, Z. 2014; Tezer, 2013; Bayrakdar, Durmaz,2014). During implementation phase, promises of a future sustainable development are being made, even actions are taken, but are these measures going to diminish the identified impact of constructing in the protected northern part of the city? To all these environmental issues,

we could add also the construction process that will increase air pollution with 120% in that period of time, which is not a short one: shortest 3 years for the bridge, followed by 15 years for the airport and lastly unknown for the Canal Project (CED report, p54) When we look at Istanbul urban tissue, it seems to be a construction site since 2000 (19 years) with all ~70 megaprojects, small projects, large scale regeneration interventions going on.

It must be noted that, as an actor, academia was the first to react in 2013 considering the place of the Istanbul Airport construction, exactly after the declaration and before the bid of the airport. The first report comes from The Economic Policy Research Foundation of Turkey (TEPAV)[30], a think tank established by a group of businessman, bureaucrats, and academicians for the purposes of conducting data-based policy analysis and policy-making contributions, with the title İstanbul "The Last Tree" Airport: What You Need to Know about the Istanbul Airport. The report questions the actual problem to which this projects answers to and the role of the state in protecting the welfare of its citizens. A major critique on the environmental impacts is exposed and two main questions are posed*:*

"Why didn't the state abandon the project whose negative environmental impacts are so obvious? Why didn't the public protest the tender of the project after the Environmental Impact Assessment (EIA) report was published?"

The answers given are the eagerness of the government to go along with the project in any circumstance, fabricating the EIA report accordingly and the blindness of the public

[30] selected as one of the best 3 think tanks in Europe by the Think Tank Oscars in 2014, held by Spectator magazine in the UK; has conducted projects 49 of Turkey's provinces and 21 countries across the world;

realm and media to the burning impacts of the projects because of the non-transparent planning process and the lack of information. The project's tender process and value-weighted more on the agenda of the media and on the news. Another comprehensive report is written by KOS (Kuzey Ormanlar Savunmasi/ Northern Forests Defense NGO) with the name:" Istanbul Airport Project against Life, Nature, Environmental, Humans, and Law"and it covers and warns about all ecological, economic, and legal aspects of the project, but most importantly about the risks regarding flights in the future.

Displacement and social impact:

Since neoliberal urban policies prioritize urban growth and investments in order to comply with global flows, public interests are frequently overlooked (Baysal, 2017) In the case of the three megaprojects system in Istanbul, it is possible to identify two types of constraints: the destroying forestlands or farmlands belonging to the state treasury, as stated in the previous chapter, but also the urgent expropriation to empty lands for construction, a problem affecting especially the rural community. KOS (2015) underlines the violation of property rights by TOKI, through urgent expropriation for these kinds of megaprojects. Centralized government and top-down mechanisms facilitate this process, whilst legal frameworks remain insufficient to secure the rights of citizens. In this matter, in comparison with the Istanbul Airport project and 3rd bridge project, a critical impact of the Canal İstanbul project is the direct displacement of almost 4 million people. (Kolat, 2014)



| Fig. 20
Environmental impacts of the construction of megaprojects in the north of the city

Economic risk:

Besides the alarming and common environmental and social impacts, megaprojects involve also other risks, the financial terms. It is found in the literature that national funds can't meet these high costs and that is also the main reason why PPPs are chosen for this matter, especially BOT model in the case of Turkey. This also leads to the acceleration of privatization through legal regulations and financial/tax incentives to foster private investment including foreign investment (Kundak, Baypınar, 2011). The government's role in this, acting as a developer or selecting them amongst the bidders, defining planning rules or regulating the level of centralization/decentralization varies depending on the project. In the case of these three megaprojects, although a BOT model is applied, considering the Istanbul Airport project and the 3rd bridge project, the consortium who has the tender took loans from public banks and moreover it is guaranteed a certain revenue in numbers of passes for the bridge and in-flight load for the airport, by the government.[31] In the case of 3rd bridge, a 2.3 bln $ loan from banks, among them, being also public banks like Ziraat Bank, Halk Bank, and Vakif Bank is taken. It is expected that 135000 vehicles pass the bridge daily, but if the numbers won't add up, the government will make up for the losses, and so it did so far. Many critiques state that the 3rd bridge should not be the burden of the simple citizens as they don't use it. In 2018 Astaldi, one company from the consortium who has the tender for the 3rd bridge had to sell its share and since then the credit of the operators is taken from the treasury (Zalewski, 2015; Dogan and Stupar, 2016).

[31] Interview with Kerem Arslanli, ITU, real estate expert and economic risk, urban planner

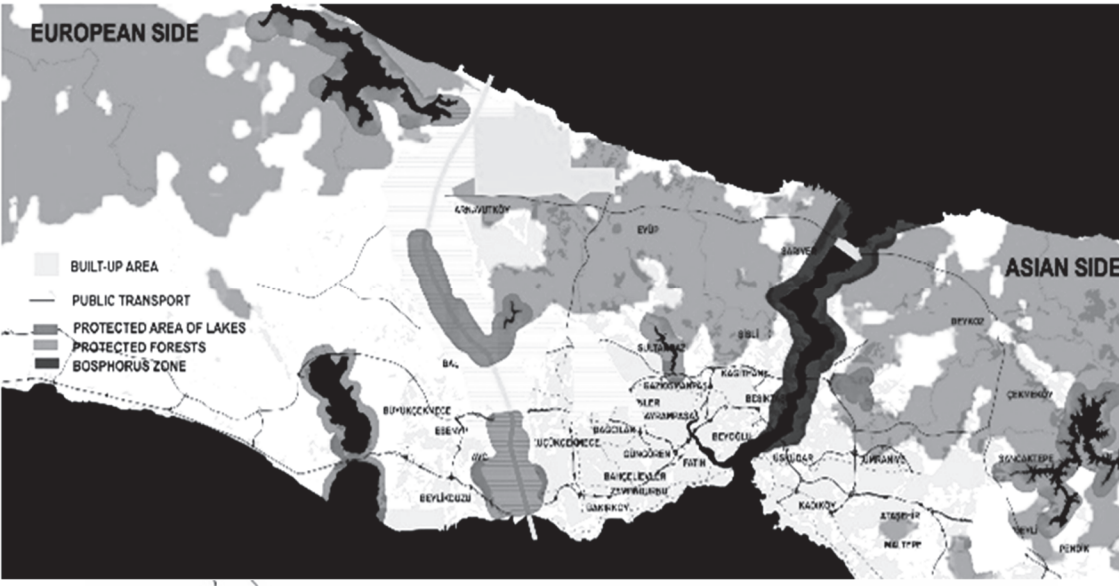
Prof. Kerem Arslanli, an expert on real estate and economic risk, warns about the economic impact if the treasury will keep proceeding like this. For example, in the case of Istanbul Airport, considering that the project is worth 2.33% from Istanbul's GDP, its failure is going to hurt the economy badly. Of course, this is something well known in the history of megaprojects as seen in previous chapters. A comprehensive report comes from the academic realm, Bahcesehir University Center for Economic and Social Research (BETAM) publishes *"The Destiny of the Mega Airport Depends on the Economic Growth,"* where they focus on the economic aspects of the project and the return of the investment, considering them hard to predict since the lease is too long. Having a comparison with Ataturk airport project, they also indicate that the area for the development of the Istanbul Airport is much larger than it is necessary.

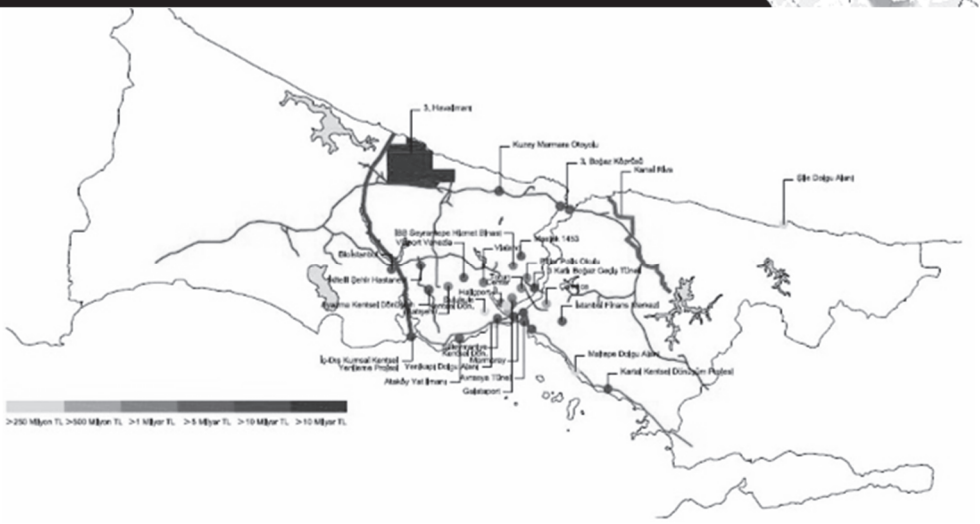
Urban management problems, traffic, and urban sprawl:

The projects are questioned on their soundness from urban and transportation planning perspectives, as proposed solutions to the increasing transportation needs, all three projects will eventually grow the intensity of traffic. The study on the Integrated Urban Transport Master Plan (2009–2023) for the Istanbul Metropolitan Area, highlights the Marmaray railway crossing and the Euroasia road crossing as the main investments for the rise of the capacity (JICA, 2009; Dogan and Stupar, 2016). Future urbanization is suggested to be kept on the south of the Trans-European Motorway (Kundak, and Baypınar, 2011) as the northern part of Istanbul, as underlined also in the previous chapters, comprises mostly of forest area and water reservoirs and they need to be conserved (JICA,2009) Moreover, many experts stress the issue of rapid urbanization triggered by these transportation megaprojects that will lead to urban management problems and sprawl.

Since the first bridge, the construction of bridges over Bosporus, was something against the advice of the transport planners, stating that this is no solution to challenge the escalation of population growth and traffic (Taşdemir, Batuk, 2009; Dogan and Stupar, 2016). Authorities underestimated the effects of induced traffic and the changing functional patters of the land after these transport projects (Gerçek, 2009) As predicted, they led to unplanned population growth, decreased forested areas, both air and water pollution, wildlife destruction, and increased flood, and erosion risks (Gerçek, 2009; Kundak, and Baypınar, 2011). In a study with the aim to investigate urban growth driven by transport networks, by using cellular automata (CA) based simulation technique, Ismail Ercument Ayazli, Fatmagul Kilic, Steffen Lauf, Hulya Demird and Birgit Kleinschmit, researched the probable impact the 3rd bridge on the land use and the land cover. It can be observed that between 2009 and 2030, it will be a decline with 40.5% in forested areas and 83.2% in agricultural and open space will be transformed into settlement areas. (Ayazli, Kilic, Lauf and Demir 2015)

In terms of urban structure, the silhouette and the geographic features of Istanbul contribute to its uniqueness and fast urbanization triggered by megaprojects have affected its topography (Kanıpak,2009; Dogan and Stupar, 2016) It is argued that none of the masterplans or any plans, in general, take into consideration this aspect (Kanipak, 2009) Nevertheless, restructuring is expected as all three transportation projects will encourage the construction of new settlements and therefore a shift in urban density and growth.





| Fig. 21
Impact on protected areas, of the system of megaprojects
Source: megaprojeleristanbul.com
| Fig. 22
The system of megaprojects initiated by state and their costs by instensity of color
Source: TMMOB

ANALYSIS OF GOVERNANCE AND PLANNING PROCESS OF ISTANBUL AIRPORT MEGAPROJECT

DECISION MAKING PROCESS

According to Fauldi (1973), the governance discourse unfolds strong arguments of why there should be an analysis of a wide range of actors involved in spatial planning and the reason is the rise of urban entrepreneurialism with project-based planning approach rather than the old comprehensive way of planning. This study analyzes the specific governance forms which graft the planning process of the Istanbul Airport megaproject. In this chapter, the approach to planning, power, and interest of the actors involved, but also influencing the planning process are presented along with their relationships for a clear picture of the governance dynamics. Moreover, discourse analysis is made with two objectives: improve methodology as it is applied for the first time in the planning process of a megaproject and inform policymaking in other megaprojects in Istanbul and beyond.

How is the expansion of a global city like Istanbul orchestrated, which are the powerful groups that can exclude and monopolize the interests of the others in megaproject planning and which are the growth coalitions or regimes, like Stone (1989) would say?

During the conception of the 2009 Istanbul Environment Plan by IMP (Istanbul Metropolitan Planning Office), a question of an Istanbul Airport was imposed by the central government, due to the increasing flight load at Ataturk Airport. Silivri was proposed as an alternative construction area and that was because of its connections to the existing infrastructure and also to take the load from the satellite cities in the south-west that didn't have to enter Istanbul anymore for flying, this resulting also in a decrease in traffic. [32] In this stage of the decision-making process, planning of the new airport belongs to the local municipality, IMM (Istanbul Metropolitan Municipality).

However, one year after the publication of the 2009 Masterplan of Istanbul, on 10 December 2010, the Prime minister declares the need of constructing an Istanbul Airport in Istanbul[33]. The link between central government and the vision on local-scale planning is clear: during the presentation of the project “Turkey 2023, Istanbul 2023”/ Türkiye Hazır Hedef 2023, İstanbul Hazırye Hedef 2023" on 11 May 2011, when the Prime minister declares that there will be 2 new cities in the north of Istanbul and one of them on the European side, linked to the Istanbul Airport.[34]

[32] Interview with Prof Ozhan, ITU, transportation planner; Eda Beyazit, ITU, transportation expert
[33] http://siyaset.milliyet.com.tr/erdgan-ucuncu-bir-havalimani-gorurseniz sasirmayin/siyaset/siyasetdetay/30.10.2010/1308060/default.htm
[34] http://siyaset.milliyet.com.tr/erdogan-iki-sehir-projesini-acikladi/siyaset/siyasetdetay/11.05.2011/1388837/default.htm

Therefore, it can be observed that important planning matters are exposed by media through political discourse, but more importantly, the decision power over the project moves from the local scale to the national scale. The decision of choosing an area for the construction of an Istanbul Airport is now at the central government level.[35] In the same year, The Istanbul Transportation Plan (2011-2023) is approved and it includes a highways system, the Northern Marmara Motorway (Kuzey Marmara Otoyolu) and the 3rd bridge over Bosporus and the future airport at Silivri as in the 2009 Istanbul Environment Plan. [36]

On 18 August 2012, the Council of Ministers declares an area of 42300 ha in the North-European part of the city, comprising also what would be the new airport's future development place, as "*Reserve area*" and assigns TOKI for the nationalization of the land. Just months after this decision, again the Council of Ministers declares publicly the area of construction of the airport: in the North part of Istanbul, 6300 ha from a total area of 9000 ha, where the rest will be urbanized land. The site is identified as a mining area, but academics and chambers warn from the beginning that it is in fact 70% forest land.[37] This controversy was ignited also by the fact that the whole Northern part of the city was declared a protected area in the 2009 Masterplan of Istanbul. As there is a designated area for the project, the mode of how to construct it is decided by the central government to be the BOT model, a PPP. Therefore, the bid for Istanbul Airport was held in Ankara, where the Joint Venture formed by Cengiz-Kolin-Limak-MAPA- Kalyon was awarded the tender for 25 years with a bid worth

[35] Interview Ahmet Bas, ITU, urban planner involved in the masterplan
[36] Interview Ahmet Bas, ITU, urban planner involved in the masterplan
[37] http://www.radikal.com.tr/turkiye/iste-ucuncu-havalimani-1105714/

€22.152 billion + VAT (3.05.2013). Soon after this win, the consortium founded İGA Airport Operations [38] with the scope of constructing and operating Istanbul Airport (10. 07.2013) It will be further analyzed in the next chapters if it is a development agency or just a construction company, its role and relationship to the broader governance arena. However, IGA is a private company and represents private interests over public welfare. In this manner, the decision-making power over a project of national and local importance moves to the private entity.

As in many other megaprojects in the world, international involvement was present. The masterplan of the airport is made by the Nordic Office Architecture [39], and their partners: Grimshaw Architects[40], Haptic Architects[41] and Arup Associates [42](17.10.2013) The decision to contract them was made by IGA management and through a competitive dialogue meeting [43] The plans, details, and renders of the project could be found publicly on their websites, which would make it a transparent process from their side. However, the architectural office is not mentioned on IGA website in the timeline of the project the

[38] https://www.igairport.com/en/about-iga/timeline
[39] Same office that made the ones who made the Haydarabad Airport in India, Gardermoen in Oslo
[40] who made the airport from North Korea, Zurih, Pulkova, Heatrow, Frankfurt
[41] who made the Rostov Yuzhny airport
[42] who already designed 38 projects so far in Istanbul, including Sabiha Gokcen airport
[43] https://vaaju.com/norway/gudmund-stokke-wrote-what-could-become-the-worlds-largest-airport-the-draft-he-made-on-the-flight-to-the-first-building-meeting/

cost of the contract was never announced. The whole design process lasted three years, from 2013 to 2016. [44][45]

While IGA was contracting and making the design plans, the Council of Ministries decides the urgent expropriation of the area which comprises the airport project. In accordance with Article 27 of the Expropriation Law no. 2942 this was decided by the Council of Ministers on 2nd January 2014 (Number of Decisions: 2014/5768) [46] TOKI starts the expropriation process for Istanbul Airport project, the cities around it and Canal Istanbul project in the area of Yeniköy, Akpınar, Ağaçlı, Tayakadın ve İhsaniye. [47] (17.01.2014)

This decision attracts a lot of content from the local citizens and other opposing parties and due to a series of law suits, the 4th Istanbul Administrative Court gives the verdict, in court, to stop the project for its environmental impacts (21.01.2014) [48] However, this decision is never implemented and by this time, one could sense the public sector's support to the project, enabling the legal framework in order to avoid time delays.

On 7th May 2014, at one year after the bid, the foundation-laying ceremony was held for Istanbul Airport because it took time to realize the fillings of the mining area and

[44] https://www.sabah.com.tr/ekonomi/2013/10/17/iste-ucuncu-havalimani; https://nordicarch.com/project/istanbul-new-airport
[45]https://www.newsinenglish.no/2013/10/12/norwegian-firm-to-design-istanbuls-new-airport/
[46] http://www.resmigazete.gov.tr/eskiler/2014/01/20140117-6.htm
[47] http://www.radikal.com.tr/turkiye/cilgin-istimlak-1165738/
[48] http://www.radikal.com.tr/cevre/3-havalimani-insaati-durduruldu-1176139/

prepare the ground for construction.[49] In the same time, protests against the environmental impact of the project were held in Taksim.[50] Also, the plans: 1/100000 scale Environmental Plan Change, 1/5000 Scale Master Plan and 1/1000 Scale Implementation Plan are made public and in between the period: 17.06.2014-16.07.2014, when any citizen can make remarks and suggestions or contest the project.[51] Taking advantage of this period, Chambers of Architects and Urban Planners sue the project questioning its necessity, besides the environmental impact. [52] *(*16.10.2014)

On 5th April 2015, terminal construction starts at the new airport and now, the first plane is scheduled to land in the first quarter of 2018, a delay of 1 year from the first estimation.[53] At the same time, the ESIA process is completed and the Social Management Division started their work. (IGA website) The literature warns us about the early stages of decision-making process and planning, ESIA being a procedure that had to be done before any other procedure. This could be noted as the downsides of having a solely private entity manage the whole planning process. Still, an Environmental and Sustainability Department has been established, Bird Monitoring Surveys made, conservation studies begun in accordance with the

[49] https://www.sabah.com.tr/ekonomi/2014/06/07/3-havalimani-projesinde-ilk-adim; https://www.igairport.com/en/about-iga/timeline
[50] http://www.diken.com.tr/kuzey-ormanlari-icin-yuruyorlar-3uncu-havalimani-istanbulun-idam-fermanidir/
[51] http://istanbul.csb.gov.tr/imar-ve-planlama-subesinden-yeni-aski-plani-17.06.2014-duyuru-17687
[52] http://bianet.org/bianet/toplum/158538-3-havalimani-planlari-yargida?bia_source=facebook&utm_source=dlvr.it&utm_medium=facebook
[53] https://www.dailysabah.com/business/2015/07/05/terminal-construction-starts-at-3rd-airport

Biodiversity Action Plan (BAP) and many other actions in line with nowadays environmental concerns.[54]

Concerning the economic side, İGA signed a loan agreement worth €4.5 billion with Ziraat Bank, Halkbank, VakıfBank, DenizBank, Garanti Bank and Finansbank to finance the first phase of Istanbul Airport. [55] If the consortium can't pay the debt or doesn't reach the annual flight capacity and the profit numbers, the state guarantees to contribute to both, a decision taken also at the central government level. (19.10.2015)

Where is the intrusion of the state into the market going to take Turkey, on the way of accomplishing the 2023 vision? Examples from the past, as Eurasia tunnel, are just warnings. For that transport project, in the 1st year, the passing reached just to half of the estimations and the government paid for the rest of them, meaning citizens paid it with taxes. [56] Also, for the new airport, the first year of payment of the tender period is postponed[57], a decision taken at the central government level.

Istanbul Airport megaproject has completed its first phase on 29.10.2018: "The golden age of Turkish aviation industry is upon us": The city of Istanbul embraces Istanbul

[54] www.iga.com
[55] www.igairport.com;
https://www.dailysabah.com/business/2015/10/19/finance-agreements-signed-over-3rd-istanbul-airport-projects-first-leg;
https://www.dailysabah.com/business/2015/12/25/istanbuls-3rd-airport-receives-first-45b-euro-fund
[56] Interview with Kerem Arslanli, ITU, real estate expert and economic risk, urban planner; Esin Köymen, head of Chambers of Architects; Akif Burak Atlar, head of Chambers of Urban Planners
[57] Interview with Kerem Arslanli, ITU, real estate expert and economic risk, urban planner; Esin Köymen, head of Chambers of Architects; Akif Burak Atlar, head of Chambers of Urban Planners

Airport on 95th anniversary of the foundation of the Republic.[58]

The conclusions on the decision-making process are:

1. Decisions are taken at the highest government level, as the literature points out, it is a phenomenon of a controlled decentralization of the state's power;
2. A public project was privatized; its place of development changed; land nationalized and consequently privatized by the decision of central government;
3. IMM and the district municipalities where the project is being constructed are excluded from the decision-making process by central government;
4. Private interests are included in the decision-making process, through privatization of the land and the megaproject itself, therefore plans, design, the quality of construction is the decision of a private entity, for a project of national importance;
5. There is a defiance of planning regulations, the 2009 Istanbul General Masterplan and 2011 Istanbul Transportation Plan are accepted;
6. Planning regulations follow the new policies, new laws and development of megaprojects: first the projects are planned, the construction starts and then the 2009 Istanbul Environment Plan is changed accordingly;
7. The comprehensive analysis of the city is excluded from the decision-making process and planning process; as well are the screening and testing of alternatives and best solutions can be overlooked;
8. There is a lack of broadly- based rights of voice and no opportunity to challenge the decision-making in the planning process; no transparency and good

[58] www.igairport.com

quality information available during the planning process, just political statements through media;

9. All the previously mentioned arguments create strong opposition from civil society representatives, but mostly academia and planning experts engaged in advocacy planning;
10. A centralized, top-down political decision-making led to the absence of professional expertise during the decision process, which will have repercussions on the project outcomes on a local and city level;

INSTITUTIONAL AND LEGAL FRAMEWORK

To set a context in the legal framework of megaprojects in Istanbul, it is important to start with the fact that almost 75 lawsuits since 2007 to 2012 were initiated by Chambers and other NGOs, but with no result of interruptions of the construction work or cancelation of the megaprojects in Istanbul, just some wins in the court in their favor. In most situations, the decisions of stopping the project by local administrative courts were changed by higher courts[59]

Considering the construction of the Istanbul Airport megaproject we can name a few legal a previously made planning regulation violation like:

1. Bern Convention (The Bern Convention on the Conservation of European Wildlife and Natural Habitats, 1979, protecting the natural heritage of Europe), as the Istanbul Airport is built on the migration routes of birds (CED report; Arslangündoğdu, 2014);
2. 2009 Istanbul General Masterplan that proposed the construction of the new airport in another place, at Silivri (Annex no 3);
3. 2011 Istanbul Transport Plan (Annex no 4);
4. Property rights around the villages: While IGA was contracting and making the design plans, the Council of Ministries decides the urgent expropriation of the area which comprises the airport project. Following Article 27 of the Expropriation Law no. 2942 [60] TOKI starts the expropriation process for Istanbul Airport project,

[59] Interview with Esin Köymen, head of Chambers of Architects; Akif Burak Atlar, head of Chambers of Urban Planners

[60] this was decided by the Council of Ministers on 2nd January 2014 (Number of Decisions: 2014/5768)
http://www.resmigazete.gov.tr/eskiler/2014/01/20140117-6.htm

the cities around it and Canal Istanbul project around Yeniköy, Akpınar, Ağaçlı, Tayakadın ve İhsaniye.[61] (17.01.2014);

5. EIA report contestation: The first EIA report for the Istanbul Airport was prepared in 2013, by AK-TEL Engineering Co., on behalf of the Ministry of Transport, Maritime and Communications (MTMC). Although it received a positive decision from the Ministry of Environment and Urbanism (ENVIRON, 2015), after several lawsuits initiated by Chambers, the Istanbul's Fourth Administrative Court gives the verdict to stop the project for its environmental impacts (21.01.2014) [62] However, this decision is never implemented, but the report was revised and approved in a higher court. The report is 100 pages longer than the first one with no real content improvement. (CSB, 2014).

The land development plans (master plan and implementation plan) were approved by the Ministry of Environment and Urbanism on 5.06.2014[63], also applying the Law of Earthquake Risk because the area is a Reserved area. Being a reserved area is also the reason why the Ministry must approve the plans; moreover, other laws are made inapplicable. The plans were shared to the public for contestations in a 30 days' timeframe. As in the 1994, to make and approve plans concerning estates included in the privatization program, was transferred from local authorities to the Privatization Administration (OIB), the Ministry of Transport, Maritime and Communications could make its own masterplan for the Istanbul Airport

[61] http://www.radikal.com.tr/turkiye/cilgin-istimlak-1165738/
[62] http://www.radikal.com.tr/cevre/3-havalimani-insaati-durduruldu-1176139/
[63] https://istanbul.csb.gov.tr/imar-ve-planlama-subesinden-yeni-aski-plani-17.06.2014-duyuru-17687

while also privatizing the project in the formula of a PPP (BOT model). It was the DHMI (General Directorate of State Airports Authority of Turkey who awarded the Cengiz-MAPA-Limak-Kolin-Kalyon consortium for the tender of the project, all these before the approval of the development plans at the Ministry level. Shortly after the tender decision, IGA (Istanbul Grand Airport; each of the investors has an equal share of 20% and for its management) was founded on 7th October 2013 to construct and operate Istanbul Airport for a period of 25 years. It is still to be defined if IGA is a development agency or just a construction company.

Something new to the megaproject planning in Istanbul, is the Environment and Sustainability Directorate (ESD) formed under IGA manages the environmental, social, ecological impacts and sustainability aspects of Istanbul Airport during the construction and after. Three main actions plans are made, where a total of 26 people environmental engineers, biologists, sociologists, and forestry engineers' work: The Environmental Management and Monitoring Plan, The Social Action Plan, The Biodiversity Action Plan. Moreover, for the same purpose, five sub-units were formed: Environmental Management, Operations/ Sustainability, Ecological Management, Social Management.

İGA put together the 2016 Sustainability Report in light of the principles of GRI G4 Core. Corporate governance, environmental sustainability, business, and social management practices at international standards are collated to offer a powerful contribution to the development of the sustainability culture in Turkey. This is the role that IGA takes upon itself and markets it well internationally.

ACTORS AND THEIR RELATIONSHIPS

Defining actors on power and interest: Actors involved in the planning process are the ones with responsibilities and roles in the project and its planning process. These responsibilities give the actors certain powers in the planning process of the project. Also, they have different interests that influence the planning process; these interests were identified through the interviews conducted or secondary data, media. The actors selected as very important for the governance dynamics of the megaproject, are: Presidency (Central Government), Ministry of Transport, Maritime Affairs and Communications (Central Government) , The General Directorate of the State Airports Authority of Turkey (DHMI) (Central Government), State Housing Authority of Turkey (TOKI) (Central Government), Istanbul Grand Airport (IGA) (private company), Istanbul Metropolitan Planning (IMP) (private company linked to the local government) and they are presented in a decreasing order from the most powerful to the least powerful in the planning of the Istanbul Airport megaproject.

Central Government: On 3.05.2013, Ministry of Transport, Maritime Affairs and Communications, more precisely, one of its departments, DHMI realizes the bid for the Istanbul Airport construction, management and operation under the model of BOT (built operate and transfer) and awards the contract of 25 years tender period, with a bid worth €22.152 billion to the Cengiz-MAPA-Limak-Kolin-Kalyon consortium. [64]

Therefore, it is clear that the Istanbul Airport is a megaproject initiated by the central government and done in a top-down manner to planning, including privatization of

[64] Source: https://www.igairport.com/en/about-iga/timeline

public land. Local government, Istanbul Metropolitan Municipality was included in the process of planning the Istanbul Airport, more specifically it was assigned the role of including the airport in the design of the 2009 Master plan, done by IMP. As the proposal of Silivri the area for construction was not satisfying for the central government, it took the project upon itself and chose to do with the BOT model. Here we can notice the powerful hierarchical system in the planning of Istanbul, Turkey, the central government having the most power and interest over land at the local level. The initiation of the project was not the only decision made by the central government, but it was there for the whole process even after the privatization, IGA worked closely with DHMI also during the planning process, policies and laws were changed in favor to the construction of the project.

IGA: IGA is the private company and development agency founded by the Cengiz-MAPA-Limak-Kolin-Kalyon consortium having won the bid for the project. The consortium has undertaken eight airport construction projects so far. Still, it is the first time in the management of a megaproject in Istanbul, that such a company is created, so big and just for this purpose. A total of 186,000 people were employed. As part of the Stakeholder Engagement Plan, more than 100 Meetings Involving 46 Stakeholders were made. Unfortunately, the number is extremely low for the size of the development and looking closely at the stakeholder list and considering that the Sustainability Committee, established by Sustainability Organization İGA, is chaired by the Company's CEO Yusuf Akçayoğlu, it can be easily deduced that this process can be influenced. İGA Sustainability Committee is the decision-maker in the process of identifying the corporate sustainability priorities for the 2016 Sustainability Reporting process.

Considering the civic participation, if media would count, there is a lot of information available, especially on the website of IGA. Other than this, we are confronted with strong marketing, making the megaproject popular internationally. A Social Investment Program was launched in August 2016. Aim of these activities was to establish a bond with those living in the region or, in other words, the airport's neighbors, and to act as a bridge. Although IGA wants to appear as a management body or a development agency, it is still a private entity with its own power and interest in the planning process, where the decision-making process and power remains at its board. If one looks attentively into all the reports, order to two international companies, one could see the flaws from the planning process, also the stakeholder analysis is done with certain preferred groups of NGOs etc.

TOKI: TOKI (State Housing Authority of Turkey) is an important actor in the process of reconstruction of Turkey, having the right to privatize, nationalize and confiscate public land and built housing under the law of regeneration. In the case of the Istanbul Airport, it had the role to nationalize land in its area. However, as the owners of the land, from the villages in the area, knew about the project, requested more than the actual worth of the land having in mind also the future development. This lead both parts to court, the villagers wining. [65]Nonetheless, TOKI went along with the nationalization through a tool used quite often in the planning system of Turkey, the rapid nationalization of the land, of Ġmrahor, Tayakadın, Yeniköy, Ağaçlı, Akpınar ve Ġhsaniye villages. Being linked directly to the Ministry, TOKI has both power and interest in this project and cannot be stopped that easily. Laws and policies change and, in this case, the reinterpretation of law did the job. Usually, this

[65] 14 lawsuits won in the 3rd Instance Law Court in April 2014- see KOS Report; lawyer- Kemal Altın

kind of urgent nationalization is done in case of war, earthquake and other extreme situations and the property owners have 15 days to transfer the land.[66]

Nordic Office- international architects: Gudmund Stokke is the partner and manager of Nordic Office Architecture, an international company that won the design competition for the project. In his interview, he called the collaboration: *"a bit of a dream to land in this position."* [67] However, this dream is translated in a big interest, but with limited power, this being the conclusion of the research after interviews with the planners in Istanbul and secondary data reviews from media, interviews published with Stokke regarding the project. Choosing international involvement in the design process or even consultancy in the management of a megaproject is no news in the literature and not in Istanbul, considering that lately, this is a preferred way to gain legitimacy. [68] In which manner or if the experience of the North American or West European companies helps the project promoters not repeat past mistakes in megaproject planning, is a question worth evaluating. When Nordic Office and their partners were chosen for the development of plans or even Arup for the Masterplan design that includes also a city airport, it was already implementation phase, the project was already at the preparation of the ground phase, the fillings of the soil: the area was determined and the vision was clear. Gudmund Stokke declared that the construction of the airport is challenged by the destruction of forest areas and drinking water resources, a decision of planning they did not take part to. Also, the timetable was already drawn by the Turkish aviation

[66] http://www.radikal.com.tr/turkiye/cilgin-istimlak-1165738/
[67]https://www.newsinenglish.no/2013/10/12/norwegian-firm-to-design-istanbuls-new-airport/
[68] Interview with KOS representatives; Esin Köymen, head of Chambers of Architects; Akif Burak Atlar, head of Chambers of Urban Planners

authority and this was also a reason why the architects did not take part further into the process of retail design, the timeframe being too short to produce qualitative plans. Therefore, in the end, the international involvement unfolded in a client-servicee provider relationship and the only implications it had was at design level which only improves the quality of experience of the user of the airport and even in this case the final decision power is that of the client, IGA.

International involvement in megaprojects is mainly criticized in the literature because it ignores the local perspective, often creating the same "global urban forms". In this case, as concluded before, the internationals have no consultancy role or any power in the decision-making process, their contribution being just operational, designing exactly what was asked from the Ministry and IGA, but they give some international legitimization to the project. [69] In this way, international involvement becomes a tool used for megaproject planning in Istanbul.

IMP: Istanbul Metropolitan Planning (Bimtas S.A.) was a semi-private company and a research center for Istanbul Metropolitan Municipality. It has long-lasting collaborations with academia (400 academics collaborators), neighborhood associations and wide experience in planning in Istanbul, being also it is the company that made the last Master plan of Istanbul (2009) and many other important development projects. In 2009, with a comprehensive planning approach, the IMP office, consisting of 400 experts, academics and key municipal members collaborated to realize the Istanbul Environment Plan at the 1/100.000 scale and the Istanbul Airport development was also comprised, but at Silivri. However,

[69] Interviews with Yasar Adanali, political scientist and Basar Inne, political scientist, MAD

the proposal of IMP was not in line with the central government's vision and that option was disposed of.

IMP is presented as a relevant actor, although it has and had no power over decision-making, it also had no particular interest rather than that of the quality of life of citizen of Istanbul, this also because it was linked to the local municipality as an institution. Heavily criticized in its time, now, some academics and planning experts point to it as an example for the participatory and transparency dimension in the planning culture in Istanbul. It was not the best example, but it comprised expertise from academics and local municipality, something that is lacking now in megaprojects.

Actors in opposition in the specific case of Istanbul Airport megaproject, that have come forward and had their voice heard through conferences, media, protests or published reports, are: Chamber of Architects, KOS (Kuzey Ormanlar Savunmasi), Chamber of Urban Planners, Neighboring community. The most active and important ones that came forward during the interviews or because of their advocacy planning initiatives during the planning process of the Istanbul Airport, are further presented from a power and interest perspective, in a decreasing order from most powerful tot the least powerful, along with their role.

Chamber of Architects: Chamber of Architects is an import actor in the struggle against megaproject in Istanbul. According to the 6235 Act of Union of Chambers of Turkish Engineers and Architects, the Chamber has the right to sue development projects which are not benefiting the rights of the society. The Chambers has gone to court against many megaprojects. (Geambazu, 2014) In the interviews made with the head, architect Esin Köymen and the chief secretary, architect Mucella Yapici, the main reasons for opposition are: the destruction of the natural habitat of

Istanbul, the planning process which is not transparent and participatory, the passing-by of the 2009 Masterplan and solely concern of profit, that will lead to poor quality of life for the citizens of Istanbul.[70] Köymen points to the biggest problem of the government and megaproject promoters as being the selling of all public land by privatizing it and not respecting the previous plans made by the municipality and visions of urban planners, not valuing their professional expertise and knowledge. This is an interesting position of advocacy planning adopted by the Chambers of Architects in Istanbul in comparison with chambers in other parts of the world, where the professionals promote the development and encourage the construction of many projects.

[70] Interview with Mucella Yapici, secretary of Chamber of Architects; Esin Koymen, head of Chamber of Architects

Actor	Institutional framework	Role	Power	Interest
Presidency	central government	initiator	*over land, planning process, decision-making, outcome*	*legacy, economic, Istanbul aviation hub, 2023 Vision*
Ministry of Transport, Maritie Affairs& Communic.	central government	initiator	*over how (BOT model) and where (land)*	*Istanbul aviation hub, 2023 Vision*
DHMI	central government	owner, contractor of IGA, monitor	*over planning process and quality of the outcomes*	*Istanbul aviation hub, 2023 Vision*
Ministry of Environent, Urbaniz.	central government	regulations for EIA	*owned the land*	*development, urbanization*
TOKI	central government	nationalization and privatization of the land	*over land*	*Development, economic*
IGA	private entity	construction company; 25-year tender	*planning process, design, mitigating the impacts, construction, operation*	*economic*
IMM	local government	consultative	*influence decision making, impacts at municipality level*	*development and citizen's welfare*
IMP	semi-private, linked to IMM	design and plan	*planning process and design at the beginning*	*sustainable development*
International architects	private entity	design	*over the quality of design*	*profit, international recognition*

Chambers of architects, urban planners	NGO	opposing the project on grounds of environmental threat, non-transparent planning process	*challenge in court, informs citizens, mobilizes social groups, write reports*	*cancelation of the project*
KOS	NGO	opposing the project on the grounds of environmental impact and protection of the North Forest	*informs citizens about the planning process, mobilizes social groups, reach to the villages around*	*cancelation of the project in the North part of the city*
Neighboring community, from villages	community	opposing the project on economic grounds of not receiving enough money for their property or on personal grounds of not wanting to leave	*no power*	*economic, keep living there*

| Table 8
Actors by power and interest (Istanbul Airport megaproject)
Source: author

Chamber of Architects: Chamber of Architects is an import actor in the struggle against megaproject in Istanbul. According to the 6235 Act of Union of Chambers of Turkish Engineers and Architects, the Chamber has the right to sue development projects which are not benefiting the rights of the society. The Chambers has gone to court against many megaprojects. (Geambazu, 2014) In the interviews made with the head, architect Esin Köymen and the chief secretary, architect Mucella Yapici, the main reasons for opposition are: the destruction of the natural habitat of Istanbul, the planning process which is not transparent and participatory, the passing-by of the 2009 Masterplan and solely concern of profit, that will lead to poor quality of life for the citizens of Istanbul.[71] Köymen points to the biggest problem of the government and megaproject promoters as being the selling of all public land by privatizing it and not respecting the previous plans made by the municipality and visions of urban planners, not valuing their professional expertise and knowledge. This is an interesting position of advocacy planning adopted by the Chambers of Architects in Istanbul in comparison with chambers in other parts of the world, where the professionals promote the development and encourage the construction of many projects.

Although the Chamber of Architects is militating for the interests of Istanbulities and sustainable development, it is still a centralized institution that evaluates projects from its expert perspective, has a focus on the concern of solely environmental dimension and there was no evaluation on the architectural features of the airport. The Chamber is also criticized as being against all development projects and not seeking solutions, conflicting with the government, outcome of many lawsuits against this kind of project.

[71] Interview with Mucella Yapici, secretary of Chamber of Architects; Esin Koymen, head of Chamber of Architects

Another attribute of the Chamber is that of helping the other actors in opposition, the urban social movements that appear against the projects providing them space to meet, expertize in the legal framework and other knowledge-based privileges. Chambers of Architects appears to stand for more participatory and inclusive processes in planning, but regarding the planning process of the Istanbul Airport, the discourse tends to focus on the cancelation of the projects and the environmental danger, but not militating for inclusion, transparency, or alternatives to the project. Critiques of the Chambers say its activity has diminished in being against all projects initiated by the government and not documenting also other examples, at a smaller scale and being biased. [72]

Academia: Academia, represented by the Schools of Planning, is seen as a stranger to the struggle of the Istanbul Airport by many NGOs and Chambers, as it was underlined in the interviews. This also explained by the power relations in the hierarchical system of the state for public universities. There have been cases in which professors were let go because of their participation in protests. However, the impact of academia can be enormous as it is the common ground for researchers, planning experts that have an important role as consultants in planning boards, planners working for or with the government, for or with NGOs and planners in the private sector. Considering the Istanbul Airport, academics, more specifically 400 invited from different universities, had a big role in its planning and designated its location at Silivri, during the design of the 2009 Masterplan of Istanbul under the umbrella of IMP. Also then, the north was proposed, but they did not agree with this suggestion and kept it out of the plan. Considering the new location of the airport, academia was the first to

[72] Interview with Kerem Arslanli, ITU, real estate expert and economic risk.

react in 2013, exactly after the declaration of the area and before the bid of the airport. Two reports were made by TEPAV (The Economic Policy Research Foundation of Turkey) and BETAM (Bahcesehir University Center for Economic and Social Research).

The academia has no defined power, but much interest in the planning process and warns about: the major environmental impacts; the eagerness of the government to go along with the project in any circumstance, fabricating the EIA report accordingly; the blindness of the public realm and media to the burning impacts of the projects because of the non-transparent planning process and the lack of information.

KOS (Kuzey Ormanlar Savunmasi/ The North Forest Defense): KOS is the main movement against the Istanbul Airport construction, more precisely against its construction in the north part of the city. The non-governmental organization was formed during the construction of the 3rd bridge and after Gezi and tries to fight against any development in the north part of the city, militating for the protection and conservation of the forest area. Onur Akgul and Nuray Çolak, KOS representatives, very active in the planning process of the Istanbul Airport and other developments in the north of Istanbul, suggest that none of these projects can be analyzed independently and there is a system of megaprojects, planned together to represent the new global imagine of Istanbul. [73]

A comprehensive report is written by KOS with the name: *Istanbul Airport Project against Life, Nature, Environmental, Humans, and Law* and it covers and warns about all ecological, economic and legal aspects of the project.KOS's role is to explain the importance of the eco-

[73] Interview with KOS representatives

system in the north for the sustainable development of the city by talking with citizens, organizing debates and conferences, protests and also creating relationships between villages close to the construction area to form movements, oppose together in court and form community associations to defend their rights.

Chamber of Urban Planners, not much different in its position than the Chamber of Architects takes upon itself the same role of advocacy planning considering megaprojects. Both institutions are formalized ones, centralized and work on the expenses of members and depend on them, regardless of much they would militate for bottom-up planning and good governance, they represent specific interests of professionals. This is why also both Chambers are exposed to the critique of not focusing enough on their role and engaging in protests and other activities against the megaprojects and government.

All chambers and NGOs and social movements seem to have formed a uniform coalition in vision. Talking to the head of Chamber of Urban Planners, Akif Burak, we observe the same speech as the other actors engaging in opposition, still his main concern as planner is more on the rapid urbanization of Istanbul and the carelessness use of resources: space, investment, human, etc.

Neighboring community: In the area of the construction of the airport, there are 4 villages: Yenikoy, Tayakadin, Ağacli and Akpinar. Their whole life comprises of that area, including food, water and other resources. It seems like a small price to pay, but considering that also Istanbul benefits from that fresh food and uses those waters, the situation cannot be ignored. Regardless of their position, they have not done much, there is still a fear amongst citizens to protest, as we are faced with a strong government and a specific imperialist culture. They did not receive a

satisfying value and an urgent law of nationalization took their land; The Istanbul Bar went to court for Ağacli village with no success. [74]

It is not known if the opposition is not strong enough to influence decision-making process or the planning culture in Istanbul has still much to learn in terms of democracy and citizens mobilize only on political grounds, social movements regarding to planning being corrupted by the discontent of the population with the ruling party and help of planners practicing advocacy planning. Nothing is yet completely bottom-up also in this area, but certain is the top-down manner to planning exercised by the central government, its interest in local scale, intrusion, and power over the local government.

Relationships of the actors: The relationships were established as an outcome of the interviews conducted by the researcher, secondary data, media, and participatory observation. (Geambazu, 2014) on three main categories:

1. Collaboration within the project or contractual agreements;
2. Subordination: a hierarchical relationship based on territorial responsibility for public sector or contractor- service provider for the private sector;
3. Conflict: the collision of interests stated in public through media, a conference, a report or in court by legal means.

When mapping the relationships of the actors involved in the governance of the Istanbul Airport planning process, two main clusters come forward: a cluster of Chamber of Architects, representing the actors opposing the project and cluster of IGA, representing the actors involved in the

[74] KOS Report (2014)

planning process. This is a clear picture of power relations including hierarchical vertical relationships by territorial responsibility of different governmental bodies or marked base relationships by contractual agreements.

IGA seems to be the most powerful actor, however, if one would read also into the power relations of planning culture in Istanbul, would know about the strong influence of project promoters: the presidency and Ministry of Transport, Maritime Affairs and Communications as the initiators of the megaproject. Still, it is not to ignore that IGA has power over almost all the aspects of the planning process, construction, design, and quality of the outcomes. Moreover, they have the decision-making power to contract, assign any externals to the project. The decisions about the design, construction, environmental and social impacts are all coordinated by IGA. DHMI is also an important actor, being the one who owns the project and that will coordinate it after the 25 years of tender. It is through DHMI, a department of Ministry of Transport, Maritime Affairs and Communications that the project is monitored.

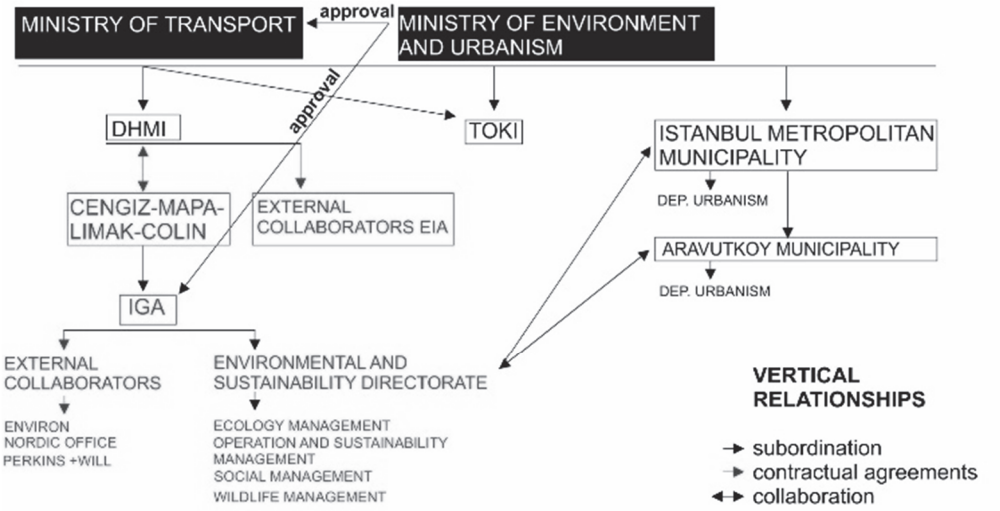
The cluster where the representative is the Chamber of Architects, also the one in opposition with the project promoters, but includes Istanbul Metropolitan Municipality.

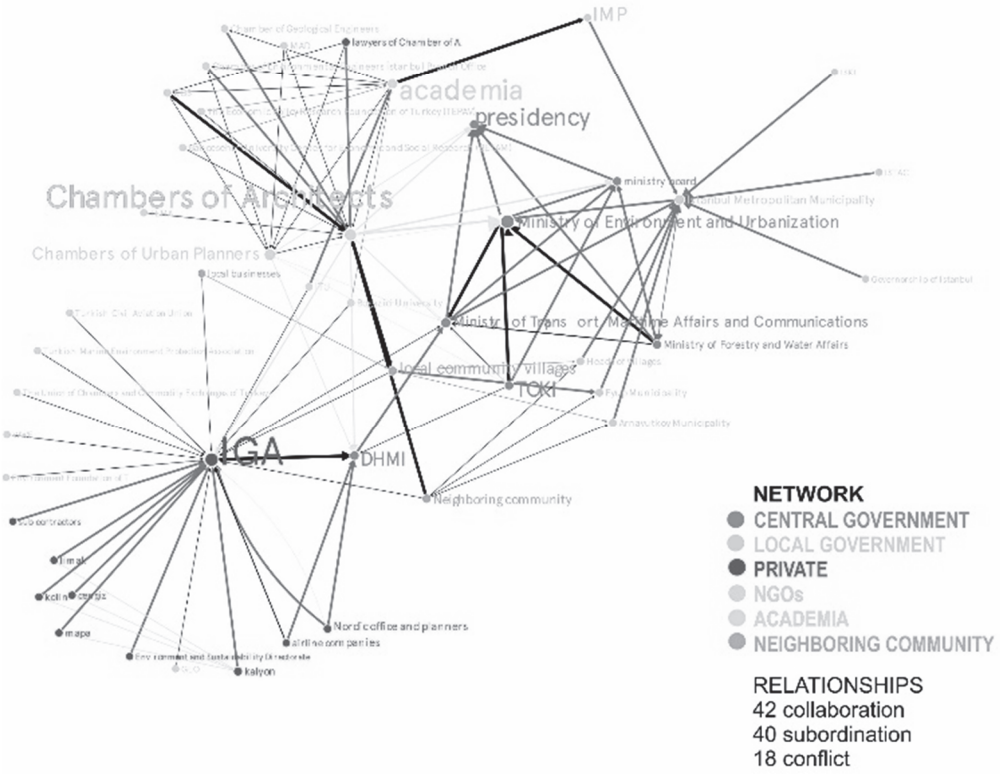
If one would not take into consideration the conflictual relationships, then the picture would be slightly different with 3 main cluster: Chambers of Architecture, IGA, Central Government and very close to it, the cluster of Istanbul Metropolitan Municipality in subordination to the Central Government, but in close collaborative relationship with the local municipalities on-site, the villages and neighboring community, which might be something closer to an ideal situation.

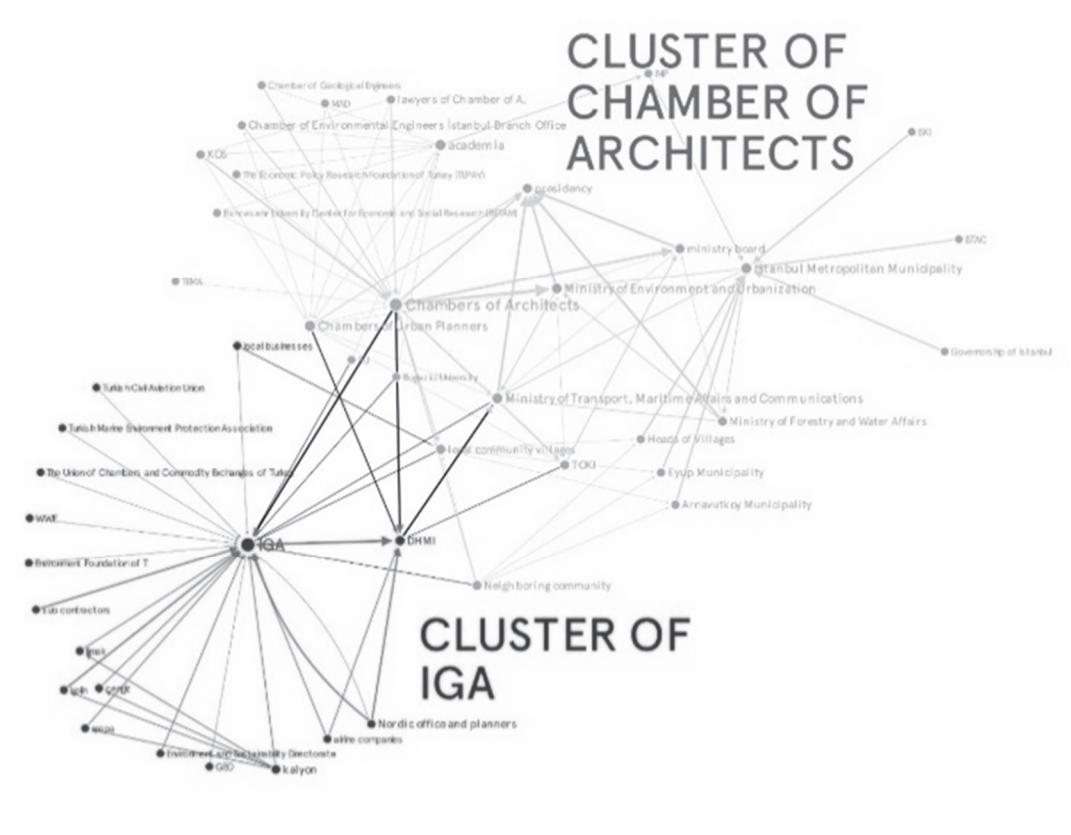
If there would be just the collaborative networks mapped, the break is clear between the two groups involved in the project and against it. Istanbul Metropolitan Municipality disappears from the graph and many other local actors. The only relation between the two groups is through the local community, being divided into the ones that seek the economic gain from the project and the ones against it, being unsatisfied with that they are offered for their land and this may be acknowledged as no connection at all. Enlarging the scope of the exercise, it can be noted that the only connection between the government, the project initiator and the local community is through IGA, the private entity leading the project.

When the actors from the opposition and ones involved in the planning process are considered for their relationship, there is a long-lasting conflict between them which resulted from the interviews conducted with representatives of both sides, thus making also harder for the two groups to come together. The two actors are: Central Government and Chambers of Architects. It is noted that the current government took the authority of the Chamber in 2013, of any city-planning procedures and remove the obligation of the Chamber's approval to the projects, leaving all decisions to the Ministry of Environment and Urbanization. [75]

[75] http://www.hurriyetdailynews.com/ruling-akp-approves-midnight-bill-to-curb-authority-of-chambers-supporting-gezi--50393


MINISTRY OF TRANSPORT
approval
MINISTRY OF ENVIRONMENT AND URBANISM
approval
DHMI
TOKI
ISTANBUL METROPOLITAN MUNICIPALITY
DEP. URBANISM
CENGIZ-MAPA-LIMAK-COLIN
EXTERNAL COLLABORATORS EIA
ARAVUTKOY MUNICIPALITY
DEP. URBANISM
IGA
EXTERNAL COLLABORATORS
ENVIRONMENTAL AND SUSTAINABILITY DIRECTORATE
ENVIRON
NORDIC OFFICE
PERKINS +WILL
ECOLOGY MANAGEMENT
OPERATION AND SUSTAINABILITY MANAGEMENT
SOCIAL MANAGEMENT
WILDLIFE MANAGEMENT
VERTICAL RELATIONSHIPS
subordination
contractual agreements
collaboration


IMP
academia
presidency
Chambers of Architects
Chambers of Urban Planners
ministry board
Ministry of Environment and Urbanization
Ministry of Trans ort Maritime Affairs and Communications
Ministry of Forestry and Water Affairs
local community villages
TOKI
IGA
DHMI
Neighboring community
Nord office and planners
NETWORK
CENTRAL GOVERNMENT
LOCAL GOVERNMENT
PRIVATE
NGOs
ACADEMIA
NEIGHBORING COMMUNITY
RELATIONSHIPS
42 collaboration
40 subordination
18 conflict



| **Fig. 22**
Mapping of the actors and their relationships
Source: author, graph done in Graph commons app.
| **Fig. 23**
Clusters of most influential actors in the planning process
Source: author, graph done in Graph commons app

Having analyzed the actors involved in the planning process of Istanbul Airport megaproject by their power and interest, and their approach to planning, the most influential actors on project outcomes are IGA and the Chamber of Architects, which are in a conflictual relationship. There is proof of an entrepreneurial position of the government, as private interests are included in the planning process under the form of a public-private partnership. The approach to planning remains in a top-down governmental manner: main decisions over the place, form and vision are decided by the central government before the private investor joined the project, plans and laws are changed by the central government to realize the project. However, IGA's role must not be undermined as it has power over: planning process and quality of the design, mitigating the impacts, construction, and operation.

The new actors engaging in resistance have no power in decision making over the project, but they have an influence on the planning process due to their actions. Opposing groups have different interests that bring them together, being it the protection of the specific northern forest area, stated by KOS, to economic reason, considering neighborhood community or sustainable development as promoted by chambers. The collaborative networks and their innovative ways of decision-taking make them strong actors that must be considered. These collaborations can challenge or conceivably stop the project, like in the case of the win in court regarding the EIA report. Opposition can be seen as an opportunity in increasing democracy, challenging the project by creating debate and trying to reach a broader public, being always in contact with the media. Still, active actors in resistance have also hierarchical governance structures: Chamber of Architects- is a centralized institution, as well as other Chambers, political parties and others, this raising questions regarding the good governance concepts promoted or whether they

can represent the interest of all citizens of Istanbul. They cannot, their demands in the project cannot be taken as indicator for the needs of all citizens of Istanbul, as they mostly want the stop of the projects, rather they can be used as an indicator to the need of change in the planning process towards more transparent and inclusive one and can be used to improve the project.

| **Fig. 24**
Stakeholder analysis
Source: author

Stakeholder analysis of power and interest:

A stakeholder analysis is developed as an outcome to the questionnaires and interviews realized with planners from different institutions involved or influencing the planning process of the Istanbul Airport or academia based on their expertise in the field like: transport, management, planning, sociology, etc. The method was taken from the study Governance and Multi-Stakeholder Processes by Nancy Vallejo and Pierre Hauselmann (2004)- a product of the Sustainable Commodity Initiative, a joint venture of the United Nations Conference on Trade and Development and IISD.

The purpose is to find the most interested and most powerful actors in the planning process to give recommendations and have a clear picture of whom to include or not. Moreover, the methodology is tested with the planners in Istanbul to asses if the initial stakeholder analysis is close to the truth, this one has the advantage as being a construction of the local planners with a much better understanding of the context and with expertise in the planning scene of Istanbul. However, this stakeholder analysis is only perceptional and based on exactly who is included in the sample, but done with the right participants can inform substantially the planning process of a megaproject. The questionnaires conducted had the purpose to identify the interest and power of certain actors involved or opposing the studied megaproject. This exercise provides the researcher with the perception of who should be included in the planning process by placing the actors according to their *power*- ability to influence the project or *interest*- the influence of the project on the actor.

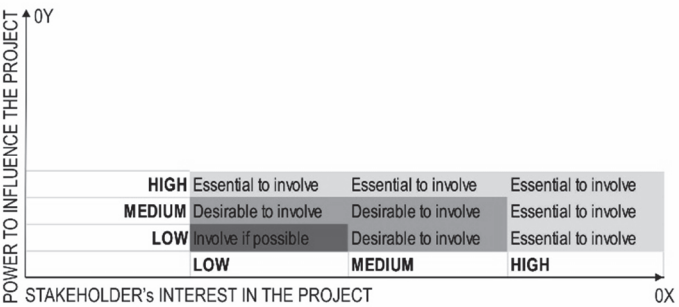
In the matrix below are recommendations according to the methodology.

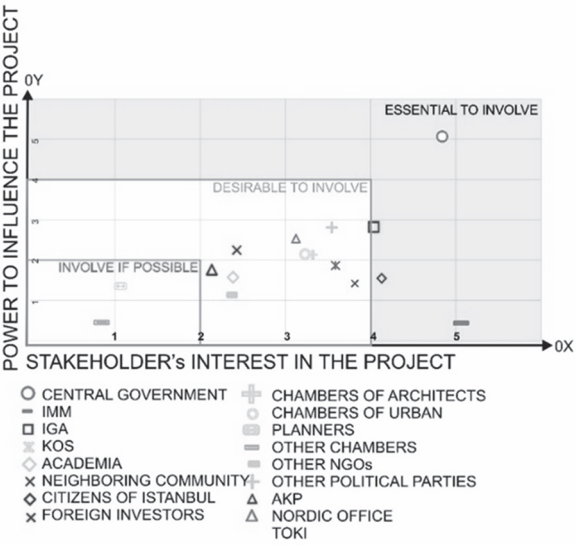
The participants were requested to rate the actors in terms of their power and their interest with marks from "1 to 5". Grading systems from "1 to 5" was chosen because it is the same as in schools in Turkey.

Power (OY axis) was defined as: actors having the power over decision-making and decision-taking over the project, planning process and outcomes, influence on the project through financial means or having particular knowledge about it. **Interest (OX axis)** was defined as: actors that are affected by the project outcomes or that have a gain in the project

The total number of respondents was divided into representative groups: the government, non-governmental organizations, academia, private sector, urban social movements, and other planning experts. For an equal view for the final result, the same share was given to each group regardless of the number of respondents in every group.

The actors with high interest are Istanbul Metropolitan Municipality, Central Government, IGA, and citizens of Istanbul. The actors with high power are: Central Government and IGA. However, the only actor with both high interest and high power is the Central Government which certifies the top-down heavy-handed governmental approach to planning.





| **Fig. 25**
First: 26Directions to involve actors in Stakeholder Analysis by power and interest;
Source: Adapted by author after Governance and Multi-stakeholder Processes (Vallejo and Hauselmann, 2004, p.4)
Second: Stakeholder analysison power and interest
Source: author based on the results from the questionnaires

The results of this stakeholder analysis bring a clear image of the perception of the ones involved in the planning process, but also the ones in resistance and that is, the need to include the citizens of Istanbul in the planning process and the Istanbul Metropolitan Municipality and give more power to IGA. Although a private entity, it is still the management body of the megaproject with planning experts on board. This matrix certifies the previous stakeholder analysis done by the researcher and reveals the opinion of the actors involved in planning processes in the context of Istanbul. By this matrix the further recommendations are clear:

1. The actors that must be involved and are not: IMM, citizens of Istanbul;
2. The actors that should be involved and are not: Chamber of Architects, Chamber of Urban Planners, KOS, other political parties and finally, more involvement of the neighboring community and especially of academia.

MAPPING DISCOURSE COALITIONS IN ISTANBUL AIRPORT MEGAPROJECT

The importance of discourse analysis in the planning process of megaprojects is demonstrated in previous chapters of the study. However, even though many scholars have written extensively about the methodology of analyzing discourse in the planning process and its significance in planning theory and policy, there is little evidence to been used to produce progress (Kumar and Pallathucheril, 2004). The outcomes of applying it to the particular case study of this research, Istanbul Airport, aim to improve policy planning in the future in Istanbul and beyond.

The most significant of the fallacies identified in the case of the planning process of the megaproject will be exemplified. It is important to mention that these are just fragments of the essence of the claim within the discourse of an actor and the whole statements can be found in the media archive of this study and a caption of the table discourse in the Annex.

For the scope of enlarging the findings on the methodological aspects of discourse analysis, after applying the methodology to the case study, it is concluded that for the planning process of megaprojects, only 4 out of 5 fallacies, discovered in the literature review, can be analyzed. Furthermore, each one is defined in line with the urban planning profession.

The fallacies found in the discourse analysis of the Istanbul Airport megaproject result from:

1. missing grounds: evaluative or definitive;
2. irrelevant grounds: advocative or definitive;
3. defective grounds: designative or evaluative;
4. unwarranted assumptions: evaluative.

Fallacies resulted from missing grounds are the pseudo-arguments or the claims that have no scientific evidence in numbers and brought forward because of some involving planning structures like: environmental aspects, economic aspects, social aspects; these are also the most present in the discourse of the Istanbul Airport megaproject. An example of fallacies resulted on missing grounds in the Istanbul Airport megaproject case study is "*2 airports don't cover the flight load Istanbul is receiving*". This is an evaluative supportive claim, given in the favor of the construction of the Istanbul Airport, a new airport. However, a new airport is not solely a solution for the increasing number of travelers. In the 2009 Masterplan it was proposed first an extension of the Ataturk Airport and then a new one in Silivri. Another one is "*environmentally friendly development*" is an evaluative rebuttal argument. Leaving aside that if anyone would investigate the literature review, almost any megaproject has an environmental impact by default, in this case, when 70% of the area is forest area, also around the site is forest area and especially the protected natural areas of the city, as stated in the 2009 Masterplan, it is hard to back up such an argument. Looking closely into the EIA and other reports, this claim becomes faulty.

Fallacies resulted from irrelevant grounds, that occur mostly when the arguments lead to a wrong course of action or erroneous planning and the evidence for them is not directly relevant to the planning decision. According to the literature review, they are divided into 7 components, but just 2 were found in our case: appeal to authority and appeal to people. Analyzing them and adapting them to a planning process of a megaproject, the following are proposed:

1. Appeal to authority: in the case of decisions taken by the actors with the most power in the governance process, and this does not include just the hierarchical institutional framework, but also the power relations

from an economic, social, political point of view; also, it includes threats and appeal to force;
2. Appeal against an actor from the governance arena: in the case in which planning decisions are influenced by institutional framework or other unresolved previous problems due to past experiences in other projects; an actor can be an individual, company, institution, etc.
3. Appeal to faulty generalization of knowledge: in this case, the arguments are based on previous case studies or general knowledge accepted by the urban planning realm or popularity.

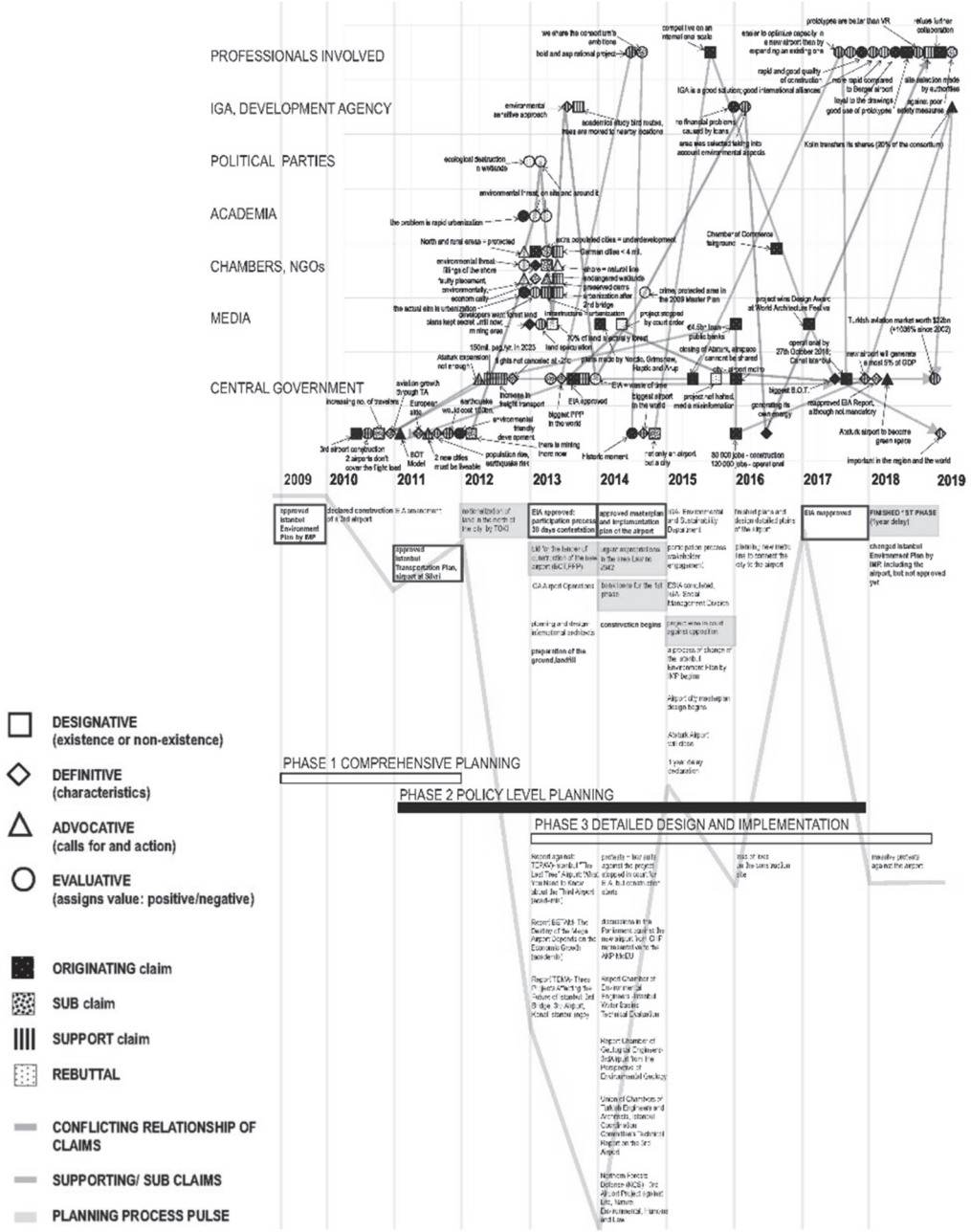
An example of a fallacy resulted from irrelevant grounds in the Istanbul Airport megaproject case study is the "*use of the BOT model*"- an advocative rebuttal claim, this declaration was made by Presidency and it is the main public-private partnership model used for the megaprojects in Istanbul. However, experience of megaproject planning in Istanbul[76]shows that applied it does not have the expected positive outcomes. The justification of using this model is not grounded on the experience at the local level, but rather from its popularity internationally. Moreover, the decision was made base on the authority the presidency has on this kind of megaprojects.

Fallacies resulted from defective grounds occur when there are insufficient claims to support the original claim when there is a hasty generalization without an extensive study of cases of data, when we base our argument on a rule that is valid in general, but fails to consider if the situation could be an exception. In our case study, the planning process of Istanbul Airport megaproject, a fallacy resulted from defective grounds is "*infrastructure equals urbanization*" a designative supportive claim, part of a declaration made by Chamber of Urban Planners and it is a valid one in most

cases, but it fails to foresee if this could be an exception. Market forces play a big role in this and there has to be the power of an investment. Moreover, policies and laws in a top-down manner work for the Istanbul planning context and this could be also the case, if managed carefully in the future. Professional planners should be able to present options and work in scenarios and find solutions for uncontrolled developments.

Fallacies that result from unwarranted assumptions involve an assumption that there is widespread consensus on a warrant, when there is not. When we confuse cause with temporal succession. An examplesof fallacy resulted from unwarranted assumptions in the Istanbul Airport megaproject case study is: "*the problem is urbanization*"- an evaluative rebuttal claims and a false analogy made by Chambers;

| **Fig. 27**
Discourse analysis and planning process/ planning phases followed by zoomed in crops
|**Fig. 28**
Discourse analysis and planning process/ planning phases and fallacies phases followed by zoomed in crops
Source: author


PROFESSIONALS INVOLVED
IGA, DEVELOPMENT AGENCY
POLITICAL PARTIES
ACADEMIA
CHAMBERS, NGOs
MEDIA
CENTRAL GOVERNMENT
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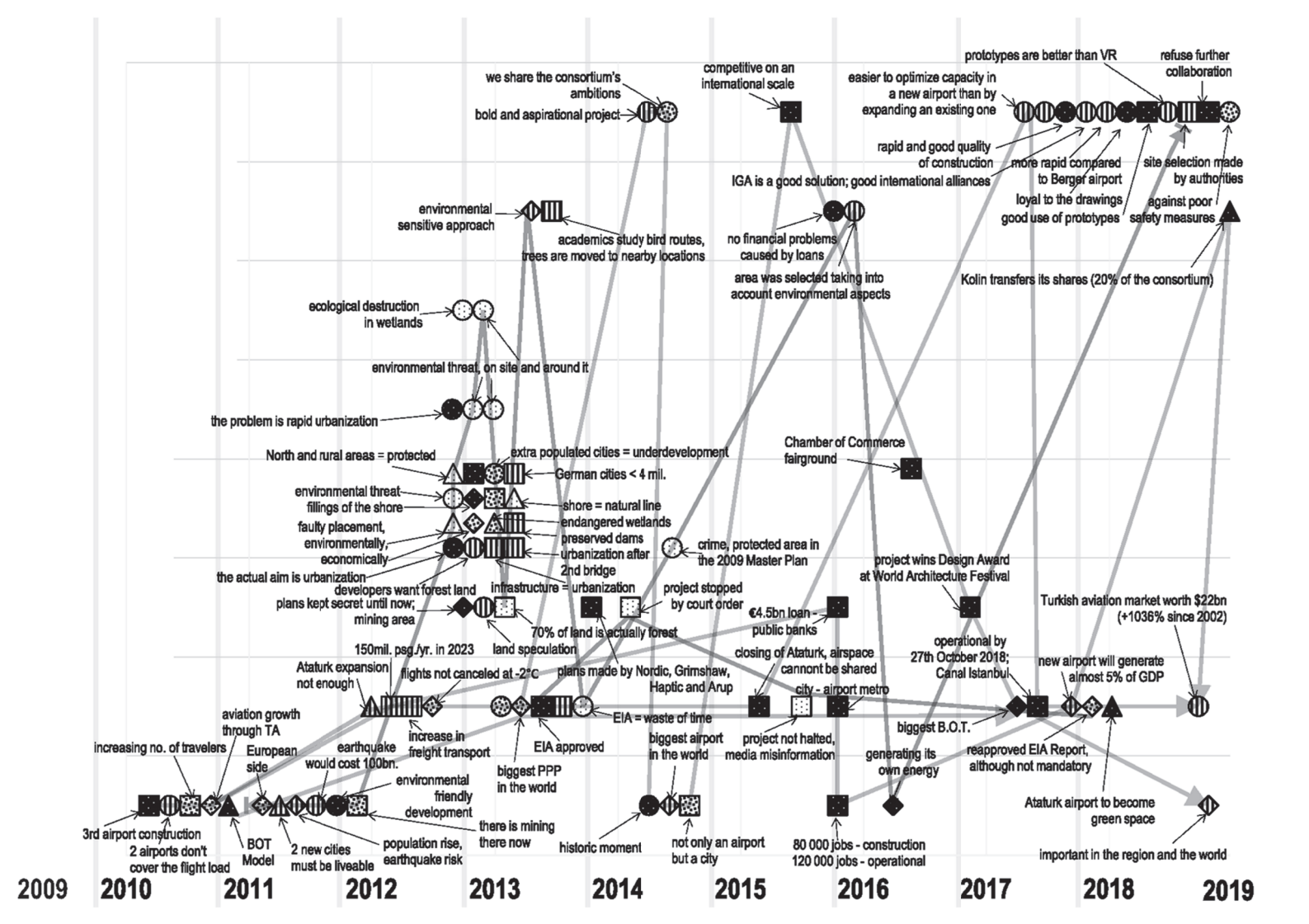
DESIGNATIVE (existence or non-existence)
DEFINITIVE (characteristics)
ADVOCATIVE (calls for and action)
EVALUATIVE (assigns value: positive/negative)
ORIGINATING claim
SUB claim
SUPPORT claim
REBUTTAL
CONFLICTING RELATIONSHIP OF CLAIMS
SUPPORTING/ SUB CLAIMS
PLANNING PROCESS PULSE
PHASE 1 COMPREHENSIVE PLANNING
PHASE 2 POLICY LEVEL PLANNING
PHASE 3 DETAILED DESIGN AND IMPLEMENTATION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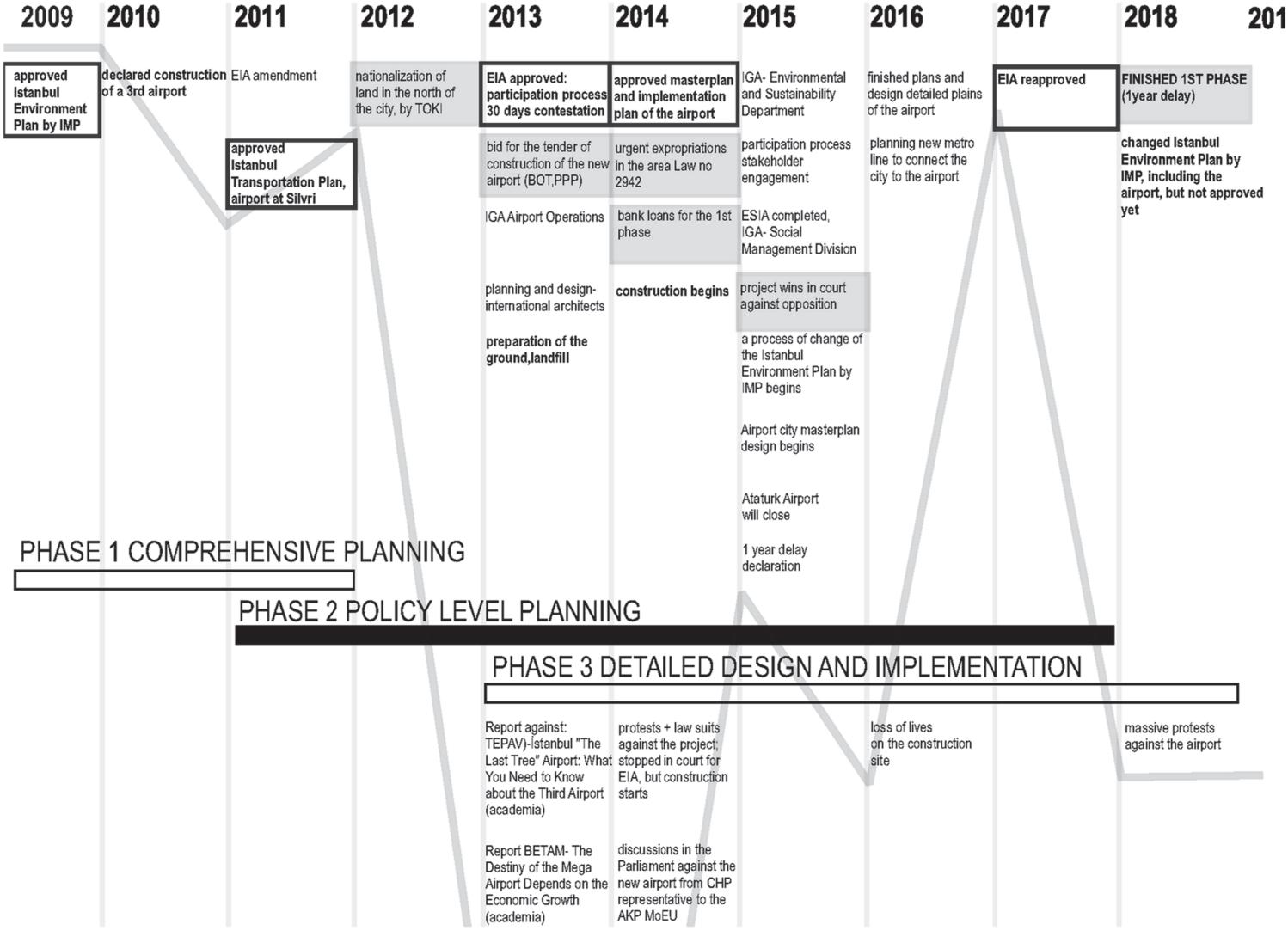
3rd airport construction
2 airports don't cover the flight load
BOT Model
2 new cities must be liveable
population rise, earthquake risk
there is mining there now
historic moment
not only an airport but a city
80 000 jobs - construction
120 000 jobs - operational
important in the region and the world
Ataturk airport to become green space
increasing no. of travelers
aviation growth through TA
European side
earthquake would cost 100bn.
environmental friendly development
increase in freight transport
biggest PPP in the world
EIA approved
biggest airport in the world
project not halted, media misinformation
generating its own energy
biggest B.O.T.
reapproved EIA Report, although not mandatory
Ataturk expansion not enough
flights not canceled at -2°C
150mil. psg./yr. in 2023
plans made by Nordic, Grimshaw, Haptic and Arup
EIA = waste of time
closing of Ataturk, airspace cannont be shared
city - airport metro
operational by 27th October 2018; Canal Istanbul
new airport will generate almost 5% of GDP
Turkish aviation market worth $22bn (+1036% since 2002)
project wins Design Award at World Architecture Festival
€4.5bn loan - public banks
project stopped by court order
70% of land is actually forest
land speculation
developers want forest land
plans kept secret until now; mining area
infrastructure = urbanization
the actual aim is urbanization
faulty placement, environmentally, economically
environmental threat fillings of the shore
shore = natural line
endangered wetlands
preserved dams
urbanization after 2nd bridge
crime, protected area in the 2009 Master Plan
North and rural areas = protected
extra populated cities = underdevelopment
German cities < 4 mil.
the problem is rapid urbanization
environmental threat, on site and around it
ecological destruction in wetlands
environmental sensitive approach
academics study bird routes, trees are moved to nearby locations
we share the consortium's ambitions
bold and aspirational project
competitive on an international scale
IGA is a good solution; good international alliances
no financial problems caused by loans
area was selected taking into account environmental aspects
Chamber of Commerce fairground
Kolin transfers its shares (20% of the consortium)
easier to optimize capacity in a new airport than by expanding an existing one
prototypes are better than VR
refuse further collaboration
rapid and good quality of construction
more rapid compared to Berger airport
loyal to the drawings
good use of prototypes
site selection made by authorities
against poor safety measures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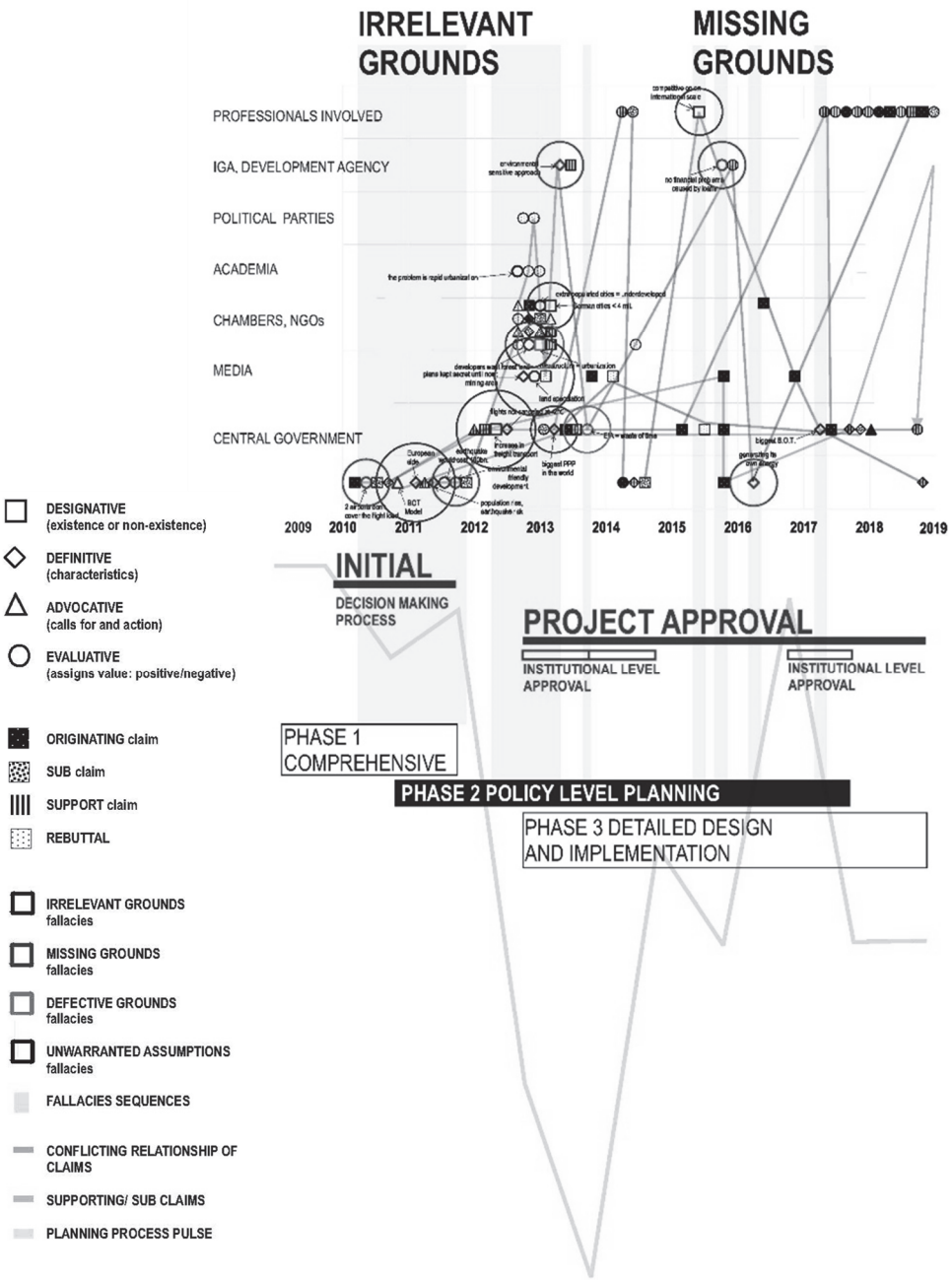
approved Istanbul Environment Plan by IMP
declared construction of a 3rd airport
EIA amendment
approved Istanbul Transportation Plan, airport at Silvri
nationalization of land in the north of the city, by TOKI
EIA approved: participation process 30 days contestation
approved masterplan and implementation plan of the airport
IGA- Environmental and Sustainability Department
finished plans and design detailed plains of the airport
EIA reapproved
FINISHED 1ST PHASE (1year delay)
changed Istanbul Environment Plan by IMP, including the airport, but not approved yet
bid for the tender of construction of the new airport (BOT,PPP)
urgent expropriations in the area Law no 2942
participation process stakeholder engagement
planning new metro line to connect the city to the airport
IGA Airport Operations
bank loans for the 1st phase
ESIA completed, IGA- Social Management Division
planning and design- international architects
construction begins
project wins in court against opposition
preparation of the ground,landfill
a process of change of the Istanbul Environment Plan by IMP begins
Airport city masterplan design begins
Ataturk Airport will close
1 year delay declaration
PHASE 1 COMPREHENSIVE PLANNING
PHASE 2 POLICY LEVEL PLANNING
PHASE 3 DETAILED DESIGN AND IMPLEMENTATION
Report against: TEPAV)-Istanbul "The Last Tree" Airport: What You Need to Know about the Third Airport (academia)
protests + law suits against the project; stopped in court for EIA, but construction starts
loss of lives on the construction site
massive protests against the airport
Report BETAM- The Destiny of the Mega Airport Depends on the Economic Growth (academia)
discussions in the Parliament against the new airport from CHP representative to the AKP MoEU


IRRELEVANT GROUNDS
MISSING GROUNDS
PROFESSIONALS INVOLVED
IGA, DEVELOPMENT AGENCY
POLITICAL PARTIES
ACADEMIA
CHAMBERS, NGOs
MEDIA
CENTRAL GOVERNMENT
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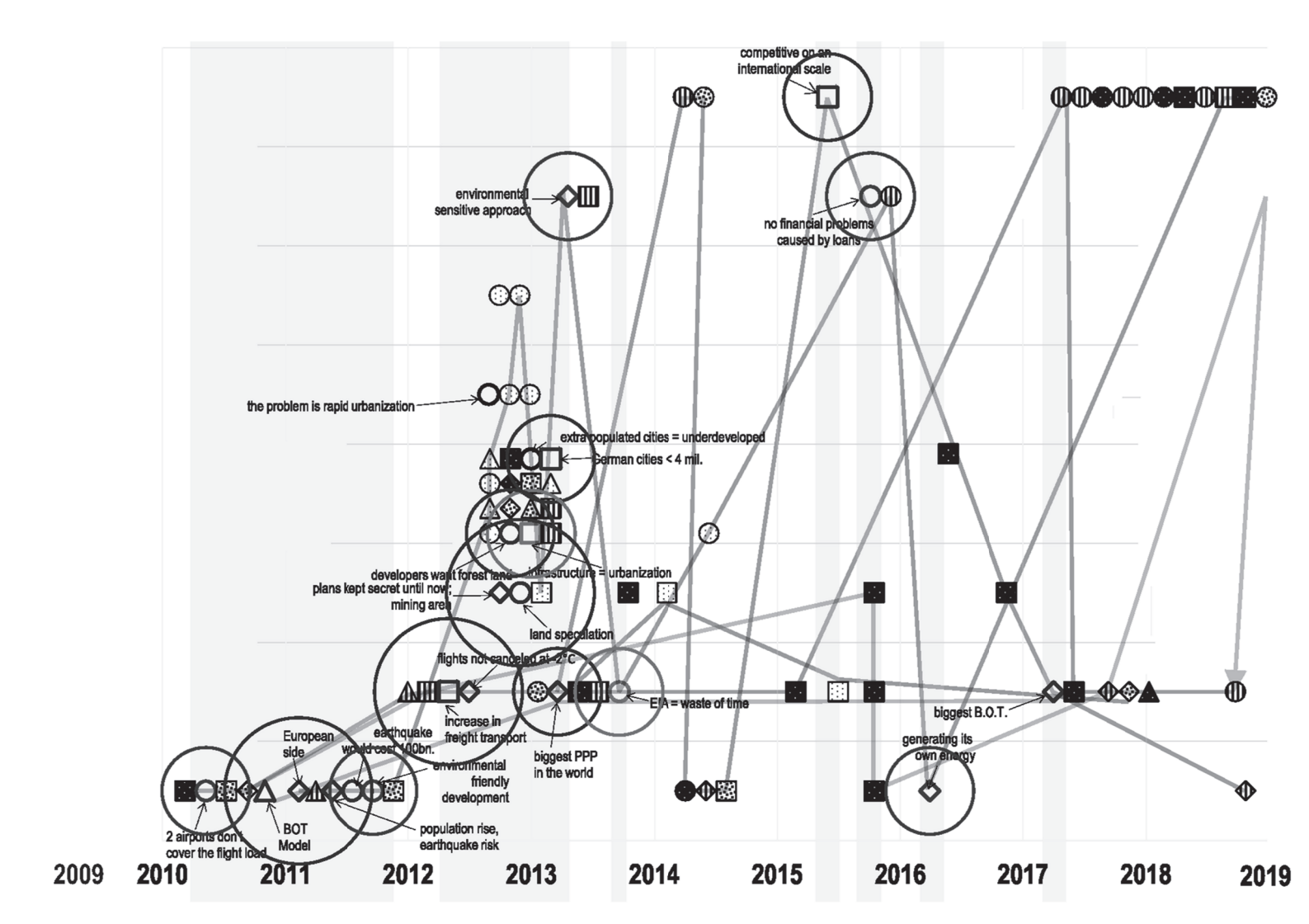
INITIAL
DECISION MAKING PROCESS
PROJECT APPROVAL
INSTITUTIONAL LEVEL APPROVAL
INSTITUTIONAL LEVEL APPROVAL
PHASE 1 COMPREHENSIVE
PHASE 2 POLICY LEVEL PLANNING
PHASE 3 DETAILED DESIGN AND IMPLEMENTATION
DESIGNATIVE (existence or non-existence)
DEFINITIVE (characteristics)
ADVOCATIVE (calls for and action)
EVALUATIVE (assigns value: positive/negative)
ORIGINATING claim
SUB claim
SUPPORT claim
REBUTTAL
IRRELEVANT GROUNDS fallacies
MISSING GROUNDS fallacies
DEFECTIVE GROUNDS fallacies
UNWARRANTED ASSUMPTIONS fallacies
FALLACIES SEQUENCES
CONFLICTING RELATIONSHIP OF CLAIMS
SUPPORTING/ SUB CLAIMS
PLANNING PROCESS PULSE


competitive on an international scale
environmental sensitive approach
no financial problems caused by loans
the problem is rapid urbanization
extra populated cities = underdeveloped
German cities < 4 mil.
developers want forest land - plans kept secret until now; mining area
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flights not canceled at -2°C
EIA = waste of time
biggest B.O.T.
increase in freight transport
biggest PPP in the world
European side
earthquake would cost 100bn.
environmental friendly development
generating its own energy
2 airports don't cover the flight load
BOT Model
population rise, earthquake risk
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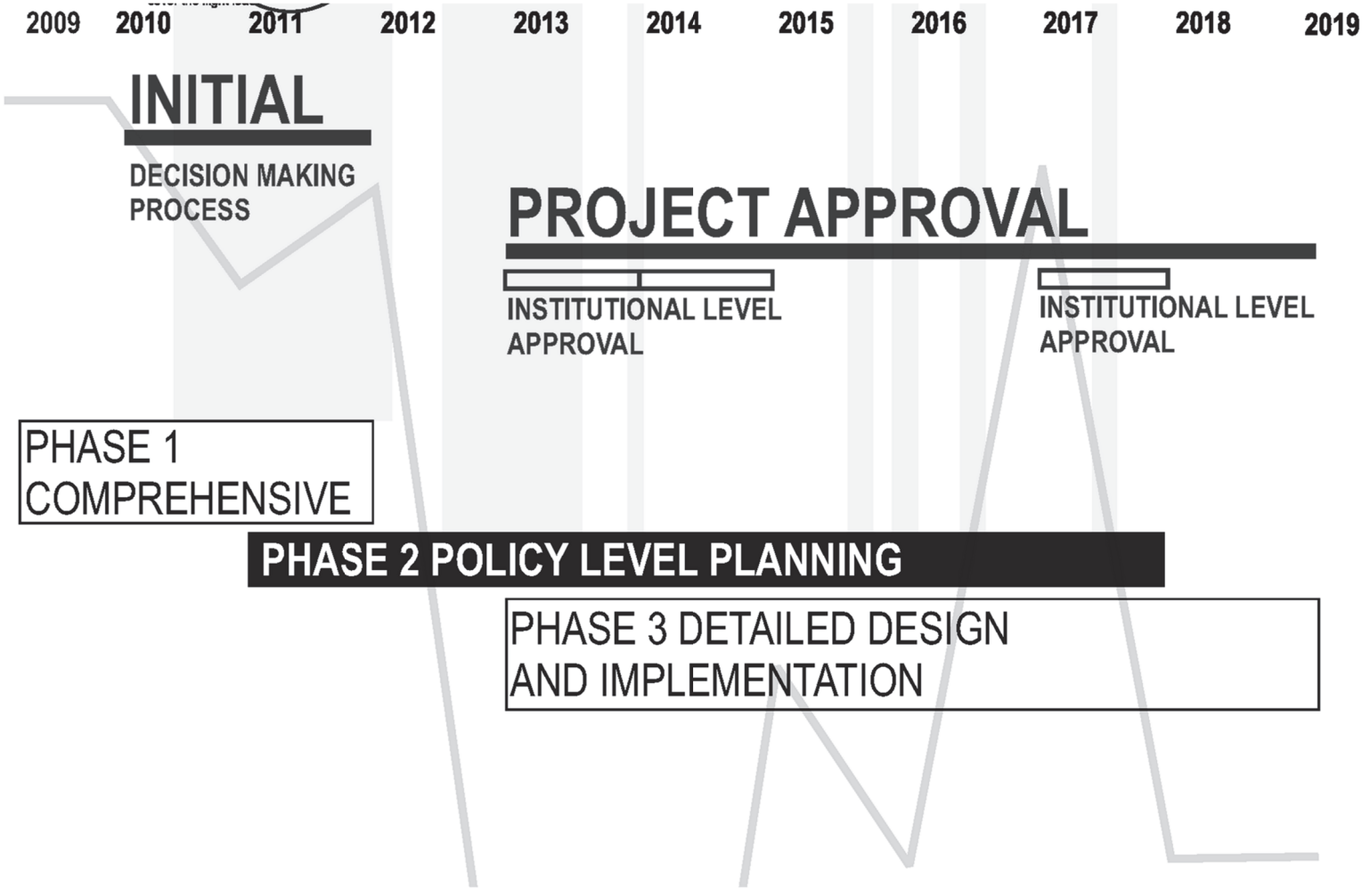
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INITIAL
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PROJECT APPROVAL
INSTITUTIONAL LEVEL APPROVAL
INSTITUTIONAL LEVEL APPROVAL
PHASE 1 COMPREHENSIVE
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PHASE 3 DETAILED DESIGN AND IMPLEMENTATION

After tracking all the fallacies and extracting them from the discourse, one can see clearly the discourse coalitions and one can identify easily a line of arguments made during the whole planning process by different actors on the same subject or decisions in planning. For example, considering the statement on the location chosen for the development of the new airport, which is the north part of the European side of the city, decision taken at the central government level (claim made in 2011), can be linked to the discourse of the Chambers, that is of being a faulty placement (claim made in 2012). Moreover, the Chambers argument is backed by the media and other NGOs revealing in 2013 that the area is comprised of 70% of forest area, claim that is in contradiction with the fact that EIA was approved.

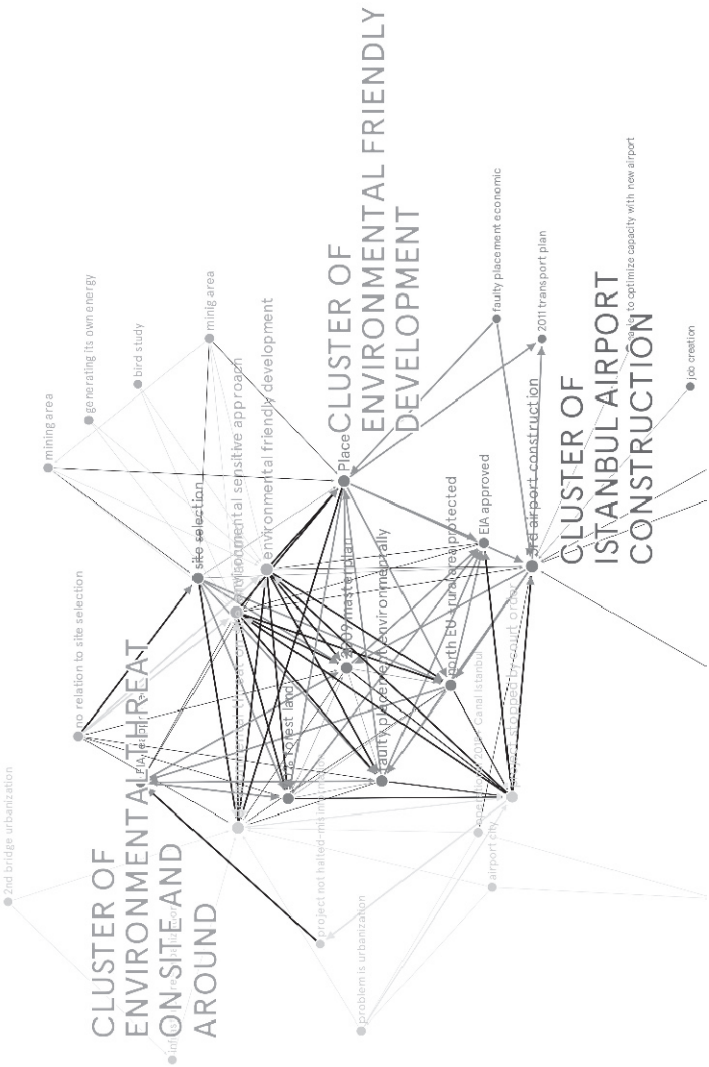
However, considering that the area was also protected in the 2009 Masterplan, the project is stopped in court by opposing parties like professional chambers, the government denies it. Still, this denial demonstrates inconsistency in arguments with another claim made in 2018, when the EIA was reapproved. These kinds of links can reveal the main claims of the discourse and the faulty decision-making process. Moreover, considering the location of this megaproject, the international architects employed to work on the plans, state that they were not involved in the decision-making process considering this aspect and they wouldn't have recommended it, fact that reinforce the conclusion that it was not the best location. Related to the discourse of the location of the airport, there are of course other discourses revealing collateral planning problems like the new metro-line linking the airport with the city. Regarding the discourse coalitions, the vision of constructing a new airport is the main one. This revealing how the policy-making is done, being an example of discourse institutionalization.[77]

[77] Hajer 1993, p. 48

When we consider the relations among the claims, we can identify three main characteristics of them, named in this research, as follows:

1. Conflicting (information that proves the falsehood of another or information that doesn't support another claim or disagrees with it);
2. Supporting (claims or sub-claims that reinforce the initial argument)
3. Secondary (new information relevant to the debate, but not essential, characteristics of the claim or just secondary information)

Taking the claims in an interactive form of actor-network methodology is the only way it could have been mapped considering the complexity of relations. Three main discourse clusters are revealed: "*environmental threat on-site and around it*" (47%), *"Istanbul Airport construction"* (34%) and "*north European side for the place of construction"* (21%). It seems that the most grounded discourse and the one that has most arguments supporting it is the one of the oppositions of the project: Chambers, NGOs, academia, political parties, social movements, which are making their voice heard. Considering the three main clusters, when there are just the supporting and sub-claims mapped, the discourse conveys in between two main clusters, in conflict: the "*environmental sensitive approach of the project";* the "*environmental threat on-site and around it*". However, when we map only the discourses in conflict, we observe the decision considering the place of development as the most important node, separating the two discourses.



|Fig 29
Discourse mapping and coalition
Source: author

Taking the three most influential actors: central government, IGA and Chambers of Architects, the following can be observed on a discourse level:

1. Central government's discourse is formed by designative originating claims, followed by definitive supporting claims. Designative originating claims are claims that establish the existence (or nonexistence) of an entity, concept, condition, or action that the arguer would like the audience to believe. Definitive supporting claims are used to define the characteristics of that entity, concept, condition, or action, these being also reasons of why the audience should believe the arguer;
2. IGA's discourse is formed of mostly supportive claims, definitive (define characteristics) or evaluative (assigns positive value) to originating claims of the central government;
3. Chamber of Architect's discourse, the only discourse that calls for action, is formed by advocative rebuttals and designative support claims; The advocative rebuttals are claims that call for a different form of action and the designative support claims establish the existence of an entity, concept, condition, or action, as reason to make that action;

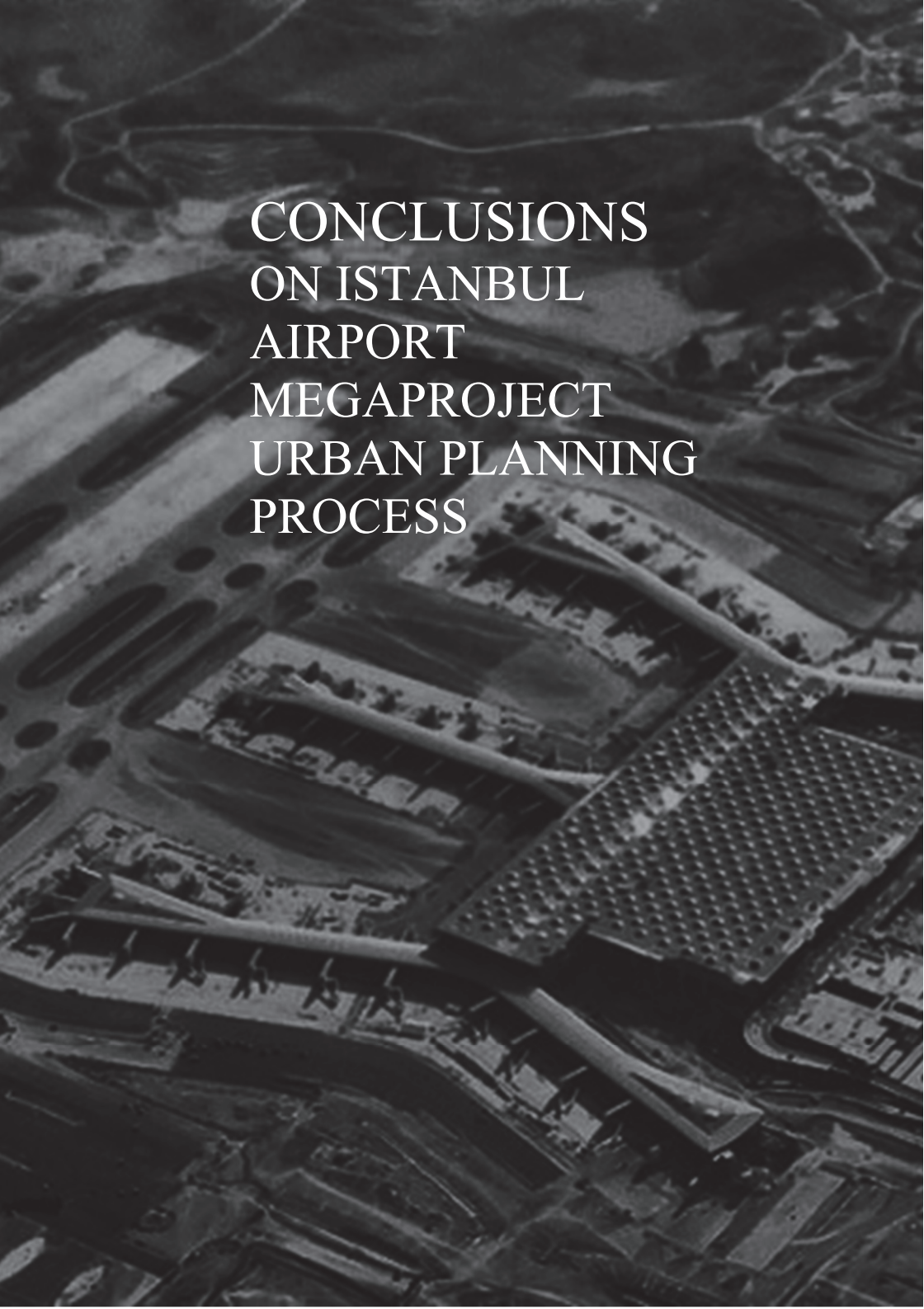
Most fallacies in the discourse analysis are from irrelevant grounds originating from definitive sub-claims, followed by irrelevant grounds originating from evaluative support claims. Actors that made most fallacies in their discourse are: central government representatives and Chambers of architects. Looking at the fallacies resulted from the discourse of central government, they are: irrelevant grounds from advocative or definitive claims, missing grounds from evaluative or definitive claims and defective grounds from evaluative claims. Moreover, the majority of originating claims have fallacies resulted from irrelevant grounds. Therefore, the analysis resulted in proof of

erroneous planning decisions taken with appeal to authority or appeal to faulty generalization of knowledge and backing these decisions with pseudo-arguments or the claims that have no scientific evidence.

The Chambers of Architects discourse has fallacies resulted from irrelevant grounds (mostly from evaluative claims, defective grounds from designative claims and unwarranted assumptions from evaluative claims. It makes incorrect evaluations with appeal against an actor from the governance arena, in this case the central government and bases its arguments on a rule that is valid in general, but fails to consider if the situation could be an exception, generating wrong comparisons for the purpose of argumentation. Regarding the discourse coalitions, the vision of constructing a new airport is the main one. This revealing how the policy-making is done, being an example of discourse institutionalization [78] . Three main discourse clusters are revealed, but the most grounded discourse and the one that has most arguments supporting it is the one of the oppositions of the project: Chambers, NGOs, academia, political parties, social movements, which are making their voice heard.

| **Fig.**
Istanbul airport project – construction phase
Source: megaprojeleristanbul.com

[78] Hajer 1993, p. 48



CONCLUSIONS ON ISTANBUL AIRPORT MEGAPROJECT URBAN PLANNING PROCESS

Concluding on the Istanbul Airport megaproject planning process, we witness a top-down approach to planning, a planning decision taken at the central government level with the impact of the actual project left for the local municipality to resolve, without it being included in the planning or decision-making process. The absence of the local government and district municipalities in the decision-making process and outcome of the megaproject, reducing them to stakeholders at the consultancy level, cuts off the relationship between the project and the needs of the local citizen.

The initial stage of the decision-making process is one of the most important in the megaproject planning, but in this case, there was no sound problem analysis or screening of alternatives, but rather a decision taken at a political level, which turned out to be driven by economic considerations. Moreover, although EIA, SIA, and cost-benefit analyses are essential tools in the initial stage of the decision-making process, they were carried out after the privatization of the megaproject and during the implementation phase.
Exceptionality dimension can be found at any pace of the planning process of Istanbul Airport project in terms of institutional framework, laws, planning regulation and management, every change made was with the scope of building the new airport. First, we see a shift from a publicly led project at a municipality level to a central government level and finally a privatized project. Plans and regulations were surpassed and the area chosen for construction was protected area in the 2009 Istanbul Environment Plan. Moreover, during the planning process, expropriation and nationalization laws were issued by the central government to speed up the process. With the involvement of a private development agency, IGA, it may seem that the private sector is getting all the support it needs from the central government, but this is rather a case of an entrepreneurial government that is leading the whole planning process.

The project is lacking transparency, accountability, participation, and good quality information. In this scenario, the media holds a key role in disseminating and informing the citizens, but also planning professionals engaging in advocacy planning. The participatory mechanisms are applied in a "formalist" way during the implementation phase of the project, as found in IGA's Stakeholder engagement plan. Before the implementation, only the land development plans (master 1/5000 and implementation plans 1/1000) could be challenged in 30 days when presented publicly by the Ministry of Environment and Urbanism. Not only do these plans present just the area for development, but also the procedure is criticized as being just a formal step where no suggestion leads to an actual change of the plans.

The only legal tool at hand for the opposition to express their concerns is the numerous lawsuits against the project and some published academia or NGO reports, this being also the only way to bring legitimacy to the table. Although some lawsuits were won by the opposition, the decision to stop the project until further conclusions of the court were never implemented to avoid time delays. Most of the opposition discourse during the planning process refers to the faulty placement, the environmental threat, and the entrepreneurial role of the government. It is after these contestations that IGA established the Environmental and Sustainability Department during the planning process, but one can just assume the correlation. Furthermore, the discourse of the government changed in the process, from emphasizing the economic gain and global city image towards focusing on the environmentally friendly approach to the project planning and the further developments in the airport area (Airport City). What one can conclude for sure is that there is a clear conflict between the views of the government and those of the opposition parties. Although the opposition is promising better governance mechanisms,

it is still unable to represent the democratic view of all citizens, its main actor being also a centralized institution with own interests, the Chamber of Architects. The main professional Turkish organizations responsible for upholding technical standards, such as the Chamber of Architects, have seen their role and function curtailed. With its mix of neoliberal economics, top-down political decisions, and hurried schedules, the Turkish government has imposed its views on a wide array of construction and transformation projects and ended up running projects of mere local interest from offices in Ankara. Put into perspective — and although the issues may seem only remotely connected — the debate is now much broader than urban transformation, which calls for the inclusion of IMM in the planning process ahead.

Consequences of the governance forms on planning process and outcomes:

A. Top-down planning approach, central government engaging in planning at a local scale:

1. Short planning process;
2. Good performance in terms of cost and time, no delays;
3. The planning phase of the megaproject goes hand in hand with the implementation phase;
4. Privatization of public land; economic driven development;
5. Cuts the relationship of the project with IMM, district municipality and the citizens;
6. Debatable EIA and no SIA and cost-benefit analysis;
7. Violation of laws, plans and international agreements;
8. Nontransparent planning process, lacking accountability and good quality information;
9. No participation;
10. Faulty placement of the project leading to huge environmental impact;

11. Uneven distribution of resources;
12. Compromise of the welfare of the citizens in Istanbul;

B. Bottom-up governance forms:

1. Revisions of EIA, improvement of the project;
2. Constant monitoring of the development agency's actions;
3. Formalization of social movements;
4. Dissemination of information about the project and its impact; reports, declarations in the media;
5. Cuts the relationship between the citizens and the municipality;

There are 3 phases of the planning process in the istanbul airport megaproject that overlap:

Phase 1 (2006-2012, 6 years): During the design of the 2009 Istanbul Environment Plan, a comprehensive way of planning, participative and considering all impacts and further development of the city with the planned new airport; This phase resulted in a masterplan, further plans like 2011 Istanbul Transport Plan;

Phase 2 (2011-18, 7 years): Policy- based planning process done by central government, growth oriented and based on economic development goals (Vision 2023) and surpassing the traditional institutional planning system, a project not integrated in other bigger scale masterplans; The results of this phase are: change of laws- EIA amendment, nationalization of land followed by approval of EIA, privatization of the megaproject, approved masterplan and implementation plans by Ministry of Environment, process of changing the 2009 Istanbul Environment Plan to include the Istanbul Airport and Urbanism and a reapproved EIA; This phase attracted also a lot of opposition against the project.

Phase 3 (2014- 2018, 4 years for the 1st construction phase, ~15 years for the total development): Planning done by the development agency IGA with coincides also with the implementation phase: preparation of the ground, design of the airport and detailed plans, ESIA, stakeholder engagement, impact mitigation, construction of the project; This 3rd planning phase is continuing, the airport finished only its 1st phase of construction.

Critical stages in the planning process of Istanbul Airport megaproject are:

1. The initial stage of decision-making process in choosing the scope/ program, location, financing scheme of the megaproject and management, as pointed by the literature review on megaproject planning;

In the case of Istanbul Airport megaproject, the initial stage of decision-making process is done at central government level, without any professional advice from urban planners and no screening of alternatives in comparison with the initial decision of planning the airport in Silivri, part of the 2009 Istanbul Environment Plan;

2. The "approval of the project" phase, this is a critical phase found in this research and applicable to any megaproject planning process for two reasons: the approval of the relevant planning institutions - decisive for the construction of the megaproject and therefore in this phase the project promoters will do anything to get it approved, from change of laws and policy, in the case of a state-led megaproject, to reduction of impacts or overestimation of benefits;

This phase is finished for the Istanbul Airport after 8 years, one year before the opening of the 1st phase of the project. It was realized with a change in 2009 Istanbul Environment

Plan, amendment of the planning regulations concerning the EIA, a modified and reapproved EIA Report, and a change of the members in the board of approval of the megaproject at institutional level. For this phase an "outsider view" is recommended to keep the process accountable and it should end before the start of the construction process.

3. The approval by the citizens is a crucial, not only state-led megaprojects linked directly to tax payer's money, but megaprojects in general as they are vulnerable to protests, law suits and contestations against it, this kind of actions leading to setbacks or even stopping the project;

In the case of Istanbul Airport megaproject, if we look at the graph analyzing the planning process, the escalation of actions against the megaproject happened after the approval of the EIA Report by Ministry of Environment and Urbanism. The opposition is formed by urban planners and architects engaging in advocacy planning and this kind of groups state their arguments based on scientific evidence and urban planning principles and waited for the 30 days' period in which the plans were open to the public, consulted them and made their critique. If there were social movements formed by citizens or neighboring communities, they would have protested earlier in the planning process, when the project was declared in the media. This phase is an ongoing process for the Istanbul Airport megaproject, but with its most vulnerable moment after the approval of EIA and opening the plans to public.

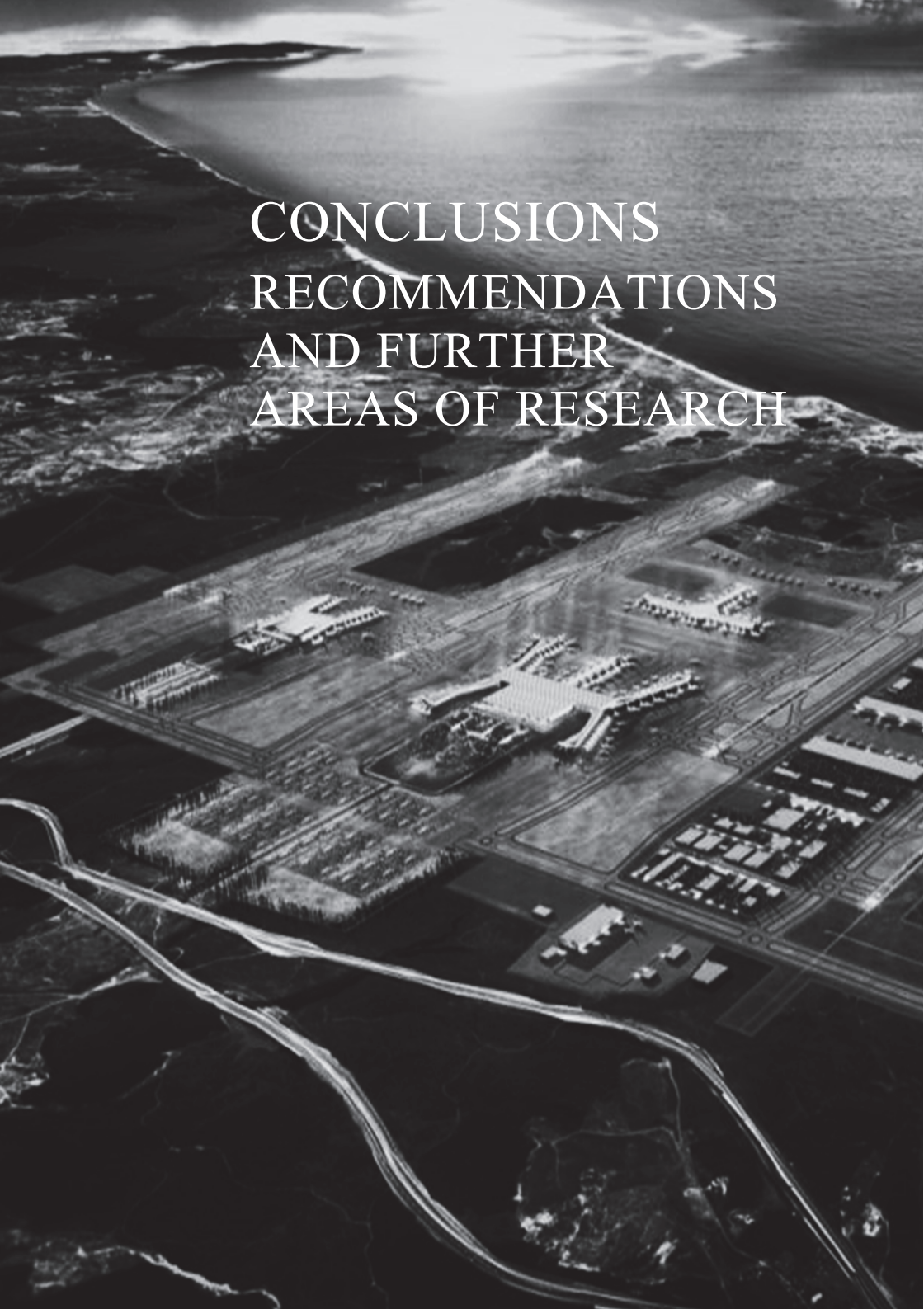
Making the initial stages of planning public, giving qualitative information about the project, and receiving reactions from the public, focus groups, academia and professional chambers and capitalizing them in the project proposals might be a solution to overcoming this phase. Here an "insider view" is recommended, meaning that the

public should have the same view of the project promoters and believe in its benefits.

4. Overlapping of phases in the planning process: this is also something the literature review on megaprojects warns about;

In the case of Istanbul Airport project all three phases overlap and although this brings efficiency to the planning process, it loses legitimacy.

| Fig.
Istanbul airport project – construction phase
Source: megaprojeleristanbul.com



CONCLUSIONS RECOMMENDATIONS AND FURTHER AREAS OF RESEARCH

OVERVIEW AND CONCLUSIONS OF THE RESEARCH

In conclusion, the new wave of projects is still as flawed as its predecessor, underestimated costs and delays are still frequent regardless of their geography, program or even size and due to conflictual planning processes (Flyvbjerg 2009, 2014, 2017), misinformation and lack of transparency considering the governance dynamics, the political inequality in access to decision-making processes, there is an unequal distribution of risks, burdens and benefits from projects (Flyvbjerg et al. 2003).

Istanbul is experiencing a neo-liberal reconfiguration that is now in its final stage. The central government created new laws, part of a national policy (regeneration, conservation, renewal), to enable megaprojects as an exclusive urban planning tool. A number of ~70 new projects can be counted since 2000 until today, but 3 distinguish themselves as forming a system: Istanbul Airport, 3rd bridge and Canal Istanbul.Engagement of central government at planning at local scale has its consequences: defiance of previous planning regulations and change of laws in order to build the project; nationalization of land and defiance of property rights, involvement in planning of private interests through privatization, absence of professional expertise and a comprehensive analysis on city level during the decision making process; lack of participation, transparency and accountability; Regarding the discourse coalitions, the vision of constructing a new airport is the main one. This revealing how the policy-making is done, being an example of discourse institutionalization [79] Three main discourse

[79] Hajer 1993, p. 48

clusters are revealed, but the most grounded discourse and the one that has most arguments supporting it is the one of the oppositions of the project: Chambers, NGOs, academia, political parties, social movements, which are making their voice heard.
Efficiency vs legitimacy: Concluding on the original case study of this research, the consequences of governance dynamics on the planning process of the Istanbul Airport megaproject is a good performance in terms of cost and time (short planning process), the planning phase of the megaproject going hand in hand with the implementation phase. However, this was achieved through: cutting the relationship of the project from Istanbul Metropolitan Municipality, district municipality and the citizens, privatization of public land, a debatable Environmental Impact Asesment process, no Social Impact Aassement report and cost-benefit analysis, violation of laws, plans and international agreements, nontransparent planning process, lacking accountability, good quality information and participation. All these led to faulty placement of the project leading to huge environmental impact, uneven distribution of resources and compromising the welfare of the citizens in Istanbul.

The question posed by the Istanbul Airport megaproject is an essential one in terms of the urban planning culture in Istanbul and beyond. By engaging in its development, government officials and planners have enabled 3 complex planning problems. As opposed to what was planned and suggested by the 2009 Istanbul Masterplan, the Istanbul Airport is being built in a different location, a protected area, thus harming the natural habitat north of the city. Moreover, it is taken out of the regular planning system and the whole construction process is managed by a private entity, lacking any accountability from a welfare perspective. However, the main question here is: How is the local municipality, currently excluded from the project's planning and

construction processes, going to integrate this development in the urban fabric of Istanbul in a sustainable way? Some answers are already there, but they are decided at the central government level. A new metro line running from the city center to the new airport, worth $1.68 billion, will be built by the Ministry of Transport using public funds (02.09.2016)[80] The closing of Ataturk Airport is another issue to be addressed, a decision also taken at the central government level and not part of the 2009 Istanbul Masterplan.

How is Istanbul going to deal with this vacancy and how is it going to be developed? The 2009 Masterplan suggested the Istanbul Airport in the South, at Silivri, and the city developed considering this proposal. How is the municipality of Istanbul going to deal with the changes in the functional patterns and the investments made so far in that area?

Istanbul Airport megaproject is part of a system of planned megaprojects that connect with each other, can be found replacing the traditional institutional planning systems and expanding Istanbul with 30% (46740 ha from 153900 ha area of Istanbul). It differentiates itself from other megaprojects in Istanbul by its development agency, IGA, that has a Sustainability department and promotes impact mitigation, disseminates information about the project and its impact. Another distinctive feature to other megaprojects in Istanbul, is the economic risk it brings, being almost 1% of the country's GDP (~0.6, Istanbul Airport being 2% of Istanbul's GDP, Istanbul comprising 30% -35% of Turkey's GDP)

[80] https://www.dailysabah.com/business/2016/09/03/new-metro-line-running-to-3rd-airport-to-cost-tl-49b

The good performance of being on time and on budget with no overruns in contrast to most infrastructure megaprojects is due to:

1. Good estimations of budget and time;
2. No changes along the planning process and no breaks during the implementation phase;
3. Before the implementation phase, prototypes were used to make decisions on how materials and details will be;
4. Special changes in the planning regulations and an overlap of the planning and implementation phases. The overlapping of the planning process phases is something done not to change the project, like is found in the western cases, but only to facilitate the project's approval;
5. Entrepreneurial central government, facilitating the approval of the project to the expense of its quality and impact (environmental, social, economic) leading to social frictions and protests. Therefore, in the Istanbul Airport case, with a good project performance, what is lost in the meantime is the benefit dimension.

The major environmental impact done by the construction of the Istanbul Airport megaproject, but also the whole system of megaprojects that opened the north of the city to development, can destabilize the natural habitat at local and international level, but also the megaproject itself: flooding, being on bird routes conceivably leading to plane crashes. Another important impact, common for infrastructure megaprojects is the direct displacement of population, around Istanbul Airport, leading to violation of property rights.

The literature review on megaprojects warns us about the private interests intruding into the planning process of megaprojects, about privatization and selling public land,

developing projects without taking into consideration the welfare of the citizens. However, in Istanbul's case, we witness the presence of a relatively weak private sector. The PPP, BOT model applied here, much recommended by the specialized literature on governance doesn't work to rely upon taking the financial burden from the tax payers. Instead, there is a strong central government with the treasury open to substitute any of the shortcomings of this private sector, masked behind what is shown to be a PPP.

Looking into the governance arena at the opposition, it is not strong enough to stop this project, the planning culture in Istanbul has still much to learn in terms of democracy, citizens mobilize only on political grounds, but so far, consequences of the new bottom-up governance forms lead to the improvement of the project, the revision of EIA, reports, declarations in the media and constant monitoring of the development agency's actions, bringing accountability to the planning process. Usually in megaprojects the opposition is formed first by neighboring communities, here we notice an advocacy planning role from professional Chambers leading other social movements and community organizations.

Concluding this study, the new megaprojects are large scale, complex developments (usually involve mixed-uses, smart technologies etc.) or major constructions with symbolic value for the city on a global level.
Most new megaprojects are infrastructure projects, representing the biggest investment in the human history. There is an increase in the number of infrastructure megaprojects after 1990s with 400%. This is in relation with the decentralization process of the post 1980s and the late globalization process. Moreover, they have proven themselves recession-proof, the downturn of 2008 was not even close abating to their relentless drive, especially the ones developed at central government level.

Economic driven: The literature review on megaprojects gives us the political, aesthetic, technological and economic sublimes as motivation for developing megaprojects. Regardless of the political embeddedness, economic gains are the main reason for constructing megaprojects nowadays. The new infrastructure megaprojects can be a source of profit and a tool to mobilize financial capital and they are strongly linked to national policies in non-western locales and local ones in western locales (city level mostly).

Performance, cost-time-benefit: In contrast with the literature review, there is a decrease of the period taken for the realization of megaprojects as a trend line, this being relatable to the technological advancement or the more efficient management tools employed in the planning process. The literature shows that 9 out of 10 cases the cost of a megaprojects is underestimated and demand forecasts are wrong by 20% to 70 % compared with actual developments. However, with this study it is observed that due to the top-down governance forms, this is no longer valid.

Impact and risks: The new infrastructure megaprojects seem to have the same impact and risks: environmental impact, safety issues, economic risks, social effects like displacement of population- direct or by gentrification. However, the acuteness of the impact depends on the planning process of the project. Here project planning can make a huge difference in managing the balance between economic gain and citizen welfare.

Governance and planning process: The new megaprojects are mostly state-led projects and are conceived at the local level, although the literature shows us a tendency in decentralized forms of governance. The new infrastructure

megaprojects are led by central government[81] followed by the municipality[82] and PPPs[83]. On a governance level in contrast with the existing data, new findings were that considering all trend lines on the relationship between cost and period for development, the most resilient to delays in terms of cost overrun are the projects done within the collaboration of the local with the central government and a solution can be block grants, rather than project-based financing. However, the Istanbul case presents it as the private sector accountability combined with the central governments will to enable laws and change regulations to facilitate the construction of the Istanbul Airport. The new megaprojects are kept out of the traditional planning system, being promoters of new policies and laws.
Looking at the rising bottom-up governance forms, they can be seen as an opportunity in increasing democracy, challenging the project, and improving it by creating debate, being always in contact with the media, but also conceivably stopping it. However, the opposition also creates a barrier between state and citizens, stakeholder-based organizations cannot represent a total democratic view. Critical stage in the planning process is: the initial decision-making process and the "approval of the project" phase. This study found two approval phases: the approval of the relevant planning institutions and the approval by the citizens.

The new wave of megaprojects at the periphery of capitalist economies seems not so different from their western examples, implemented through sudden, top-down decisions that do not sufficiently account for environmental protection or consultations with citizens, but surpass their

[81] ~50%, (increase in number starting with ~ the year 1995)
[82] with ~20% (increase in number starting with the year 2000)
[83] with ~14% (increase in number starting with the year 2005)

main concern considering the performance of the project: the cost overruns.

The recreation of cities through megaprojects is not a new trend, Napoleon III and Haussmann had their share in the 19th century with the Greater Paris City Region that caused an increase in land value and population, all done in a top-down approach to planning (Harvey, 2003) The history repeats itself under the umbrella of neoliberalism and globalization with new megaprojects that cause uneven territorial development and uneven allocation of resources, deepening of urban poverty as well as social conflicts, urban sprawl and environmental distortion. The diversity in typology, impact, factors leading to their performance, governance schemes and planning process makes these projects a continuous learning process. The findings of the study in contradiction with the conclusions of the literature review, call for more non-western case study research to enlarge the existing theory on megaproject planning.

RECOMMENDATIONS FOR THE ISTANBUL AIRPORT MEGAPROJECT

Despite all the current and potential economic, environmental, and social threats, the city of Istanbul expands the limits of its growth and sustainability, using megaprojects as the main tool for the production of space and infrastructure projects. The anticipated urbanization towards the north of the city will create new hubs of global competitiveness, but the destroyed natural habitat and resources, the neglect of property rights and the expected migration influx will deepen social frictions. The recommendations for this megaproject after a thorough analysis of the specialized literature on megaprojects and international case studies, but also considering the interviews made with local planning experts, are:

Istanbul Metropolitan Municipality (IMM) and citizens of Istanbul must be included in different forms to the planning process. Further planning decisions like constructing a subway line to the airport and other connections, the development of the new city near the airport should be decided by IMM and not the central government. These decisions should also include the district municipality.

IMP (Istanbul Metropolitan Planning Office) is an important actor that can be included in a supervisory board making quality checks on the planning outcomes of IGA (Istanbul Grand Airport - development agency) or have the role of consultancy in the further development of the project. In the interviews with the planning professionals and academia in Istanbul, IMP was found as promoting planning processes closest to participation, seen in the culture of planning in Istanbul so far, bringing together 400 academics with different expertise. Although so far none of the actors in opposition gave any solution or alternative besides sticking to the proposed location of the airport in the 2009 Istanbul Masterplan, they should be invited to consultations and collaborative action with the local government, IMP and IGA, part of an advisory board. IMP could be a good link between NGOs and the other actors.

Part of the consequences of building the new airport, the development of Ataturk Airport which is closed now will be the decision of IMM. Making it green space, inclusive in design and open to the public, as declared by the Ministry of Transport, might regain the trust of the citizens, considering that they perceive this space closer to them. As found out from the KOS representatives, the citizens don't engage in protests for the protection of the forests in the north because they don't feel the direct benefit and also don't have easy access to it.

At this point, information available to all parties is crucial to ease the mistrust of the citizens towards the government. The last local government elections showed that there is a powerful discontent of the Istanbul citizens towards the central governmental party, AKP, that lost Istanbul to CHP. The information should be available (also online) at IMM, IMP and IGA, public hearings made by experts, academics, and local government officials.

The measures taken by the Environment and Sustainability Department of IGA should be enlarged and reevaluated including also powerful NGOs in the governance arena, NGOs like KOS (the most relevant NGO protecting the forest area in the north of the city) and Chambers of Architects and Urban Planners.

A *greenwashing*[84] attitude is found in the discourse of the promoters of the megaproject. Building on the discourse analysis, the planning process and the project itself is shadowed by the two main discourse coalitions and arguments *on constructing* or *not constructing* the airport and on *the environmental threat* and *environmental sustainable approach*, the project is lost between the constantly growing conflict between the actors in opposition and its promoters, other more important matter like the scope of the project, the benefits to the citizens of Istanbul and even to Turkey, the technical issues during certain weather conditions due to the faulty placement are all presented from this bi-dimensional view that doesn't generate further solutions.

[84] Term coined by environmentalist Jay Westerveld for the first time in 1986 and it underlines how a product, company, tech, etc is promoted to be more environmentally friendly than it really is.

NORMATIVE INDICATIONS FOR THE NEW MEGAPROJECTS IN EMERGING COUNTRIES

A main takeaway from is that the integration of the megaproject into the traditional institutional planning system is very important. The study shows that megaproject should be integrated into previous bigger scale plans, masterplan, development plans prior to their development, not as a plan, but as a vision for that specific area/plot/infrastructure, etc. Furtheremore, it should be initiated by the local government in line with the development strategy of the city and with clear targets considering the welfare of the citizens. Participation for all interested and affected parties with decision making power at the initial stage is mandatory in deciding how the megaproject can and will improve the quality of life of the citizens and growth of local economy to receive the public support and acceptance. This could be done in an online voting system and with hearings at the city hall. The stakeholder analysis tested in this study can be used as a methodology in identifying the actors: essential to involve, desirable to involve and involve if possible. Essential actors to be involved are: the citizens and neighboring community, municipality, central government

representatives, whereas desirable to involve actors are: the professional chambers, the NGOs, the other political parties, and academia. Moreover, tracking the actors that appear along the planning process and mapping them is recommended to have a clear view of the distribution of power in the governance dynamics. If a PPP model is considered, the involvement of the public sector in a further supervisory board is mandatory, all projects need public leadership and a clear regulatory role of the state. A management body or development agency must be created with a board comprising representatives from: the local municipality, central government, academia, professional chambers, and community representatives through NGOs.

The initial stage of decision-making is crucial and must start with a sound problem analysis, alternatives, and screenings. Regardless of the characteristics of a megaproject like: size, type, etc. impact is unavoidable, therefore EIA and SIA and cost-benefit analysis are mandatory before the planning process begins, also the results of these plans must be made public and open to debate, the contestations and the resulted changes must be public. It is advisable to work with local planners for this type of documentation and keep and open dialog with the NGOs during the process to avoid future lawsuits that would slow down the process and consume a lot of resources, including financial.

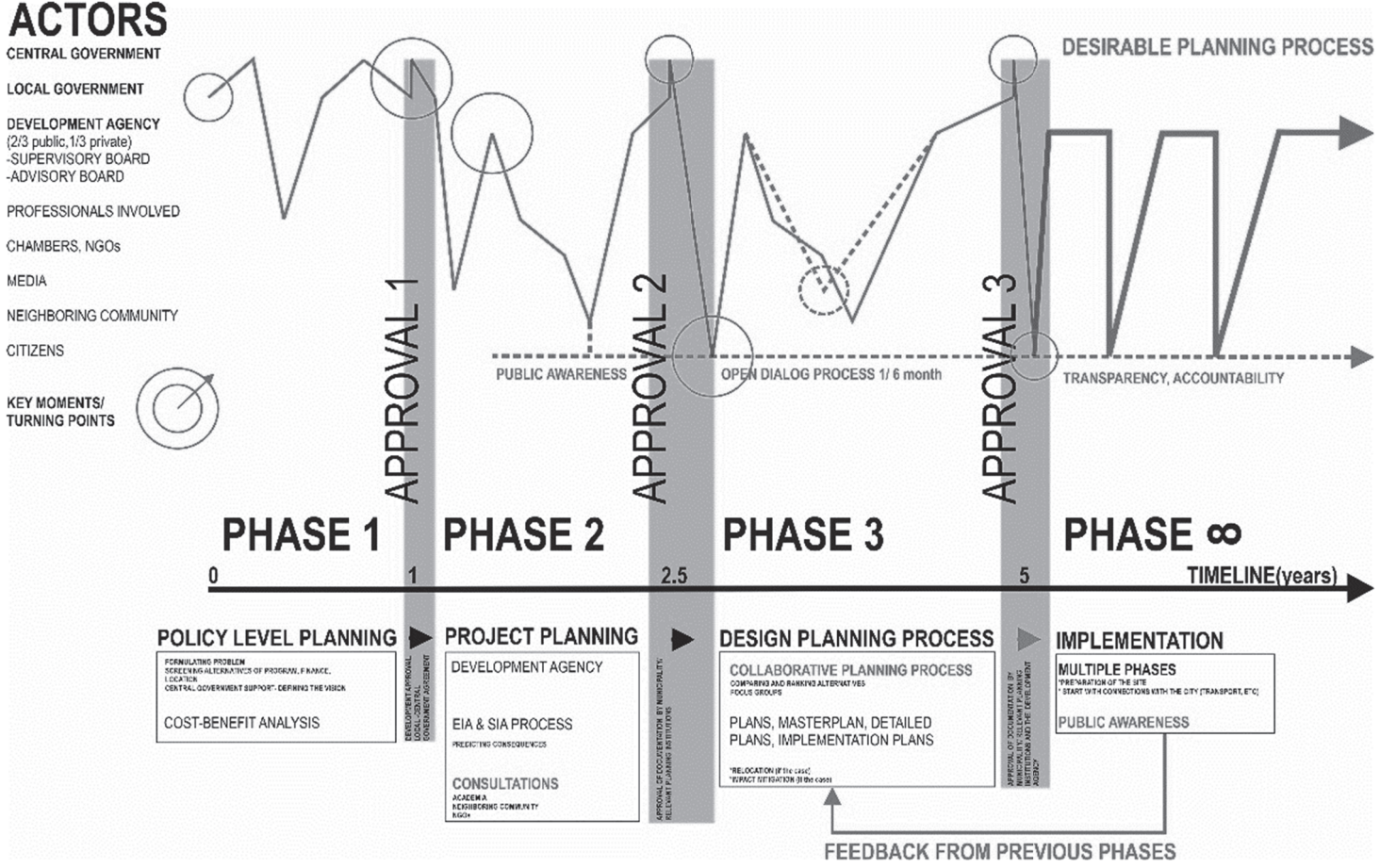
Transparency and accountability during the planning process is essential and good quality information to the public delivered by the project promoters and public authorities. The accountability dimension is crucial for project development, boards on different levels are advisable: supervisory (central, local government representatives) advisory (planning professionals, academia, NGOs, etc) and executive (could be also private or part of the local government planning office). Literature recommends critical questioning from experts outside the

project that can give a perspective free from the "*optimism bias"*. This role could be done by the advisory board; very useful for keeping the budget realistic.

Research comparing other megaprojects with the same program in terms of costs is beneficial, as done in this study by sampling 150 infrastructure megaprojects. Unchanged management structures, unchanged plans are the key of staying on time, budget and benefit and have fewer faults in the construction phase. Many changes in the planning process equal with distancing the project from the initial purpose of the project. No breaks into the implementation phase are also recommended in keeping the megaproject on time and budget.

International designers and architects can bring legitimacy and visibility at a global level, but it is important to collaborate with local planners for a better understanding of the context and integration of the project.

|Fig. 30
Model of a desirable planning process
Source: author


ACTORS
CENTRAL GOVERNMENT
LOCAL GOVERNMENT
DEVELOPMENT AGENCY
(2/3 public, 1/3 private)
-SUPERVISORY BOARD
-ADVISORY BOARD
PROFESSIONALS INVOLVED
CHAMBERS, NGOs
MEDIA
NEIGHBORING COMMUNITY
CITIZENS
KEY MOMENTS/
TURNING POINTS
DESIRABLE PLANNING PROCESS
APPROVAL 1
APPROVAL 2
APPROVAL 3
PUBLIC AWARENESS
OPEN DIALOG PROCESS 1/ 6 month
TRANSPARENCY, ACCOUNTABILITY
PHASE 1
PHASE 2
PHASE 3
PHASE ∞
0
1
2.5
5
TIMELINE(years)
POLICY LEVEL PLANNING
FORMULATING PROBLEM
SCREENING ALTERNATIVES OF PROGRAM, FINANCE, LOCATION
CENTRAL GOVERNMENT SUPPORT- DEFINING THE VISION
COST-BENEFIT ANALYSIS
DEVELOPMENT APPROVAL LOCAL & CENTRAL GOVERNMENT AGREEMENT
PROJECT PLANNING
DEVELOPMENT AGENCY
EIA & SIA PROCESS
PREDICTING CONSEQUENCES
CONSULTATIONS
ACADEMIA
NEIGHBORING COMMUNITY
NGO+
APPROVAL OF COOPERATION BY MUNICIPALITY/ RELEVANT PLANNING INSTITUTIONS
DESIGN PLANNING PROCESS
COLLABORATIVE PLANNING PROCESS
COMPARING AND RANKING ALTERNATIVES
FOCUS GROUPS
PLANS, MASTERPLAN, DETAILED PLANS, IMPLEMENTATION PLANS
*RELOCATION (if the case)
*IMPACT MITIGATION (if the case)
APPROVAL OF DOCUMENTATION BY MUNICIPALITY, RELEVANT PLANNING INSTITUTIONS AND THE DEVELOPMENT AGENCY
IMPLEMENTATION
MULTIPLE PHASES
*PRESERVATION OF THE SITE
* START WITH CONNECTIONS WITH THE CITY (TRANSPORT, ETC)
PUBLIC AWARENESS
FEEDBACK FROM PREVIOUS PHASES

FURTHER AREA OF RESEARCH

Studying megaproject development in the context of Istanbul and the Istanbul Airport megaproject, aspects of the planning practices along with its governance dynamics was limited to the time-frame of 3 years (2016- 2019). A further study of the process can reveal: whether the resistance will stop the project, the project initiators will engage in collaboration with the neighboring community, NGOs or professional Chambers, the further performance in terms of costs and time of the next planning phases, if the airport will continue to function considering the risks like flooding and air traffic, the economic risks in relation to Turkish economy, the environmental impact, the urbanization and sprawl effect of the project, etc.

Another question that we should pursue, considering the bigger picture of urban transformations and megaprojects in Istanbul is: if the citizenship struggle will overcome and change the current approach to planning of an entrepreneurial government and the market forces?

Under current conditions, megaproject planning in the context of Istanbul presents different characteristics from similar interventions in the existing literature and around the world. To come with a comprehensive theoretical framework that explains present-day megaprojects and how these kind projects shape urban spaces, the analysis of different localities in distinct geographical settings is necessary.

MEGAPROJECTS SYSTEM PLANNING OVER COMPREHENSIVE PLANNING

The Istanbul case brought forward the idea of a system of megaprojects, which might be closer to the urban times we live in, with planning remaining behind the on-going transformations and developments in cities. A shift from the comprehensive plan as an image of a desirable future to megaproject-based planning, more flexible, with shorter implementation period and responding to some clear needs or objectives of the city, identifying the best location for accordingly, or resolving dysfunctionalities in certain areas. Would this approach to planning be enough to assure the sustainable development of cities without the comprehensive planning analysis, masterplan, and regulations? Or is it going to be a strategic tool for development? Could a plan of a system of megaprojects exist beyond the policy level and gain territorial dimensions? These are all questions to be explored.

METHODOLOGICAL GAIN: DISCOURSE ANALYSIS IN THE URBAN PLANNING PROCESS

Studies of planning discourses (Forester, 1989; Healey, 1992b; 1996; 1999; Innes,1995; 1998) helped develop a better understanding of the planning process and how planning problems are constructed, solutions prioritized, and how power is exercised and political pressures are handled. In megaproject planning, the planning process is affected by the power dynamics of the actors involved in the governance of it. Consequently, the policy design, the vision, outcomes of the megaproject, the design, form in which is they are realized and other details are the result of those power dynamics. The discourse analysis in this study is a method through which one can identify types of claims, classify them, map the relationship of the claims conflicting,

supporting and secondary along the discourse and also connect them with certain group of actors, identify fallacies on missing grounds, irrelevant grounds, defective grounds and unwarranted assumptions, information that proves the falsehood of another in the planning process and in this manner escaping the power dynamics, proposing a more transparent approach to planning.

This tool could be introduced in a software that could automatically add and extract claims, make links and generate reports. The link between the raw information/ discourse (written or audible, from media, books, articles, etc.), the codification of it (see previous chapters), mapping it in an interactive manner and changing it automatically in relation to the fallacies identified can be a further area of research done in connection with other disciplines like: IT, economics, statistics, environmental engineering. This software could be at different scales of planning and with diverse purposes in planning like for example: meetings at the municipality for approval of a certain design plan, in design review, in policy-making, in identifying patterns in the behavior of boards of planning, etc. This method can be an analysis itself that could be included in the study the international case studies before planning a certain type of project, by just introducing the raw data about it and then receiving a clear view about power dynamics, policy targets and solutions.

An intermediate step on the way of this further research could be to analyze the next planning stages of the Istanbul Airport megaproject, confirm the method, see the differences, and improve the method, as the time frame dedicated to this study was limited to a Ph. D research study period, with a different general scope on megaproject planning.

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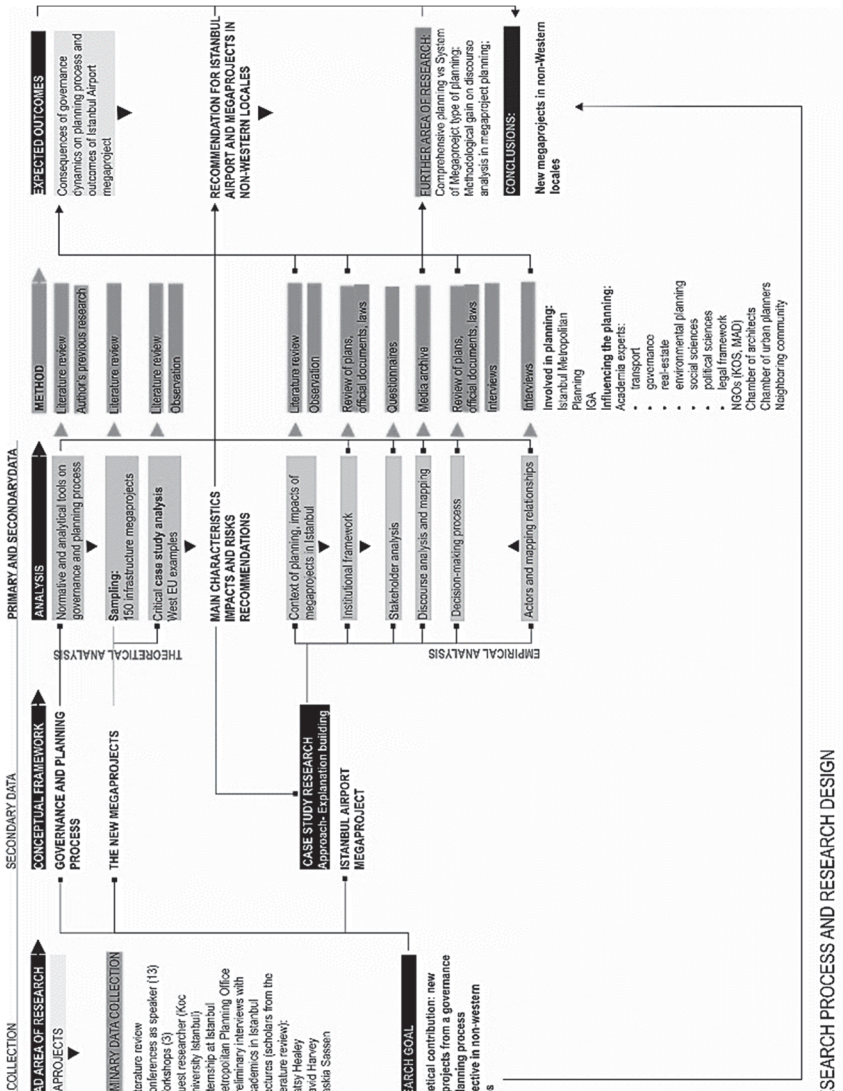
DATA COLLECTION
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PRIMARY AND SECONDARY DATA
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PRELIMINARY DATA COLLECTION
Literature review
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Workshops (3)
Guest researcher (Koc University Istanbul)
Internship at Istanbul Metropolitan Planning Office
Preliminary interviews with academics in Istanbul
Lectures (scholars from the literature review):
Patsy Healey
David Harvey
Saskia Sassen
RESEARCH GOAL
Theoretical contribution: new megaprojects from a governance and planning process perspective in non-western locales
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GOVERNANCE AND PLANNING PROCESS
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Interviews
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Involved in planning:
Istanbul Metropolitan Planning
IGA
Influencing the planning:
Academia experts:
transport
governance
real-estate
environmental planning
social sciences
political sciences
legal framework
NGOs (KOS, MAD)
Chamber of architects
Chamber of urban planners
Neighboring community
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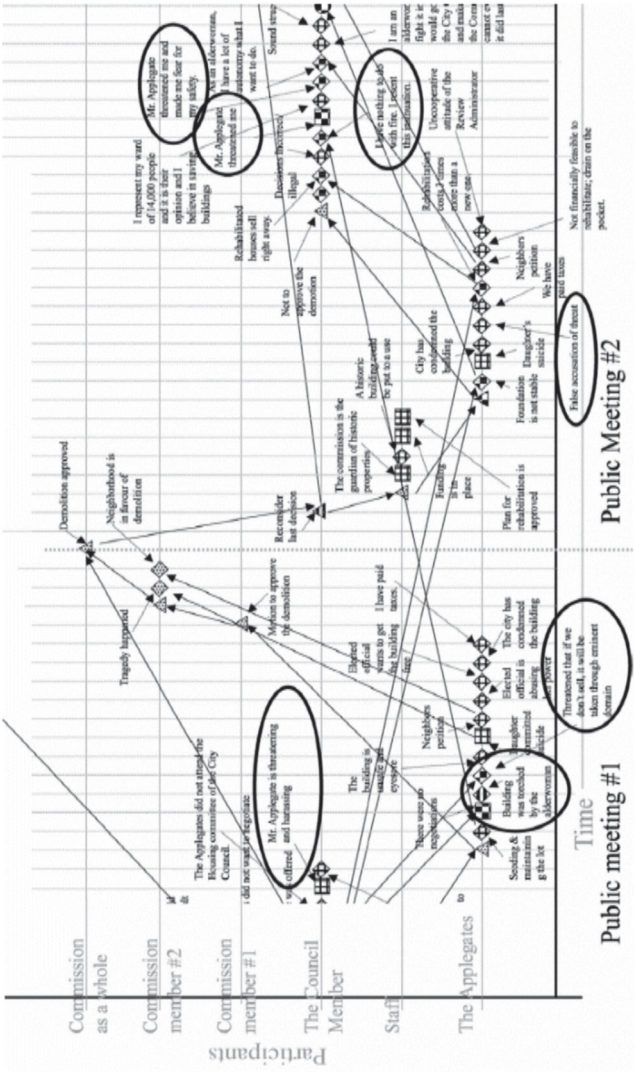
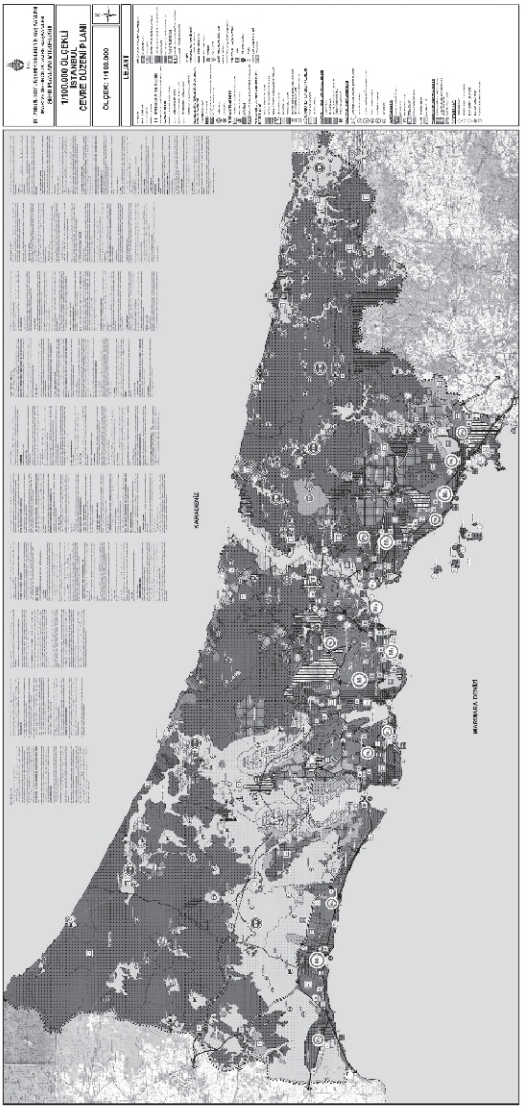
RECOMMENDATION FOR ISTANBUL AIRPORT AND MEGAPROJECTS IN NON-WESTERN LOCALES
FURTHER AREA OF RESEARCH:
Comprehensive planning vs System of Megaproject type of planning;
Methodological gain on discourse analysis in megaproject planning;
CONCLUSIONS:
New megaprojects in non-Western locales
RESEARCH PROCESS AND RESEARCH DESIGN

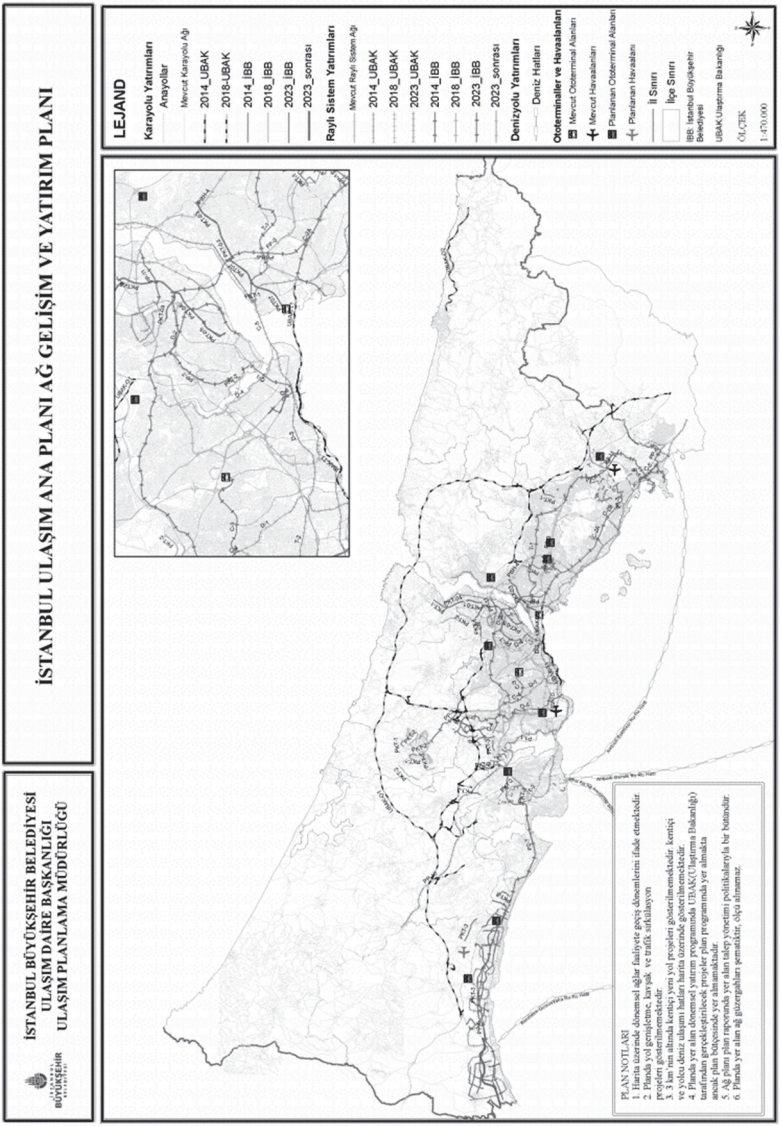
Annex no. 1 - Original graphic made by Kumar and Pallathucheril



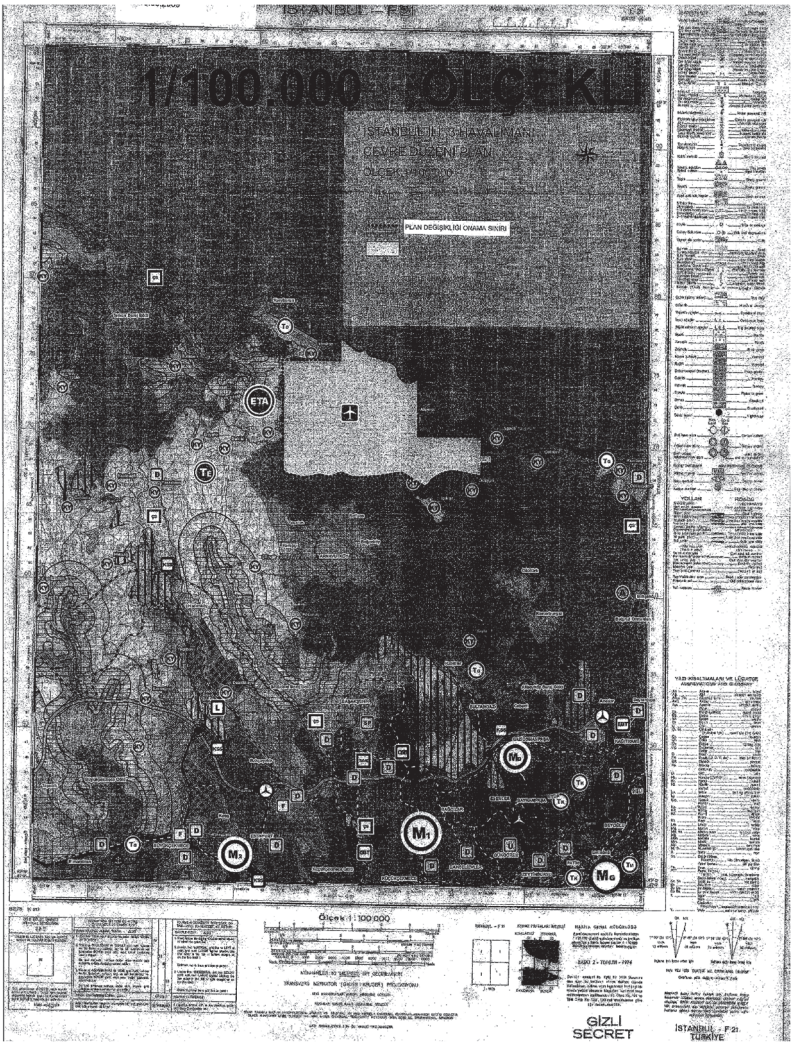
Annex no. 3 - 2009 Istanbul General Masterplan



Annex no. 4 - 2011 Istanbul Transport Plan



Annex no. 5 - Airport perimeter plan



Annex no. 6 - model interviews and questionnaires for the stakeholder analysis: power/ interest



Ion Mincu University of Architecture and Urban Planning
PhD student: Serin Geambazu
External supervisor: Professor Gulden Erkut, Istanbul Technical University

Interview on 3rd airport project, Istanbul airport

Interviewee: …….....

1. What do you think is the main motivation behind the 3rd airport project- Istanbul airport?
   - political (megaprojects are manifest, garner attention, and lend an air of proactiveness to their promoters);
   - technological (rapture engineers and technologists get from building large and innovative projects with their rich opportunities for pushing the boundaries for what technology can do);
   - economic (given the enormous budgets for megaprojects there are ample funds to go around for all, including contractors, engineers, architects, consultants, construction and transportation workers, bankers, investors, landowners, lawyers, and developers. jobs etc);
   - aesthetic (is the pleasure designers and people who appreciate good design get from building, using, and looking at something very large that is also iconic)
   - Other:

2. It is argued that two main types of accountabilities define liberal democracies considering this kind of mega projects:
   - public-sector accountability through transparency and public control
   - private-sector accountability via competition and market control.

What can you say about the accountability dimension in the planning process of the 3rd airport- Istanbul airport project or other mega projects in Istanbul, Turkey?

3. What are the planning phases and institutional framework in this kind of mega projects in the Istanbul context?

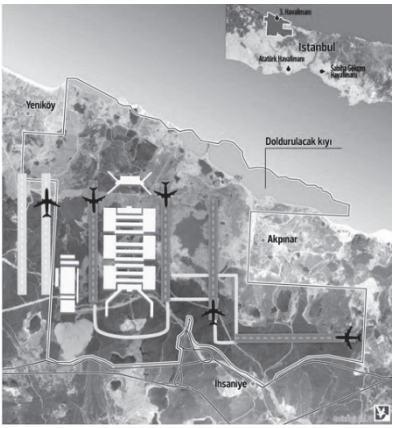
4. What is the level of public participation in this kind of mega projects and how is it exercised in Istanbul, Turkey?

5. What is the exceptionality factor in 3rd airport- Istanbul airport project in terms of urban policy?

6. Please note who should have been involved in the early stages of decision making of the 3rd airport- Istanbul airport? If there is an institution or organization, please write the whole name and their role, expertise, etc.
7. Please note who should be involved in the planning phase of the 3rd airport- Istanbul airport? If there is an institution or organization, please write the whole name and their role, expertise, etc.
8. Please note who should be involved in the implementation phase of the 3rd airport- Istanbul airport? If there is an institution or organization, please write the whole name and their role, expertise, etc.
9. Please state your opinion or recommendations in the main phases of the planning process of the 3rd airport- Istanbul airport, identified so far:

PRE-PLANNING:
Initiation (Formulating the problem): 2010
It was decided that 2 airports could not cover the necessary flight load of Istanbul and is a need of the 3rd airport. An extension of Ataturk airport would not facilitate a better optimization of the capacity later on.
What is your opinion considering the problem definition? Do you agree? What would be your recommendation from your expertise? What should be the objectives, values, criteria or constraints of the project? What do you think it is the problem to which 3rd airport project answers to?

PLANNING
Planning (Identifying): + 2 years
It was decided to apply a BOT (built operate and transfer) formula from an economic perspective for the project. BOT is considered to be the best solution for a PPP. What is your opinion considering the planning context of Istanbul? Who decides this?
Planning (Identifying and Screening the Alternatives): + 2 years
The place of the project is designated by the ministry and made public on 13.08.2012, kept secret before, the justification being the land speculations. The selection is a controversial one, as it is in the North of the city, on forest area (70%), wetlands and mining area.
How should the place of a mega project be chosen and by whom? How it is done in the planning context of Istanbul? In the old Masterplan of Istanbul, the place was in the South. What do you say about this change of place?



Location of the project

10.1. Planning (Predicting the Consequences): +2 years
It is declared that the 3rd airport project will bring development, 2 new planned cities that will resist the earthquake risk; estimation of an earthquake being 100 billion, development within the new urban policy and new laws being zero. Furthermore, opposition is predicting consequences of the project, imperative on environmental perspective.
What do you think about this further strategic development of the area? What is the main and most important impact of the 3rd airport-Istanbul airport project?

- environmental
- social: displacement
- economical: cost overruns
- rapid urbanization that leads to urban management problems, sprawl
- other

10.2. Planning (Identifying): +3 years
The tender award is taken by Cengiz-Kolin-Limak-MAPA-Kalyon, IGA is found as management body of the project.
Is having one private entity managing the project suitable for mega projects in Istanbul? How are other local examples? Which should be the structure of this management body?

10.3. Design (Designing and Screening the Alternatives): +6 years
Plans are made by international architecture companies: Nordic Ofiice in collaboration with Grimshaw, Haptic and Arup (38 projects for Istanbul). Their solution includes also: an airport city with 25.000 underground parking spaces, hotels and conference

facilities; Perkins+Will will do the masterplan of Airport city Istanbul; 3rd airport's air control tower to have tulip-inspired design made by AECOM and Pininfarina.
What do you know about the plans and what do you think about the international involvement on local scale in the design phase? Do you think this is a gain or a disadvantage in mega projects?

IMPLEMENTATION

10.4. Implementation (Expropriation): + 4 years
TOKI starts expropriation in the area. The Ministers Council decided to make public land the whole area on which the 3rd airport will be constructed (014/5769; 17.01. 2014 Resmi Gazete)
Is this a common procedure for any mega project/ complex development initiated by state in Istanbul? What is the role of TOKI in this kind of projects?

10.5. Planning (Comparing and Ranking Alternatives, Opposition): +4 years
Environmental plan is change due to opposition and other plans are open to the public. What are the opposition's tools against this kind of project? How can the public express their opinion about the proposals made in this kind of projects in Istanbul?

10.6. Implementation (Economical aspects): +5 years
İGA signed a loan agreement worth €4.5 billion with Ziraat Bank, Halkbank, VakıfBank, DenizBank, Garanti Bank and Finansbank to finance the first phase of Istanbul Airport. Is this going to be a burden on the Treasury, considering the involvement of state-owned banks?

11. Stakeholder analysis:

* Note from 1 to 5 (most interested) who is the most interested in the development of the 3rd airport projects- Istanbul airport:

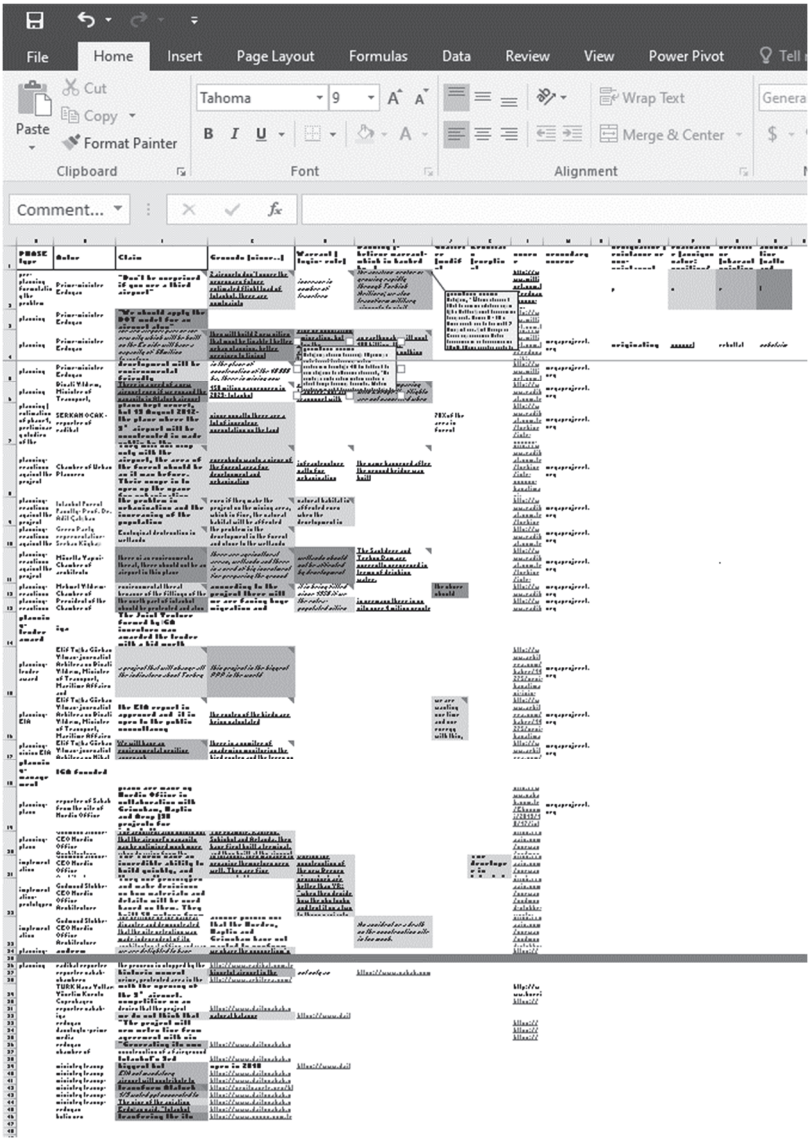
Istanbul Grand Airport organization
Citizens of Istanbul
Toki
Citizens of close-by villages: Yeniköy, Tayakadın, Akpınar, Ağaçlı
Private developer (Cengiz-MAPA-Limak-Kolin-Kalyon Consortium)
Kuzey Ormanlar Savunmasi
Chamber of Urban Planners
Chamber of Architects
Other Chambers: …
Other NGOs: ….
Academia (a university in particular): ...
Private sector in Turkey
Foreign architecture companies involved in planning
Foreign investors
Central government
Ministry of Transport, Maritime Affairs and Communications

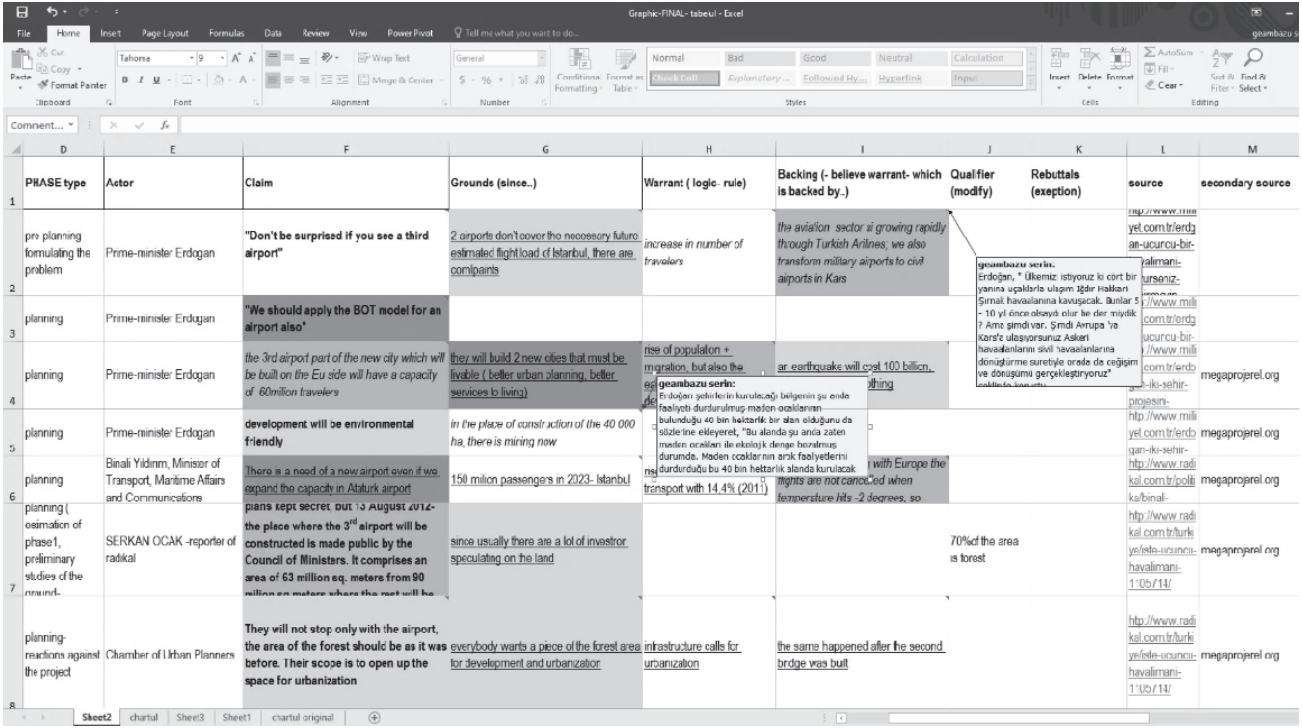
AKP political party
Other political party: …
Other: …

*Note from 1 to 5 (most powerful) who is the most powerful in the development of the 3rd airport projects- Istanbul airport:

Istanbul Grand Airport organization
Citizens of Istanbul
Toki
Citizens of close-by villages: Yeniköy, Tayakadın, Akpınar, Ağaçlı
Private developer (Cengiz-MAPA-Limak-Kolin-Kalyon Consortium)
Kuzey Ormanlar Savunmasi
Chamber of Urban Planners
Chamber of Architects
Other Chambers: …
Other NGOs: ….
Academia (a university in particular): ...
Private sector in Turkey
Foreign architecture companies involved in planning
Foreign investors
Central government
Ministry of Transport, Maritime Affairs and Communications
AKP political party
Other political party: …
Other: …

Annex no. 7 - Overview of excel table with arguments from the discourse used in the planning process of the Istanbul Airport and columns:





Graphic-FINAL- tabeul - Excel

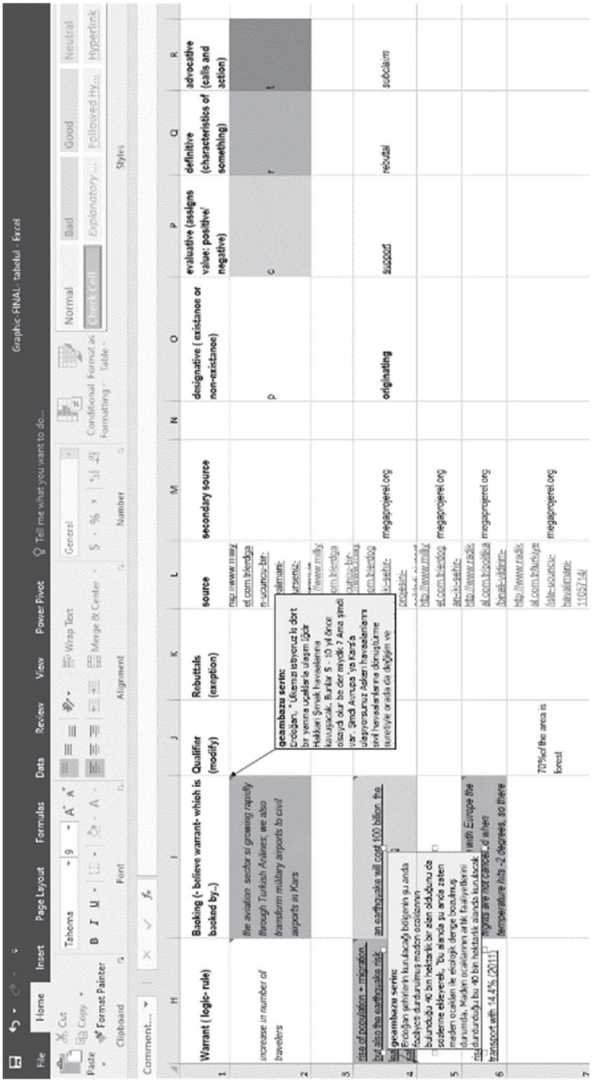
	D	E	F	G	H	I	J	K	L	M
1	PHASE type	Actor	Claim	Grounds (since..)	Warrant (logic- rule)	Backing (- believe warrant- which is backed by..)	Qualifier (modify)	Rebuttals (exeption)	source	secondary source
2	pre planning formulating the problem	Prime-minister Erdogan	"Don't be surprised if you see a third airport"	2 airports don't covor the necessary future estimated flight load of Istanbul, there are complaints	increase in number of travelers	the aviation sector si growing rapidly through Turkish Arilnes, we also transform military airports to civil airports in Kars			http://www.milliyet.com.tr/erdogan-ucuncu-bir-havalimani-ursenize-	
3	planning	Prime-minister Erdogan	"We should apply the BOT model for an airport also"						http://www.milliyet.com.tr/erdogan-ucuncu-bir-	
4	planning	Prime-minister Erdogan	the 3rd airport part of the new city which will be built on the Eu side will have a capacity of 60milion travelers	they will build 2 new cities that must be livable (better urban planning, better services to living)	rise of population + migration, but also the	ar earthquake will cost 100 billion,			http://www.milliyet.com.tr/erdogan-iki-sehir-projesin-	megaprojerel.org
5	planning	Prime-minister Erdogan	development will be environmental friendly	in the place of construction of the 40 000 ha, there is mining now					http://www.milliyet.com.tr/erdogan-iki-sehir-	megaprojerel.org
6	planning	Binali Yildirim, Minister of Transport, Maritime Affairs and Communications	There is a need of a new airport even if we expand the capacity in Ataturk airport	150 milion passenger's in 2023- Istanbul	transport with 14.4% (2011)	with Europe the flights are not canocled when temperature hits -2 degrees, so			http://www.radikal.com.tr/politika/binali-	megaprojerel.org
7	planning (osimation of phase1, preliminary studies of the ground-	SERKAN OCAK -reporter of radikal	plans kept secret but 15 August 2012- the place where the 3rd airport will be constructed is made public by the Council of Ministers. It comprises an area of 63 million sq. metere from 90 million sq meters where the rest will be	since usually there are a lot of investror speculating on the land			70%of the area is forest		http://www.radikal.com.tr/turkiye/iste-ucuncu-havalimani-1105714/	megaprojerel.org
8	planning- reactions against the project	Chamber of Urban Planners	They will not stop only with the airport, the area of the forest should be as it was before. Their scope is to open up the space for urbanization	everybody wants a piece of the forest area for development and urbanizatior	infrastructure calls for urbanization	the same happened after the second brdge was built			http://www.radikal.com.tr/turkiye/iste-ucuncu-havalimani-1105714/	megaprojerel.org

geambazu serin:
Erdoğan, " Ülkemiz istiyoruz ki cört bir yanına uçaklarla ulaşım ağır Halkları Sırnak havaalanına kavuşacak. Bunlar 5 - 10 yl önce olsaydı olur bi der miydik ? Ama şimdi var. Şimdi Avrupa 'ya Kars'a ulaşıyorsunuz Askeri havaalanlarını sivil havaalanlarına dönüştürme suretiyle orada da değişim ve dönüşümü gerçekleştiriyoruz"

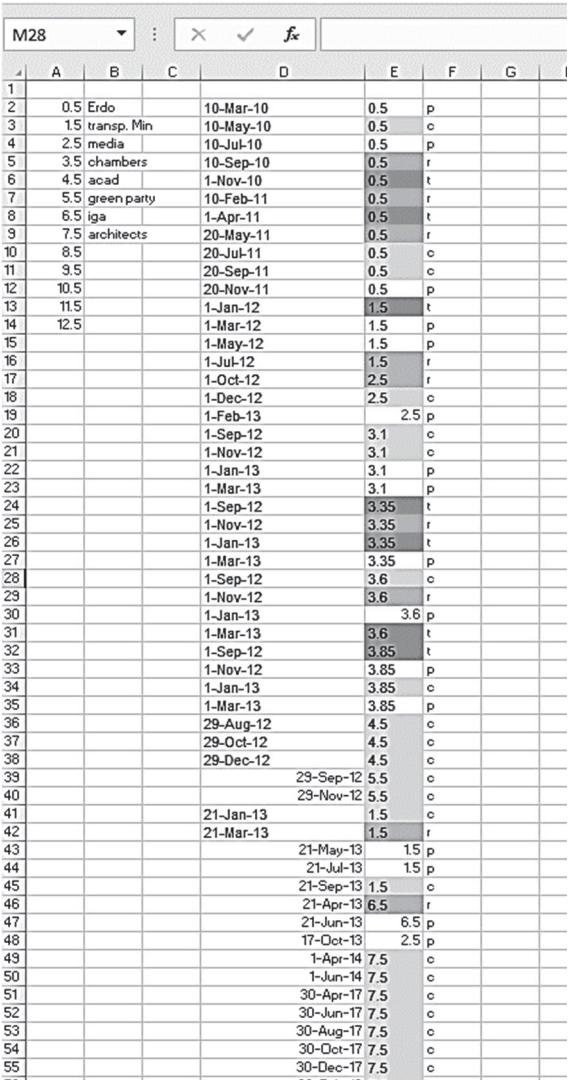
geambazu serin:
Erdoğan şehirlerin kurulacağı bölgenin şu anda faaliyeti durdurulmuş maden ocaklarının bulunduğu 40 bin hektarlık bir alan olduğunu da sözlerine ekleyerek, "Bu alanda şu anda zaten maden ocakları ile ekolojik denge bozulmuş durumda. Maden ocaklarının artık faaliyetlerini durdurduğu bu 40 bin hektarlık alanda kurulacak

Sheet2 | chartul | Sheet3 | Sheet1 | chartul original

Detail: sorted arguments according to the methodology, translated from Turkish language in English. The original claims are also kept in comments as shown underneath:



Classification of every claim and type and actor to make the spreadsheet:



	A	B	C	D	E	F	G
1							
2	0.5	Erdo		10-Mar-10	0.5	p	
3	1.5	transp. Min		10-May-10	0.5	c	
4	2.5	media		10-Jul-10	0.5	p	
5	3.5	chambers		10-Sep-10	0.5	r	
6	4.5	acad		1-Nov-10	0.5	t	
7	5.5	green party		10-Feb-11	0.5	r	
8	6.5	iga		1-Apr-11	0.5	t	
9	7.5	architects		20-May-11	0.5	r	
10	8.5			20-Jul-11	0.5	c	
11	9.5			20-Sep-11	0.5	c	
12	10.5			20-Nov-11	0.5	p	
13	11.5			1-Jan-12	1.5	t	
14	12.5			1-Mar-12	1.5	p	
15				1-May-12	1.5	p	
16				1-Jul-12	1.5	r	
17				1-Oct-12	2.5	r	
18				1-Dec-12	2.5	c	
19				1-Feb-13	2.5	p	
20				1-Sep-12	3.1	c	
21				1-Nov-12	3.1	c	
22				1-Jan-13	3.1	p	
23				1-Mar-13	3.1	p	
24				1-Sep-12	3.35	t	
25				1-Nov-12	3.35	r	
26				1-Jan-13	3.35	t	
27				1-Mar-13	3.35	p	
28				1-Sep-12	3.6	c	
29				1-Nov-12	3.6	r	
30				1-Jan-13	3.6	p	
31				1-Mar-13	3.6	t	
32				1-Sep-12	3.85	t	
33				1-Nov-12	3.85	p	
34				1-Jan-13	3.85	c	
35				1-Mar-13	3.85	p	
36				29-Aug-12	4.5	c	
37				29-Oct-12	4.5	c	
38				29-Dec-12	4.5	c	
39				29-Sep-12	5.5	c	
40				29-Nov-12	5.5	c	
41				21-Jan-13	1.5	c	
42				21-Mar-13	1.5	r	
43				21-May-13	1.5	p	
44				21-Jul-13	1.5	p	
45				21-Sep-13	1.5	c	
46				21-Apr-13	6.5	r	
47				21-Jun-13	6.5	p	
48				17-Oct-13	2.5	p	
49				1-Apr-14	7.5	c	
50				1-Jun-14	7.5	c	
51				30-Apr-17	7.5	c	
52				30-Jun-17	7.5	c	
53				30-Aug-17	7.5	c	
54				30-Oct-17	7.5	c	
55				30-Dec-17	7.5	c	