

Technoparks as Instruments of Neoliberal Governance: The Case of İTÜ ARIKENT

Ziya Batuhan Eper

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Declaration of Originality

The intellectual content of this thesis, which has been written by me and for which I take full responsibility, is my own, original work, and it has not been previously or concurrently submitted elsewhere for any other examination or degree of higher education. The sources of all paraphrased and quoted materials, concepts, and ideas are fully cited, and the admissible contributions and assistance of others with respect to the conception of the work as well as to linguistic expression are explicitly acknowledged herein.

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Abstract

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Ziya Batuhan Eper, Master's Candidate at the Atatürk Institute
for Modern Turkish History at Boğaziçi University, 2019

Assistant Professor Seda Altuğ, Thesis Advisor

Processes of neoliberalization in Turkey witness the gradual transformation of the character of university-industry partnerships. The enactment of Technology Development Zones Law in 2001 brought those relations in a whole new level where previously dispersed, irregular, informal practices of commercialization of knowledge and research were collected under a somewhat regulatory framework materialized in the form of technoparks. Therefore, university campuses all around the country started to be occupied by various companies of commercial or academic origins. Moreover, various institutions of the state also found a new field of involvement with higher education. These new conditions not only intensified already complex relations between state institutions, academicians and companies but also further blurred the lines between positions of these actors. Within this novel context of neoliberal governance which is still in the making, this study scrutinizes the contradictions of this system through a case study on İTÜ ARIKENT that was conducted in 2010-2011. Contrary to the larger trend in the related literature which takes these spaces for granted as practical measurable solutions for catching up with the late train of modernity, this study took a critical stance. It employs the historical analysis of neoliberalism in Turkey coupled with the assemblage of various theoretical approaches to explain the positions and interactions of the actors involved. In that regard, ARIKENT was chosen to demonstrate the part of numerous historical and spatial dynamics from different scales coupled with the discussion of the circumstances of her various stakeholders that are entangled into each other in competitive and collaborative modalities.

72,000 words

Özet

Neoliberal Yönetişim Aracı Olarak Teknoparklar: İTÜ ARIKENT Örneği

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Türkiye’deki neoliberalleşme süreçleri üniversite endüstri ilişkilerinin de karakterinin kademeli olarak değişimine tanık olur. Teknoloji Geliştirme Bölgeleri Yasası’nın 2001’de kabul edilmesi daha önce dağınık, düzensiz ve enformel olan bu ilişkileri teknoparklarda somutlaşan kısmen düzenleyici bir çerçevede bir araya getirmiştir. Dolayısıyla, ülke genelinde üniversite kampüsleri akademik veya ticari kökenli şirketler tarafından doldurulmaya başlamıştır. Üstelik, devletin çeşitli kurumlarının yüksek öğretim ile ilişkilenmesi için yeni bir alan ortaya çıkmıştır. Bu yeni koşullar, sadece devlet kurumları, akademisyenler ve şirketler arasındaki halihazırda karmaşık olan ilişkileri yoğunlaştırmak ile kalmamış, aynı zamanda aktörler arasındaki çizgileri daha çok bulandırmıştır. Hala şekillenmekte olan bu yeni neoliberal yönetim bağlamında, bu tez 2010-2011 yılında İTÜ ARIKENT üzerine yapılan vaka çalışması ile bu sistemin çelişkilerini irdelemektedir. İlgili literatürde bu mekanları geç modernlik trenine atlamak için pratik ve ölçülebilir çözümler olarak gören yönelimin karşısında bu çalışma kritik bu duruş sergilemektedir. Alakalı aktörlerin pozisyonlarını ve etkileşimlerini açıklamak için Türkiye’de neoliberalizmin tarihsel analizi ile çeşitli teorik yaklaşımları birleştirmiştir. Bu bağlamda, ARIKENT vakası çeşitli mekansal ve tarihsel dinamikleri, rekabetçi ve işbirlikçi bir şekilde iç içe geçmiş paydaşlarının koşulları ile birlikte göstermek için seçilmiştir.

72.000 kelime

To my dear mother and beloved wife

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Introduction

On November 5, 2011, the Ministry of Industry, Science and Technology launched a support program for graduate students in universities called SANTEZ. This program is designed to act as an incentive in the form of a scholarship for the doctorate students of the relevant departments that would be instrumental in solving the problems of the Turkish industry. That is to say, the whole processes of thesis research and writing will be located in-house or will be outsourced to an innovative firm which needs a solution partner from academia. Moreover, another incentive module, called techno-entrepreneurship, in the form of a “seed fund” to university graduates who intend to establish a start-up firm with the goal of producing a research and development(R&D) based product was also introduced in 2010.¹

These programs, composed as new modules under the far-flung policies of science and technology like technopark building, were presented by the Ministry and its collaborators, such as business associations, and related companies, as a novel invention of putting the needs of industries in line with the requirements of practicality of science. Thus, it seems to be a win-win game, where all parties have different benefits. However, it was rather visible in my

1 Elif Kalaycı, "Stakeholder Relationship Building Processes of R&D Based Startups: The Case of Techno-Entrepreneurs in Turkey," in *Innovation and the Entrepreneurial University*, eds. Dirk Meissner, Erdil Erkan and Chataway Joanna (Springer, Cham, 2018), 175.

observations and case study in 2010-2011 that most of the students, being assistants and interns, were used as cheap labor under the rubric of high tech production efforts and had considerably smaller role in the emerging new high-tech neoliberal governance.

Of course, neither the complex collaborative relations among universities, businesses and state is an invention of the period that I partially aim to discuss throughout this work, nor there is an equal match of benefits between the parties involved as it is announced as a win-win game. For the former, within the limits of this thesis, it is not possible to give a comprehensive history of the relationship between universities-being supposedly autonomous places for teaching and research- and the industries with the involvement of the state as a seemingly partial referee.

In this context, this thesis locates these relations in a small part of the history of the dynamics focusing on the inception of neoliberalism in Turkey during the 1980s. This period is also stamped by the persona of Turgut Özal to whom manifold academic works are devoted. In this study, as it will be discussed in the next chapter, I locate him as an important agent of neoliberalism, as a self-made and flexible competitive entrepreneur.

His engineering background in Istanbul Technical University(İTÜ), his presence in the organizations of the World Bank(WB) and State Planning Organization(SPO), together with his experience in the private sector made him a hybrid character who could maneuver among different networks of newly emerging neoliberal governance. I believe that his efficacy in the structural dynamics of neoliberal transformation also have similarities to the hybridized personas of the university-industry collaboration. On the other hand, my emphasis will be on the historical trends of that period that are in partial continuum with the formation of technoparks. All in all, it should be acknowledged that the developmental and entrepreneurial implications, emanated from that period, are of extreme importance in pointing out the tensions of the neoliberal governance in ARIKENT.

The initial phase of this thesis is marked by developments in continuum with the 1980s, such as the attempts to reorganize Higher Education Council(YÖK) in a more market-oriented fashion, the intensification of the transformation exerted by the Bologna Process into Turkish higher education, the

opening of Boğaziçi University technopark in 2010, and the steps taken to materialize Technopark İstanbul in Kurtköy as a part of national innovation strategy² to overcome the technology-dependency that manifest well-known modern desire of catching up.³ Technopark İstanbul also joined the rat race of being Silicon Valley in different local, national and international scales mostly focused on military technology production.⁴

From a political angle, I argue that these developments could be seen as a part of the second period of Justice and Development Party's (JDP) government of enhancing its electoral base in distributing certain resources among its supporters after the first period of building regulatory governance architecture and consolidating her power. However, the period also marked the moment where the relative economic stability started to hit the rock.

So, the political economic need of shifting from low-technology sectors to middle and high technology sectors finally seemed to grip the government. Amplified incentive systems during this period and further mushrooming of the technoparks could also be viewed as the manifestation of this trend. Kutlay and Karaoğuz reads these trends in a swing between the lines of neo-populism and neoliberal developmentalism.⁵

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- 2 For a comprehensive study on national innovation models that are originally inspired by List's term of baby industries, see: Erol Taymaz, *Ulusal Yenilik Sistemi Türkiye İmalat Sanayiinde Teknolojik Değişim ve Yenilik Süreçleri Raporu*, Tübitak Yayınları, Ankara, 2001, accessed August 15, 2019, <http://www.inovasyon.org/html/kitap.htm>
 - 3 Hadi Tolga Göksidan, Erkan Erdil, and Barış Çakmur, "Catching-up and the Role of University-Industry Collaboration in Emerging Economies: Case of Turkey," in *Innovation and the Entrepreneurial University*, eds. Dirk Meissner, Erdil Erkan and Chataway Joanna (Springer, 2018), 83-113. For the critique of modernization discourse of catching up, see: Harry Harootunian, *İmparatorluğun Yeni Kılığı: Kaybedilen ve Tekrar Ele Geçirilen Paradigma*, trans. Erkal Ünal (İstanbul: Boğaziçi Üniversitesi Yayınevi, 2006), 18.
 - 4 "Ankara Silikon Vadisi için atağa geçti", *Finans Gündem*, June 18, 2013, accessed October 7, 2019. <https://www.finansgundem.com/haber/ankara-silikon-vadisi-icin-ataga-gecti/385801>. For a performance evaluation article on Technopark İstanbul, see: Serap Tepe, and Abdül Halim Zaim, "Türkiye ve Dünyada Teknopark Uygulamaları: Teknopark İstanbul Örneği," *İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi* Yıl:15 Özel Sayı:29 (2016): 19-43
 - 5 Mustafa Kutlay, and Hüseyin Emrah Karaoğuz. "Neo-Developmentalist Turn in the Global Political Economy? The Turkish Case," *Turkish Studies* 19.2 (2018): 289-316.

However, for the significance of my case, it could still be argued that, as most of the literature on political economy of science and technology attest, the investment in high value-added economy crawls on fours and, particularly, economies of technoparks consist of a very small share in Turkey's gross domestic product (GDP) and exports. Although symbolic and material dimensions of their existence are much more important in studying different forms of neoliberal governance.

From the perspective of finance and its reflections on urban condition, 2010 witnessed the relative recovery of the world economy and abundance of hot money tilted various countries' strategies into attracting foreign capital for various urban projects, or what I will elaborate later, particular zoning projects (such as technoparks) accompanied by rising lure of megaprojects after megaprojects.

Last but not least, from a cultural aspect, innovation and technology occupied every echelon of life in general and higher education in particular. The so-called "Silicon Valley model" and manifold cross breedings with European and Asian zoning practices also set unreachable horizons in a pragmatic and expedient fashion, both by the politicians and also for various entrepreneurs from all shades of life. It signifies not only a seemingly high-tech regime of accumulation, but also a full capture on the institutions, spaces, cultures, and subjects of its targets.

In that vein, I will start my thesis with a short presentation of Silicon Valley model as a zoning of excellence to which all the comparisons with other models are built on. This governance model also promises what could be called "the elements of governance" such as synergy, accountability, performativity, flexibility, participation, horizontality, rule of law etc. Although these words are elusive and varied from context to context, they function as conceptual devices to grasp the relations of the actors under neoliberal governance regime. I will also implicitly try to read the historical and theoretical narrations under the light of these words to partially show the contradictions of neoliberal governance.

Hence, using governance parlance, Silicon Valley plays a role of ideal performativity for these vocabularies which makes the other technopark for-

mations of all sorts accountable to its cherished, yet dubious realities. Moreover, this comparative approach that always presents failures of the local experiments with respect to an ideal type conceals the historical realities of both cases in quantified standard numbers. Since most of the studies on technoparks struggle to evaluate these quantitative elements and answer the question “whether technoparks are successful or not”, my study is not concerned with successes and failures, it is just an attempt to picture ARIKENT’s ecosystem and rather critically look into the positions of her stakeholders.

I will implicitly try to show the ways these elements are both subverted, speculated and instrumentalized versions of their modern predecessors, what could be called “hard won values of enlightenment.” For instance, the word “synergy” is a sterile term for solidarity that unfortunately reminds us also a socialist ideology. Thus, it should immediately be discarded because it does not present a utilitarian value. Furthermore, these elements disguise the new class dynamics, power relations, inequalities under the new neoliberal regime.

Reading governance in a wider perspective of modernity, which tries to solve its own problems, also led to the studies of governmentality, which are extensively working on those elements of governance and the spaces and subjects upon which they touch. Looking into their partial genealogies, that are embedded in different histories in conjunction with global conditions invited to a critical look to those concepts. Through the analysis of recent history and various discourses that surround technoparks in general and ARIKENT in particular, I will attempt to show the contradictions they cause in a very limited fashion.

In this regard, this thesis scrutinizes the mechanisms of neoliberal governance⁶ arrangements in Turkey by exploring university-industry-government relationships in general and the distinct places called “technopark” in particular, within the context of the case of İTÜ ARIKENT, based on the research that was conducted between 2010-2011.

6 For detailed discussions of alternative global governance models, see: David Held, *Global Covenant: The Social Democratic Alternative to the Washington Consensus* (Cambridge: Polity, 2004); Giovanni Arrighi, *Chaos and Governance in the Modern World System* (Minneapolis: University of Minnesota Press, 1999).

Since, there is not any clear definition of technoparks, I will present one of the attempts to define technoparks given by Briggs and Watt:

As much as there is no consistent definition for *technology park*, there is also no consistent term for the functions that a technology park provides. While in the United States, "*technology park*," "*research park*" or "*research and technology park*" are frequently used, "*science park*" is popular in Britain and Europe and "*technopole*" is widely used in France. Comparing definitions based on different sources one can conclude either that *science/research park* is a synonym of technopark, or that those organization types have very much in common but still slightly differ from each other.⁷

In 2001, technoparks in Turkey obtained the current legal framework, which was established by the Technology Development Zones Law No. 4691.⁸ After the enactment of the law, technoparks -which before could be considered as pilot applications in a limited number of universities, such as the Middle East Technical University (METU) and İTÜ starting in the mid 1980s as rather exceptional practices- gradually mushroomed all around Turkey in university campuses, which have affected the rhythms of academic environment dramatically.

These zones, on a menu of assortment of benefits, mainly provide the companies with various tax cuts, incentive schemes and the prestige of having both an R&D office on campus together with immediate access to the commercialisable knowledge. They also enabled the companies to conduct their research in classrooms and laboratories; university's rectorate and technopark management company to collect rents from the company offices; the academicians to establish spin-off companies or to formally work for an existing firm in varying forms and finally, the government and its different units to work out some

7 A. Briggs, and S. Watt, "Technology and Research Parks. Report in 'Impacts of National Information Technology Environments on Business', American University, Washington, D.C., 2001.

8 For the subsequent amendments of the law, see: WIPO IP Portal, Law No. 4691 on Technology Development Zones, accessed August 15, 2019. http://www.wipo.int/wipolex/en/text.jsp?file_id=245146.

of the problems of the imagined developmental/regulatory state. The common ground, on which all the above-mentioned parties being uneasily united in variegated ways, is the entrepreneurial spirit that is envisaged by neoliberal governance a la Turca.

The rationale behind the law was indicated by the Ministry of Industry and Trade (MOİT), which officially authorized with the supervision of the zones. It states that:

To create collaboration between research institutes and industry in order to help the country in economy, international competition and export trading, production of technological knowledge, develop innovations in products and procedures, increase the quality or standard of product, increase the efficiency, lower the cost of production, commercialize the information, support the technology dense production and entrepreneurship, adapt small and middle scale enterprises to new and high technology, generate investment capabilities in technology dense areas with the permission of the Scientific and Technical Research Council of Turkey, create employment opportunity to the people who are researchers and scientists, help the transfer of technology, and create a technological infrastructure which helps to the entrance of foreign capital.⁹

As it could be observed from this text, the regulation is endowed with a paraphernalia of different and sometimes conflicting goals that are after transforming the campus. This seemingly brings an ecosystem of architectonic glass and steel buildings; cubicle, yet transparent, corporate stations and incubators; patent and technology transfer offices; inspirational/motivational conferences and workshops filled with selective biographies of success stories of self-inflicted entrepreneurs who had the courage to leave their precarious corporate life behind.

9 Website for Teknoloji Geliştirme Bölgeleri Kanunu Mevzuatı, accessed August 15, 2019. <http://www.mevzuat.gov.tr/MevzuatMetin/1.5.4691.pdf>.

Moreover, it is imagined as a dream place through which academicians who will no longer complain about their crumbling pay checks, wasted entrepreneurial potential, and dull bureaucratized routine of teaching and distant laboratory life; governmental offices who will no longer blubber about the lack of foreign direct investment, import dependency, unqualified labor pool, and national security concerns that which is seemed to be determined by technological dependency.

§ 1.1 Silicon Valley as the Ideal Model

This is more or less the picture presented by technoparks, that travels the world as a model whose original sin lies in Silicon Valley of Southern California.¹⁰ Since the end of the Second World War, the so-called case of “excellence”, using the new governance parlance, Stanford Research Park in Southern California, albeit its booms and busts, not only developed a huge economy (becoming a semi-autonomous unit, even maybe a country of its own) but also a model to be inspired, to be caught and to be mimicked relentlessly by its late-comer followers.

From macro to meso and micro studies, the literature on science and technology studies (STS), economic geography, economic sociology, political economy, public management, business administration, education sociology, political economy of development and many others are rife with the analysis of Silicon Valley and few other successful models.

10 First comprehensive study of the many cases of technopark formation in almost all around the world was conducted by Castells and Hall. This project conceived on the part of these authors to understand the new ways of life in the conditions of rapid globalization. Those zones also inspired Castells in reformulating his network approach to society. Peter Geoffrey Hall, and Manuel Castells. *Technopoles of the World: the Making of Twenty-first-Century Industrial Complexes* (New York: Routledge, 1994). Claims presented by this study also updated for today's conditions in the following work of multi-sited institutional study: Paul Benneworth, Julie Tian Miao and Nicholas A. Phelps, "Technopoles of the World: Changes, Dynamics and Challenges," in *Making 21st Century Knowledge Complexes: Technopoles of the World Revisited* eds Paul Benneworth et al., (Routledge, 2015), 25-42.

These places represent many phenomena, such as, the ideal types of the fashionable term of knowledge economy; high points of post-Fordism; industry-university-state partnerships in loose synergetic networks; all kinds of flexibility ranging from the status of labor to organizational, institutional and legal arrangements; the spatio-temporal settings in which all kinds of capitals (cultural, human, social, moral) could flourish. Now, I will try to give a broad picture of the trends in approaching Silicon Valley as a model.

Those analyses focus on micro-meso level of the formation of the Valley, they detach it from or poorly locating it into the larger histories of different scalar interactions (of global, national and local levels) through which one of the most beloved sites of Sunrise Industries of the U.S. is being gradually formed.¹¹ This trend seems to be applied not only to the treatment of the Valley but also to the other versions which have been designed or in the process of being arranged at a planetary scale.¹² Those parameters given above also work as new ways of knowing and practicing all around the world that form a huge pervasive industry consists of travelling experts of technopark making within national and global scales.

In most of the accounts, when historicizing different phases of unfolding the Valley as an ideal, the larger context is missed. There are some critical factors that are omitted in most of the works, such as Southern California's rich agricultural economy and mining facilities¹³ that purport the original accumulations for high-tech capital; the role of the federal government in channeling funds; the ebb and flow of legal arrangements that enable its existence; the U.S. hegemony during the post-war period and unprecedented expansion of its multi-national capital and the Anglo-Saxon model of market society into the regions behind the iron curtain; military industrial complex that was ripe in Cold War conditions; the large flight of upper-class mental labor from the

11 This messianic idiom is designated for newly rising numerous information technology businesses in the U.S.

12 Daniel Brooker, "From 'Wannabe' Silicon Valley to Global Back Office? Examining the Socio-Spatial Consequences of Technopole Planning Practices in Malaysia," *Asia Pacific Viewpoint* 54.1 (2013): 1-14.

13 For the early history of California's rich agricultural and mining base, see: George L. Henderson, *California and the Fictions of Capital*. (Oxford University Press, 1998).

limited labor pool of various Third World countries; the history of the faculty members conducting commercialized/militarized research under private-public partnerships to name a few.

Putting aside the story of Silicon Valley as a precursor for this study at this moment, and before discussing some of the important details about the characteristics of this “exceptional” local model and similar cases of zones whether based on cheap production capacities or high-tech industrial best practice in the conceptual chapter three, the formation of the Valley should be preconceived as a dramatic, although maybe not historically radical, divergence¹⁴ of the mode of production in the heartland of the Fordist regime coupled with equally intense changes in institutional arrangements (mode of regulation)¹⁵ and social formation within which practices, discourses, social relations and subjectivities are strongly shaped. In other words, it is argued that Silicon Valley was an important embodiment of the certain neoliberal fantasies, long before the neoliberal assault in the 1970s has started.

Strictly speaking, it has been argued that this formation process is a gradual, dynamic and deviant variation in the way of governance of capitalist production of the advanced U.S. capitalism that presents itself as a utopian model for institutional/organizational constellations elsewhere(s). As its unilinear success unfolds, it became both a viable and unrepudiated industrial policy in

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- 14 What is meant here is the effects of Silicon Valley on the downfall of Keynesian-Fordist regime. For a journalistic account of this discussion on divergence that focus on anti-regulationism, see: Alexis C. Madrigal, “What Should We Call Silicon Valley’s Unique Politics?,” *The Atlantic*, September 7, 2017, accessed October 1, 2019. <https://www.theatlantic.com/technology/archive/2017/09/what-to-call-silicon-valleys-anti-regulation-pro-redistribution-politics/539043>.
 - 15 The concept is coined by Regulation School scholars that conveys not only a set of institutions but also a particular culture (a set of behavioral patterns) that fit into the existing regime of accumulation (cycle of production, investment and consumption). As for the mode of production, it is accepted as an attempt to combine mode of regulation and regimes of accumulation. Alain Lipietz, “Rebel Sons: the Regulation School.” *French Politics and Society* 5.4 (1987): 17-26. For detailed discussions of the regulation school, see: Robert Boyer, *The Regulation School: a Critical Introduction* (Columbia University Press, 1990); Bob Jessop, “The Regulation Approach, Governance and post-Fordism: Alternative Perspectives on Economic and Political Change?,” *Economy and society* 24.3 (1995): 307-333.

general and science and technology policy in particular for manifold regional and sub-regional (neo-) developmental agendas, nation state strategies, company actions, and group and individual dispositions.

After the neoliberal competitive assault of the 1980s in almost all around the world, as a response to the crises of Keynesian-Fordist regimes of different shades, this new high-tech modernization has gained a greater significance.¹⁶ The emphasis on technology and innovation in the growing, and mostly financial, interconnection within the world yielded itself to the massive production of media coverages and academic, business reports and articles.

This internalization process called globalization in many accounts also partially occurred due to the very achievements of the Information Communication Technologies (ICT) which are mostly produced in and emanated from the high-tech sectors of capitalist centers, mainly from the U.S. This process also brought a dual structure of de-industrialized old “rust belt” industries and new highly promising high-tech businesses coupled with rising service sectors of retail, consultancy, design, and finance, together with hyper-urbanization.¹⁷

For instance, as one of the attempts to show the material effects of this model, Heitzman intends to discuss the relationship between the construct of the global city and models of planning and industry. He presents this dual structure in the Third World context in his study on Bangalore which works as a global back office for multinational software companies. According to him, massive employment in industrial factories and backward capacity in

16 Some elements of this “newness”, as it is presented by Castells, are worthwhile to be noted before this thesis stretches out: “What is new about all this? *Chips and computers are new; ubiquitous, mobile telecommunications are new; genetic engineering is new; electronically integrated, global financial markets working in real time are new; an inter-linked capitalist economy embracing the whole planet; a majority of the urban labor force in knowledge and information processing in advanced economies is new; and the emergence of a network society, based on a space of flows, and timeless time, is historically new.*” (Emphasis added) Manuel Castells, *End of Millennium: The Information Age: Economy, Society and Culture*, Vol.3 (Blackwell Publishing, 1998), 372.

17 For the case of Detroit’s downfall, see: Ann Laura Stoler, *Duress: Imperial durabilities in our times*. (Duke University Press, 2016), 362.

technology of most of the businesses hardly fits the frame of Silicon Valley image that began to circulate in national and transnational circles in the 1960s.¹⁸

In conjunction with the relentless rise of financial capital, going back to the end of the 1960s, coinciding with the demand-side crisis of international Fordism, and the capillary processes of financialization, this new pattern of (neo-)development has steadily gained great purchase both in the countries of the late capitalism, semi-peripheral states of South-East and East Asia,¹⁹ and most of the Third World countries as well.

Especially East Asian and South East Asian incorporation into global capital circuits were ornamented with zoomorphic metaphors that inspire social Darwinist style of a developmental success, such as Asian Tigers and Flying Gees.²⁰ The promises of endless growth accompanied by affluent middle class formation of the proper market lured every country into policy networks of new neoliberal governance led by the international institutions, multinational companies, the transnational (expert) classes and the developed nation states.

Up until today, continual, yet occasionally interrupted, metamorphosis occurred in the scalar levels of governance of all societies. These movements also involve the formation and dissolution of distinctive constellations of supra-national, national, sub-national arrangements. These variegated processes overdetermine the conditions of spatiotemporal settings and various actors in

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- 18 James Heitzman, "Corporate Strategy and Planning in the Science City: Bangalore as 'Silicon Valley'," *Economic and Political Weekly* (1999): 5.
 - 19 East Asian miracle story started with Japanese U.S backed economic success in the 1960s. Other contenders jumped in the bandwagon of the global production networks following nuanced paths such as South Korea, Taiwan, Hong-Kong, Singapore, Thailand and Indonesia. For an extensive literature of Asian developmental state, see: Alice Amsden, *The Rise of "the rest": Challenges to the West from Late-industrializing Economies* (Oxford University Press, USA, 2001); Meredith Woo-Cummings (ed.), *The Developmental State* (Ithaca, NY: Cornell University Press, 1999); Robert Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton: Princeton University Press, 1992).
 - 20 For the explanation of the metaphors of growth presented just before the developmental success story dissolves with Asian crisis of 1997, see: Joseph E. Stiglitz, "Some Lessons from the East Asian Miracle," *The World Bank research observer* 11.2 (1996): 153-155.

situ. As the neoliberal policies tend to both converge and diverge from disparate sites, social traditions and institutional cultures in return face with different sorts of resistors and conciliatory reflexes and rigidities, and every confrontation affects the trajectories of contexts in manifold forms.

Within the confines of this study, from the political economic perspective, it is argued that this model of wannabe high-tech development and its accompanying and unending adjustments, as it is painfully struggled to be applied in Turkish context in broad brushes composes of a strange hybrid of developmental ideas and practices that range from Third Worldism, statism,²¹ Keynesianism to economic ideologies of various sorts, such as neoclassical, institutionalist, Schumpeterian²² combined with the exaltation of individual enterprise in a neoliberal fashion. Tenseness emanating from this mixture underlines my debate about neoliberal governance in technoparks.

§ 1.2 Questions of the Thesis

By locating technoparks in the complex series of great transformations, that will be demonstrated in the next chapter in a piecemeal fashion, in the form of the state-business relations, laws, regulatory frameworks, finance, plans, spaces, work, mentalities, and subjects, this thesis aims to discuss contradictions of neoliberal governance, in Turkey through the lens of technoparks, especially by focusing on two interrelated general phenomena : The institutional, legal and spatial arrangements of neoliberal governance and the partial encounters between different actors of technopark's governance ecosystem.

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- 21 For a detailed discussion of wrong diagnosis of the Turkish mainstream left of the 1970s about the social and economic problems of Turkey: Ahmet Samim, "The Tragedy of the Turkish Left," *New Left Review* 126.1 (1981): 60-85. For a (neo)Marxist critique of these models: Hae-Yung Song, "Marxist critiques of the developmental state and the fetishism of national development," *Antipode* 45.5 (2013): 1254-1276.
 - 22 Kishor Thanawala, "Schumpeter's Theory of Economic Development and Development economics," *Review of Social Economy* 52.4 (1994): 353-363; Paul Krugman, "The Fall and Rise of Development Economics." *Rethinking the Development Experience: Essays Provoked by the Work of Albert O. Hirschman* (1994): 39-58; Ricardo Hausmann and Dani Rodrik, "Economic Development as Self-Discovery," *Journal of Development Economics* 72.2 (2003): 603-633.

My main question here is (together with other related questions): Which structural processes and actors were in effect in the formation of ARIKENT ecosystem? I also focus on sub questions such as: In what ways the different parties (mainly academicians, various components of the state as state effects and businesses) in the technopark are in relation to each other? How they position against each other in the face of perceived governance or market failures? How technical standards of global governance and national legal texts encounter? How the interplay of different developmental models affects the governance structure? I will try to limit the topics of governance on the aforementioned sub-elements of governance such as synergy(collaboration), horizontality, accountability, participation which will be absorbed in the discussion of governance.

In answering these questions, I preliminarily argue that the ecosystem of technoparks in general and ARIKENT in particular contain relations with full of contradictions among the actors. Moreover, what is promised by the elements (accountability, synergy, performativity, transparency, participation, etc.) of the neoliberal governance introduced new hierarchies, halts in performance, problems of multiple accountabilities, opaque fields, exclusionary dynamics , and conflicts among competitive tendencies of the different calculative parties whose actions are shaped and reshaped within the interaction of the different scales formed and reformed by the transformation of various thick and thin structures.

§ 1.3 A Short Introduction to the Literature on Technoparks in Turkey

The literature on science and technology in general and technoparks in particular did not has its focus on Turkey before the establishment of these zones, although there is a considerable literature on organizational and industrial districts, small and medium enterprises (SMEs), technological capabilities, knowledge society, post-Fordism, the effects of incentive schemes, and funds circulating from international institutions of global neoliberal governance.

The focus of science and technology studies is mostly based on their effects on industrial development of Turkey. They are framed in the long-lasting concerns of overcoming Turkish peripheral status in the world economy (and newly rising so-called post-industrial knowledge society), focusing on her dependence on knowledge and technology that is produced in the west, lack of foreign direct investment in R&D, reluctance of both private and public sector to innovate, and lack of brain power.²³ Focus on local, regional and agglomeration economics of various sorts is rampant. These studies mainly assess the level of collaboration between different actors in order to find a meaningful correlation between this level and the level of development.²⁴

Most of these studies are based on quantitative data presentation of development indicators of various kinds, and comparisons of the Turkish case with other descriptively presented successful cases of certain developing countries. They are formed in the fashion of optimization studies, which are in accordance with worldwide trends, without critical political economic approach or sociological reflection, which is after all in resonance with the mainstream worldwide trends in approaching technoparks.

This literature mostly serves as policy making suggestions, that sets the goals of the different parties in complex governance schemes that are given in two-dimensional graphical models, proposing legal and institutional arrangements that point out the obstacles therein. As the body of studies on regulation, managerial and institutional optimization for success, and leadership models are accumulated, the concerns started to focus on elements of governance that have the most functional meanings such as performance, accountability, risk management, and synergy.

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- 23 Chrisanthi Avgerou, "The Link between ICT and Economic Growth in the Discourse of Development" in eds. M. Korpela et al., *Organizational Information Systems in the Context of Globalization* (Boston: Springer, 2003), 373-386.
 - 24 Ayda Eraydin, and Bilge Armatli-Köroğlu, "Innovation, Networking and the New Industrial Clusters: the Characteristics of Networks and Local Innovation Capabilities in the Turkish Industrial Clusters," *Entrepreneurship & Regional Development* 17.4 (2005): 237-266.

Moreover, third party involvement in state institutions including higher education in various shapes is mostly located under the banner of public-private partnerships²⁵ and privatization, which started to flourish in the mid 1990s. Critical studies within these concerns focus on neoliberalization processes and their effects on the changing character of universities, research, knowledge that are in accordance with new neoliberal regulation and marketization imperatives.²⁶

In line with these concerns, one of the first affirmative studies on technoparks was conducted in Turkey by Babacan,²⁷ which made an attempt to judge whether technoparks are appropriate tools for economic development and she made some early remarks on policy modeling. Related literature gradually expanded with the enactment of the above-mentioned law of Technology Development Zone. Here, it should be emphasized that there is no single study of technoparks in Turkey, to my knowledge up today, which tries to locate them in the broader dynamics of global capitalism, tries to point out the conceptual and material inspirations and handles them as the governance unit of the neoliberal globalization.

Besides master's theses and doctoral dissertations, critical approaches to technoparks reserved as small sections in manifold works focused on broader changes in social state, science and technology policies, education policies,

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- 25 For the elaboration of this practice under the wider discussions of neoliberal development, see: Faranak Miraftab, "Public-Private Partnerships: The Trojan Horse of Neoliberal Development?," *Journal of planning education and research* 24.1 (2004): 89-101.
- 26 Gülay Aslan, "Neo-liberal Transformation in Turkish Higher Education System: A New Story of a Turning Point: Draft Proposition on the Higher Education Law," *Journal for Critical Education Policy Studies (JCEPS)* 12.2 (2014): 255-283; Selda Polat, "Neo-liberal Education Policies in Turkey and Transformation in Education," *Journal for Critical Education Policy Studies (JCEPS)* 11.4 (2013): 159-178; Simten Cosar, and Hakan Ergul, "Free-Marketization of Academia through Authoritarianism: The Bologna Process in Turkey," *Alternate Routes: A Journal of Critical Social Research* 26 (2015): 101-124; Kemal İnal, and Güliz Akkaymak, eds. *Neoliberal Transformation of Education in Turkey: Political and Ideological Analysis of Educational Reforms in the Age of the AKP* (Springer, 2012); Işıl L. Ünal, "Öğretmen İmgesinde Neoliberal Dönüşüm," *Eğitim Bilim Toplum* 3.11 (2005): 4-15.
- 27 Muazzez Babacan, *Dünyada ve Türkiye'de Teknoparklar* (İzmir: Dokuz Eylül Yayınları, 1995).

wider formations of university-industry partnerships, marketization of universities and so on.

There are only three studies which deviates from the existing trends wholly devoted or partially targeting to technoparks. First, Kodalak's master's thesis, which focuses on the changing character of employment in the post-modern shop floor of METU technopark.²⁸ Other affirmative studies are written in a wide range of disciplines (from technology studies to urban architecture, from economy to political science), and almost all of them lack a macro structural or historical approach, while presenting policy recommendations or technical solutions for the betterment of these spaces in various aspects.²⁹

These studies are based on aspects like assessment, impact evaluation, financial problems, incentive mechanisms, design criteria, contribution to growth and development, performance of firms, infrastructural problems, effects on local development, comparative studies, the role of knowledge in global competitiveness, comparisons between developed countries and Turkey, and the university-industry cooperation model offerings. Here, the performance metrics, indexes, and indicators such as GERD (Gross Domestic Expenditure in R&D) in GDP are imposed as a target in most of these works

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- 28 C. Metin Kodalak, "Personal Consequences of Work Under New Economy" (M.A. Thesis, METU, 2007). However, it neither properly historicizes the context in which METU is gradually incorporated into industrial exploitation processes nor it gives a simple outline of global and military production networks which cover METU Technopolis.
- 29 Mustafa İhsan Kızıldaş, "The Dilemma of Flexibility in the Spatial Development of Science Parks The Case of METU-Technopolis" (M.A. Thesis, METU, 2006); Özlem Balkan, "Architectural Spaces of Innovation The case: METU Technopolis" (M.A. Thesis, METU, 2006); Murat Kemal Keleş, "Türkiye'de Teknoparklar: Bir Amprik İnceleme" (M.A. Thesis, Süleyman Demirel Üniversitesi, 2007); Irene Vucic, "Cooperation and Cluster Strategies Within and Between Technology-Intensive Organizations: How to Enhance Linkages among Firms in Techno-parks" (M.A. Thesis, METU, 2009); Cihan Talha Çağıl, "Türkiye'de Ulusal Teknoloji Politikaları ve Teknoparkların Bölgesel Gelişmeye Etkileri," (M.A. Thesis, İstanbul Teknik Üniversitesi, 2007); Alper Bilgili, "Üniversite – Sanayi İşbirliğinde Teknoparklar: Bursa Ulutek Teknoloji Geliştirme Bölgesi Örneği" (M.A. Thesis, Çanakkale Onsekiz Mart Üniversitesi, 2008), Sevcan Karahan, "Üniversite-Sanayi İşbirliğinde Teknoparkların Yeri ve Gaziantep Teknoparkı" (M.A Thesis, Gaziantep Üniversitesi, 2009).

without questioning the quality of the ways through which expenditures are used.

As governmentality studies of various sorts point out, it is common to present developmental issues which bring wider social consequences as technical problems to be solved by experts and standards circulating from transnational governance networks.³⁰ This attitude neutralizes the political character of the subjects at hand. Most of these studies use surveys to collect their data on the perceptions of the parties involved. Although in rare instances, interviews or ethnographic observations are included as well. Qualitative data analysis softwares are used to process ambiguously codified data in presenting social facts that are “disembedded” from their multi-scalar contexts.

A study which presents an exception to the general fashion is Sart’s dissertation,³¹ which uses the conceptual framework provided by Robertson et al. that is called “multi-scalar governance approach” to demonstrate the hierarchic relations of actors and interests between different scales and changing scalar positions.³² Governments, higher education institutions, and third parties that are involved are all shaping the policies, discourses, and practices dynamically and interdependently in multifaceted forms.

Her thesis asks certain questions, such as do technoparks cause segregation in the campus space, which actors have privileged positions in decision making processes etc. to conceive the exclusionary, opaque, non-accountable, and hierarchic forms that come into existence. However, the study in its experiential, mathematically modeled micro-meso level character and improper historical contextualization of the aforementioned relations falls short on argumentation, yet it provides us with rich empirical data, which consists of

30 Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (University of California Press, 2002); Vaughan Higgins and Wendy Larner, "Standards and Standardization as a Social Scientific Problem," *Calculating the social*, eds. Vaughan Higgins and Wendy Larner (Palgrave Macmillan, London), 2010, 1-17., Judith Butler, and Athena Athanasiou, *Dispossession: The Performative in the Political* (John Wiley & Sons, 2013), 40.

31 Gamze Sart, “The Transformation of Higher Education by Means of Techno-parks: Case of Turkey” (Ph.D. Diss, Boğaziçi University, 2013).

32 Susan Robertson, and Roger Dale, Local States of Emergency: the Contradictions of Neoliberal Governance in New Zealand, *British J. of Sociology of Education*, 23 (3), (2002): 479.

thirty-five participants from diverse backgrounds, such as managers, academicians, directors of the technoparks, and student interns whose voices are rarely heard in the general literature.

The study is also relatively novel in terms of using the literature on academic capitalism; it provides various mechanisms through which gendered asymmetries of opportunities that are produced under the neoliberal governance of technoparks. A dimension which is completely overlooked in my approach because of the scope of my study.

However, one important theoretical problem of this study is its employment of the term: “human capital.” It is pronounced several times throughout the pages, once interchangeably with the concept of “intellectual capital.”³³ Moreover, strong correlations which are drawn by Organization of Economic Co-operation and Development (OECD) reports on technological development between low scores on innovation capacity and low human capital development are presented without further elaboration.³⁴

Based on the works of Ercan et al.³⁵, she criticizes the utilitarian conceptions of education without mentioning the mechanisms through which this approach is formed.³⁶ In addition, the concept is not clearly defined in its historical formations, as it was first coined by Chicago School Sociologist Gary Becker which relies on the neoclassical assumption that human behavior is inherently rational and utility maximizing. Even altruistic behavior is conceived by him as a utility maximization act. So, people should approach every sphere of existence as investments to reap the returns as profits. The classical liberalism is reformulated by reestablishing its stereotypical man of exchange as a competitive subject who seeks after her/his human capital enhancement.

Along the same line, for Foucault, the practices are devised to measure certain effects of educational investments as performance to respond to the

33 Sart, “The Transformation,” 22.

34 Ibid, 219, 419.

35 Fuat Ercan, and Serap Korkusuz Kurt, *Metalaşma ve İktidarın Baskısındaki Üniversite*, (İstanbul: Sosyal Araştırmalar Vakfı (SAV), 2011).

36 Sart, “The Transformation” 409.

question “what are the effects on human capital that may be utilized.”³⁷ Moreover, combined with a Schumpeterian understanding of manpower enhancement³⁸, for him, developmental problems of the Third World are framed from the perspective of this micro-economic approach:

The growth and development of Third World could be thought, under-development is also stemmed from the insufficient investment in human capital, enhancing the potentialities of men and pushing innovation.³⁹

All in all, this approach converts labor to human capital, welfare queens to self-responsible subjects, needy masses to empowered resilient communities, and all sorts of collectivity to utilitarian atoms that constitute one of the many shells of neoliberal governmentality. This concept also functions as a pseudo-scientific base for the policies like cuts on welfare expenditure,⁴⁰ dismantling of unions, precarious working conditions and low wages⁴¹ that are encircled by capitalist⁴² and imperialist exploitation. Within the context of high-tech economy, it also fits with the cosmopolitan aspirations of certain portion of

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- 37 Michel Foucault, Arnold I. Davidson, and Graham Burchell, *The Birth of Biopolitics: Lectures at the Collège de France, 1978-1979* (Springer, 2008), 229.
 - 38 Ibid., 231.
 - 39 Ibid., 232.
 - 40 Paul Crawshaw, “Governing at a Distance: Social Marketing and the (bio) Politics of Responsibility,” *Social Science & Medicine* 75.1 (2012): 200-207.
 - 41 Saxenian et al. contend, based on their empirical research, that high wages in relatively stable jobs and government offices divert potential talents from entrepreneurship. AnnaLee Saxenian, Bresnahan, Timothy, and Alfonso Gambardella, “‘Old economy’ Inputs for ‘new economy’ outcomes: Cluster formation in the new Silicon Valleys,” *Industrial and corporate change* 10.4 (2001): 836, 858. Thus, they call government to action to get rid of “old economy inputs” to “encourage the emergence, growth and maintenance of clusters and how they might achieve the level of positive feedback and ongoing success of Silicon Valley itself.”
 - 42 As Alliez and Feher points out at the end of the 1980s: “Corporations’ recourse to subcontracting plays a fundamental role in this to the extent that it turns the workers’ desire for independence into a business spirit that meets capital’s growing need for satellites.” Eric Alliez and Michel Feher, *The Luster of Capital*, trans. Alyson Waters, *Zone*, 1/2, 315-359.

middle classes and elite reformers of the Third World as Lily Irani demonstrates in the case of India.⁴³

Therefore, productive power of neoliberal governance makes individuals give consent to various competing fractions of capital, institutions and nations by means of not passive submission but active self-regulation.⁴⁴ This mentality also presents the space for resistance which is constantly made and unmade. In this vein, technopark's ecosystem could also be conceived as a game where alliances and disaccords between actors are brought to bear on the rules of the design of which they constantly criticize.

Last study that is worth consideration is Karaoğuz's work on the political economy of innovation. This study is the only macro-political analysis in hitherto literature that draws from a large body of work based on the subjects, such as varieties of capitalism (of development, regulation, and crony state types), neo-populism, clientelism, and executive interference to bureaucracy/technical/professional parties in the formation and implementation of the policies.

Through the interviews with bureaucrats, professionals, and politicians of policy making processes, he historicizes the variegated forms by which neoliberal governance schemes are translated through the struggles between executive, technical, legislative, and judiciary actors. His reading of incentive schemes as a redistribution practice to sustain a balance between different electorate bases is novel in the Turkish literature on technoparks.

He argues that during the JDP era, selective allocation of incentives based on merit and capabilities of previous decade is abandoned in order to get support from wider clientelist networks.⁴⁵ As most of the interviews I conducted in İstanbul and Ankara demonstrate that this phenomenon is widely criticized as the "waste of limited resources" allocated to science and technology policies

43 Lily Irani, *Chasing Innovation: Making Entrepreneurial Citizens in Modern India* (Princeton University Press, 2019), 21.

44 Lois McNay, "Self as Enterprise: Dilemmas of Control and Resistance in Foucault's *The Birth of Biopolitics*," *Theory, Culture & Society* 26.6 (2009): 63.

45 Hüseyin E. Karaoğuz, "The Political Economy of Innovation: Technological Nationalism, Executive Interference, and Neo-populism in the R&D Sector in Turkey" (PhD Diss. Central European University, 2016), 129-130.

in general and technoparks in particular. Although it could be said that prominent universities still enjoy the large portions of these resources. This also demonstrates the tension between populist needs of redistribution among various clientele and requirements of neo-developmentalism.

Furthermore, Karaoğuz's employment of the concept of "technological nationalism" in understanding inefficacy of oppositional voices in the mantra of technological developmentalism is revealing for the case I faced as well. By using the parliamentary archives of 2001, concerning the debates on Technology Development Law, he compares and contrasts divergent views and interests of the legislative parties.⁴⁶

This term demonstrates how the framing of problems in a developmental fashion in R&D policy are combined with the opposition's institutional weaknesses in policy making forecloses the debates for alternative developmental paths or more inclusive models of governance.⁴⁷ What he calls "magic words" of R&D and innovation force every party to converge on the catching-up fetish.⁴⁸ However, I argue that technological nationalism functions as the legitimization of allocation of public resources to private benefits as could be seen in the cases of technoparks in general and ARIKENT in particular. For instance, as I asked ARIKENT's technopark management company about their thoughts on Silicon Valley, they answered in quoting from the *Business Week* article published a couple of years before the dot-com bubble that writes: "Silicon Valley springs into life 63-dollar millionaires every day."⁴⁹

Then, their answer goes on connecting the individual enrichments to developmental leaps for the whole society. Finally, it connects the story to the lack of monetary resources and experience of Turkey ended up in a position where the respondent calls the state in developmental action. I think that these conflictual chain of passages from individual to society and state also could be read in continuum with the wider genealogies of creating "Little Americas" in

46 Ibid., 179-189.

47 Ibid., 44-58.

48 Ibid., 94.

49 See answer to the question 12 in Appendix A.

Turkey starting in the 1950s and creating a millionaire in every neighborhood.⁵⁰ These dynamics, as it is demonstrated in the given answer, also indicate the conflicts between not only public benefits and private vices but also the contradictions of the neo-developmental model in the national scale as a combination of entrepreneurial spirit and national development.

In a nutshell, covering all of the subjects given above in the presentation of his thesis, Karaoğuz takes the ranks with other authors of developmental state literature in general and technoparks literature in particular in claiming that “Turkish state has yet to develop the institutions of the developmental state in the R&D sector.” This observation leans on the problems such as bureaucracy’s absence of autonomy vis-à-vis the executive (executive interference), the bureaucracy’s lack of embeddedness, and problems in regard to bureaucratic coordination etc.⁵¹ Hence, it compares Turkish state policies with some supposedly ideal developmental models without both critically approaching those ideal types and demonstrating other factors related with subject formations and transnational neoliberal governance mechanisms that are attempted to be covered in my study.

§ 1.4 Methodology of the Thesis

In order to partially uncover those governance mechanisms and present a portrait of ARIKENT, mainly two sorts of resources are utilized: I) questions answered by technopark management firm (that are presented in the appendices), and ii) 8 interviews conducted with the different components of the larger technopark ecosystem (2 state officers, 3 academicians, 3 company managers). The interviews are in semi-structured form in durations changing from thirty minutes to two hours. Most of the recordings could not be taken because interviewees do not permit, that is why the notes during the conversations are used. Furthermore, a limited quantitative data will be presented. This

50 For a recent work on the affirming and opposing views of American modernization in Turkey, see: Perin E. Gürel, *The Limits of Westernization: A Cultural History of America in Turkey*. (Columbia University Press, 2017).

51 Karaoğuz, *The Political Economy*, 31.

works as a complementary element to support the methodology so as to be better able to interpret the findings and understand the position of ARIKENT.

Moreover, other materials are gleaned from a survey conducted with the companies of five technoparks from Ankara and İstanbul including ARIKENT. This survey is conducted for the purpose of another master's thesis and provided me with a few interpretable statistics such as the level of collaboration among the companies in technoparks.⁵² Last but not least, various conferences, and workshops I participated; manifold websites mostly belong to technopark companies and related state offices, state supervisory board(DDK) investigation report on technoparks (published in 2009); and other secondary material, mostly theses and dissertations on technoparks in Turkey, that complement the primary data and make me grasp a broader picture for the technoparks in Turkey, are used.

Most of the data are eliminated or not directly made evident due to space and time considerations, and the presentation and discussion of the existing material only provides a partial reflection of whole complex reality of İTÜ ARIKENT and the wider locality it is situated in particular and technoparks in Turkey in general. Interviews are in a semi-structured form and also consist of visits to other technoparks in Ankara and İstanbul.

During the interview phase of this research, many difficulties, associated with doing research on elite institutions and relatively elite actors, were faced.⁵³ I was put into the identity position of a hybrid/liminal sort. Moreover, that period coincided with a regulatory chaos of changing, contradicting and unclear laws, regulations, and guidelines concerning the technoparks. This chaos

52 "In this survey, questionnaire forms were distributed among 242 New Technology Based Firms (NTBF) in five technoparks. 168 companies, which makes the 69.4 percent of companies that received the questionnaire, responded to the survey. The respondents varied from the owner of the firm to the general manager or people in various departments mostly from R&D and engineering. (Bilkent Cyberpark, METU technocity, GOSB teknopark, Tubitak MAM technocity, ITU ARI technocity)" Çağlar Polat, "Assessment of Technology Development Activities in Turkish Technoparks" (M.A. thesis, Boğaziçi University, 2007), 61.

53 For a detailed elaboration on the difficulties studying up, see: Laura Nader, "Up the Anthropologist—Perspectives Gained from Studying Up," in *Reinventing Anthropology*, ed. D. Hymes, (New York: Pantheon Books, 1972), 284–311.

not only complicated already complex nature of the study but also provide some useful cases concerning the interactions of the actors.

At the phase of interviews, in one of my technopark visits, authorities confused me with a company owner whose intent of arriving their office was to talk about the terms of renting an office space in the technopark. When they figured out the truth, they delegated the permission to the higher authority of Ministry of Industry and Trade. In another case, my unsolicited visit was interrupted abruptly as I reveal my intent: “this is a private company, we cannot talk to you without appointment.”⁵⁴ In a final telling case, of visiting a professor who is active in his university’s technopark, my presence was confused with a computer engineering graduate student who was going to apply to their department, when my young social scientist identity revealed talks were all cut short.

The most important problem about my interviewees is their “lack of time,” not to mention their shattered subjectivities between teaching duties, research necessities, and entrepreneurial ventures. Some of the informants were in forty hours non-stop working projects during the period I observed; the real effects of time-space compression coined by Harvey⁵⁵ does reflect a real component of technoparks, indeed. Besides, when my respondents also acted safely, in most of the cases they disclosed no more information than what is written in policy documents or in their organization’s websites.

The situation necessitated finding a key person to escape from the vicious cycle. Finally, when I managed to find one, I was able to get into some relatively deeper level analysis. Through that contact, ARIKENT technopark management company was kind enough to answer my qualitative and quantitative questions, which presented a valuable source at the time and they also provided limited contacts with other members of technopark ecosystem. Most of the questions started with the actor’s perceptions of the technoparks and unfolded presenting facts and comments not only about ARIKENT but also about the topics such as the state of science and technology policies in general,

54 The original text is as follows: “Burası bir özel şirket, randevusuz gelmeyin!”

55 David Harvey, *The Condition of Postmodernity* (Oxford: Blackwell, 1989), 284-307.

the situation of technoparks at the time, actors' perceptions about the key figures in the technoparks, related histories, technical and conceptual clarifications, the financial difficulties, the state's position vis a vis technoparks and high-tech economy in general. These topics also brought hardships in uncovering the complex nature of the so-called ecosystem travelling in different global, national and local scales. Moreover, the hybrid character, where the identity of businessman and academician blurs, of the subjects also brought hardships in locating the positions of the different actors.

However, when it comes to collecting data from companies, even the technopark management has limits in collecting certain information because of the trade secrets. Despite all the institutional discourses of transparency, this opaque characteristic is only one of the contradictions in a long, chain-like network. At the time of the research only one company was registered to İstanbul Stock Exchange(İSE) which manifest a relatively transparent position.

So, I have tried to collect all the data about seventy-eight technopark companies from the company websites, news on the web, related forums and informal talks about prominent software industry firms. I mostly focus on some of the characteristics of ARIKENT tenant firms -that I believe that have the most significance to my approach in understanding the dynamics of the ecosystem- that will shortly be presented in the final chapter during discussions of the topics at hand, such as the limited presentations of their buying-selling networks; their origins; their histories of mergers and acquisitions; their connections with other technopark companies, military, municipal and state organizations and so on. Most of the names of the companies will mostly be kept hidden for the secrecy concerns.

In a nutshell, also the obvious unfamiliarity of my contacts with a social researcher was both a marker of understudied nature of this topic and the distance between the worlds of engineers and social scientists. As the day of the writing of this thesis, only three aforementioned studies deviated from the larger scientific trend of highly descriptive, micro level-oriented studies on the complex political economy and neoliberal governance/governmentality of technology development zones. I specifically chose İTÜ ARIKENT because it is one of the first and most active and commercialized technopark in the extremely uneven geography of technoparks in Turkey. During the research, I

have also realized the importance of urban element in its history together with increasing rate of foreign investments and radical changes in the urban environment and land speculations during the second term of JDP government. It also demonstrates the intricate relations between financialization and software production which is nowhere to be covered in depth in this study.

Hence, in the wider ecosystem of technoparks ARIKENT is presented as a national benchmark case⁵⁶ that inspires formation of other technoparks both in national and regional scales and there is no such similar research conducted on it since its establishment.

Moreover, it has relatively loose connections with army in comparison to METU and Bilkent Cyberpark, therefore it presents the relations between university and private companies more clearly. Moreover, her unique presence in Maslak campus of İTÜ provides the opportunity to reflect on the effects of structural changes such as financialization, urbanization, privatization.

Although there are significant differences between technoparks in Turkey, the limits of this thesis nowhere offer a chance to comparison. Yet, it could be argued that what is common to all the technoparks is the triple instrumental value, in many different forms, that they offer to state authorities, academicians, and private entrepreneurs in different scales.

§ 1.5 Brief Presentation of the Thesis Plan:

Second chapter consists of two parts. First part presents the experience of neoliberal governance in Turkey starting at the beginning of the 1980s with a violent coup d'état and covers the attempts of manifold transformations in institutional structures, business relations, industrial production, spatial formations of production and the city, and the rise of middle class subjectivities and the mentality of entrepreneurship mostly drawing on the historical stud-

56 As of the end of 2012, more than 1700 R&D projects are conducted and 1300 of those are completed. Total exports reached almost 555 million dollar and there were applications for 148 international and national patents. Mustafa Zuhail, "Ulusal Yenilik Sistemlerinde Teknoloji Politikası Aracı Olarak Teknoparklar: Türkiye Deneyimi" (M.A thesis, Marmara Üniversitesi, 2014), 127.

ies of Turkish political economy and sociology. A comparative and macro picture also will try to be given that locate these transformations in the larger global processes that are brought by neoliberalization in many forms complementing the brief entry to these dynamics in order to show the interplay of Silicon Valley model and developmental states. In the second part, after a brief discussion of the IT Valley, the gradual materialization of the İTÜ ARIKENT will shortly be provided. This chapter serves to grasp the background of the dynamics of neoliberalization in Turkey.

In this vein, the third chapter is devoted to partially deconstruct the totalizing character of some elusive concepts such as neoliberalism, governance, post-Fordism and their special constructs as “zones”. Foucauldian analytics of government will be presented as a useful tool for this deconstruction that problematize uneasy balances, such as competition and cooperation; regulation and deregulation; flat network ontology and hierarchy; exclusion and inclusion, and so on. A short narrative technique in continuum with the honeycomb metaphor that will be presented in the next chapter will be employed both inspired by the metaphors of beehive and beekeeper employed successively by Mandeville and Scott. At the end, the mythical aspects of Silicon Valley are deliberated by laying the ground for the analysis of ARIKENT in its various spatial forms, social formations, regulatory/legal issues and technical/legal standards.

Fourth chapter will attempt to partially combine the historical context given in the next chapter and variegated theoretical framework presented in the third chapter on the one hand, and the material I collected in my field research during 2010-2011 on the other. First, ARIKENT will tried to be put in its local context which has expanded along with the concomitant urbanization, privatization, and financialization processes. Wider scales of some of its national and global connections will also be partially presented together with some portion of its stakeholders. Moreover, wide range of actors and things (such as legal documents, and technical terms) that participate in the grumbling beehive will be described and analyzed drawing on my data. Using an amalgam of various approaches of political economy and Foucauldian methods together with the discussion of the shifting spatial imaginaries such as technological zones and zone a la Easterling this chapter depicts the complex

structure of İTÜ ARIKENT. Finally, last chapter concludes the thesis with a short discussion of the approaches in literature and the arguments and position of the thesis within this body of knowledge.

Unfolding of Neoliberalism in its Historical background and Rise of Technoparks as Zones

This chapter attempts to demonstrate the variegated processes of neoliberalization in Turkey starting at the beginning of the 1980s, focusing on the changes in institutional architecture, form of industrial production, business relations, spatial formations and subjectivities that paved the way to the formation of technoparks. Necessary connections with my research and the historical narrative will partially be provided. In the second part of the chapter, after a brief discussion of the recent formation of Information Technology (IT) VALLEY, the emergence of ARIKENT will be shortly narrated. What is tried to be done here is to present historical phenomena before the conceptual elaboration in the next chapter to better grasp the neoliberal governance dynamics in ARIKENT that will be covered in the fourth chapter.

The story starts with the twin crises of primarily domestic oriented import substitution models (ISI) and world economy of the end of the 1970s and the beginning of the 1980s. Most of the Third World countries, including Turkey,

were suffocated in social and economic polarization, high public deficits, foreign debt,¹ and high inflationary conditions.² Thus, in order to stabilize the Turkish economy, strict neoliberal fiscal and monetary measures were meant to be taken with January 24 decisions.

September 12 coup d'état, as a reminiscent of its Indonesian³ and Chilean⁴ counterparts, flattened the complex political and institutional divides that presented an obstacle for the implementation of new policy models with extreme oppression.⁵ Under the auspices of this state of exception phase of the neoliberalization in Turkey, the IMF and the WB policies that have been formulated at the end of the 1970s were immediately started to be implemented under the technocratic economic expertise of the Army's government: Labor syndicates

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- 1 Çağlar Keyder, *Türkiye'de Devlet ve Sınıflar* (İletişim Yayınları, 1989), 229.
 - 2 According to Keyder, vulnerability of the ISI model relates factors, such as its dependence on imports, its need for low interest credits, the preferences of hegemonic powers and fluctuations in the world economy. Keyder, *Türkiye'de Devlet ve Sınıflar*, 233. For a detailed elaboration of the crisis of this model, see: Çağlar Keyder, *Ulusal Kalkınmacılığın İflası* (İstanbul:Metis Yayınları, 1993).
 - 3 Tsing argues that after the coup, political formulas familiar to international analysts, as spatial frameworks for exemplary centers, were ferociously adapted to/conjured in the Indonesian context. Anna Lowenhaupt Tsing, *In the Realm of the Diamond Queen: Marginality in an out-of-the-way Place* (Princeton University Press, 1993), 22-23. For a detailed ethnographic investigation of the governance formulas cooked up for Indonesia and explanation of the model of the "frontier" imagined for old colonies, see: Anna Lowenhaupt Tsing, *Friction: An Ethnography of Global Connection* (Princeton University Press, 2011), 27-51. Along the same line, Leftwich discusses the status of democracy as a "damsel in distress" under the developmental agendas of Third World: Adrian Leftwich, "Governance, Democracy and Development in the Third World." *Third World Quarterly* 14.3 (1993): 605-624, 612-613.
 - 4 Parallels are drawn between Chilean and Turkish conditions by various works that demonstrate the affinity of the sovereign exception with early experimentations of neoliberalism during Cold War context: Adem Y. Elveren, "Social Security Reform in Turkey: A Critical Perspective," *Review of Radical Political Economics* 40.2 (2008): 222; Cem Özatalay, "How to Make the Economy" Embedded" in Turkey? One question, Two Contradictory Answers," *SASE 23rd Annual Conference*, 2011, 2-4.
 - 5 Dardot and Laval, focusing on the Foucauldian concept of neoliberal governmentality through the "liberty" of the individuals, recall its original inceptions by violent means of world hegemonic states. Pierre Dardot, and Christian Laval, *The New Way of the World: On Neoliberal Society* (Verso, 2014), 6.

were dismantled; wages were squeezed; domestic demand made to be contracted; parliamentary democracy was annulled; the dissidents from left and right were imprisoned.⁶ This period could be conceived as one of the most dramatic periodic recipes of debt governance that is a recurrent theme in the conditions of the chronic indebtedness of the Turkish economy.

§ 2.1 Özal at the Stage of Revolving Doors

Turgut Özal was appointed by prime minister Süleyman Demirel in 1979 as the leading figure to implement the 24 January decisions in his capacity as the Acting Head of the SPO and the Deputy Under Secretary of the Prime Minister. His diverse background, being an engineering graduate from İTÜ was formed by his capacity to travel around the revolving doors of many organizations ranging from the SPO in the mid 1960s to the WB in the beginning of the 1970s. Embracing the environment in which neoliberal policies were about to come to certain experimental maturity he returned to Turkey to work closely with private sector; he provided consultancy to Turkish Metal Industrialist's Syndicate (MESS) and employed in Sabancı Holding.

Using education sociologist Stephen Ball's concept of "boundary spanning subject"⁷ we could locate Özal's overemphasized agency as it is presented in the large pile of work devoted on his persona and deeds to serve at least four purposes. First of all, he was a man of modest origins who could invest in his human capital and could climb to the high ranks of society, this parable not

6 Korkut Boratav, *Türkiye İktisat Tarihi, 1908-2007* (İmge kitabevi, 2008).

7 Ball locates Madan Padaki as a nodal actor of many trades in a greater network in Indian context: "He is a businessman, angel investor, government adviser, serial entrepreneur, philanthropist, and social capitalist. He is a nodal actor in a global financial and business network. He embodies the 'intermingling of global, distant and local logics.'" Stephen J. Ball, "Serial Entrepreneurs, Angel Investors, and Capex Light Edu-Business Start-Ups in India: Philanthropy, Impact Investing, and Systemic Educational Change," in *Researching the Global Education Industry: Commodification, the Market and Business Involvement* eds. do Amaral et al. (Palgrave Macmillan, Cham, 2019), 36-37.

only is one of the core attributes of Anglo-Saxon versions of neoliberal ideology stories of success but also had an extreme domestic purchase as an inspiration and promise of social mobility in a developing country's ambience.

Second, his pious and nationalist stance presents a seemingly optimal, yet dangerous,⁸ couple to fill the neoliberal governance's empty signifier with cultural, traditional, local elements. Third, his position as a travelling technocrat makes him the embodiment of larger variegated structures of neoliberal governance. In other words, he was experienced in practices, techniques, technology of this governmentality and he had the make-believe capacity to bring together the public and private partnerships, the foreign capital, flexible networks of performance and democratic legitimacy.

This alleged capacity made him admissible for the candidate for prime minister seat during the resettlement of Turkish democratic governance in the eyes of a wide hegemonic coalition. Last but not least, during his tenure, he had the opportunity to experience a relatively stable position in politics and economic leadership. This made a sharp contrast both between the 1970s and the 1990s of constantly changing governments. In other words, his entrepreneurial and hybrid subjectivity marked a stamp on the onset of neoliberalization processes for a whole decade. These factors are also crucial to grasp, albeit with differences, for the understanding of environment in Turkey at the time of my research. More specifically, translated into my context of technoparks in 2010-11 as a different blend of human capital success and techno-nationalism.

Özal's period made the subject of abundant treatises on neoliberalism. For instance, in his article that inspires my humble endeavor here, Öniş deviates from his institutionalist approach that marks most of his works from varieties of capitalism perspective and turns into the analysis of "an effective leader-

8 Wendy Brown, *In the Ruins of Neoliberalism: The Rise of Antidemocratic Politics in the West* (Columbia University Press, 2019). In this book, Wendy Brown expands her treatment of new version of nihilism in Western societies that was introduced in her previous work: Wendy Brown, "Neoliberalism's Frankenstein: Authoritarian Freedom in Twenty-First Century "Democracies"," *Critical Times: Interventions in Global Critical Theory* 1.1 (2018): 60-79. These works will be elaborated in the next chapter in a more detailed fashion to explore the elements of neoliberal governance as "(trans)values."

ship” that plays a crucial role in implementing radical market-oriented reforms. It is no coincidence that ample studies on the political economy of neoliberalism attributes a great agency to both advanced capitalist countries and the Third World countries, figures like Thatcher, Reagan, Mitterand, Xiaoping and so on but do not go into detailed explanations of their relationships with larger structures. Here, within the narrow shores of this thesis it is hardly possible to discuss these relations in detail.

However, when the inflated agencies of innovator-self-made heroes of the so-called knowledge economy are taken into account, it could be said that those agencies represent one of the core mantras of neoliberal governance, which is “competitiveness,” according to which all actors in different scales are accountable for. In this regard Dardot and Laval propose that this new system constantly creates various forms of competitive accountabilities that hold subjects responsible.⁹

§ 2.2 Structural Adjustment a la Turca and Changing Forms of State, Industry, Private Sector, Space, and Subject

In this section, as the title suggests, certain processes of transformation that paved the way for the forming of technoparks in various structures using Turkish context as a kaleidoscope will be elaborated in broad brushes. The shadow of Özal’s competitive agency will be cast into part of these analyses. These changes on different scales led the way in a new set of institutional, organizational, spatiotemporal and subjective formations. Not only a new regime of accumulation of export-oriented, financialized urban economy but a gradually differentiated society coming to be. The negative/repressive aspects of neoliberalization initiated by the coup brought the programmed disintegration/reintegration of institutions and regulations. These are discontinuously sustained by subsequent governments in different forms until the end of millennium and accompanied by/ became productive of certain lifestyles, certain subjectivities, new spatial arrangements and new social relations.

9 Dardot and Laval, *The New Way of the World: On Neoliberal Society*, 14.

These changing dynamics could be depicted by using a governance metaphor. So, the map of Turkey adorned with honeycombs, the well-known symbol of Motherland Party (ANAP), connotes many meanings like early allusions to governance trying to melt competition and cooperation in the giant hive called Turkey. Honeycomb is made with perfect hexagonal walls that might be read as representations of structured cooperation of engineers.¹⁰

This micro to macro interpretations could be expanded into all scalar levels of the “neoliberal governance a la Turca” which was attempted to be employed by Özal, his international guides and his technocratic cadres. I maintain that this uneasy existence of cooperation and competition is one of the most discussed and controversial themes in the literature concerning the social organization in general and the neoliberal networks of synergy in particular. This will be a recurrent theme both in theoretical discussions and in my case discussion in the light of the theories employed.

Özal’s definition of Honeycomb symbol¹¹ is telling: “Bee represents industriousness and honeycomb represents the act of making our precious country prosper until her remotest corner reached.”¹² He also continuously emphasized the party’s conservative, nationalist stance coalesced with another inherently contradictory pair of words: Social justice and free market economy based on competition. As it was witnessed, years with Özal and whole 1990s

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- 10 Of course, Özal also probably alludes to his former university’s symbol: Honey bee.
- 11 Ironically, the unsystematic and relax approach against the rule of law taken by Özal, conferred as a “frame of a systematic” and presented as an “analytical model suggestion” by the author of the following abstract. This time, his agency is not only inflated but highly elevated: “Turgut Özal’s leadership and *his unusual administrative mentality* have drawn the *attention of everyone* since the first day he appeared in the arena of politics. During the period when he was the Prime Minister and the President this discrepancy has reached to a more notable level both at home and in international arena *His lovers* thought that Turkey *stepped into a new age* thanks to him. *For sure there were also others who disagreed with this opinion*, but the consensus was the fact that Turgut Özal’s leadership and administrative mentality was different than the others. Having passed all his life within *the frame of a systematic since childhood years*, administrative mentality of Turgut Özal is also based *on this certain systematic*.” (Emphasis added) Levent Vurgun, “An Analytical Model Suggestion on Administrative Understanding of Turgut Özal: Honeycomb Administrative Model.” *Editorial Board/Yayın Kurulu* (2015): 45.
- 12 Türk Haberler Ajansı, Kutlay Doğan, Turgut Özal Belgeseli, Ankara, 1994, 80, accessed, August 20, 2019. <http://www.tha.com.tr/turgutozal/sayfa80.htm>.

in the end show unregulated marketization which did not even yield one of those contradictory results as achievements.

In a similar vein, I try to employ this symbol/metaphor deriving on my case from three perspectives of neoliberal governance. Firstly, it surely serves as a metaphor to put a direct line between particularistic interests and public benefits. This is also the well-known Marxist reading of ideology. Here, in the context of 1980s, it serves to convince the audience for the possibility of private vices going hand in hand with public goods. As it will be shown, this fiction breaks down, for instance, in the case of practices such as, extra budgetary funds(EBF).

Secondly, this model also presents a frictionless image where everything seems to be regular in perfect hexagonal shapes, however the historical studies point out the distance between representation and reality. Some of these irregularities also will be pointed out in this chapter. Thirdly, this image also relies on an assumption that cooperation and competition could go together, as I try to narrate in this chapter, the facts of neoliberal governance show their highly uneasy existence. Therefore, this model and the historical narration which will be presented are useful to establish certain linkages with neoliberalizations in different periods. For instance, the case of fictitious exports is in parallel with the case of innovation for most of the technoparks firms. Particularly, there are at least three connections in that line that expose similar characteristics between technoparks and export regime in the 1980s: I) the practice of fake-biling, ii) the tax advantage and iii) clientelist relations.

So, when we come back to the deeds of Özal, he felt the need to erect hexagonal walls against its predecessor team of economic management under the military regime. With that in mind, it would request the cancellation of the

existing stand-by arrangement and its replacement with a new one-year arrangement by the IMF.¹³ On the institutional level, new institutions,¹⁴ which lacked a proper bureaucratic culture and tradition, were established to bypass another unit of hexagonal structure of honeycomb which is the classical bureaucracy that resided in various institutional layers of the state and would most likely be uncooperative in the deployment processes of the new reforms.¹⁵

All in all, his top-down approach designed to eliminate the opposition that might have emerged from a deliberative action to avoid all talk and no action scenarios. Moreover, new echelons of bureaucracy that were the outcome of forming loyal offices to president gradually resulted in various contradictory overlapping of jurisdictions and serious intra-bureaucratic conflicts. Finally, some of the old ISI organizations within the state were curtailed in authority, their personnel were changed, or their mission was redefined. Among them, one of the cases that has pertinence for technoparks is SPO.¹⁶ This institution

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- 13 Galip L. Yalman, "The Neoliberal Transformation of State and Market in Turkey: a Overview of Financial Developments from 1980 to 2000," in *The Political Economy of Financial Transformation in Turkey*, eds. Galip L. Yalman, Thomas Marois, and Ali R. Güngen (Routledge, 2018), 62.
 - 14 Some authors define these new bureaucratic formations as "pockets of efficiency" because of their well-protected domains in the state structure of the 1980s and their capacity to get highly qualified human personnel and better finances. Amr Adly, *State Reform and Development in the Middle East: Turkey and Egypt in the post-liberalization era* (Routledge, 2012), 31; Metin Heper and E. Fuat Keyman, "Double-Faced State: Political Patronage and the Consolidation of Democracy in Turkey," in *Turkey Before and After Atatürk: Internal and External Affairs*, ed. Sylvia Kedourie (Routledge, 2012), 267.
 - 15 Ziya Öniş, "Turgut Özal and his Economic Legacy: Turkish Neo-liberalism in Critical Perspective," *Middle Eastern Studies* 40.4 (2004): 114-115.
 - 16 Oğuz pictures new and highly privileged state institutions such as Undersecretariat of Foreign Trade and Treasury that are almost directly linked to the prime minister on the one hand and debilitating capacities of old state institutions like SPO and some ministries such as Economy and Trade Ministries. Sebnem H. Oguz, "Sermayenin Uluslararasılaşması Sürecinde Mekânsal Farklılaşmalar ve Devletin Dönüşümü." In *Kapitalizmi Anlamak* eds. Demet Yılmaz, et al. (Ankara: Dipnot, 2006), 88.

did not only publish manifold documents that shed a light on science and technology studies but also took active roles in the organization of university and industry partnership.

When it came to the instance of government-business relations, Özal led Turkey in a reform program which was designed to change the relationship between state and business enterprise. Gradually policy making processes performed an important role in abolishing the barriers to market entry, international trade, labor flexibility and access to financing. On the other hand, the fact that Turkey never had a firm capacity to enact the supervision of its regulatory mechanisms which coupled with a loosened economic environment, had the effect of compromising efficient ways of government holding the private sector accountable for their practices and relations.¹⁷

Furthermore, Özal's preferred flexibility in government spending decisions involved the proliferation of EBFs, which became an important medium of government expenditure.¹⁸ These funds led the formation of various networks of patronage with Özal being in a central nodal position. Besides, the EBFs were also in conflict with anti-subsidiary dictums of neoliberal policies distorting the so-called competitive nature of markets and shaking the budgetary discipline of the government. These funds and ample export credits ended up with various fictive export scandals¹⁹ and largely exploited over-invoicing practices.

Oligopolistic Holding bourgeoisie, which is mostly organized around associations like Turkish Industry and Business Association (TÜSİAD) and Union

17 For a detailed discussion of state-business relations throughout this period, see: Ayşe Buğra, *Türkiye'de Devlet ve İşadamları* (İstanbul: İletişim Yayınları 1995).

18 Öniş, "Turgut Özal and his Economic Legacy," 120-121.

19 The fictitious exports generally indicate the condition of goods only appear to be leaving the territory of the country. As a result of the fictitious exports, the due payments are avoided, or value added tax(VAT) is illegally reimbursed. Boratav, *Türkiye İktisat Tarihi*, 155.

of Chambers and Commodity Exchanges (TOBB)²⁰ of Turkey, reaped the benefits of the most incentive schemes.²¹ Hence, hierarchy of receiving benefits among them were constantly formulated and reformulated through their connections with Özal and his close circles. For instance, Sabancı holding, former employer of Özal, enjoyed a privileged position in receiving the benefits of the new regime in a deep clientelist fashion.²² That line, however, was not built in a one-way fashion; Özal's restructuring of the state also profited from the human resources transfer²³ from the private sector, and interactions between the state and private business took new dynamic forms.

Thus, these developments also exacerbated the internal competitive conflicts of influence and resource collection among the bourgeoisie, which led to constant disputes. The rising effectiveness of the Turkish bourgeoisie under the

-
- 20 TOBB was also place for the relatively small bourgeoisie that were expanding their operations from subcontracting arrangements with oligopolistic Fordist capital producing commodities for internal market to foreign market exports with changing partnerships. Çağlar Keyder, "The Political Economy of Turkish Democracy," *New Left Review* 115 (1979), 31.
- 21 Boratav, *Türkiye İktisat Tarihi*, 168.
- 22 For an analysis of clientelism within the confines of class analysis: Galip L. Yalman, *Transition to Neoliberalism-The Case of Turkey in the 1980s* (İstanbul Bilgi University Press, 2015), 314.
- 23 According to Öniş, optimism about the future of Turkey partially reversed the brain drain with Özal's encouragement through the appointment of highly-educated figures who had been trained in the U.S for top positions in the bureaucracy. Öniş, "Turgut Özal and his Economic Legacy," 17-18.

guise of civil society²⁴ was already in place at the end of the 1970s.²⁵ Civil society against the state/the army dichotomy is a repetitive theme in manifold discourses of politics that encompass long temporal and large spatial frames of discussion and definitely have an essential bearing on the constant iterations of neoliberal governance framework. In this vein, genealogically speaking, it could be argued that this opposition came into most salience in the chaotic Turkish ecosystem in civil war proportions as a “pretext” for the implementation of neoliberalized stability.

The heterogeneous character of oligopolistic bourgeoisie existed together with an assortment of small bourgeoisie ranging from small shopkeepers in rapidly flourishing urban contexts to highly growing producers of textile, apparel, and food products.²⁶ Özal tried to strike the right balance between big

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- 24 Şengül reads these processes by grounding them on the urban scale. In this approach, the development of democratic participatory tendencies during the 1970s are called to be analyzed from a critical perspective that demonstrate hierarchical power relations and class character of these politics. Tarık H. Şengül, *Kentsel Çelişki ve Siyaset: Kapitalist Kentleşme Süreçlerinin Eleştirisi* (İmge Kitabevi Yayınları, 2009), 112. Along the same lines, Yalman interprets TÜSİAD’s campaign in 1979 as a tour de force of big bourgeoisie: “A vociferous press campaign would be launched by TÜSİAD during the spring of 1979 against the Bülent Ecevit government so as to destabilize it. In fact, the press campaign was aiming to utilize “free market rhetoric so as to discredit a government which the various members of the association had increasingly been perceiving as detrimental to their class interests.” Yalman, *Transition to Neoliberalism*, 307.
- 25 As for the early manifestation of the civil society in Turkey, according Keyder in ISI conditions, bourgeoisie, although enjoyed real support from the state, “lacked a reliable exponent of the policies it favored in the field of party politics and sought to create extra parliamentary organizations such as the association of industrialists.” Çağlar Keyder, “The Political Economy,” 29.
- 26 Keyder calls the mental formation of those groups flourishing from 50s in an accelerated pace as “shopkeeper ideology”. Keyder, “The Political Economy,” 25. Starting at the end of the 1960s many of those petty bourgeois relatively parted ways in a coalition with the impoverished Anatolian peasants and large portions of prospering Anatolian tigers. The important role of this departure could be posited in the formation of the hegemonic electoral context for the slow but gradual rise of the nationalist and conservative souls of actually existing neoliberalisms in Turkey. These fronts went into many directions in contradistinction with rising educated middle classes and big bourgeoisie, resulted in the intensification the polarized habitat

bourgeoise of developed cities and formerly neglected Anatolian producers who mostly relied on low-technology production of flexible cheap labor and dynamic arrangements of cooperative networks in different scales.²⁷ One of the focal points of differential interests lied in sectoral fractions within these producers. Textile producers (originally tied to agricultural capitalists) wanted to shift towards export and big İstanbul industrialists started to produce consumer durables for the internal market and enjoyed unhindered advantage in the protectionist and business-supportive conditions until the end of the 1970s.²⁸ The resolution of this peripheral Fordist dynamic led to gradual modifications in the regimes of accumulation and redistribution of the state support to the new contenders (that will lately form a big part of the so-called Anatolian Tigers).

Not only extra budgetary funds but also corporate tax cuts present mostly big bourgeoisie with further opportunities to decrease their costs and increase their profitability. The burden of tax transferred from corporations to citizens with the implementation of value-added taxes. Regressive tax policies,²⁹ increasing flexibility on low-skilled and uneducated labor (that consists of most of the Turkish society), cuts on subsidies to agricultural production and falling government spending on already underdeveloped social institutions³⁰ brought about a great picture of social injustice during neoliberalization.³¹ So-

of Turkish society on the way to the consolidation of knowledge society in the 1990s and the new millennium.

- 27 These attempts led to internal conflicts in the ruling party embodied in the competition between Özal who supports Anatolian tigers and shopkeepers and Mesut Yılmaz who is mostly backed up by İstanbul bourgeoisie heading to the 1990s. Dilek Yankaya, *Yeni İslâmî Burjuvazi: Türk Modeli* (İletişim, 2014), 91.
- 28 Keyder, "The Political Economy," 31.
- 29 Boratav, *Türkiye İktisat Tarihi*, 154.
- 30 Yalman, *Transition to Neoliberalism*, 324.
- 31 Ahmed Kanna discusses resentment of the poor that was directed on big business in Dubai during these processes: "Many of the same workers, teachers, and shopkeepers were against big business, but mainly because its profits are based on rent, bank interest and corruption (*yolsuzluk*). The state should treat everybody equally, they held, but it privileged big business."

lutions to these problems of rapid urbanization, changing nature of labor, unequal social distributions, shrinkage of the social state were not applied in a systematic fashion. Cures for the wellness of the side effects of unregulated markets consisted of ad hoc, unsystematic governance experiments in a mostly populist fashion inviting various sections of society in a myriad of entrepreneurial ventures.³²

While this style of governance was useful in terms of acquiring the ability to make prompt decisions and overcoming powerful interest group pressures, it tended to undermine the long-term viability of the program. As it is understood throughout the 1980s and 1990s, especially in the early phases of the implementation of the neoliberal governance scheme, the results did not lead competitive state economies³³ that break with their peripheral position in raising competitiveness (like it happened in some countries in the Pacific Rim) and with the expansion of well-off, tech-savvy and educated middle classes.³⁴

The convergence of the contending hegemonic powers of the global neoliberalization on the universalized logic³⁵ of budgetary, technological, ideological and cultural competition that cast a shadow on all scalar levels of existence was at pains to bring the expected results in Turkish case. The successive crises that Turkey experienced over a short interval between 1994, 2000 and 2001 had their origins in key piecemeal structural transformations implemented during this period.

So, on the financial side of the economy, to briefly describe, conditions aggravated in these successive crises. Capital account liberalization of 1989

Ahmed Kanna, "Flexible Citizenship in Dubai: Neoliberal Subjectivity in the Emerging 'City-Corporation'," *Cultural Anthropology* 25, no. 1 (2010), 76.

32 Ümit Sönmez, *Piyasanın İdaresi: Neoliberalizm ve Bağımsız Düzenleyici Kurumların Anatomisi* (İletişim, 2011), 155.

33 Mehmet Gürsan Şenalp, Örsan Şenalp, and Esra Şengör, "Globalization, Governance and the Transnationalization of a Secondary Contender State," *Paper presented at the 8th Conference of the European Sociological Association*. Vol. 3., 2007.

34 For a critique of the middle-class concept, see: Efe Can Gürcan, and Efe Peker, "A Class Analytic Approach to the Gezi Park Events: Challenging the 'Middle Class' Myth," *Capital & Class* 39.2 (2015): 321-343.

35 Dardot, *The New Way of the World*, 11.

was an essential point that dramatically accelerated infinite capital movements,³⁶ and the dependence of economy to private financial sources³⁷ that are in a hot money flow fashion as a detriment to productive capital.³⁸ Internationalization of the capital markets did not give way to decreasing interest rates and increasing investments.³⁹ Quite the opposite occurred until the final and worst crisis in 2001-coinciding with the burst of the dot-com bubble in the advanced center of capitalism in 2000.⁴⁰

Further market reforms attempted to attract foreign capital investment also did not fulfill the expectations⁴¹ since the vested interests of international financial institutions on neoliberalization relatively shifted from Turkey (poster child of the 1980s)⁴² to Post-Soviet Eastern European countries and Russia throughout the 1990s. Debacle of this period left a painful bill for governance failures based on rent-seeking, clientelism and corruption analyses.⁴³

During the regulatory phase of neoliberalization in the 2000s, regulatory frameworks enhanced with increasing number of independent regulatory bodies and changes in legal frameworks that had a great bearing in the rela-

36 Boratav, *Türkiye İktisat Tarihi*, 179.

37 Yalman, *Transition to Neoliberalism*, 291.

38 According to Yalman M-M' circle of money creation by speculative financial activities was a common activity among bourgeoisie instead of investing in productive capital. They bought cheap credits in the abroad and transformed them into high-interest bearing bonds. Yalman, "The Neoliberal Transformation," 5; Yalman, *Transition to Neoliberalism*, 286-288.

39 Boratav, *Türkiye İktisat Tarihi*, 191.

40 For a study that specifically links the financial bubble at the end of the 1990s to developments in Silicon Valley, see: Richard Walker, "The Boom and the Bombshell: the New Economy Bubble and the San Francisco Bay Area." in *The Changing Economic Geography of Globalization*, ed. Giovanni Vertova (New York: Routledge, 2006), 121-147.

41 Foreign capital level in Turkey was only 7.8 million dollars in 1998. Then with the implantation of wider and deeper regulatory reforms, European Union(EU) membership adjustment process, and optimistic recovering of global markets this level raised to 63.9 million in 2007. Boratav, *Türkiye İktisat Tarihi*, 213.

42 Yalman, *Transition to Neoliberalism*, 325.

43 Pınar Bedirhanoglu, "The Neoliberal Discourse on Corruption as a Means of Consent Building: Reflections from Post-Crisis Turkey," *Third World Quarterly* 28, no. 7 (2007): 1239-1254.

tively stable administration of the governance until the end of the 2000s. Governance failures are responded with the motto of more markets as the solution. At this conjunction, former expert of WB, Kemal Derviş introduced these market reforms under the policy entrepreneurship which is invented to create bureaucratic autonomy and depoliticization.⁴⁴

§ 2.3 Production and Spatial Formations under Neoliberalism

On the other hand, manufacturing under liberal conditions went under a gradual change. The passage from import substitution to export oriented industry was necessitated by the directives of the International Monetary Fund(IMF) and the structural adjustment programs that were designed by the WB in 1980's. These were presented as a development strategy to integrate Turkey into the world economy,⁴⁵ rather than as a stabilization package. Although a large portion of the big bourgeoisie were suspicious about competing in global markets, long enjoyed the supportive environment of ISI, the social and economic crisis environment of the end 1970s limited their options especially in terms of domestic markets.⁴⁶ At the end, the short success of the model with rising exports made Turkey a model country of debt serviceability until the end of the 1980s.⁴⁷

44 Tim Dorlach, and Osman Savaşkan. "The Political Economy of Economic and Social Policy in Contemporary Turkey: An Introduction to the Special Issue." *Journal of Balkan and Near Eastern Studies* 20(4) (2018): 312.

45 According to Keyder, Turkey disqualified as an exporter of the more labor-intensive manufactures, such as electronic components and cheap apparel in comparison to its East Asian contenders. There was a need to originate the exports in higher technology and skill intensive sectors. He also mentions about some potentially high value-added sectors that have a growing share in exports such as machinery, vehicles, TV sets, and refrigerators. Keyder, "The Political Economy," 35.

46 Şevket Pamuk, *Türkiye'nin 200 yıllık İktisadi Tarihi: Büyüme, Kurumlar ve Bölüşüm* (Türkiye İş Bankası Kültür Yayınları, 2016), 242-243.

47 Zülküf Aydın. "Global Crisis, Turkey and the Regulation of Economic Crisis." *Capital & Class* 37, no. 1 (2013): 98.

Export-oriented regime also brought flexible unskilled labor and cheap currency as the conditions to articulate into global value chains with the productivity sustained by decline in labor costs. This regime of accumulation is accompanied by a relatively new form of work organization under horizontal networks as it is described by Castells for Italy and Mediterranean countries in general and Turkey in particular.⁴⁸ It was an effective method of putting out work to small firms that initially lacked the necessary marketing capacities and product standards to penetrate into new markets.⁴⁹ This type of network organization is an intermediate form of arrangement between vertical disintegration through the subcontracting arrangements of a large firm and the horizontal networks of small businesses. It is a horizontal network but based on a set of core-periphery relationships, both on the supply and demand sides of the process. A simplified picture suggests that on the supply side of the network, Turkish holding companies located on the core and networks of relatively SMEs⁵⁰ stand on holdings' periphery. On the demand side, mostly multinational companies, located at the center, buy from the national oligopolistic companies that stand on the central node of the vertical networks.

Moreover, Industrial indicative planning of the previous decade (which also gradually changed throughout the ISI period⁵¹) was relatively abandoned in the 1980s together with the gradual failure of the SPO in directing the way of Turkish industry. Plans and the industrial policies gradually lost their comprehensiveness and turned out to be neglected policy documents or sources for technical knowledge at best.

48 Manuel Castells, *The Information Age: Economy, Society and Culture: The Rise of the Network Society*, Vol.1 (Edward Elgar, 2000), 174.

49 Özlem Özkanlı, Sedat Benek, and Erdal Akdeve, "Export Barriers of Small Firms in Turkey: a Study of Ankara-Ivedik Industrial District," *Problems and Perspectives in Management* 4.3 (2006): 78-90.

50 Firms with less than 250 employees and under 50 million Euro sales endorsements are accepted as SME in EU. Small and Medium-Sized Enterprises in Turkey: Issues and Policies, OECD, 2004, accessed August 15, 2019. <https://www.oecd.org/turkey/31932173.pdf>.

51 Yalman notes that "the pre-reform period is characterized by a relatively larger share of private to public sector investment, and relatively larger share of tradable with respect to non-tradable." Yalman, *Transition to Neoliberalism*, 270.

In this vein, particularly selective industrial policies, including the science and technology policies, were rejected in a staunch neoliberal fashion of the 1980s by Özal and his “change team.”⁵² This is one of the core elements of the so-called high-tech development in the first world and periphery alike and a point of tension for and within neoliberal international institutions, especially in the case of the WB. At this point Şenses mentions about the restrictions imposed on developing countries by the World Trade Organization(WTO).⁵³ This conflict was mainly based on the neoliberal premise, which is revised in the next decades, that the lesser the government involvement with the production, the better it will get.

Before the rising efficacy of international organizations, a developmental spatial construct of the industrial policies first started in 1962, located in Bursa as a child of first planning experiments⁵⁴ called “organized industrial district.” Similar to its counterparts around the world, these zones formed around a clustering mentality, through which an agglomeration of activity that supports a given sector exists. However, the construction of these zones halted because of various legal, economic and infrastructural reasons. Only after the 1980s most of the organized districts were established.⁵⁵

Unlike their first designs as developmentalist protected infant industries, those districts became a blend of tax free zones for cheaper imports and export

52 Ibid., 269.

53 Ziya Öniş and Fikret Şenses, “Küresel Dinamikler, Ülke İçi Koalisyonlar ve Reaktif Devlet: Türkiye’nin Savaş Sonrası Kalkınmasında Önemli Politika Dönüşümleri,” in *Neoliberal Küreselleşme ve Kalkınma*, ed. Fikret Şenses (İstanbul: İletişim, 2009), 732.

54 Metin Özuğurlu, *Anadolu’da Küresel Fabrikanın Doğuşu: Yeni İşçilik Örüntülerinin Sosyolojisi* (Kalkedon Yayınları, 2008), 120-123.

55 According to Özuğurlu, their numbers reached forty three in 1998 and forty of them were established after the 1980s. Özuğurlu, *Anadolu’da Küresel Fabrikanın Doğuşu*, 121. Tanyılmaz argues that support schemes for Organized Industrial Districts during Özal period were prepared the rise of some Anatolian Tigers culminated after the entrance to Customs Union and new convertibility arrangements. Kurtar Tanyılmaz, “Türkiye Burjuvazisinde Derin Çatlak” in *Neoliberalizm İslamcı Sermayenin Yükselişi ve AKP*, eds. Neşecan Balkan, Erol Balkan and Ahmet Öncü (Yordam Kitap, 2014), 155. Besides locating in the networks of big oligopolistic bourgeoisie, some of those companies also diversify to Middle Eastern, Balkan, Central Asian Markets where they could compete with their relatively low-technology intensive products.

processing zones for exports both to domestic and foreign markets taking advantage of low-hanging regulations , tax cuts and lower wage rates.⁵⁶ For the purpose of attracting national and foreign investors to these free zones, not only the state intervention tried to be reduced to a minimum but firms in these zones have also been offered several advantages and stimulatory encouragement, both in terms of taxation and other issues, which other firms within the country have, at best, only partly been offered.⁵⁷

In this vein, the very existence of the zones also brings a paradox of free market ideology, although not a neoliberal paradox since as it will be seen in the theoretical discussion of neoliberalism within the limited scope of this thesis, I ponder that it is theoretically shallow to conflate neoliberalism with free market ideology and perfectly competitive markets of neoclassical fantasies. This condition of zones also demonstrates their nature that leads to unfair competition for the firms who do not enjoy the same benefits which is an important point in zones history in continuum with technoparks as places that are designed and implemented with similar neoliberal logics.

Moreover, Özügürlü conceives these places, together with free trade zones,⁵⁸ as the embodiments of deregulation that are disconnected not only

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- 56 Sean O Riain, "Net-working for a Living: Irish Software Developers in the Global Workplace," in *Global Ethnography: Forces, Connections, and Imaginations in a Postmodern World*, ed. Michael Burawoy, et al. (University of California Press, 2000), 180. However, as it was realized in some other developing country counterparts they did not serve the purpose of pulling foreign capital. Çiller was also an ardent supporter of those zones back in the 1980s, see: Tansu Çiller, "Dünyada ve Türkiye'de Serbest Bölgeler," *Rapor Gazetesi* (1983).
- 57 Ibrahim Organ, "Do Tax-Free Zones Create Employment? The Case of Turkish Free Zones," *SEER-South-East Europe Review for Labour and Social Affairs* 04 (2006), 138-139. Ogan's analysis on the distribution of the total volume of trade in free zones reveals that they often serve imports rather than exports. This is indicative of free zones in Turkey being in a developmental process which is in contradiction with the prospective model of export-oriented growth as drawn up in the 1980s.
- 58 Establishment of free trade zones also halted until 1985, with the enactment of 3218 no free trade zones they embodied a legal existence. Mehmet Emin Erçakar, "Serbest Bölgeler: Teorik Yaklaşım," *ISGUC The Journal of Industrial Relations and Human Resources* 6.1 (2004).

from their environments but also from existing legal arrangements of the national and local economies.⁵⁹ Consequently, the legal and economic ambiguities of these zones have raised many debates on various sorts of malpractice, smuggling and labor injustices up until now, mostly concerning their opaque nature that deny accountability. Özügürü also mentions about some of these zones that was planned to include certain universities within their confines. These spatial imaginations should be read in parallel with technopark formations that integrate higher education and industry.⁶⁰

Erendil narrates the story of Denizli's industrial district transformation within the theoretical debates of transition from Fordism to post-Fordism. She demystifies the myth of horizontal equal cooperation that are brought by some interpretations of network analysis by demonstrating pyramidal unequal structure of buyer driven networks. She argues Denizli's incorporation into the world economy is developed in competition with other low cost global producers as a characteristic of buyer driven networks of low technology intensive products. She employs concepts drawn from these literatures, such as industrial districts, local milieu, learning regions, agglomeration economics⁶¹ and embeddedness to discuss the characteristics of her case study that are also highly in use in the literature that targets the technoparks.⁶²

Keyder locates the emergence of these zones in the larger domain of the export-oriented accumulation dynamics of buyer-driven networks.⁶³ Last but not least, in complementing this global picture, I argue that establishment of all sorts of zones must partly be considered as a tactic of domestic politics to sustain the redistributive balance between the different regions of the country. Several local politicians, bureaucrats and businessmen are perceiving them as

59 Özügürü, *Anadolu'da Küresel Fabrikanın Doğuşu*, 114.

60 Ibid., 123.

61 The sum of positive influences such as sharing infrastructure costs, reducing the transaction costs among firms and information sharing is called "economics of agglomeration."

62 Asuman Türkün Erendil, "Mit ve Gerçeklik Olarak Denizli-Üretim ve İşgücünün Değişen Yapısı," *Toplum ve Bilim* 86 (2000): 92-117.

63 Çağlar Keyder, "The Turkish Bell Jar" *New Left Review* 28 (2004), 68.

crucial for local development vistas for employment opportunities, advertising of the region, and tourist attraction to say the least.

However, the rising importance given to the space was nowhere stayed limited to the zones. Ensuing developments such as decreasing investments in the capital-intensive and intermediate goods sector, the decline of manufacturing in total capital stock in general⁶⁴ and decline of the public-sector investment in manufacturing in particular occurred during the structural adjustment periods.

Moreover, investments in state economic enterprises were cut, which resulted in the depreciation of relatively high technological institutions of the economy.⁶⁵ Hence, cities became new attraction and lucrative profit-making spaces, especially Istanbul's untapped grounds.⁶⁶

From 1983 onwards, the construction sector takes precedence over manufacturing even in the five-year plans as a manifestation of a wider trend of deindustrialization and rise of various service sector jobs in comparably developed cities around the world.⁶⁷ Competing metropolitan municipalities became important stakeholders, urban entrepreneurs, of the neoliberal governance scheme within this context.

Developing countries jumped into the bandwagon, more ardently in the 1990's as the urbanization provided so much benefits for varying hegemonic growth coalitions. Mostly in İstanbul, the new highways and tourist hubs were accompanied by the construction of high-rise buildings and gated suburban residences. International corporations, which began to invest in the country, and big national capitalists needed offices in business districts, and high-rises served the purpose.⁶⁸ Transformation of Maslak, where ARIKENT is located, and its surroundings could be seen as the reflection of these processes.

64 Boratav, *Türkiye İktisat Tarihi*, 162.

65 Ibid, 153.

66 Yalman, *Transition to Neoliberalism*, 271.

67 Z. Umut Türem, "The State of Property: From the Empire to the Neoliberal Republic" in *Neoliberal Turkey and Its Discontents: Economic Policy and the Environment under Erdoğan*, eds. Fikret Adaman, Bengi Akbulut and Murat Arsel, (I.B. Tauris, 2017), 18-43.

68 Özlem Öz, and Mine Eder, "Rendering Istanbul's Periodic Bazaars Invisible: Reflections on Urban Transformation and Contested Space," *International Journal of Urban and Regional Research* 36.2 (2012): 297-314.

Worldwide developments in transportation, information and communication technologies and service-oriented production coupled with the tendencies of localization, which manifested itself in various cultural, economic and political levels, made cities one of the new focuses of the neoliberal governance and home for rising middle classes all around the world. So, Özal's project of popularized capitalism in the form of honeycomb model, draw on the city spaces, financial instruments, clientelist favors, and so on to incorporate considerable strata of Turkish society while neglecting certain productive sectors, dissidents, old bureaucracy and alike.

§ 2.4 New formations of Identities, Middle-class and Engineers

Against the criticisms, which became rampant during his period, Özal's rhetoric of inventing idioms manifested itself in the coinage of the term "orta direk" that might perfectly fit into the neoliberal governance discourse that is washed from ideological orientations and class divisions. It was a deliberate rhetorical onslaught against the charges that the government's economic policies have been further aggravating an already unequal income distribution, exacerbating with the fast financialization, urbanization and commodification processes.⁶⁹

Even mushrooming squatter settlements("gecekondus") around the outskirts of the big cities were seen as newly flourishing entrepreneurial ventures. So, decline in social expenditures, falling rates of wages, and undermined job security with increasing flexibilization partly compensated for a certain portion of the society.⁷⁰ It is seen that, as an early form of social capital formation

69 Yalman, *Transition to Neoliberalism*, 311.

70 Informal relations of benefit in the form of crony capitalism in elite level also relatively matched with the rising economy of informality both in street bureaucrats level (as the famous expression pronounced by Özal "my officer knows the score") and various urban contexts. For some commentators, these irregularities are part and parcel of the neoliberal governance reforms, especially in developing countries' contexts. For instance, for Kuş, informality is inherently linked to the state's regulatory intervention in the economy: "that neoliberalism brought about a double-edged regulatory transformation, which included, on the one hand, deregulatory policies aimed at promoting the growth of the private sector, and on the other

in light of the rolling back of the social state, some safety networks of community formation and charity foundations started to be active.

The optimistic part of neoliberal governance was mobilized by Özal in the promises of enrichment such as “a television in every household” and “a millionaire in every neighborhood.” The deregulation, privatization, and liberalization of the economy brought ample opportunities on which a lucky minority could capitalize. Moreover, it seems that for the larger part of the society, middle class transformation that is tuned with the fantasies of creating “little America”s in Turkey have finally started to bear fruit. Cosmopolitan aspirations, lifestyles and consumption practices also gave birth to new professionals with global attachments during the 1990s. Using the Guy Standing’s capture of the new mood, Emrence notes that “competitive individualism, consumerism, possession, aggrandizement, maximization of short-term profit and individual advantage.”⁷¹

Given the rise of professionals, the changing positions⁷² of the engineers in society must be a consideration as well, that have also important relevance for my study since they consist most of the tenants of the technopark ecosystems. It should be stated that what Göle conceptualizes as engineering ideology forms the backbone of Özal’s and Motherland Party’s ideology.⁷³ After presenting a genealogy of the changing forms of engineering (in successions such as their genesis in the 1930’s while first wave of industrialization concretized in the forms of various factories,⁷⁴ their rise in parliamentary politics

hand, decreasing enforcement efforts in the economic sphere; and that this led to an expansion in private economic activities but also in informal practices in the Turkish economy during the 1980s and 1990s. Başak Kus, “The Informal Road to Markets: Neoliberal Reforms, Private Entrepreneurship and the Informal Economy in Turkey,” *International Journal of Social Economics* 41.4 (2014): 278-293.

71 Cem Emrence, “After Neo-liberal Globalization: The Great Transformation of Turkey,” *Comparative Sociology* 7.1 (2008): 51-67.

72 For a comprehensive empirical treatment for the changing subjectivities of engineers, see: Yeliz Günel, “Neoliberal Transformation and Professional Middle Classes: Case of Engineers in Turkey (PhD diss., METU, 2013).

73 Nilüfer Göle, *Mühendisler ve İdeoloji* (Metis Yayınları, 2008), 8.

74 Ibid, 113.

during Justice Party (JP) governments,⁷⁵ and their inspiration from the project-based entrepreneurial personality of Demirel during the 1970s) Göle argues that after 1983, Özal's presence consolidated some words like performance, practicality, innovation, and compromise into the political discourse of Turkey.⁷⁶ To say the least, it should be emphasized that these relatively new vocabulary also lays the ground for an early neoliberal governance discourse.

Such institutional, political, cultural changes not only influenced urban spatial relations, but also drastically transformed the educational system. In 1982, following the enactment of the new constitution, the YÖK was founded. The Council was entrusted with planning, coordinating and overseeing many of the important activities of the higher education system, including its major role in the selection of university presidents.

The foundation of YÖK implied centralization and unification for higher education, resulting in loss of autonomy for public universities. The new constitution also included a provision allowing non-profit foundations to establish institutions of higher education. Indeed, soon after the promulgation of the new law, the first private university, Bilkent, was founded in 1984. Özal's inaugural speech at Yıldız Technical University was also a typical neoliberal phrasing, claiming that sectors of education and health are a burden on the shoulders of state.⁷⁷

During the establishment of foundation universities, many incentives, land and infrastructure support, were given to the families of wealth.⁷⁸ Notwithstanding, some of these attempts met resistance as it could be seen in the

75 Ibid, 9.

76 Ibid, 14.

77 Balkan, *Neoliberalizmin tahribatı*, 101. They were also campaigns of "do your own school" inviting citizens into the entrepreneurial depts of edu-business. Fatma Gök, "Eğitimin özelleştirilmesi." In *Neoliberalizmin Tahribatı. Türkiye'de Ekonomi, Toplum ve Cinsiyet* (2004): 94-110.

78 Balkan, *Neoliberalizmin tahribatı*, 104. For the case of Koç University and subjectivities that are produced in harmony with cosmopolitan neoliberalism: Gökçe Günel, "Producing Neoliberal Subjects: The Case of Koç University," *Berkeley Journal of Sociology* (2009): 4-25.

case of rising tensions between YÖK and Özal.⁷⁹ This period also introduced an early form of industry-university partnership, called revolving funds that allow higher education institutions to create their own income, continuous changes on the Act No. 4936 concerned with these funds also gradually increased the propensity of universities to dive into entrepreneurial ventures.⁸⁰ These funds mostly favor action-based/practical sciences such as engineering and medical sciences that lay the ground for early hierarchies among the departments.

Privatization is only one among the many subtle forms⁸¹ ensuing the implementation processes of the neoliberal governance in higher education. A considerable number of literature on this subject converges on the fact that processes of neoliberalization of universities must be read in the wider cultural, political, and economic transformation movements. In this fashion, the most important reason, that is common for almost all cases around the world, is the cut on education spending⁸² as a trend of the general cut on social state benefits. Hence, universities have been forced to create their own resources

79 İlhan Tekeli, *Tarihsel Bağlamı İçinde Türkiye'de Yükseköğretimin ve YÖK'ün Tarihi* (Tarih Vakfı Yurt Yayınları, 2010), 289.

80 Ali İlker Kurt, "Temporal and Political Analysis of Financial Transformation in Higher Education in Turkey" (PhD. Diss., Ankara University, 2015), 128.

81 Carol B. Brandt, "Protocols and Performances," in *Structure and Agency in the Neoliberal University*, eds. Joyce E. Canaan, and Wesley Shumar (Routledge, 2008), 161.

82 Which is also in direct contradiction not only with socialist/welfarist principles but also with the principles of competition with a relatively social democratic neoliberalism. On the other hand, neoliberalism's Hobbesian version should be conceived as a wild socialist Darwinism that even drives babies compete in their cradles for living. So, as Castells demonstrates, Finnish welfare state seems to be finding the right trade-off between budgetary competitiveness to welfare state provision of higher education (that is simply supposed to increase the productivity of the subjects and made them more competitive). Manuel Castells, *The Power of Identity: The Information Age: Economy, Society, and Culture*, Vol.2 (Wiley-Blackwell, 2011), 314-315. Given the attempts to sustain the right balance, this thesis is underlined by the preliminary assumption that the degree of urgency of neoliberal expectation to materialize in measurable performance is in a severe contradiction with the quality and perseverance of education, science, research, and art. These areas have never been free of the grip of material interests of aristocratic, capitalists, liberal, fascist, communist sorts but the change with neoliberalism seems to be much more abrupt and subtle.

including all of their stakeholders. What is new about this neoliberal governmentality is implantation of the *dispositif* of competition within the heartland of higher education. As Agamben interprets Foucault's usage of the term, he reformulates it as follows:

I shall call an apparatus literally anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings.⁸³

So, the *dispositif* (of competition) could not be read as simple processes of privatization, public-private partnerships, commodification of knowledge/science/research, service provision of various sorts (such as vocational training, secondary education, consultancy, distant education etc.), colonization of the campuses by private companies of cafes and advertisements to count some. It contains all of these processes, but it points to much deeper, heterogenous and contradictory ensembles that are expressed by discourses, institutions, architectural design of space, regulatory decisions, laws, administrative demarcations, criteria of performance, scientific and ethical statements, philosophical, and moral propositions. A constantly changing compromise made and remade among all contradictory, counteractive, different elements of the education system and the wider political, economic and cultural context in which higher education is situated.

Given this partial conceptual understanding of *dispositif*, I have so far tried to demonstrate, in a piecemeal fashion, different elements that have direct or indirect bearings of different weights on the formation and actual existence of the technoparks. I have tried to contextualize neoliberalization processes (also gave small backgrounds and comparative cases of other contexts mostly from Third World countries, such as India, Chile, Indonesia and United Arab Emirates (UAE) and their effects on various institutions, relations, spaces and subjectivities.

83 Giorgio Agamben, "*What is an apparatus?*" and other essays (Stanford University Press, 2009), 14.

Periodically speaking, my foregoing construct mostly focused on the inception phase of the neoliberal policies and leaped towards the 1990s and today when it is considered necessary for the rehabilitation of the linkages between different phases of neoliberalization in Turkey. I believe at least four phenomena should be indicated, before passing to the conceptual frameworks in the next chapter, about the changing character of today's neoliberal governance from the time it was first imagined through the philosophical garden of forking paths of liberalism, fascism, state socialism, conservatism, Marxism in the beginning of the twentieth century⁸⁴ and from the time of its first application in the initial phases of its slow but sure domination of what Harvey calls "Economy of magicians"⁸⁵ in the mid 1960s to its real life staging in laboratories of national levels such as Indonesia and Chile.⁸⁶

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- 84 In tracing the true origins of neoliberalism joining the heterogenous ranks of Foucault, Mirowski, Peck, Harvey, and Lemke, to name an influential few whose works echo throughout this thesis, Brown discovers Callison's claims in his recently finished PhD. thesis locating the invention of neoliberalism in between the two world wars drawing attention from Mont Pelerin Society to the influence of Walter Lippmann Colloquium on the later theoreticians. Brown, *In the Ruins of Neoliberalism*, 9. See also: William Callison, "Political Deficits: The Dawn of Neoliberal Rationality and the Eclipse of Critical Theory" (PhD diss., University of California, 2019).
- 85 David Harvey, *The Condition of Postmodernity*, 184-185. Harvey and many other (neo-) Marxists read this process, albeit not in a reductionist fashion, in line with capitalist cycle theories of long, middle and short cycles of falling and rising rates of profit of capital. So, according to Harvey, in his book to which the most number of references on the subject of neoliberalism are given, neoliberalism is formed as a class assault as a response to falling rates of profit in productive sector due to various crises dynamics of the Fordist accumulation regime formed in the heartland of Anglo-Saxon capitalism. This assault has been taken alliance with various hegemonic powers, new or old ideologies, middle classes and poor people alike through the mode of living it presents. David Harvey, *A Brief History of Neoliberalism* (Oxford University Press, USA, 2007).
- 86 In this manner, Foucault's terms of "boomerang effects" and "integral colonialism" are revealing in explaining the return of these experiments to Europe in which they were devised: "It should never be forgotten that while colonization, with its techniques and its political and juridical weapons, obviously transported European models to other continents, it also had a considerable boomerang effect on the mechanisms of power in the West, and on the apparatuses, institutions, and techniques of power. A whole series of colonial models was brought

First of all, the literature on neoliberalism and governance (not to miss Foucauldian governmentality and STS concerning governance of actors/networks/actants⁸⁷) has almost reached a theoretical saturation, built so many bridges of dialogue between each other yielding many hybrid studies. Neither in the 1980s nor in the relatively theoretically rich environment in which I have started this journey in 2010, did those depths exist.

So, I have tried to cover a fair share of these studies in order to grasp the nuances of these highly elusive concepts. Most generally, I am grasping the concept of governance as an attempt to draw the balance between competition and cooperation which is one of the main problematique of technoparks as well. Whereas, what I mainly take from many aspects of neoliberalism is the theme of manipulation of subjects, institutions and spaces.

Secondly, technological development has reached a level that would have never been conceived from the retrospect of not only thirty years ago but even ten years ago. New technologies of social media, mobile applications, cryptocurrencies, internet of things, artificial intelligence, drones, biotechnologies, nanotechnologies changed life in radical ways.

These developments also attracted discussions of platform capitalism, digital commons, techno-capitalism, cyber/cyborg Marxism through which I was first drawn to the studies of technopark. However, in this thesis I almost completely leave out these theories except for some instances. For instance, the networks of firms in the technoparks should also be conceived from the perspective of digital capitalism where a highly uneven network of American giant high-tech firms interact with peripheral "solution partners" where most of the rents, through patents and licenses, go to the center. Most of the technoparks that house software businesses stand in these networks.

back to the West, and the result was that the West could practice something resembling colonization, or an integral colonialism, on itself.' Michel Foucault, and François Ewald, " *Society Must Be Defended*": *Lectures at the Collège de France, 1975-1976* (Macmillan, 2003), 103.

87 For the latest example of designing a sound but flexible governance theory for the risky business of nanoparticles see Arie Rip, "De facto governance of nanotechnologies." In *Futures of Science and Technology in Society* (Wiesbaden: Springer, 2018), 75-96.

Third, the level of change in a built environment and our ecological and biological existence in parallel with technological breakthroughs reached to the hyper heights⁸⁸ which posed the risk society thesis of the mid to late 1980s⁸⁹-that were originally originated from the Marxist debates of social redistribution of risks- much more viable at least about the uncertainty of the future they had pointed out. This risk element, which was mostly stimulated by chaotic technological developments, has also an important effect on the current reformulation of neoliberal governance theories.⁹⁰

For the case of technoparks, there are many forms of risk in the different levels. For instance, in the individual level, risks associated with being an entrepreneur, such as losing an idea to a competitor or to a friend, risk of going

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- 88 Ong criticizes both the classical Marxist approach that conceives skyscrapers as the corporate investment of extra surplus to urban environment for the revaluation of their capital or narrow readings of symbolic power (as a spectacle) of big corporations casting huge shadows on the cities. In the inspirational passage she embodies her argument that sees hyperbuilding as an act of sovereign power of the Chinese state in settling the accounts with her colonial history as a steel and glass manifestation of competing architectural constructs: "The Cheung Kong Building is called "The Box that the Bank of China came in." Meanwhile, the nearby HSBC Building, a venerable colonial structure with roots in British imperialism, is seemingly being menaced by the I.M. Pei-designed Bank of China. Fondly referred to as the Cleaver Building, its sharp edges are interpreted as sending bad qi toward the HSBC building. The close juxtaposition of these warring buildings reinforces the palpable feeling of tension between the powers of the global financial world and of the Chinese state intersecting in Hong Kong." Aihwa Ong, "Hyperbuilding: Spectacle, Speculation, and the Hyperspace of Sovereignty," in *Worlding Cities: Asian Experiments and the Art of Being Global*, eds. Ananya Roy and Aihwa Ong (Blackwell Publishing, 2011), 210-211.
- 89 These theses originally discussed the characteristics of the passage from class society to a risk society in which not only redistribution of wealth is a problem but the question "How can the risks and dangers, which are systematically produced in the process of advanced modernization, be prevented, made harmless, dramatized and directed, channeled away? "must be answered. Ulrich Beck, "On the Way to the Industrial Risk-Society? Outline of an Argument." *Thesis Eleven* 23.1 (1989): 87; Jonathan Simon, "The Emergence of a Risk Society- Insurance, Law and the State." *Socialist Review* 95 (1987): 60-89.
- 90 For certain governmentality studies that deal with the concept of the risk in neoliberal governance, see: Pat O'malley, *Risk, Uncertainty and Government* (Routledge, 2012); Jonathan Joseph, "Resilience as Embedded Neoliberalism: a Governmentality Approach," *Resilience* 1.1 (2013): 38-52.

bankrupt could be presented. For technopark management company, one of the biggest risks present itself as the capital flight of a big company. For those technopark tenant firms who do not innovate, the risk of being audited for the content of innovation that may disenchant the fictitious aura stands as an important threat. In the concept of technoparks, as it is the case with various zones, one of the many roles of the state manifests itself as a venture capital provider that enhance socialization of the risks of private companies.

This is an important point for my approach. As it will be elaborated in the next chapter one of the core themes of technoparks should come forth as the uneasy balance between public and private, notwithstanding the fact that the separation between the two never appear that straightforward. Hence, I preliminarily give four fields of these shifting balances resulted: I) unfair competition through tax advantages and various incentives, ii) the interruption of education as a social service, iii) the presence of companies in the campuses and iv) the rectorate being the manager of the technopark management company.

Fourthly, on the global scale, 2008 crisis (and its local manifestation in Turkey) triggered a long range of events and many debates about death, living-death and zombie forms of neoliberalism⁹¹, and the return of Keynesianism or even Marxism (with the hype of Piketty's book, *Capital in the Twenty-First Century*.) Unprecedented crises of financialization expanded globally; it was claimed that they would pass Turkey tangentially, without any significant impact, soon proved to be rather optimistic.⁹² Although the strict regulatory framework was applied to the banking sector (with the low levels of securitization in financial operations) saved the day, tangential character of the crisis did not last long.

Especially with the effects of plummeting rate of demand from European markets, industrial establishments had simply stopped investing in new technology and equipment. This situation led to real decreases in the size of the manufacturing sector in the economy. JDP forced to gradually take a drill sergeant approach, finally giving birth to an authoritarian form of neoliberalism.

91 Colin Crouch, *The Strange non-Death of Neo-Liberalism* (Polity, 2011).

92 Aydın, "Global Crisis," 103.

Not only the passive position of the IMF and the WB since 2008 made the concept of governance obsolete, but also, because of this highly hierarchic posture, gradually intensified up until today, made to talk about the governance futile.

While almost all of governance's sub-elements that I tried to compile from the hitherto literature (such as horizontality, transparency, accountability, synergy, goal-orientedness, performativity, measurability, equity, etc.), except the "precious" risk element, are only slight considerations in today's Turkish society. Yet, still I believe in its valuable and flexible conceptual apparatuses, especially to analyze sites like technoparks where multiple actors from diverse backgrounds are in an interaction. In this sense, my research during 2010-2011 coincided with a period of transition from a wider coalition of governance to the consolidation of a narrower order, which has been continuously closing ranks with the rest of the society. Moreover, as it is presented before, it witnessed a regulatory chaos of constantly changing laws.

After the crisis of 2001, the policies, which were put into effect to maintain better regional distribution of productive investment, aimed at enhancing international competitiveness through regional labor markets and science and technology policies. The envisaged structural reforms were very ambitious, and contradictory to the spirit of free markets in their state supportive nature. The state documents preserved their rhetorical nature as it could be seen in the documents published after 2009 crisis, as many references are made to mitigate regional inequalities and strengthen the international competitiveness of the industry.⁹³

However, the discourse on technological and industrial competitiveness, which constantly haunts all societies and subjects alike, claimed to be a façade to hide the real and unsustainable motor force of the economy: Mega projects

93 For the related documents published by State Planning Office and Ministry of Industry and Trade after the 2009 crisis see: Pre-Accession Economic Programme 2009, SPO, accessed, April 14, 2019. http://www.sbb.gov.tr/wp-content/uploads/2018/11/Pre-Accession_Economic_Programme_-2009-1.pdf, Resmi Gazete, "Türkiye Sanayi Stratejisi Belgesi 2011 – 2014 (AB Üyeliğine Doğru)", December 7, 2010, accessed April 15, 2019. <https://www.resmigazete.gov.tr/eskiler/2011/01/20110127M1-1.htm>.

and construction. Moreover, the government's main concern before the crisis has been the generation of revenues for the central budget and fiscal adjustment, rather than efficiency, and repeatedly emphasized the competitiveness of the economy in the official documents.⁹⁴

After the crisis, unsustainable motor forces of the economy in the shape of mega projects, energy projects and construction were accelerated by landslide.⁹⁵ Being inconsiderate to these projects costs accumulated on the ecologies of the cities and already precarious working conditions, they serve as, in using Ong's term, "technological sublimates" of an imported technological nationalism that endlessly sprawl vertically and horizontally.⁹⁶ Power, wealth, and status were increasingly held by those who know how to "shrink and enlarge" the space or know how to benefit from space being shrunk.⁹⁷

§ 2.5 IT Valley: A problematic Mega-Project

In this vein, latest project of IT Valley⁹⁸ could be located as the latest bridging point of ambitious futuristic mega-projects and construction mania and so-called technologically advanced development. It was first envisioned in an empty shell of "national innovation network" in Seventh Development Plan

94 İzak Atiyas, "Recent Privatization Experience of Turkey: A Reappraisal." In *Turkey and the Global Economy*, eds. Ziya Öniş and Fikret Şenses (Routledge, 2009), 113-134.

95 For Flyvbjerg et al. "infrastructure" as a catchword that is conferred by megaprojects took a place on par with technology. They rapidly moved from being a simple precondition for production and consumption to being at the very core of these activities, "with just in time delivery and instant internet access being two spectacular examples" of its virtual form. Bent Flyvbjerg, Nils Bruzelius, and Werner Rothengatter, *Megaprojects and Risk: An Anatomy of Ambition* (Cambridge University Press, 2003), 2.

96 Ong, "Hyperbuilding," 205.

97 Flyvbjerg et al argues about the curtailment of transparency and participation during the initial phases of the mega-projects: "Project promoters often avoid and violate established practices of good governance: transparency, and participation in political and administration decision making, either out of ignorance or because they see such practices as counterproductive to getting projects started." Flyvbjerg, *Megaprojects and Risk*, 5.

98 Website of IT Valley, accessed August 27, 2019. <https://www.bilisimvadisi.co/en/>.

of SPO.⁹⁹The ideas about the project became vocal, as far as I can trace, in the dubious but still optimistic environment of 2003-2005 policies.¹⁰⁰ The project was materialized in the Higher Planning Council's strategic document on knowledge society project in 2006.¹⁰¹ This should also be considered as a token of a temporary adherence to the wider transformation in the EU, scripted after Maastricht and Lisbon treaties, in order to build the purported knowledge society. For most of the commentators, this project function as part of the larger efforts of powerful EU countries to increase falling labor productivity in enhancing technological competitiveness against U.S and South East, East Asian contenders.¹⁰² Besides, these policies literally targeted all levels of lifeworlds relatively molding existing transformations in Europe based on a big enterprise model. Turkey's EU membership process also accelerated the reflections of these developments to Turkish context, meeting and clashing with different governmental and societal desires of a reformed governance.

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- 99 SPO, Seventh Development Plan, Ankara, 1995, accessed August 27, 2019. <http://www.sbb.gov.tr/wp-content/uploads/2018/11/Yedinci-Be%C5%9F-Y%C4%B1llık-Kalkınma-Planı-1996-2000-E2%80%8B.pdf>.
- 100 Within the confines of this study it is impossible to trace back the techno-developmental imaginations directly inspired by consecutive successes of original Silicon Valley, but it would have been an interesting study.
- 101 First and single utterance is under the heading of "sectoral restructuring" stating the needs for forming the technical conceptual framework and professional standards. Moreover, main goal for the establishment of the IT Valley is stated as the attraction of foreign ICT intensive capital: "Sektör Yapılanması: Yetkinliklerin artırılmasında ve sektörün dışa açılımında sürekliliği ve etkinliği sağlamaya yönelik yönetim yapıları kurulacak ve ilgili süreçler tasarlanacaktır. Bilgi teknolojileri sektöründe mesleki tanım ve standartlar oluşturulacaktır. Teknopark yapılanmaları sektörel odaklanma ve üniversite-sektör işbirliğine öncelik verilecek şekilde düzenlenecektir. Türkiye'nin uluslararası bilgi teknolojileri firmaları için üretim ve operasyon merkezi olmasının sağlanması amacıyla "Bilişim Vadisi" kurulacaktır." SPO, Bilgi Toplumu Stratejisi (2006-2010) ,Ankara, 2006, accessed August 19, 2019. http://www.bilgi-toplumu.gov.tr/Documents/1/BT_Strateji/Diger/060500_BilgiToplumuStratejisi.pdf.
- 102 Oktar Türel, "Dünyada Sanayileşme Deneyimi: Geçmiş Çeyrek Yüzyıl (1975-2000) ve Gelecek İçin Beklentiler", in *İktisat Üzerine Yazılar I Küresel Düzen: Birikim, Devlet ve Sınıflar (Korkut Boratav'a Armağan)*, eds. Ahmet H. Köse, Fikret Şenses, Erinç Yeldan (İstanbul: İletişim Yayınları, 2003), 39-40.

As Keyder notes, second half of the 1990s and the 2000s witnessed Turkey's increasing commitment to the EU "which became a crucial player in Turkish politics, with visiting delegations, civil society grants, judicial review, and constant pressure by its various organs on Turkish politicians. The westernization rhetoric had entrapped political debate."¹⁰³

Moreover, new regulations, such as the introduction of competition policy, intellectual property rights and other measures implemented by the state had a considerable impact on remaking the business environment. For some groups within the bourgeoisie (not only dependent on their economic sizes), the EU carried the potential for stabilization and good governance as an outside anchor.¹⁰⁴

In line with these developments, first phase of the feasibility study¹⁰⁵ was conducted in 2009 and published at the end of the year by a spin-off firm from İTÜ in partnership with influential institutions of science and technology policies in Turkey- which will be briefly covered later in the thesis- under the direction of Prof. Atilla Dikbaş who stamped himself as an important figure in the science and technology policies at the end of the 1990s and new millennia. Many of the professors from İTÜ participated in the study. For the findings of the document, many surveys were conducted with different stakeholders of the IT sector. It might be considered one of the first comprehensive feasibility study which presented the big picture of existing IT structure ornamented with graphs and necessary statistics. As a result, it points out the directions, partitioned into phases, that will be taken when building the IT Valley. Eskişehir and Ankara were suggested as alternative sites for its establishment after comparing various indicators of feasibility.

103 Keyder, "Turkish Bell Jar," 205. Although those attempts of building a regulatory environment fell considerably short of expectations limited to meek attempts until the post crisis debacle of 2002.

104 Petek Kovancı-Shehrin, "A Critical Evaluation of Governance in the Framework of Rural Development in Turkey," (PhD diss., Middle East Technical University, 2005).

105 For the details of the report, see: "Bilişim Vadisi Fizibilitesi", Technobee, accessed August 26, 2019. http://bilgitoplumu.gov.tr/Documents/1/Icra_Kurulu/090715_IK27.ToplantisiBilisimVadisiYerSecimi.pdf.

This project was designed with great enthusiasm as a regional development project of large agglomeration economics in various scales that are comparable to similar state development projects such as Southeast Anatolian Project (GAP)¹⁰⁶ and Chinese New Silk Road project.¹⁰⁷ Finally, in 2014, it was decided to be located in Muallimköy, Gebze. The groundbreaking ceremony was held under the auspices of Industry Science and Technology Ministry in 2015. Since then, construction of roads and buildings have been going on in an enormous scale. I should also note that, one of the earliest symbioses of university-industry partnerships-that also merged industrial districts with higher education- was built in this region in 1992, called Gebze Institute of Technology (GYTE). This institute was predominantly designed to serve to the needs of industries in the Gulf of İzmit.¹⁰⁸

For the case of IT valley, one should keep in mind that, the establishment of a large corridor of Silicon Valley wannabe place was relatively long-held neoliberal dream in Turkey, that was intensified in the 1990s, among certain politicians, academicians, bureaucrats¹⁰⁹ and businessmen with a high-tech outlook. Moreover, as a characteristic of artefacts of this scale, they are the subject of contestation among different regional authorities and high-tech communities to attract such a potential. In the case of Turkey, I maintain that it is in between Ankara and İstanbul. Same pattern of competition within and

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- 106 For a Foucauldian critique of the social projects within GAP, see: Nilay Özok-Gündoğan, "“Social Development” as a Governmental Strategy in the Southeastern Anatolia Project," *New perspectives on Turkey* 32 (2005): 93-111.
- 107 “China’s \$900 billion New Silk Road. What you need to know,” World Economic Forum, accessed August 26, 2019. <https://www.weforum.org/agenda/2017/06/china-new-silk-road-explainer>.
- 108 Y. Demirer, M. Duran, O. Orhangazi, *Ateş Altındaki Üniversite*. Ankara: Özgür Üniversite Yayınları, 2000, 46.
- 109 For instance, State Supervision Council’s report highly vocalizes this potential and overtly criticizes the waste of the potential to form a high-tech corridor in Ankara because of the uncooperative behaviour of Universities in the region. Devlet Denetleme Kurulu, “4691 Sayılı Teknoloji Geliştirme Bölgeleri Kanunu Uygulamalarının Değerlendirilmesi ile Uygulamada Ortaya Çıkan Sorunların Çözümüne İlişkin Öneri Geliştirilmesi,” *Araştırma ve İnceleme Raporu*, 2009/1, Ankara , 232.

between regions observed, as I presented above, in the discussions of trade zones in Turkey.

In the first feasibility report that is mostly prepared by İTÜ professors, this expert group commissioned by the MOİT to find a suitable place for the project. However, because of a couple of factors such as, hard-felt economic effects of 2009 crisis and intensification of clientelist dynamics the previous plans discarded. After a relatively long break, another network of experts, bureaucrats and academicians initiated the plan. Although parallels can be observed between the two phases, such as the clear motivation to attract foreign direct investment, the project turned out to be JDP's venture to construct an alternative neo-developmental high-tech corridor.¹¹⁰ Also from the actors involved, it is possible to see clear demarcations between the relatively old professionals from different walks of life and new stakeholders of the wider high-tech development habitat. This situation could also be grasped by looking into government and business relations, such as, between TÜSİAD and JDP government.

In this new "vision", amid a few foreign companies involved in the zone stands the high-tech giant Huawei, that puts a great emphasis on its indigenous research during the early days, viciously developed reverse engineering methods in the 1980s that add on the historical controversies over the practice of copyright violations.¹¹¹ The company, that excelled in telecommunications sector in the 2000s, serves as a flagship in wider strategies of Chinese capital expansion in European and American markets. Neilson conceives this sort of expansion of Asian varieties of capitalism, as they land on concrete spaces, under the concept of "bipolar machine of sovereignty"¹¹², where the competing norms and calculations of actors of all shades and sovereign decision of

110 This observation is drawn from my extensive research on the web that navigates couple of fields, such as the official Twitter account of the IT Valley, networks of the actors on the management company's boards and various news.

111 Diganta Das, and Tong Lam, "High-tech Utopianism: Chinese and Indian Science Parks in the Neo-liberal Turn," *BJHS Themes* 1 (2016): 221-238.

112 Brett Neilson, "Zones: Beyond the logic of exception?," *Concentric: Literary and Cultural Studies* 40.2 (2014): 11-28.

exception interplay. So, the question arise “how the governments’ and multi-nationals’ project coincide?”

Like its counterpart, Foxconn, which has been in operation since 2011 in Çorlu European Free Trade Zone,¹¹³ Huawei in many countries evades payment of taxes and relies on relatively cheap labor for production. As a sub theme of the terrain of conflict that mark my general argument, I argue that the arrival of these companies coincides with the realization of techno-conservative spirit¹¹⁴ on actual geographies of neoliberalism, that, according to Mollaer, fills the empty signifier of progressive rhetoric of capitalism with nationalist utopias.¹¹⁵ Here, last but not least, temporary conjunction also occurs between relatively long-dreamed¹¹⁶ governmental strategies of forming (cheap) high-tech zoning practices and interests of multinational companies like Huawei.

These contradictory intersections, I think, demarcate, three points in my case from the time of my research up until today: I) a relative shift from Silicon Valley model to Asian zoning practice, ii) a struggle among the actors of high-tech environment, and iii) the mundane limits of the sovereign’s monolithic character and viability of her decisions on exceptional spaces. All of these points will also briefly be demonstrated in the following chapter and in the case of ARIKENT that now I will turn through short histories of science and technology and technopark policies.

If IT Valley is taken as the relatively recent embodiment of the changing conditions of labor, urban, industrial, educational, scientific and technological

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- 113 Devi Sacchetto, and Rutvica Andrijasevic, "The Case of Foxconn in Turkey: Benefiting from Free Labour and Anti-Union Policy," in *Flexible Workforces and Low Profit Margins: Electronics Assembly Between Europe and China*, eds. Jan Drahokoupil, Rutvica Andrijasevic and Devi Sacchetto (Brussels: European Trade Union Institute, 2016): 113-130
- 114 Fırat Mollaer, *Tekno Muhafazakârlığın Eleştirisi* (İstanbul: İletişim, 2016), 100.
- 115 One of the many examples could be seen in the news report that channels the desire of the former minister to send young Turkish people to incubators in Silicon Valley. However, this case presents a temporary shift from American Utopia to Chinese one. “Bakan Ergün Silikon Vadisi’nde,” *Sabah*, last modified October 29, 2010, accessed October 7, 2019. https://www.sabah.com.tr/amerika/2010/10/29/bakan_ergun_silikon_vadisinde.
- 116 “Türkiye AR-GE üssü haline gelecek,” *T24*, last modified September 27, 2009, accessed October 7, 2019. <https://t24.com.tr/haber/turkiye-ar-ge-ussu-haline-gelecek,54856>.

policies and desires along with the contradictions between sovereign decision of making exceptions on spaces and laws and calculations and norms of the actors involved, we could turn our face to the brief history of technoparks in Turkey. The usual culprit of the commencement of neoliberalization takes the seat again at the end of the 1980's:

It was the time of [Turgut] Özal. Özal and his crew saw a technopark abroad. When they had returned, they decided to establish technoparks [in Turkey]. [At the time], no one knew what was a technopark [in Turkey], what was going on, [and] what this park was about. Then, Turkey approached United Nations Industrial Development Organization (UNIDO) [by saying] “send us an expert, we are going to establish technoparks...” Then, experts had come to Turkey and conducted a brief need-analysis. Then, they said [Technoparks] should be [established] in Ankara, Istanbul, Izmir, and TÜBİTAK-MAM¹¹⁷. First, [the experts] urged us to find an incubator, [then] analyze it, and then if it would become successful, establish a technopark. This way, we would gain experience... It is ok, we started [establishing incubators], [founding required committees], but no one knew what an incubator at the time was. After five years, [the experts] visited Turkey once again to follow up on the project. They asked us, “What did you do?” We said we are doing like this, we are doing like that. They asked, “Where is your business plan? Where are your success criteria?” [We had] none of those... They asked, “Relying on what [plan] are you working?” [We said] we are just doing... [The expert] told us a very nice thing at the time. He said, “You are the descendants of the Ottoman Empire. Do you assume that Mimar Sinan constructed the Blue Mosque without a plan? Did he do all those works randomly? How

117 Tübitak-MAM (Marmara Research Center) is one of the leading and rare public research centers in Turkey. It was established in 1972 and situated in an organized industrial district in Gebze.

come you do not have a business plan, success criteria, etc.” Still, we do not have these today properly. (emphasis added)¹¹⁸

Karaoğuz locates this testimony into the wider governance problems of accountability, measurement, performance monitoring that are embedded into the Turkish political and administrative culture by the term called “evidence-based policy-making.”¹¹⁹ He further comments that “although there had been conscious efforts by Scientific and Technological Research Council of Turkey (TÜBİTAK) during the 1990s to initiate impact evaluation efforts, the major problems had still been there in the broad political economy.”¹²⁰ Before the 1990s, R&D visions were also imbricated into the first relatively comprehensive science and technology document of Turkey, which was published in 1983 by Higher Science and Technology Council (BTYK) of TÜBİTAK in the name of *Vision 2023*. Considering the short-sighted, uncertain, ad-hoc approach to planning in general, this document looked like a long-term utopian wish. According to Alçın, it served no other than being a sketch for “Turkish Science and Technology Policy: 1993-2003” document with incremental changes.¹²¹

In this document, the word “technopark” as a new form of industry and university partnership is pronounced with no certain guidelines, and TÜBİTAK is positioned as a coordinator of this partnership.¹²² In a similar fashion, in the Seventh Development Plan of SPO between 1996-2000, the establishment of five technoparks was pronounced. Plan incorporates various

118 Karaoğuz conveys the story based on the recollections of a bureaucrat . Karaoğuz, “The Political Economy,” 135-136.

119 Ibid, 134-137.

120 Biddle and Milor diagnose one of the essential dimensions of the problem as the ambiguity in the legislation, e.g. unclear definitions and classifications for investments and materials, as a recurrent theme that could also have been in the various policy documents related to industrial development in general and science and technology policies in particular. Jesse Biddle and Vedat Milor, “Economic Governance in Turkey: Bureaucratic Capacity, Policy Networks, and Business Associations” in *Business and the State in Developing Countries* eds. Sylvia Maxfield and Ben Ross Schneider, (Cornell University Press, 1997), 277-309.

121 Sinan Alçın, *Teknoekonomi Politikaları* (İstanbul: Tarem Yayınları , 2010), 160.

122 “Türk Bilim ve Teknoloji Politikası 1993-2003,” TÜBİTAK, 1993, 7, accessed, August 27, 2019. https://www.tubitak.gov.tr/tubitak_content_files/BTYPD/btyk/2/2btyk_karar.pdf.

phenomena without clear institutional and legal guidelines such as ecosystem of entrepreneurship, applied sciences, incentive schemes, risk capital, human capital etc.¹²³ The striking similarities between the various discourses of transnational neoliberal governance policy networks about the position of university, the character of knowledge that should be produced and the responsibilities of scientists and the content of those reports were all visible.

§ 2.6 Technoparks and ARIKENT

Within this context, ARIKENT was first established under the name of İTÜ KOSGEB¹²⁴ TEKMER¹²⁵ by the cooperation of KOSGEB and İTÜ in 1992. This cooperation was a significant step for university-enterprise collaboration which allows the small and medium technology-based firms enter into profitable business by the leverage of academic substructure of İTÜ and support of incentives schemes embedded in KOSGEB structure. İTÜ KOSGEB TEKMER continues its studies with the cooperation of İTÜ and KOSGEB. As it was stated in the given quote from the bureaucrat narrating “seeing like Özal” story, pilot project of the UNIDO experts was materialized in KOSGEB’s centers for technologically intensive firms in five universities, including İTÜ.

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- 123 SPO, Seventh Development Plan, 1995, 70, accessed August 26, 2019. <http://www.sbb.gov.tr/wp-content/uploads/2018/11/Yedinci-Be%C5%9F-Y%C4%B1ll%C4%B1k-Kalk%C4%Bınma-Plan%C4%B1-1996-2000%E2%80%8B.pdf>.
- 124 Small and Medium Enterprises Development Organization of Turkey (KOSGEB) is a non-profit, semi-autonomous organization, which is responsible for the growth and development of SMEs, and it was established in 1990. Establishment of the KOSGEB could be read both in the narrower bias for the severely controversial claims about the competitive/productive natures of the small firms and in the wider processes of the gradual atomization of old mode of regulation (Keynesian social state). Which will be briefly discussed in the next theoretical chapter under the banner of post-Fordism.
- 125 Technology Centers (TEKMERS) are located on university campuses and were established to support innovation activities and entrepreneurship, to promote cooperation between university and industry, to stimulate technology transfer and to support marketable R&D projects. I should also add that this unit started to be gradually discarded after the mushrooming of the technoparks.

With the enactment of the Law on Technology Development Zones in 2001, the first legal framework was presented. Since its enactment, the technoparks proliferated in so many university campuses. At the time of this study there were thirty-nine technoparks. Although some of them only took the operation license from the MOİT and were in the construction phase.¹²⁶ İTÜ ARIKENT was established in 2003. At the time of the research that I conducted in 2010, there were seventy-eight companies as tenants in two technopark buildings (ARI1(6000 sq.m) and ARI2 (20000 sq.m)), while a third building, (ARI3 (54.000 sq.m)) was under construction, which doubled the size of the first two. Today, there are ten buildings in the technopark complex housing 283 tenant companies in a wide range of sectors that mark a contrast with the smaller pool of companies I had encountered during the time of research in 2010-2011.¹²⁷ It also expands in various networks of other technopark building projects such as Finance Technopark¹²⁸, which was initiated by the ISE as a component of the larger project of Istanbul Finance Center.

The physical form of ARIKENT consists of futuristic looking, low-rise office buildings of different architectural designs of glass and steel that are dispersed in a campus style, colonizing the original campus space of the university which is located in the well-known business district, Maslak. Unlike the high rises that are surrounding the district, technoparks contain a design criterion, by its proponents in general, that fits with the requirements of “new work”, that gives the members of technopark a “sense” of horizontality/equity in the design of the buildings which have not more than four or five stores.

Moreover, for the requirements of the project-based works that mostly rely on team efforts, this architectural preference has also practical means, same as

126 Today, they are eighty four technoparks, sixty four of them are in operation and infrastructure works of twenty of them still continues. For the lists of all technology development zones as of August 2019 and related statistics see: List and statistics for technology development zones, Ar-Ge Teşvikleri Genel Müdürlüğü, accessed August 23, 2019. <https://btgm.sanayi.gov.tr/Handlers/DokumanGetHandler.ashx?dokumanId=34e70d57-c640-4aef-bbc6-oofiae340591>.

127 For the list of the buildings see, Website of İTÜ ARI Teknokent, “buildings”, accessed August 27, 2019. <https://www.ariteknotent.com.tr/tr/hakkinda/binalar>.

128 “Finans Teknopark’ın Yeni Ortağı İTÜ,” Website of İTÜ, April, 27, 2018, accessed August 27, 2019. <http://www.itu.edu.tr/haberler/2018/04/27/finans-teknoparkin-yeni-ortagi-itu>.

the practicality, which I now mention about my thoughts for one of these buildings in the campus, namely ARI2, that are a combination of the recollection of my early impressions about the space from my visits, a theory related to the space design and another theory related with the social relations. This observation about the space and its connections will be linked to an instance from one of my interviews, that has wider implications for the governance of technoparks in general and İTÜ in particular.

Here, the most significant component that belongs to the building as an architectural design tool is the “element of randomness” that manipulates space in a way that facilitates conditions of chance meetings.¹²⁹ This manipulation relies on the assumption of the embeddedness that, as the frequency of the encounters between people increase there will be much more weak ties.¹³⁰ Therefore, this will save an individual from the narrow confines of his/her family, neighborhood, work routine to meet with new people to accumulate new ideas of businesses, researches, incentive options etc. This reassemblage of the social through the means of the theoretical assumption, e.g. “weak tie”, and its reflection on the space, I think, relies on the understanding of “Newtonian apple”, falling down by chance on the head of the lucky scientist, that inspire him to discover the most novel and noblest of things, the new new thing,¹³¹ is an important element of generic Anglo-Saxon neoliberalism that deny both history and hierarchy of relations, unequal distribution of means of production and unequal opportunities for the individuals to say the least.

The parable of this story being told, finds its direct translation in the historical narratives of Silicon Valley, that binds faith of the great innovations into people meeting at the right time and the right place. These meetings in dreamscapes consist part of the imaginary core of the cult of entrepreneurs. As it is mentioned for the concept of human capital, in the short discussion of the technopark literature in Turkey, all the relations are functionalized in a way that they are forced to serve for a purpose.

129 Umut Toker, "Space for Innovation: Effects of Space on Innovation Processes in Basic Science and Research Settings" (M.A Thesis, Bilkent, 2004).

130 Andrea L. Kavanagh, et al. "Weak Ties in Networked Communities." *The Information Society* 21.2 (2005): 119-131.

131 Michael Lewis, *The New New Thing: A Silicon Valley Story* (WW Norton & Company, 1999).

In other words, what lies behind the concept of synergy, in most of the cases, of project-based work, temporary collaborations, understood as the short circuit of relationships that might cause one-hit wonders. So, relations, flows, spaces, views and so on should be organized in a way that the technological miracles could occur. During one of the interviews, my respondent, a person who was a small shareholder of a company, told a story that is both in quite a contrast with the dictates of the design of the space and my early impressions that also contain a fascination with the external transparency of the building:

I have been working here for the last 2 years, and ... I don't know , inside of the building and the outside of it seem like two different worlds... that is embarrassing but ,with some exceptions I don't even see some of the companies that are operating in the same floor in which I am working... Doors are always closed , one can think .. we are in a secret.. secret NASA lab!..¹³²

So, as this quote suggests, not only in ARIKENT's ecosystem but also in general technopark formations, this problem of secrecy together with the capitalist competition manifest themselves great danger for the "collaboration" which is aimed by the rationale behind the Law 4961 that is inspired by a certain blend of theories such as new public management, entrepreneurial university or agglomeration economies. This point will be revisited in the fourth chapter with particular reference to social capital again in demonstrating hard contradictions of ARIKENT governance. Notwithstanding the fact that the concept of synergy is also an elusive concept that might have many levels. So, in order to present the realm of the possibilities of complex encounters between the actors that form the conditions of synergy, accountability, horizontality, performativity etc., I will present a simple example of a fictional academician. But, firstly, for the simplification of the production and performance accounting cycles I will present the flows:

132 The original text is as follows: "Son iki yıldır burada çalışıyorum, ve... bilemiyorum, binanın içerisi ve dışarısı sanki iki farklı dünya. Utanç verici ama, bazı istisnalar dışında çalıştığım katta bulunan bazı şirketleri görmüyorum bile. Kapılar her zaman kapalı, düşünebiliriz ki biz gizli... gizli bir Nasa labındayız." Interview G, March 3, 2011.

- Production cycle: Idea-research-prototype-patent -commercialization
- Performance accounting cycle: Firms(academicians)- Technopark management firm- MOİT

Given located in the framework of these flows, in a fictional case designed to present actors: An academician from the mechanical engineering department, who also has a company in technopark building, could interact with a wide range of actors such as, his co-workers, legal and financial experts, assistants, other academicians (of many sorts such as young-old, classic-new, administrator etc.), big and small businesses (of many sorts), rectorate, technopark management company, academic support organizations (of rare sorts such as TÜBİTAK ,KOSGEB), project juries, MOİT, Ministry of Finance and so on.

Finally, given these cycles, and realm of interactions, last comments will be made in order to point out some difficulties in the analysis while moving on my preliminary arguments about the technoparks in line with these given schemes. Firstly, interactions happen rarely in between only two actors. There are almost always chains of interactions that trigger other interactions. For instance, on an issue related to the acquisition of an important patent, many parts of the wider ecosystem might involve. Moreover, the hybrid positions of the academicians who navigate between different locations, such as government juries to corporate offices, also stands as another element. Last but not least, nor production neither accounting cycles, presented above, manifest linear characteristics. So, all of these factors should be considered in looking into actors of technoparks.

I preliminarily argue that what is new here is not only the dramatic transformation of industry-university relations or major benefits in the form of tax cuts for companies and in the form of lucrative leasing rents for the university administrations and various possibilities for new clientelist networks between governments and universities, but also, putting disperse, irregular and informal practices and relations of the actors who are involved into a regulatory framework in line with the neoliberal governance networks of various sorts, such as: IMF, WB, EU and multinational companies.

Legalization and institutionalization of these relations and practices partially answered various concerns in the integrity of governance elements such as transparency, accountability, participation, and performativity. To present

it more clearly, before the technopark law was enacted, industry and university partnerships existed in myriad, disperse, irregular, and unofficial forms such as formal and informal academic consultancies, renting university's laboratories for the tests of manufacturing firms, and having their companies or part ownerships registered on behalf of other people.

These strategies were developed because Turkish state officer law, Law No. 657, did not allow state workers to work in different jobs or to generate extra income.¹³³ When one recalls unregulated inception of neoliberalism during the 1980s, under the form of structural adjustment, and the manifold social vices it brought, the expression that is coined by Özal "my officer knows the score" indicates crony, informal and illegal practices that were already in practice. In the face of decreasing purchasing power on the one hand, and the rising consumption society on the other, officers devised novel entrepreneurial techniques. It was also a wider invitation for large swathes of the population into "unregulated entrepreneurship" such as the case of "gecekondu." This governmentality partially served as a buffer against rising inequalities in the newly forming shareholder equity governance.¹³⁴

However, with the new legal and institutional arrangements, these irregularities made legible in the eyes of not only the state¹³⁵ but also other stakeholders taking the seat of regulatory supervision from different scales like the

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- 133 Ertem presents same trials and tribulations around these laws in the context of high school teachers, see: Ece Cihan Ertem, "Conceptual Change of an Occupation: Transformation of Teaching in Turkey in Neoliberal Times (1980-2013)" (PhD diss., Boğaziçi University, 2018), 39.
- 134 William Lazonick, and Mary O'sullivan. "Maximizing Shareholder Value: a New Ideology for Corporate Governance." *Economy and society* 29.1 (2000): 13-35.
- 135 James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition have Failed* (Yale University Press, 1998).

EU, the WB¹³⁶ with its partner institution called Turkish Technology Development Foundation (TTGV) which was founded in 1991,¹³⁷ local and multinational companies, faculty members, syndicates, and students. New conflicting accountabilities are arising from this legibility, not to mention new practices, techniques, technologies that are being continuously formulated and reformulated in the institutional and legal loopholes of this relatively novel Silicon Valley wannabe construct.

Moreover, private companies found a new ground of nearly permanent existence on campus in contributing to the transformation of higher education in accordance with the premises of cluster, agglomeration economics and resulting subject formations.¹³⁸ From a macro overview, these developments are conducted and utilized as parameters/indicators to assert Turkish development performance in the pursuit of joining the ranks of other successful peripheral economies in global competition for resources.

In this vein, as it was most salient in the case of ARIKENT as the combination of a certain blend of Silicon Valley model and statist model, what is important for my case is to see how developmental visions are appropriated by the actors as tactics and strategies in order to diagnose and deal with the perceived problems. For instance, an academician in the case of not selling his/her product might call for the usage of pre-competitive state tenders that solely focus on some products, on the other hand same person could complain about the various elements of developmental state such as big oligopolies or unnecessary bureaucracy. Moreover, he/she might have aspirations for the Silicon Valley like characteristics, such as, incubators.

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- 136 Antje Vetterlein, "Seeing like the World Bank on Poverty." *New political economy* 17.1 (2012): 35-58.
- 137 For the history of TTGV, see: Website of TTGV, "Chronology", <https://ttgv.org.tr/en/who-we-are/chronology>, accessed August 14, 2019.
- 138 For the most prominent advocates of these formations, see: Michael E. Porter, "Competitive Advantage, Agglomeration Economies, and Regional Policy." *International regional science review* 19.1-2 (1996): 85-90, Maryann P. Feldman, "The New Economics of Innovation, Spillovers and Agglomeration: A Review of Empirical Studies." *Economics of Innovation and New Technology* 8.1-2 (1999): 5-25.

Thus, Turkey gradually accommodates not only roll out¹³⁹ but also roll-in-where individuals as could be seen from ARIKENT case in particular and technoparks in general become business of themselves-¹⁴⁰ phase of neoliberal governance. On the other hand, I argue that universities started to gain a character of “extrastatecraft,” to use Easterling’s term, with these new zoning practices.¹⁴¹ These spaces with their exceptional characters provide us with interesting cases of governance, that could be seen in technoparks which are in continuum with organized industrial districts. This zoning formations will be elaborated in the next chapter and will be presented, in the fourth chapter, in a relatively detailed fashion together with the description of the forms they came into existence, the way they function, who the stakeholders of these alleged ecosystems of synergy are and the roles attributed to the expected benefits from them by multiple actors of their governance.

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- 139 Roll-out liberalism is mostly defined as second and third wave of reforms serve as corrections in market/governance failures of previous reforms. Moreover, it also serves to deepen the marketization, commodification and competitiveness processes. Jamie Peck, "Neoliberalizing States: Thin Policies/Hard Outcomes." *Progress in human geography* 25.3 (2001): 445-455; Stewart Lockie, and Vaughan Higgins, "Roll-out Neoliberalism and Hybrid Practices of Regulation in Australian Agri-Environmental Governance." *Journal of rural studies* 23.1 (2007): 1-11.
- 140 Irani uses this concept to understand the formation of active entrepreneurial subjects under the effects of development projects conducted under the WB, Indian government, national and multinational companies' partnerships in Indian context. Irani, *Chasing Innovation*, 105-110.
- 141 Keller Easterling, *Extrastatecraft: The Power of Infrastructure Space* (London: Verso, 2014).

Ways of Seeing Technoparks: From Neoliberalism to Silicon Valley

This chapter focuses on the concepts that are used in the previous chapter, which are mostly incorporated in the analysis of the effects of neoliberal transformation in Turkey. The literature is abundant on neoliberalism. Therefore, I will limit this chapter to the concepts that have the most pertinence to this study, such as the manipulation of spaces through certain reward and punishment systems and the pervasive imposition of entrepreneurial models on the organizations, subjects, and states alike.

Here, for this point it should be added that technoparks intersect at the point where state induced developmental project encounter with the histories of the entrepreneurial locales. In that way, in order to understand these dynamics, I will generally discuss the concepts, such as neoliberalism, governance, and governmentality. My readings of these concepts complemented with the employment of metaphorical models of “Fable of Bees” and “Beekeeper analogy”. They function in conjunction with the honeycomb model to think the complex relations between state, society and market.

This conceptually tripartite play of categories takes complex forms in looking into the triple helix model of university-industry-state partnerships.¹ In the second part of the chapter, different sorts of “zones,” together with the aforementioned zone of excellence, “Silicon Valley,” will be presented as the special spatial formation of the neoliberal governance model.

Overall, this chapter concisely lays the ground for two phenomena: First, the conceptual understanding of the formation of ARIKENT as it is narrated in a relatively detailed fashion through the answers given by the technopark management company to my questions combined with other various already stated materials I have collected during the research.

Second, the contradictory dynamics between the actors that participate in this zone. These contradictions will try to be discussed as it was generally framed by Foucauldian governmentality and political economic approaches. Hence, I try to understand the dynamics of the technoparks at the intersection of these approaches that are already partially applied in my reading of the neoliberalizations of Turkey.

Political economic approach allows me to better understand the formative processes of post-Fordist places together with the tensions that emanate from changing dynamics of production. Moreover, since those places reside on putting the right balance between competition and collaboration that is also a crucial issue both in the discussions of neoliberal governance in general, and technoparks in particular. The chapter is designed in a rather linear fashion that start from universal theoretical approaches, reaching to rather mid-level conceptualizations like post-Fordism and zones and ends up in a particular locale.

Some brief comments about the data and the state of the theory should be made at the outset in order to grasp the transformations that underline the case at point. As it is also stated in the previous chapter, there have been dramatic changes since I started to conduct this research in 2010 until today, not only about the material and symbolic positions of the technoparks but also the

1 Model first coined by Etzkowitz and Leydesdorff to work out the complex realities of the governance of relatively new form of universities in neoliberal era. Leydesdorff, Loet, and Henry Etzkowitz. "Emergence of a Triple Helix of university—industry—government relations." *Science and public policy* 23.5 (1996): 279-286.

conceptual apparatuses that are going to be presented here. On the theoretical ground, five main reasons might be counted for these changes that provide for the conceptualization for technoparks:

First, accelerating developments in the state of innovation and technology and intensification of the space-time compression that is interpreted by Taussig as the Taylorist specter that extends the assembly line from the factory floor to the speed up of all aspects of life.² This could be observed from various angles in the present conditions of ARIKENT and general make-up of technoparks such as increasing workload of academicians, the hasty developmental goals, the deadlines for project-based work, short-term needs for profit and so on.

I argue that this temporal dimension is also about a distant future which is an apparent theme in the discourse of development, radical innovation, need for long-term research etc. So, I generally interpret, the techno-nationalist attitudes of the promoters of technoparks, as could be seen in the answers of technopark firm, as discursive techniques to mitigate the tension between private vices and public benefits.

Second, the large-scale transformations that take place in the built and non-built environments as could be seen in the hasty adventure of IT Valley and transformation of Maslak in my case as examples. These transformations give the deep currents of thesis, that is why I partially try to incorporate the case at point in the natural and urban phenomena. For instance, for the latter, the urban speculation in İstanbul is utmost importance for the state of ARIKENT.

Third, the effects of 2008 financial crisis on the perception of the state, market, and (civil) society relations that also make conflicts within the state much more visible as could be seen in my case, for instance, through the DDK inspection in 2009. Moreover, crisis also forced a transformation towards a relatively high tech developmental outlook as it is discussed in the previous chapter.

2 Michael Taussig, *What Color is the Sacred?* (University of Chicago Press, 2010).

Fourth, the rise of continuous expansion of Chinese state capitalism (and the increasing number of Guangdong style³ Chinese export processing zones) and its accompanying forms of (neoliberal) governance that also inspire various zoning practices around the world. As the embodiments of these practices the activities of Foxconn and Huawei are demonstrated in conjunction with IT Valley. The effects of these new zoning practices draw the wider frame of developmental governance in Turkey. This point will briefly have demonstrated in the case of ARIKENT in the case of Independent Industrialists' and Businessmen's Association (MÜSİAD) presence despite the fact that my data at hand will not be able to demonstrate the changes and exhaustively discuss the ensuing implications of these changes.

Fifth, the intensification of cultural, economic, and political “networks” around all scalar levels. So, my case at point duly demonstrate a little picture of these complex networks in the case of ARIKENT. Thus, these changes enforce themselves on the retrospective construct that I try to engage. On the other hand, concerning the primary data of the thesis, I continued to focus on the developments taking place concerning technoparks in general, and ARIKENT in particular. Therefore, the data that will be presented in the next chapter, in a frozen manner between 2010-2011, although limited updates will be made when necessary.

As it is presented in the previous chapter in the historical context, it is most commonly the case that neoliberalism is used in the literature to refer to a cluster of ideas associated with the revival of the nineteenth century economic liberalism. For the histories of the employment of the term, Michelle and Lippert give the following chronology: “During the 1990s researchers more commonly labelled the significant economic and/or political changes of the late

3 For detailed analysis of relatively liberal approach to development in China, see: Ezra F. Vogel, *One Step Ahead in China: Guangdong under Reforms*, (Cambridge: Harvard University Press, 1989).

1970s and 1980s as “advanced liberalism” the rise of the “new right,” or “economic rationalism.” It was only during the 2000s that academics and activists started to use the term “neoliberalism.”⁴

I also find Madra and Adaman’s approach to neoliberalism useful following the recent trends of historicizing the neoliberal idea itself. What are the imaginations under the different neoliberal currents of the state, society and individual? In their reading of neoliberalism as a mode of Foucauldian governmentality “the social,” if not altogether abolished or denied⁵ as in the example of TINA⁶ motto, should be organized around economic incentives or market imperatives.⁷

For most of the body of work, neoliberalism marks a clear distinction from its classical heritage that assumes naturally given markets and man of exchange who knows how to balance private vices and public benefits. Most of the neoliberals rely on the constant design of the reward and punishment schemes that will condition the subjects to conform the constantly constructed markets. Along these concerns, Wacquant defines the state form under neoliberalism as a “centaur state” that tilts the space of bureaucratic agencies who are concerned with “public goods” from a protective and collectivizing role towards one that is disciplinary and individualizing.⁸

4 Michelle Brady, “Neoliberalism, Governmental Assemblages, and the Ethnographic Imaginary,” in *Governing Practices: Neoliberalism, Governmentality and the Ethnographic Imaginary* eds. Michelle Brady and Randy K. Lippert (University of Toronto Press, 2016), 31.

5 Margaret Thatcher, “No such Thing as Society.” *An interview with Douglas Keay* 10 (1987): 8-10.

6 Stands for “There is no alternative” pronounced by Margaret Thatcher during the onset of Neoliberal reforms.

7 Yahya M. Madra and Fikret Adaman, “Neoliberal Reason and its Forms: De-politicization Through Economization,” *Antipode* 46/3 (2014): 691–716

8 Loic Wacquant, *Three Steps to a Historical Anthropology of Actually Existing Neoliberalism*, *Social Anthropology* 20: 66–79; Pat O’Malley, *Prisons, Neoliberalism and Neoliberal States: Reading Loïc Wacquant and Prisons of Poverty*, *Thesis Eleven* 122, no 1 (2014): 89-96.

In similar fashion, interventions in the environment designed to decrease human errors in business transactions are part of the parcel of neoliberal regulatory frames so as to calibrate predictable precision.⁹ As Altvater argues, these interventions could only be realized in the hands of powerful actors from businesses, transnational organizations, institutions of the state, transnational organizations, or civil society groups.¹⁰ General characteristics of neoliberalism, as some of them tried to be covered in the previous chapter, include strong commitment to methodological individualism and the principles of private property, together with a dislike against planning methods, laws, and regulations that do not comply with private interests. All in all, all of these approaches to neoliberalism that I endorse revolve around the creation of a governmental space through the interplay of various actors that aim to enhance the entrepreneurial ventures of the subjects concerned.

I conceive technoparks as one of these essential spaces where the long historical tension between public and private unfolds, as it is presented by the “temple of mammon” allegory through which Mirowski criticizes the state of universities in the U.S.¹¹ This allegory posits the argument that “one cannot serve to the money and to the science at the same time.” In the case of technoparks in Turkey, it is also visible that state plays an important role in the constitution of the ecosystem and in the imposition of rules of the game, yet not in a comprehensively planned fashion.

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- 9 For the discussions of the increasing need of software for today’s markets, see: Scott Lash and Bogdan Dragos, “An Interview with Philip Mirowski,” *Theory, Culture & Society* 33, no 6 (2016): 135; Irina Brass, and David J. Hornsby, “Digital Technological Innovation and the International Political Economy,” in *The Palgrave Handbook of Contemporary International Political Economy*, eds. Timothy M. Shaw et al. (London: Palgrave Macmillan, 2019), 620.
- 10 Elmar Altvater, “The Roots of Neoliberalism,” *Socialist Register* 44, no 44 (2009):346-353, 344.
- 11 Philip Mirowski, *Science-Mart* (Harvard University Press, 2011).

§ 3.1 Fable of the Bees and Beekeeping: For a Precursor to the Relations Between State, Market and Society

Here, a shortened presentation of Bernard Mandeville's book called *A Fable of Bees*¹² can be useful since it has recently attracted many theoreticians' imagination, in elaborating on the tension between collective action and selfish interests and it serves as a continuum of honeycomb model that was presented in the previous chapter. This metaphor also provides food for thought on the governance of multiple actors in technopark kind "ecosystems." Especially the tensions between competition and cooperation could be conceived from this angle. This tension seems to be one of the most important concerns of the proponents of the technoparks under the rubric of "collaboration".

The book starts with a short, rhymed allegory of a bee-hive. The author describes the dishonesty and selfishness in this hive. Merchants, lawyers, doctors, priests, judges, statesmen etc. all are vicious. And yet, their wickedness is the essence out of which the complicated social mechanism of a great state is constructed, where a horde endeavoring to supply each other's lust and vanity is observed. After the discussion of the relations between mass of the hive, individual bees and the authority in detail through the various fables,¹³ one morale of the story concludes when the stakeholders of the ecosystem ask for regulations and morals that are imposed by a higher authority, which results in the impediment of hive's productivity. In the case of technoparks, this tension also manifests itself, with some actors that call the state for the better harmonization of various laws or financial support on the one hand, and with other parties who blame the bureaucracy, clientelist networks, inflexibility, or inaptness on the other.

So, I have compiled some recent readings of the beehive metaphor in order the grasp the different dimensions of technoparks. Dardot and Laval also

12 For one of the earliest books on classical political economy of liberalism, see: Bernard Mandeville, *The Fable of the Bees*, (UK: Penguin, 1989(1732)).

13 For an in-depth investigation of the fable within the context of history of political philosophy and its effects on Adam Smith's thought, see: Louis Dumont, "The Emancipation of Economics from Morality: Mandeville's Fable of the Bees." *Information (International Social Science Council)* 14.1 (1975): 37-46.

touches upon the intricate questions concerning regulation, cooperation and competition. They claim that the tradition of liberal authors reveals a deep contradiction between individuals who are pursuing their selfish/egoist goals, and the greater well-being of society. How do they cooperate? What are the limits of interest-based approach? What sort of regulations should be applied? How to balance altruism and egoism? These questions concerning modern society and many more have been attempted to be answered by the alleged founders of liberal ideology. These questions are also informing my investigation from a wider perspective surely needs to be historicized. Those authors also try to deploy a combination of Marxist political economic approach that does not attribute any ahistorical logic to capital and reading of neoliberalism from a Foucauldian governmentality perspective.¹⁴

In her ethnographic study on the formation of the Chinese stock market, Hertz argues that the translation of the expression of “the trading crowd” could simply be taken as market. Then, she compares the Mandeville’s Fable with Adam Smith’s Wealth of Nations. According to her, Smith’s trope of the invisible hand (as an invisible governance) presents itself as a facade to cover the random and threatening activities of the crowds of traders. In contrast, Mandeville directly uses the metaphor of the beehive that gives a socially functional interpretation of the random and lustful operations of the individual participants.

Therefore, an equivalent of the Smithian de-politicization of the concept of the market has not yet taken place in Hertz’s perspective.¹⁵ My approach to technoparks have similarities with her approach since I also emphasize the political dimension of technoparks in pointing out the different effects of the

14 Pierre Dardot and, Christian Laval, *Dünyanın Yeni Aklı: Neoliberal Toplum Üzerine Deneme*, trans. Işık Ergüden (İstanbul: Bilgi Üniversitesi Yayınları, 2009), 23.

15 For Hertz, for the Chinese case, the expression of “trading crowds” also carries the weight of the politics of directing the exchange between individuals in the market. Ellen Hertz, *The Trading Crowd: An Ethnography of the Shanghai Stock Market* (Cambridge University Press, 1998), 20.

state in developing, privatizing, supporting, and regulating. In most of the literature on technoparks that I have covered, this dimension is dimly presented without further problematization.

Boutang also uses the metaphor of the pollen society (which also points to the recent biological developments¹⁶) in his account on new forms of capitalist exploitation of the mental labor. I find his distinction between the activity of bees (pollination) and the outcome or output of that activity (honey) particularly useful in conceiving not only the short-sightedness of industry-led science but also the limited developmental capacity of software industry that is nourished from financialization.

Boutang also argues that classical political economy is exclusively concerned with the latter and also devised new forms of commodification, which hinders the activity of bees, such as intellectual property rights, the commercialization of higher education, and proletarianization of the students in the case of various forms of university-industry partnerships. He concludes that there is a continuum between old political economic approach and neoliberalism in the analysis of the process of production.¹⁷ I argue that the same continuum could also be seen between developmentalist/statist elements and entrepreneurial elements. So, as I observe, in my case, actors tend to see and emphasize the different aspects of the state as tactics to problematize and produce solutions to the problems at hand.

In my presentation, the final take on the metaphor comes from Hardt and Negri, who devoted the title of a section of their recent book *Assembly*. They touch upon Albert Hirschman's reading of liberal political philosophy through his work on passions and interests¹⁸ and state that:

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- 16 The term of "Marshallian district", that presents one of the essential Darwinist/Malthusian theoretical cores for all sort of industrial zones in modernizing zeal of developmental economics, also inspired by the beehive metaphor. It is, quite often, considered as synonymous with agglomeration, localization and clustering that consist of the theoretical core of the design of the technoparks. Brinley Thomas, "Alfred Marshall on Economic Biology." *Review of Political Economy* 3.1 (1991): 1-14.
- 17 Yann Moulier-Boutang, *Cognitive Capitalism* (Polity, 2011), 75-83.
- 18 Albert O. Hirschman, *The Passions and the Interests: Political Arguments for Capitalism Before Its Triumph* (Princeton University Press, 2013).

The story begins in the sixteenth and seventeenth centuries with the realistic recognition by Machiavelli and others that humans as they really (not as we wish they were) are driven in large part by passions that can be destructive to themselves and others. Sustainable political arrangements must tame the passions, the thinking goes, not by moralizing or imploring people to be virtuous or rational, but rather by setting beneficial passions against detrimental or dangerous ones. Interest, that is, the passion for acquisition, the passion for property, emerges in Hirschman's narrative as the key virtuous (or at least benign) passion that is able to tame the dangerous ones. Interest is seen to be constant and orderly, and thus governable. Moreover, it has the power to transform traditional sins, such as greed, selfishness, and avarice, into virtues.¹⁹

As it has been demonstrated through different interpretations of beehive metaphor, contextualization of the hive -as I tried to demonstrate in the honeycomb model in the previous chapter- came forth as one of the most important dimensions of this thesis. Given this stance, considerable continuities could be seen between the conditions in the 1980s and 2000s in Turkey where technoparks came into existence. Moreover, the tension between interests and passions should be conceived together with the blurry line between the two. In the technopark case, profits of private companies, entrepreneurial ventures of academicians, rent income of technopark management company are all presented as the productive interests in the Hirschman's sense.

As Kılıç points out in his study on the relationship between Kurdish business associations and JDP government, these universal concepts can only take meaning in the historical contexts. Through a Foucauldian reading of Machiavelli, which defines interest as a statecraft, Kılıç demonstrates that JDP leaders developed two strategies of political engineering, which appear in Hirschman's story as ideational trends: I) differentiating between passions as a countervailing strategy and ii) opposing interests to passions. As I will partly demonstrate in the differentiation between incremental innovation and radical innovation, this differentiation among healthy and unhealthy passions is

19 Michael Hardt, and Antonio Negri, *Assembly*. Oxford University Press, 2017, 100.

at the core of the discussions on technoparks. In my case, it became more than being a statecraft, but a social attitude against the technology/standards as well.

We should further elaborate here the state, market, and society relations and governance of these forms, and the moments that boundaries between different fictionally frictionless hexagonal departments of the beehive/honeycomb model. So, I will move on with the visualization of these debates from an anthropological point of view, with regard to the concept of state/authority, which is supposed to solve the tension between public benefits and private vices.

Analyzing the lack of technologies of visibility/legibility/metrics of the pre-modern state, James Scott draws a comparison between pre-modern techniques of harvesting the honey from a beehive and the modern methods. In the latter, the design of the beehive works to solve the beekeeper's problem:

With a device called a "queen excluder," it separates the brood chambers below from the honey supplies above, preventing the queen from laying eggs above a certain level. Furthermore, the wax cells are arranged neatly in vertical frames, nine or ten to a box, which enable the easy extraction of honey, wax, and propolis. Extraction is made possible by observing "bee space"-the precise distance between the frames that the bees will leave open as passages rather than bridging the frames by building intervening honeycomb. From the beekeeper's point of view, the modern hive is an orderly, "legible" hive allowing the beekeeper to inspect the condition of the colony and the queen, judge its honey production, enlarge or contract the size of the hive by standard units, move it to a new location, and, above all, extract just enough honey (in temperate climates) to ensure that the colony will overwinter successfully.²⁰

This analogy about modern order is not only limited to the modern state in Scott's analysis, according to him; new experts of the state (such as planners,

20 Scott, *Seeing like the state*, 2-3.

engineers, scientists, and technicians) became the designers of the new order.²¹ In my case queen excluder could be conceived as technopark management firm that is also supervised by MOİT. It is supposed to both control the harmful passions of the firms-by constant general audits on the firms- and increase the productivity of the hive by providing infrastructure, conferences, meetings, databases, expert personnel etc. at the disposal of the firms. In ARIKENT, in my interpretation three of the most important legibilities are the profits of the companies, the level of collaboration between the partners and ambiguous level of innovation.

So, the state nowhere a monolithic entity as it is highly visible in a case like technoparks where not only hybrid characters interact with each other but also multiple regulatory regimes, in which different state effects could be seen. Hence, Aretxaga, drawing on the work of Philip Abramhs,²² argues that the very appearance of the state as a unified political subject depends on the political practice by a shroud of secrecy, like a mask a la Taussig,²³ surrounding the being of the state.²⁴ In her view, one should focus on the multiple sites in which state processes, discourses, and practices are recognized through their effects by looking for encounters that are not immediately visible.

Starting from my first research experience, secrecy came along as an important barrier to study technoparks, it is also one of the reasons for the limited nature of the studies, including this thesis, on the technoparks. I also observed that this secrecy also has a cultural ground in social space of the technopark where actors -who are supposed to cooperate- are hiding from each other. Moreover, although rather underdeveloped in my case in comparison to today's conditions where patent offices started to emerge in conjunction with technoparks in most of the universities, the existence of the patents also exacerbates secretive conditions.

21 Ibid, 5.

22 Philip Abrams, "Notes on the Difficulty of Studying the State (1977)," *Journal of historical sociology* 1.1 (1988): 58-89.

23 Michael Taussig, *The Nervous System* (New York: Routledge, 1992), 112-113.

24 Begoña Aretxaga, *States of Terror: Begoña Aretxaga Essays* (University of Nevada Press, 2005), 260.

Yashin's employment of the term "faces of the state" where wholeness of the state crumbles into many guises and faces²⁵ also illuminative for my venture in trying to decipher different positions of the state as it is seen in the eyes of various actors. It could be argued that these positions are easier to be followed in the narratives of the bureaucrats or the higher state institutions' inspections caused by the allegations of malpractices in the case of technopark.

Of course, one needs to acknowledge that these appearances are not only about subjective appearances, but also, they are dictated in variegated forms through complex networks of organizations and individuals. Within this vein my limited data demonstrate technoparks as mask parades of different faces of the state: I) state as a social service provider, ii) state as an incentive provider, iii) state as a punisher, iv) state as a regulator, to name a few.

Approaching the question of the state as an attempt to deconstruct "the state as timeless abstraction, as pole of transcendence, instrument of class domination or cold monster," Foucault proposes that composite reality of the state is no more than "the mobile effect of a regime of multiple governmentalities."²⁶ The same approach in his courses on *Birth of Biopolitics*, enables him to link the question of the state phobia through the critique of its inflationist effects that curtail the analysis of the social science questions at hand. This theme is also of particular importance in my case where entrepreneurial ventures of various sorts manifest different kinds of state phobia and devise different techniques to deal with it.

In the same vein, in her ethnographic study on the neoliberal state's welfare provisioning the poor in India, Gupta demonstrates many layers of the state bureaucracy and constantly changing relations between different parts.²⁷ Her emphasis on sheer contingencies of the workings of the bureaucratic state deconstructs the Scott's narrative of seemingly unified state. Moreover, she

25 Yael Navaro-Yashin, *Faces of the State: Secularism and Public Life in Turkey* (Princeton University Press, 2002), 175.

26 Michel Foucault, *Security, territory, population: lectures at the Collège de France, 1977-78* (Springer, 2007), 494 -495.

27 Akhil Gupta, *Red Tape*, (Duke University Press, 2012), 9.

observes the uneven and erratic ways through which the very modern mechanisms of the government systematically produce arbitrary outcomes and failing projects.²⁸ Finally, she emphasizes the flaws in the designs of the competing developmental governance models circulating from the complex global networks of policy makers.

In the context of developing countries, Mitchell also presupposes that American model of development industry in Egypt takes the models without contemplating on the contexts in which it is applied, this lack of knowledge of authenticity made the first series of neoliberal regulatory reforms as general prescriptive considerably fail in most of the developmental contexts.²⁹ Not only Turkey as a poster child of the 1980s lost its charm considerably after the series of unregulated monetary and fiscal policies. Same trends could be observed in importing models such as Silicon Valley to different contexts as it is initiated by UNIDO experts in the establishment of first technoparks that result with the failures in the crisis prone and regulatory environment of the 1990s. In my case, as it is stated in the introduction as well, the contradictions of the strange hybrids of Silicon Valley wannabe models and neo-developmental ones bear their effects on the governance structure of technoparks.

According to Gupta the very separation of the plan as an unquestionable mandate by the international or state organizations that put the blame on the street level bureaucrats instead of criticizing the viability of those plans is also show pertinence to my study at the points where higher-level authorities intervene in the workings of technopark and blaming the inexperience of lower level officers of the state. However, as it is clearly seen from the instances of my case, the biases in the design of the Law No. 4691 or contradictions among different regulatory frameworks in organizing the technoparks are sometimes missed. Thus, the disembedded nature of the preparation of modernization attempts escapes from the critique and this leads the way for further encroachment of governance schemes.³⁰

28 Ibid., 25.

29 Timothy Mitchell, "America's Egypt: Discourse of the Development Industry," *Middle East Report* 169 (1991): 19.

30 Gupta, *Red Tape*, 26.

Scott also acknowledges that, in the implementation of the beehive model (whether in the form of the market or in the form of the statecraft), huge fiascoes in poorer Third World nations occur ending up with what he calls “miniaturization”: “the creation of a more easily controlled micro-order in model cities, model villages and model farms.”³¹ So in the eyes of the bureaucrats, rescaling of the intervention in case of failures is also visible in some instances of my case as will be seen in the example of the bureaucrat’s fantasies that are exhaustively analyzed in the next chapter.

Mitchell also follows the suit in explaining how the distinction between state and society is produced through the network of institutional mechanisms.³² Moreover, he also suggests that in the mundane experiences, the state effect of the law exists as a sort of abstract, formal framework, that is superimposed above the interrelations among different actors.³³

Along the same lines, Roitman interprets the economic regulation in Central Africa by drawing on the conclusion that the state stays at the very heart of the proliferation of unregulated economic exchange, together with the pluralization of the analytics of government/governance practices through different regulatory authorities.³⁴ In the case of technoparks, as I witnessed a regulatory chaos of proliferating laws and regulations in organizing the technoparks, incentive schemes, university administration etc. Both Mitchell and Roitman’s definitions informed my understanding on the complexities.

To capture these formations embodied in technical devices, Gupta takes an eye on a long range of practices such as different forms of bureaucratic

31 Scott, *Seeing Like the State*, 4.

32 Timothy Mitchell, “The Limits of the State: Beyond Statist Approaches and Their Critics.” *American political science review* 85.1 (1991): 78.

33 Ibid., 94.

34 Janet Roitman, *Fiscal Disobedience: An Anthropology of Economic Regulation in Central Africa* (Princeton University Press, 2005), 92. For a detailed ethnography that traces the networks of global illegal activity and the blurry lines between criminal and official practices sometimes in the form of tax havens, see: Carolyn Nordstrom, *Global Outlaws: Crime, Money, and Power in the Contemporary World* (University of California Press, 2007).

writing, including forms and registers, statistics, inspections, and complaints,³⁵ tax exemptions for software exports,³⁶ and various forms of accounting of performance, such as exams,³⁷ and quantified goals that are needed to be achieved. All of these practices emerge and continuously reshuffle in different bottom-up and top-down scales of governance geometry.

§ 3.2 From Governance to Governmentality

Discussion and utilization of the term “governance” spread in a large field of literature, while it is impossible to properly locate the history of the term in the wider processes of the modernization paradigm.³⁸ Let us first take a glimpse on Nietzsche’s comments on the state of the European society at the turn of the twentieth century:

In the second place, nihilism as a psychological condition arises *when man imagines that there is a wholeness, a system, even an organization to all that occurs*, so that the mind, longing for something to admire and worship, *revels in the general idea of a supreme form of governance and administration* (if it is the mind of a logician, perfect consistency

35 Gupta, *Red Tape*, 180-184.

36 Ibid., 327.

37 Ibid., 320.

38 Modernization theory, based on the idea that all countries of the world will make progress and catch up the west by following the same capitalist path and going through the same stages has been the dominant development framework for a long time. Oya Köymen, *Sermaye Birikirken: Osmanlı, Türkiye, Dünya (İstanbul: Yordam Yayınevi , 2007)*, 201. For a comparative analysis between capitalism with Chinese characteristics (and expansion of Confucius Institutes) and Euro-modernity, see: Arif Dirlik, *Küreselleşmenin Sonu mu?*, trans. İsmail Kovancı and Veysel Batmaz (İstanbul: Ayrıntı Yayınları ,2012), 18-19, 21-24. According to Lewellen, the most important elements of modernity that should be exported from the west are following: Technology, capital, education, entrepreneur zeal and management skills. Ted C. Lewellen, *Siyasal antropoloji*, trans. A. Erkan Koca (Birleşik Yayınevi, 2011), 250. For the analysis of American model and its progeny as Japanese model, see: Michael Adas, *Machines as the measure of men: Science, technology, and ideologies of Western dominance* (Cornell University Press, 2015), 402-413.

and objective dialectic will suffice to reconcile it to everything). When man believes in a kind of unity, in some form of ‘monism’, he feels a profound sense of relation to and dependence upon a whole that is infinitely superior to him and *feels himself to be a mode of the divine*. (emphasis added).³⁹

I think this observation is still as strong as the time Nietzsche presented it; it shows a recent interest in Nihilism that characterizes post-2008 crisis era of growing income equality and rising authoritarianism of the states. Drawing on this observation and general understanding of neoliberal nihilism that characterizes the Trump era, Brown argues that the state of neoliberal governance does not point out to a condition of an anomie; it is rather a state in which the values we possess have become unanchored.⁴⁰

I believe that ever-multiplying numbers of governance indicators devalue and instrumentalize the virtues of modernity such as equity, truth, reason, accountability, and so on. These techniques, discourses, and practices do create variegated ways of knowing, spatial formations and subjectivities, accompanied by diffused but ever concentrating power relations between businesses, states, transnational organizations and subjects. My observations during the research also demonstrated that actors’ appropriation of the governance terminology in different instances were rampant.

In Brown’s view, the “resentment” among the competing actors (as concretized in a limited framework in terms of actors, as different offices of the state, small or big companies, and academicians in the case of technopark) gives way to a confusion on how to inspect the determinants of the governance or market failures. In the illusionary picture of the horizontal formation of governance, all of the stratifications, inequalities, exclusionary practices, barriers against equal opportunity, power asymmetries, concentration of wealth, and so on disappear from the picture.

In the context of university-industry collaboration, for Bruneel et al. this partnership is also conceived as a clash of values between different parties.

39 Friedrich Wilhelm Nietzsche, *The Will to Power* (Vintage, 1968).

40 Brown, "Neoliberalism’s Frankenstein", 161.

One axe of the clash is secrecy of knowledge on the part of business institutions and the other axe is about the chasm between scientists' intrinsic motivations for researching, and business' extrinsic motivation of quickly using the output of the research for their immediate benefits.⁴¹ This narration of private vices, and public benefits as demonstrated in Mandeville and Hirschman approaches to the issue, is one of the most salient points of tensions that underline the issues of governance as well. I argue that my case demonstrates its manifestation tipping towards the private vices.

Pred reads the various discourses of neoliberal governance as the crisis of contemporary modernity, combined with technological progress and new techniques of control and performativity, which became "like razors, instruments that clean things up and cut away all that was unnecessary."⁴² Along the same lines, Offe argues that, unlike neoliberalism, the concept lacks a clear opposite to which one can refer to for the purpose of its negation.⁴³ The structures and processes of governance and its discursive employment seem to suggest an innocent empowerment of all the stakeholders, whereas power of actors over other actors is strongly deemphasized.

Davies applies a Gramscian critique to the analysis of the network governance and exposes the exclusionary nature of the so-called participatory character of governance networks. He coined the term "netsploitation" so as to indicate this exclusionary nature.⁴⁴ As the Pred and Offe successively demonstrate for different cases about the ideologically purified and unquestionable nature of technoparks. I argue that in my case, although they are manifold critiques of the different parts of the model, there is almost no attempt to negate the model. Moreover, it is visible that there are many variations of power of the parties involved, such as, big and small companies, academicians from different ranks and state.

41 Johan Bruneel, Pablo d'Este, and Ammon Salter, "Investigating the Factors that Diminish the Barriers to University–Industry Collaboration," *Research policy* 39.7 (2010): 858-868.

42 Allan Pred, *Recognizing European Modernities: A Montage of the Present* (Routledge, 2014), 169.

43 Claus Offe, "Governance: An "Empty signifier"?, " *Constellations* 16.4 (2009), 550-551.

44 Jonathan S. Davies, *Challenging Governance Theory: From Networks to Hegemony* (Policy Press, 2011), 15.

Drawing on the fundamental issues of principal agent problem (that I have tried to expose through the interpretations of beehive model above), Offe clarifies two main problems as follows:

At stake are, on the one hand, the “horizontal” problem of collective action and the production of collective goods (the collective action (CA) problem). On the other hand, the “vertical” problem of controlling “agents” who (are supposed to) act on behalf and in the interest of other agents (“principals”) from whom they derive their authorization – the principle agent (PA) problem. The solution of CA-problems requires an answer to the question of how actors can be motivated (in a way other than legal command or material incentives) to bracket their short-term or particularistic interests in the service of realizing a collective advantage (or preventing a collective disadvantage). PA-problems pose the questions of how one can prevent office-holders and elected representatives from “opportunistically” violating their mandate by exploiting information-asymmetries, entering into corrupt and other self-serving transactions, betraying their constituencies and instead truthfully fulfill the tasks with which they have been entrusted. In its most optimistic reading, governance is a catalyst for cooperation that solves CA problems and serves as a mechanism of “good” (i.e., clean, accountable, transparent etc.) rule that minimizes remaining PA problems (emphasis added).⁴⁵

Here in the case of ARIKENT both the tensions of bracketing short-term interests in the service of long term collective gains (as the collective action problems) and principal agent problems manifest themselves namely in the inspection of DDK or Court of Account. That is why Offe’s approach informed my work to understand the horizontal and vertical dynamics of technoparks. Among the many examples of collective action problems, I also observed the meek nature of cooperation among ARIKENT firms and their interaction with academicians, drawing on my analysis of the data concerning the technopark

45 Offe, “Governance”, 556.

companies collected from the web and the academic research on various technoparks. Moreover, the principal agent problems raise complex legal and regulatory issues as it will be demonstrated in the cases of successive inspections against technopark management firm and the rectorate in the next chapter. State supervisory council report was also prepared, based on the lack of regulatory efforts on the part of authorized ministry.

So various origins of the term “governance”-which is devised to solve manifold principal-agent problems- as they are narrated in different works and contexts, give me an idea about where to locate my case at point. As far as I can compile, they are as follows: The separation of the owner and the manager of the firms during the 1930s in flourishing the U.S. corporate environment; the expansion of the U.S. hegemonic power⁴⁶ after the Second World War under the banner of Bretton Woods architecture and its corollary institutions;⁴⁷ the rise of so-called civil society movements in the satellite countries of Soviet Union; the decolonization processes of the former western colonies; surmounting role of identity politics; European social democracies; new labor movements and the New Left after 1968; the increasing complexities and network forms of all kinds of organizations in so-called post-Fordist transition; meteoric increase in centrifugal pull towards the autonomy of different locales⁴⁸ and communities; the concentration of capital in giant, mostly Western, multinational companies; the emergence of cuts on social spending at the end of the 1970s in various countries; intensification of the crises prone character of neoliberal financialization after the mid 1970s and the concomitant debt

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- 46 Arrighi defines the concept of world hegemony as follows: concentration on the power of a state to exercise functions of leadership and governance over a system of sovereign states, here dominance coupled with the exercise of intellectual and moral leadership a la Gramsci. Giovanni Arrighi, *The Long Twentieth Century: Money, Power, and the Origins of our Times* (Verso, 1994), 27-28; Leo Panitch and Sam Gindin, "American Imperialism and EuroCapitalism: the Making of Neoliberal Globalization," *Studies in Political Economy* 71.1 (2004): 7-38.
- 47 Jean-François Bayart, *Global subjects: a Political Critique of Globalization*, (Polity, 2007), 12.
- 48 George H. Frederickson, "Whatever Happened to Public Administration? Governance, Governance Everywhere," in *The Oxford Handbook of Public Management*, eds Ewan Ferlie, et al. (Oxford University Press, 2005), 282-304; Sonay Bayramoğlu, *Yönetişim Zihniyeti: Türkiye'de Üst Kurullar ve Siyasal İktidarın Dönüşümü* (İstanbul:İletişim, 2005), 31.

crises of the Third World; the debacles of development programs of the WB after the 1980s;⁴⁹ the rise of scholarly works on failed states, predatory states, crony capitalism and rent-seeking analyses;⁵⁰ the growth of East Asian industrial capitalism vis-a-vis Anglo-Saxon finance capitalism and concomitant Asian crisis of 1997;⁵¹ and the snowballing corporate corruption scandals in the beginning of the 2000s,⁵² to name a few.

As it is seen, there are many guises of the concept of governance. Although it stands like a discursively totalizing concept, it has different manifestations in different spatio-temporal contexts. From a commonplace point of view from the left, the concepts like third sector, civil society, democracy, governance without government all invoke the commodification, marketization, liberalization and corporate takeover on societal commons, which is supposed to be administered by an inclusionary state policy. Industry-university relationship also is conceived from these dimensions in the critical leftist approach in Turkey but there is either little interest to the subject or unifying critiques exist that see technoparks only from a materialist view missing its governmental dimensions and complexities.

Finally, from a macro structural point, the architecture of global governance has a neo-imperialist form that combines tripartite mechanisms of power, namely disciplinary, sovereign and governmentality, in competing re-

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- 49 Rita Abrahamsen, *Disciplining democracy: Development discourse and good governance in Africa* (Zed Books, 2000); Jean Comaroff and John L. Comaroff, *Theory from the South: Or, how Euro-America is Evolving Toward Africa* (Routledge, 2015) , 5.
- 50 Peter B. Evans, "Predatory, Developmental, and Other Apparatuses: A Comparative Political Economy Perspective on the 'Third World State,'" *Sociological Forum*. Vol. 4. No. 4. Kluwer Academic Publishers-Plenum Publishers, 1989. For the Marxist critique of institutionalist approach to developmental state literature, see: Vivek Chibber, "Reviving the Developmental State? The Myth of the 'National Bourgeoisie'." *Socialist register* 41.41 (2009).
- 51 Meredith Woo-Cumings, ed., *The Developmental State* (Cornell University Press, 2019); Giovanni Arrighi, *Adam Smith in Beijing: Lineages of the Twenty-first Century* (Verso, 2007).
- 52 Zeynep Özsoy, *Kurumsal Yönetim ve Yönetim Kurulları*, (İmge Kitabevi Yayınları, 2011), 11. Özsoy also names other reasons from a managerial perspective such as increasing number of privatizations, public-private partnerships, pension fund reforms, mergers and acquisitions, and capital account liberalizations. Özsoy, *Kurumsal Yönetim*, 48-49.

gimes. I dully try to complement political economic approach with a Foucauldian look to governance, that is consists of manifold competing groups and institutions interacting with each other. In this vein, uneasy marriage of political economic and Foucauldian approaches would be fruitful in analyzing different spaces, subjects and technologies of governance.

Moreover, in my case, it is of critical importance to combine these methods to understand the positions of different actors. As, neoliberalization studies on universities use mostly Foucauldian approaches in understanding new regulatory regimes, new performativities, new accountabilities new subjectivities should be complemented by a political economic approach in grasping the circulation of capital, the conditions of different labor regimes, the nature of clientelist networks in appropriating public values. However, as it is pronounced above it is not an easy task to combine both approaches. Last but not least, for my case it is of particular importance to understand the networks of companies in grasping the realities of technopark.

In other words, I think these approaches are needed to answer different questions concerning technoparks. On the one hand, as it is seen in the conceptualizations of post-Fordist formation and zones in general, a Marxian critique for commodification of knowledge, proletarianization of mental labor, operations of multinationals etc. would be necessary to answer why and who questions. This approach should be blended with a governmentality approach in conceiving how the effects of various governance elements are perceived on the conduct of those spaces and actors.

Within this context, studies of governmentality analyze the social dissemination of market-driven solutions of principal agent problems and entrepreneurial patterns. As it is discussed above, these processes do not end up with the reduction of state sovereignty but manifest themselves as the reformulation of various governmental techniques. These studies are perhaps best understood as a certain methodology for approaching a specific problem rather than as totalizing theories: On the basis of what rationalities, and through what kind of techniques and practices are subjects governed?

For Lemke, Foucault saw the crisis of Fordism (as an inner reference point of rigid social structures for Foucault)-that would lead the way to post-Fordism- locally concretized and globally circulates as the Silicon Valley model, as

the crisis of disciplinary society.⁵³ The perpetuation of patriarchal- authoritarian social structures,⁵⁴ the security and the dependency led the way to the melting of rigidities.⁵⁵ In this light, Foucault, without neglecting the crisis on the side of production and finance, sees processes of political disintegrations and new social movements as important as the economic crisis in understanding the shift from Keynesian-welfarist-state planned economies to neoliberalism.

However, in my account, Foucault's approach should be modified into developing countries context; acknowledging the fact that those state models are not generalizable in analyzing Third World contexts. Previous chapter was built with an attempt to do so. As a reminder of the historical peculiarities of neoliberalism and its adaptation to Turkish context, Toprak's work is useful. Hence, from a regulationist approach he defines Turkish mode of development in the 1960s and 1970s as the combination a certain blend of peripheral Fordism and state capitalism. Moreover, welfare state during the 1970s was not as inclusive as the one in advanced capitalist countries. He names three reasons for this: 1) pre-Fordist structures were rampant, 2) proletarianization was not as fast as it is seen in the West and, finally 3) state was the biggest capital holder in the economy⁵⁶

53 Thomas Lemke, "Comment on Nancy Fraser: Rereading Foucault in the Shadow of Globalization." *Constellations* 10.2 (2003): 172-179, 173.

54 Before I turn into the concept in conjunction with social capital in the next chapter, for the affirmative studies that accentuate the significance of the "garage" as a space of escape from authority and for individual invention in California, see: Timothy J. Sturgeon, "How Silicon Valley Came to be" in *Understanding Silicon Valley: Anatomy of an Entrepreneurial Region* ed. Martin Kenney, (Stanford Univ. Press, 2000): 15-47; June Anne English-Lueck, *Cultures@ Silicon Valley*, (Stanford University Press, 2017), 3-4. For various critiques of garage mythologies of Silicon Valley, see: Karel Williams, "Business as Usual," *Economy and Society* 30.4 (2001): 399-411, 407-408; Christian Marazzi, *Sermayenin Komünizmi: Finansallaşma Biyopolitik Emek ve Küresel Kriz*, (Otonom Yayınları, 2014), 88.

55 Thomas Lemke, *Foucault's Analysis of Modern Governmentality: A Critique of Political Reason* (Verso Books, 2019), 435.

56 Oğuz Toprak, *Refah Devleti ve Kapitalizm: 2000'li Yıllarda Türkiye'de Refah Devleti* (İstanbul: İletişim Yayınları, 2012), 327-328.

In terms of conceiving differences and resemblances, Lemke posits that the main difference manifests itself in two regimes (of Keynesian liberalism and neoliberalism); the market form that serves as the organization principle for the state and society, which encompasses a whole range of institutions and subjects. In that sense, all sorts of neoliberal approaches during the Keynesian period reject the single logic of capitalism or Marxist dialectics although converge on the resembling effects the market forms.⁵⁷

Along with similar concerns of contextualization, in approaching science and technology policies in general and technoparks in particular institutional accounts in Turkish literature provide themes like production of technology, high-added value goods, industry-university partnerships, attraction of the capital, the role of the state in the economy, and so on.

Yet, a considerable number of the accounts miss not only the global asymmetries, but also the hierarchical internal power dynamics among the national bourgeoisie of different shades. As it is visible in Turkish context among MÜSİAD and TÜSİAD bourgeoisie in general but on the other hand in the particular case of ARIKENT, this does not manifest itself as a visible issue, at least for the time of the research, since MÜSİAD had little presence and limited contacts in ARIKENT. However, as the data on companies demonstrates, global companies and asymmetric global value chains have important, yet not easily visible effects on the ARIKENT ecosystem. This non-discursive element of political economy is also complemented with the discursive power of the fables on knowledge society, Silicon Valley, the benefits of agglomeration and so on.

On the other hand, studies of governmentality have the potential to release a critical epistemology that Foucault defined as the “politics of truth.” He investigates the discursive operations and institutional mechanisms through which truth claims are generated and distributed – and the power effects are tied to these truths.⁵⁸ At this point, I find Springer effort to bridge Marxian

57 Lemke, *Foucault's Analysis*, 438.

58 Jason Read, "A Genealogy of Homo-Economicus: Neoliberalism and the Production of Subjectivity." *Foucault studies* (2009): 25-36. Foucault's understanding of labor exploitation as a disciplinary power practice under Fordist capitalism is as follows: "But in order for there to

and Foucauldian perspectives useful in employing a discursive method that focuses on the competing truth claim that also illuminates my perspective:

A discourse approach moves our theorizations forward through an understanding that neoliberalism is neither built from the 'top-down', as in Marxian understandings of ideological hegemony, nor from the 'bottom-up', as in post-structuralist notions of governmentality. Rather, neoliberalism is instead recognized as a mutable, inconsistent, and variegated process that circulates through the discourses it constructs, justifies, and defends.⁵⁹

Springer believes that for the rapprochement of these two schools, the Gramscian concept of hegemony- which is itself rife with contingencies, ruptures, and contradictions- is an optimal starting point. He comes to the conclusion that the recognition of the "hegemonies of neoliberalizations" as in Marxian approaches is not at all inconsistent with poststructuralist inspired notions of governmentality.⁶⁰ Rather, the "conduct of conduct" is part of the ways neoliberal hegemonic constellations have assembled themselves, particularly through networks of think tanks, transnational organizations and multinational companies.

As an application of this Gramscian approach in education sociology, Ball traces the complex networks of experts, transnational organizations, multinational companies, and states in the making of global policies of education. What he terms "heterarchies" indicates the discrepancies of power between the decision makers and the consumers of commons. He warns the reader about the common mistakes in approaching the concept of governance with what they call "network centrism," which is a "one-sided focus on horizontal,

be hyper profit, there had to be an infrapower. A web of microscopic, capillary political power had to be established at the level of man's very existence, attaching men to the production apparatus, while making them into agents of production, into workers.", Michel Foucault, "Truth and Juridical Forms," in *Essential Works of Foucault 1954-1984, Vol. 3: Power*, ed. J. D. Faubion (New York: New Press, 2000), 86.

59 Simon Springer, "Neoliberalism as Discourse: Between Foucauldian Political Economy and Marxian Poststructuralism." *Critical Discourse Studies* 9.2 (2012): 133-147, 135. For a critique of those attempts to reconcile Marxist and Foucauldian approaches: Clive Barnett, "The Conso-lations of 'Neoliberalism,'" *Geoforum* 36.1 (2005): 7-12.

60 Springer, "Neoliberalism as Discourse", 138.

rhizomatic, topological and transversal interconnections of networks, frictionless spaces of flows and accelerating mobilities- the construction of a flat ontology.”⁶¹

Ball also deploys the concept of strategic alliances taken from Bob Jessop to demonstrate the mutually beneficial but contradictory nature of networks.⁶² In my understanding of the technoparks, a spatial approach considering the effects of different scales should be combined with the presentation of the actors of the ecosystem that interact with each other in changing nature of coalitions and conflicts.

Therefore, before briefly discussing the formation of new spaces of neoliberalism, and Silicon Valley, in order to understand the formation and mechanisms of zones and technoparks, we should take a look at the Foucauldian methodology, which provides a spatial approach complemented with analytics of government (to deconstruct depoliticized and technical elements of governance). According to Lemke, Foucauldian methodology is fundamentally concerned with the manifold and contradictory nature of the experiments conducted on the social milieu⁶³ in order to transform the space in which subjects and groups interact with each other. In this experimental fashion, the Chicago School economists try to make the market model applicable to every formerly untouchable context, ranging from criminal activities to families and schools.

61 Stephen J. Ball, *Global Education Inc.: New Policy Networks and the Neoliberal Imaginary* (Routledge, 2012), 5.

62 Ball, "Serial Entrepreneurs", 26-29.

63 For the critical investigation of the urbanization approaches of Chicago School, see: Neil Brenner, "Theses on Urbanization," *Public culture* 25.1 (69) (2013): 85-114. For an analysis of newly emerging nanotechnologies, combining the methods of the actor network theory with governmentality studies in approaching space, see: Rob Shields, "Governing Emergent Technologies: Nanopower and Nanopolitics. An Ethnographic Approach" in *Governing practices: Neoliberalism, Governmentality, and the Ethnographic Imaginary* eds. Michelle Brady and Randy K. Lippert (University of Toronto Press, 2016), 105-130.

From a developmental perspective, these models, supposedly first arose spontaneously in the west,⁶⁴ turn marketable policies as material apparatuses and administrative arrangements into the purchase of the relatively underdeveloped countries. At this point, Collier explains both the historical context of Soviet planning experience where the previous engagements of Tsarist planners in urbanization and industrialization leaves a serious baggage that carries the tensions of supposedly spontaneously emerged liberal models and their import to their context in statist conditions of indicative planning.⁶⁵ I argue that the same tension is obvious in the importation of technoparks as models.

Although differences overcome the similarities, the importation of different models of high-tech industrialization, urban planning, and university-industry partnerships stimulate the pursuit of not only comparing different models but also comparing the mindsets of the implementers of those models in different historical contexts. Although I try to demonstrate some of these tensions, it is impossible within the scope of this thesis to cover an exhaustive list of them in depth. For instance, one of the most visible areas that this tension could be seen is the mixed adaptation of model of South Asian zones and Silicon Valley on the one hand, and the discourse of the technological nationalism on the other. For instance, one of the points of tension as also visible in my case is putting forward individual richness and national development together. Another instance, which is the general framework of technoparks, is creating exceptional milieus in contradiction with national legislative or judicial authorities.

64 For an attempt to uncover the realities behind supposedly spontaneous formation of the liberal markets in the west see: Ha-Joon Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (Anthem Press, 2002).

65 Stephen J. Collier, *Post-Soviet Social: Neoliberalism, Social Modernity, Biopolitics* (Princeton University Press, 2011), 20-21.

All in all, reformers, planners, and professionals of the Third World were all concerned with understanding how “the social” had been assembled in liberal countries, and through inventing alternative ways,⁶⁶ with family of resemblances,⁶⁷ that through infrastructures, standards and norms, and budgetary mechanisms it could be assembled differently.⁶⁸ I have tried to show some of the characteristics of these trials in the Turkish context in the previous chapter that lay the ground for the investigation of ARIKENT in the next chapter. So, the adaptation/translation⁶⁹ of these models gives birth to the new analytics of government and brings new expert regimes;⁷⁰ crises of the old experts/bureaucrats;⁷¹ old relations of trust replaced by new auditing techniques,⁷² and new “ethics of personhood.”⁷³

In that vein, Dean distinguishes four dimensions of analytics of government that partially inspired my take on the actors’ approach to technoparks in general: I) characteristic *forms of visibility, ways of seeing and perceiving* ii) distinctive ways of thinking and questioning, relying on definite vocabulary and procedures for the production of truth (e.g. those derived from the social, hu-

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- 66 Ebru Kayaalp, *Remaking Politics, Markets, and Citizens in Turkey: Governing Through Smoke*, (Bloomsbury Publishing, 2014), 12.
- 67 Jamie Peck, "Geography and Public Policy: Constructions of Neoliberalism." *Progress in human geography* 28.3 (2004): 395.
- 68 Collier, *Post-Soviet Social*, 27.
- 69 Russell Prince, "Policy Transfer, Consultants and the Geographies of Governance," *Progress in human geography* 36.2 (2012): 188-203
- 70 Andrew Barry, Thomas Osborne, and Nikolas Rose *Foucault and Political Reason: Liberalism, Neo-liberalism and the Rationalities of Government* (Routledge, 2013), 38; Huri Cihan İslamoğlu, "Komisyon/Commission and Kurul/Board: Words That Rule" in *Words in Motion, toward a Global Lexicon*, eds, Carol Gluck and Anna L.Tsing (Duke University Press, 2009): 267-268.
- 71 Barry et al., *Foucault and Political Reason*, 54.
- 72 Ibid.,55
- 73 Ibid.,60. These ethics, as the practices of the self, can be not only instruments in the pursuit of political, social and economic goals but also means of resistance to other forms of government. Mitchell Dean, *Governmentality: Power and Rule in Modern Society*. Sage Publications, 2010, 21.

man and behavioral sciences) iii) specific ways of acting, intervening and directing, made up of particular types of practical rationality ('expertise' and 'know-how'), and relying upon definite mechanisms, techniques and technologies and iv) characteristic ways of forming subjects, selves, persons, actors, or agents.⁷⁴

§ 3.3 (Post)-Fordism and Its Low and High Meccas as Early Models

As we embarked into the journey with the discussions on the hegemonic mode of regulation called neoliberal governance, and its partial deconstruction by discussing various Foucauldian approaches, I would like to add one last note. Despite being an intellectual who is very fond of technological developments -particularly with the marvels of the French automobile industry,⁷⁵ Foucault never puts material developments in technology into a focal point in his analyses. They remain like distant echoes to the greater analysis of political, epistemological, and social developments.

Informed by the Heideggerian term "techne",⁷⁶ Foucault appropriates the term in its twin meaning (both implying texture and technique) and mostly bends the analysis towards the texture, entailed with methods and procedures (knowledge/power couple) for governing human beings. In one of his seminars, he names four sorts of technologies: Production, sign systems, power, and self.⁷⁷ Only first one makes the physical transformation of material objects.

74 Dean, *Governmentality*, 35. For the adaptation of these analytics to development studies, see: Michael Watts, "Development and Governmentality," *Singapore journal of tropical geography* 24.1 (2003): 9.

75 Michael C. Behrent, "Foucault and Technology," *History and Technology* 29.1 (2013):55.

76 Paul Standish, "Heidegger and the Technology of Further Education," *Journal of Philosophy of Education* 31.3 (1997): 442-451.

77 Michel Foucault, *Technologies of the Self: A Seminar with Michel Foucault* (University of Massachusetts Press, 1988).

I assume that, this pale position of the material technologies in his analysis could be explained, on the political level, with his desire to escape from the competitive modernist character of French and Soviet Marxisms of his age. On the epistemological level, this approach eliminates the traps of hard materialist analyses and technologically determined⁷⁸ outcomes which were abundant in the atmosphere of the French left in the 1950s to the 1970s. So, despite its importance for my subject as the expected product of industry-university partnership, I try to take a Foucauldian approach against the lure of technology, innovation, and knowledge society.⁷⁹

The presentation of the characteristics of the post-Fordism⁸⁰, and its different spatial formations is of peculiar importance both for the imagination of technoparks and the contradictions therein. First, discussion about post-Fordism, since its inception around the mid 1970s, was concerned whether it is a total rupture⁸¹ that would shake the whole production systems or a continuum of Fordism or harking back of Taylorism. Skeptical, critical and promoting approaches are taken. They come up with different conclusions.⁸²

Same discussions also revolve around the technoparks, for instance in the case of departments that rely on relatively old technologies and cheap labor,

78 Alçın, *Teknoekonomi Politikaları*, 16.

79 For a comprehensive critique of the knowledge/information society discourse, see: Frank Webster, *Theories of the Information Society* (London: Routledge, 2002).

80 For a detailed demonstration of the shifts from Fordism to post-Fordism in terms of the changing formations of space, state and culture, see: Harvey, *The Condition of Postmodernity*, 203-204.

81 To name a few pronounced phenomena of the new mode of development that are of pertinence to my case: the entrepreneurial state, territorial regional policies, third party formations, state financed research and development, state-led innovation, spatial clustering and agglomeration, spatial integration, labour market diversification, spatial proximity of vertically quasi integrated firms and individualization. Ash Amin, ed. *Post-Fordism: a reader* (John Wiley & Sons, 2011).

82 For instance, for the critiques of this thesis from both the industrial production dynamics and cultural dynamics respectively, see: Edward Webster, Rob Lambert, and Andries Beziudenhout, *Grounding globalization: Labour in the age of insecurity* (John Wiley & Sons, 2011), 28-29; Krishan Kumar, *From Post-Industrial to Post-Modern Society: New Theories of the Contemporary World* (John Wiley & Sons, 2009).

such as textile, mechanical, and construction engineering departments, to name a few. In the case of ARIKENT- drawing on the situation of relatively limited participation of academicians during the time of research in comparison to today's conditions- companies established by academicians of aforementioned departments, although they compose less than thirty percent of total firms also reside in the production networks in relation between municipalities, business associations and military sector. This also confirms the discussion in the first chapter concerning the position of SMEs in the Turkish manufacturing sector. Last but not least, the desire on the part of small companies which are close to the government to upgrade the value of their products into a higher technology dimension.

Second, Post-Fordism is inspired by neo-Marshallian districts, Japanese model of organization,⁸³ Baden Württemberg, Third Italy,⁸⁴ Silicon Valley, and export processing zones.⁸⁵ As much as there are family resemblances between these regional agglomeration type organizations, they all belong to very different cultural, political and economic contexts, and have their own histories, and serve as combined models on the emergence and development of technoparks.

Third, theories on post-Fordism seem to deny this approach trying either to over-generalize or over-particularize the case at hand. For the latter, success narrative revolves around Silicon Valley, and most of the time it falls into its

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- 83 Amin, *Post-Fordism*, 49; Walter W. Powell, "The Capitalist Firm in the 21st Century: Emerging Patterns," in *The 21st Century Firm: Changing Economic Organization in International Perspective* ed. Paul Dimaggio (Princeton University Press, 2001), 68; Eleanor D. Westney, "Japanese Enterprise Faces the Twenty-first Century," in *21st Firm: Changing Economic Organization in International Perspective* ed. Paul Dimaggio (Princeton University Press, 2001), 128.
- 84 Ash Amin, *Post-Fordism*, 23. Bora locates the rise of the Third Italy under the banner of "welfare chauvinism" which opposes the redistributive model of Italian central authority: Tanıl Bora, *Cereyanlar: Türkiye'de Siyasi İdeolojiler*. İletişim Yayınları, 2016, 256.
- 85 According to Arrighi, China began to pour a large amount of money to the development of these SEZs since the 1980's after other East-Asian versions became successful. Arrighi, *Adam Smith in Beijing*, 326; Aihwa Ong, *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty* (Duke University Press, 2006), 18-19.

unique characteristics, spontaneous development (like liberal market democracies), historical accident, chance discovery⁸⁶, and so on.

For the former, the characteristics of those post-Fordist ideal types are sought to be found in the countries of the developing world. For instance, in my case, ARIKENT's story is also narrated by various actors involved as there is a very limited state involvement that posits certain characteristic of a spontaneous emergence. Also, the question about their thoughts on tax incentives given by the government and the infrastructural provisions of the university is answered by the technopark management company, which almost nullifies the state effect of tax support emphasizing the role of "culture of İTÜ" in attracting companies and academicians' attentions.⁸⁷

Four, most of the analyses seem to bracket out the prominence of hegemonic power and its technological domination as it is crystallized in the fragile case of the U.S hegemony. Here, among the many aspects, high technology design concentration together with the patent rights collections among top command (the U.S. and his privileged guests a la Arrighi⁸⁸) of the capitalist countries also bring vicious cycles of dependence hanging upon the rest of the world.

Various strands of political economy of development historically demonstrated that in most of the cases, technology transfer from developed countries to underdeveloped countries is to the detriment of the latter in most of the fields of culture, politics, and economy.⁸⁹ Here, as an example of neoliberal competitive corporate models of various sorts- that enforces states, institutions and individuals alike to its confines- the case of ARIKENT in particular

86 Yukio Ohsawa, and Peter McBurney, eds. *Chance discovery*. Springer Science and Business Media, 2013.

87 See question and answer 12 in Appendix A.

88 As it is explained in the previous chapter, the term coined for demonstrating the privileged and successive absorption of Japan, South Korea and other so-called East Asian tigers to production networks of U.S multinationals. Arrighi, *The Long Twentieth Century*, 324.

89 Vivek Chibber, *Locked in Place: State-building and Late Industrialization in India* (Princeton University Press, 2003); Surendra J. Patel, "The Technological Dependence of Developing Countries," *The Journal of Modern African Studies* 12.1 (1974): 1-18. For underdevelopment of hardware and software technologies in Turkey, see: Fuat Alican, *Ekonomik ve Sosyal Boyutlarıyla Dünya'da ve Türkiye'de Yazılım Sektörü* (İletişim Yayınları, 2006).

manifests the risks of this lock-in due to its inferior position in the technologically driven global value chains. However, as I emphasized in the discussion of analytics of government, my focus is rather on the ramifications of this position of the imagined developmental role of ARIKENT and the standards that circulate from this developmental model that are tried to be translated in different contexts and give rise to new issues of performance, accountability, and legality.

Five, the passage to post-Fordism, from a technological point of view, gradually caused the breaking down of the assembly process into smaller and smaller parts. Combined with rapid advances in transportation and communication and increasing share of finance in the total composition of the U.S. capital, these processes of fragmentation of production made it easier for manufacturers to break out of the Keynesian-welfare contract made between workers and capitalists, which consists of high wages and large markets, ideals of effective demand, and full employment.⁹⁰ Due to these technologies, the supply and the demand of the goods which were expanded in a wide range of global chain of commodities remove the incentive and employers had to pay workers enough to buy the products they made.⁹¹ Furthermore, increasing organic composition⁹² of the capital also make workers face the conditions of various sorts of jobless growth.⁹³

Last but not least, post-Fordism coincides with the intensification of finance capital conjoined with the accelerated financialization and also, post-Fordism leads to dual structures at home and across the globe. At the national scale, on the one hand, there is a picture of derelict old industrial towns and

90 John Grahl, and Paul Teague. "The Regulation School, the Employment Relation and Financialization." *Economy and society* 29.1 (2000): 160-178; Bob Jessop, and Ngai-Ling Sum, *Beyond the Regulation Approach: Putting Capitalist Economies in their Place* (Edward Elgar Publishing, 2006).

91 Greg Grandin, "Empire's Ruin: Detroit to the Amazon" in *Imperial debris: On ruins and ruination*, ed. Ann Laura Stoler (Duke University Press, 2013): 121.

92 Term stands for the ratio of the value of the materials and fixed costs embodied in production of a commodity.

93 Çağatay Telli, Ebru Voyvoda, and Erinç Yeldan, "Modeling General Equilibrium for Socially Responsible Macroeconomics: Seeking for the Alternatives to Fight Jobless Growth in Turkey," *Middle East Technical University Studies in Development* 33.2 (2006).

on the other hand so-called sunrise industries on which the hopes for next big thing are invested. My continuous employment of this dual urban element into the narrative serve to demonstrate that these high-tech meccas also have an ugly shadow whether in their vicinities or transferred in a Third World context.

As one of the most famous examples of this trend, Stoler succinctly puts Fordism in its place which is pertinent to the U.S Imperialism:

Detroit not only supplied a continual stream of symbols of America's cultural power but offered the organizational know-how necessary to run a vast industrial enterprise like a car company—or an empire. Treating Detroit as an imperial nexus imbricated in and dependent on colonial labor regimes throughout the world rejects the American “exception,” changes the fulcrum of Detroit's demise. By placing it in the balance of a broader sweep of imperial debris, Detroit is repositioned, not on the outer fringes of “the rust belt” but as one of the corrosive centers of one disabled form of U.S. empire.⁹⁴

When we jump to the global scale, we notice the Janus-faced existence of flexibility: On the one side there are sweatshops, so-called high tech back offices, wastelands, and concomitant precarious, insecure, de-unionized workforce of bloody Taylorism,⁹⁵ and on the other side risk taker, self-investing, entrepreneurial individuals establish the networks in exclusive spaces of capitalism.

I point out that same dynamics could be seen in two venues in the case of wider İTÜ ecosystem. On the first venue, as it is widely discussed by urban

94 Ann Laura Stoler, “Introduction. “The Rot Remains”: From Ruins to Ruination” in *Imperial debris: On ruins and ruination*, ed. Ann L. Stoler (Duke University Press, 2013), 18; Greg Grandin, *Fordlandia: the Rise and Fall of Henry Ford's Forgotten Jungle City* (Macmillan, 2009).

95 Alain Lipietz, and Angus Cameron. “The Post-Fordist World: Labour Relations, International Hierarchy and Global Ecology.” *Review of International Political Economy* (1997): 10-12; Alice Amsden, “Third World industrialization: ‘Global Fordism’ or a New Model?” *New Left Review* 182.5 (1990): 5-31. On the discussion of the presence of Taylorist elements embedded in the so-called post-Fordist production, see: Charles Steven McKay, *Satanic Mills or Silicon Islands?: The Politics of High-Tech Production in the Philippines* (Cornell University Press, 2006).

sociologists, Maslak witnessed a constant transformation from being an industrial district to a district of various service and finance sectors. This transformation that is also located in the wider neoliberal ambitions of transforming İstanbul into a global city of service, commodified land and finance as it is started to be materialized in the 1980s and gain a serious pace in the mid 2000s.

The formation and rising attractiveness of ARIKENT should be read within these developments as I will try to demonstrate in the next chapter. I also believe that the transformation is two-fold; the presence of ARIKENT also raised the attractiveness of the district for firms that have offices both in ARIKENT and various plazas in Maslak. On the second venue, the complex relationship between financialization and productive capital is also another concern. Through the search of firms' buyer-supplier networks, it could be observed that almost more than sixty percent of the firms devoted a considerable amount of their business operations to enhance the financialization processes in Turkey, the so-called financial services solutions they provide in the guise of "innovation" range from credit card software to derivative software instruments.

This point, together with the position of İTÜ in Maslak avenue, also strictly manifests its special position among other technoparks around Turkey. At this point, the detailed investigation of the concept of zone will be presented to conceptualize technoparks' position in its spatial formations further. These sections serve at least two things, one is to demonstrate a continuum between free trade zones experience presented in the second chapter and second how the manipulative interplay of state, international organizations and various capitals that shape the spaces of neo-developmentalism cause a complex and conflictual governance ecosystem.

§ 3.4 Zones Everywhere

In order to encapsulate the ongoing formation of post-Fordism in various geographies, I believe that the term “zone”⁹⁶ would be illuminating. After enjoying conceptual currency in the mid 2000s, thanks to the works of Ong⁹⁷ on graduated sovereignty patterns in Pacific Rim. In this approach graduated sovereignty is taken as a state effect that demonstrates the neoliberal historical passage from Keynesian watertight national administration to an exceptional treatment to diverse spaces and populations that are also linked to global markets within the national borders.⁹⁸

The debate on the zones was revived after Easterling approach of “extra-statecraft.” Along similar lines, she expands both spatial confines and actorial maps of the zones. They could be mainly taken as unabashedly manipulated spaces of market economy⁹⁹ in which a particular configuration of techno-scientific expertise and economic rationality, which is oriented to the global markets,¹⁰⁰ leads the way for the fragmentation of national sovereignty. Their

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- 96 The list of zones included: free trade zone, foreign trade zone, industrial free zone, free zone, maquiladora, export free zone, duty free export processing zone, special economic zone, tax free zone, tax free trade zone, investment promotion zone, free economic zone, free export zone, free export processing zone, privileged export zone, and industrial export processing zone. Takayoshi Kusago, and Zafiris Tzannatos, *Export Processing Zones: A Review in Need of Update*. Social Protection Group, Human Development Network, The World Bank, 1998.
- 97 Stephen J. Collier, and Aihwa Ong, "Global Assemblages Anthropological Problems." in *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems* eds. Stephen J. Collier and Aihwa Ong (Blackwell Publishing, 2007), 3-21; Aihwa Ong, "Neoliberalism as a Mobile Technology." *Transactions of the Institute of British Geographers* 32.1 (2007): 3-8.; Aihwa Ong, "The Chinese Axis: Zoning Technologies and Variegated Sovereignty." *Journal of East Asian Studies* 4.1 (2004): 69-96.
- 98 Ong, Neoliberalism as Exception, 78-79.
- 99 Jonathan Bach, "Modernity and the Urban Imagination in Economic Zones." *Theory, Culture & Society* 28.5 (2011): 105; Bae-Gyoon Park, "Spatially Selective Liberalization and Graduated Sovereignty: Politics of Neo-liberalism and 'Special Economic Zones' in South Korea," *Political Geography* 24 (2005): 850-73.
- 100 Alex Callinicos, *Bonfire of illusions: The Twin Crises of the Liberal World* (Polity, 2010), 151.

boundaries are malleable that could cover large corridors of cities and provinces.

They could be industry specific small areas or “performance specific” that live for meeting goals set by indicators, such as “degree of exports,” level of technology, size of investment” that are defined and imposed through global networks such as The World Export Processing Zone Association (WEPZA) and International Association of Science Parks(IASP).¹⁰¹

In the case of history of technoparks in Turkey, as it is shortly narrated in the first chapter, UNIDO takes an important role. We could simply argue that science and technology policies do not manifest a comprehensive approach but UNIDO’S role in the 1990s as sending experts for the establishment of first technoparks had considerable importance in enhancing various but limited interests in high-tech development. This also demonstrates the differences in the roles of international organizations in approaching developing countries.

According to Akinci and Farole, the definitions of zones are also unclear/mutable. For instance, Dubai is an offshore city¹⁰² for the whole of its territory but the UAE is listed as a country without industry specific zones. It could also be seen that they have already inspired globalization theorists who are important promoters of neoliberal regional economics in the 1990s.¹⁰³ The expansion of these developing country’s offshore practices also could be visualized in the history Maslak causing clashes between legislative, municipal, judicial and executive bodies.

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- 101 WEPZA initially built by UNIDO as an intergovernmental body in the context of liberal Bretton Woods System. As it is privatized in 1985, Easterling argues that: “The WEPZA was perhaps characteristic of the so-called neoliberal shift in global organizations from intergovernmental organizations with member nations to nongovernmental organizations with membership from private enterprises.” Easterling, *Extrastatecraft*, 8.
- 102 Farole, Thomas, and Gokhan Akinci, *Special Economic Zones: Progress, Emerging Challenges, and Future Directions* (The World Bank, 2011). For a critique of Neoliberal environmental transformation in one of its highest forms, see: Ahmed Kanna, *Dubai, the City as Corporation* (University of Minnesota Press, 2011).
- 103 Dirlik, *Küreselleşmenin Sonu mu?*, 68; Kenichi Ohmae, “The Rise of the Region State.” *Foreign Affairs* 72 (1992): 78.

In this context, most of the free economic zones emerged in East Asian and South Asian contexts starting in the 1960s,¹⁰⁴ could be seen as necessary liberal/neoliberal compromises of building exceptional milieus that are also stuck between dual governmentality of developmental state and global corporations. The glocalization thesis that is posited by Brenner also tries to capture some of its dimensions and neoliberal entrepreneurial forms that is taken by the state.

According to this thesis, state intervention into regional economic development takes more and more direct and entrepreneurial forms through regional and local state institutions and state-organized economic development policies, such as public-private partnerships, conference centers, technology transfer projects, risk capital provision, enterprise zones, and technopole programs.¹⁰⁵

One of the main characteristics of these zones that has, transnational organizations and multinational organizations have vested interests in them. According to Easterling, "dynamic systems of space, information and power generate de facto forms of polity faster¹⁰⁶ than even quasi-official forms of governance can legislate them."¹⁰⁷ As a site of overlapping multiple sovereignties where jurisdictions from different scales collide and compete, their infrastructure become a medium of what might be called as extrastatecraft – "a portmanteau describing the often undisclosed activities of, in addition to, and sometimes even in partnership with statecraft."¹⁰⁸

104 Xiangming Chen, "The Changing Roles of Free Economic Zones in Development: A Comparative Analysis of Capitalist and Socialist Cases in East Asia," *Studies in Comparative International Development* 29.3 (1994): 3-25.

105 Neil Brenner, "Global Cities, Glocal States: Global City Formation and State Territorial Restructuring in Contemporary Europe," *Review of international political economy* 5.1 (1998): 1-37. For a critical review of this thesis on the technopole formation, see: Antti Pelkonen, "State Restructuring, Urban Competitiveness Policies and Technopole Building in Finland: a Critical View on the Glocal State Thesis." *European Planning Studies* 13.5 (2005): 685-705.

106 Jamie Peck and Nick Theodore, *Fast policy: Experimental Statecraft at the Thresholds of Neoliberalism* (University of Minnesota Press, 2015).

107 Easterling, *Extrastatecraft*, 11.

108 Ibid.

Hardt and Negri do a symptomatic post-Marxist reading of these spaces and locate them in the wider governance patterns of the Empire “that rules over the constellation of varied legal and economic structures while extolled as an instrument of economic liberalism.”¹⁰⁹ In their first book of the renowned trilogy called *Empire* they defined the new global governance structure as a rhizomatic, relatively horizontal construct of global governance that oscillates in between multilateral and unilateral moves of the U.S. imperialism, emerging as a variegated and interconnected web of legal and economic forms.¹¹⁰

According to them, although depoliticized under the command of the Empire, these logistical infrastructures, which contain both the built environment and the legal structures of global value chains also actively reproduces environments and subjectivities.¹¹¹ Last but not least, this liminal position of zones let them enjoy a set of incentives such as tax exemptions, foreign ownership of property, cheap high skilled labor, and various deregulation of existing national laws.

Here, by approaching the zones from a wider perspective, they put the global hegemonic dimension which is not discussed in detail in Easterling’s concept of zone. In my context, this dimension, although could not be grasped in full, manifest itself at least in two instances: The symbolic appropriation of the Silicon Valley entrepreneurial model together with material aspirations of wealth as could be seen in technoparks’ company answers and through a material dimension where the U.S originated multinational tech giants such as Cisco, Oracle, SAP, and Microsoft sell their licenses to the most of the software firms in technoparks.

Yet, at the same time, as Easterling argues, zone is in partnership with the state both in competing with global rivals and in enjoying profit from the very

109 Hardt and Negri, *Assembly*, 177.

110 Michael Hardt, and Antonio Negri, *Empire* (Harvard University Press, 2001), 23; 334. For the critique of the Empire thesis, see: Harootunian, *İmparatorluğun Yeni Kılığı*, 17.

111 Hardt and Negri, *Empire*, 177-178. For a Detailed Investigation of post-Fordist Infrastructures, see: Ned Rossiter, *Software, Infrastructure, Labor: a Media Theory of Logistical Nightmares* (Routledge, 2016).

shadow economies. It became a camouflage for the various entrepreneurial ventures of competing politicians, bureaucrats, and experts. Easterling also locates governance indicators and standards in comparison to the laws, which are taken as the currency of governments. For instance, she argues that, “ISO (International Organization of Standardization)¹¹² is one of the extrastate parliaments of this global standard-making activity. A private nongovernmental organization, convening both private companies and national representatives.”¹¹³ Her argument on standards also inspires my look on them that draw the lines of the rules of the game and create conflictual terrains with laws. These standards also inflict complex relationships between academicians, industrialists and various state officers in their different interpretations and translations.

On the other hand, Barry takes the discussion of the construction of the standards to European context in which European countries need to compete against their East Asian, Southeast Asian and American adversaries at the end of the 1990s. In accordance with this goal they invest in technology production, restructuring their institutions, and strengthening the linkages between state and universities.¹¹⁴ Through these processes the society is approached as a technical problem. This new problematique is captured by the detailed definition of zones which is derived from Foucauldian analytics of government approach. So, Barry presents three forms of zones: I) Metrological zones associated with the development of common forms of measurement; ii) infrastructural zones associated with the creation of common connection standards; and iii) zones of qualification which come into being when objects and practices are assessed according to common standards and criteria.

Within this vein, technological zones could be understood as the common spaces where different actors with different norms, ethical standing, duties,

112 Complementing technical standards with financial ones, Lazzarato contends that, besides the accounting standards that are imposed on financial flows harmonized with the principles of financial valorization, true accounting form lies in the spaces of tax havens where no accounting for big corporations and wealthy individuals applies at all. Maurizio Lazzarato, *Governing by Debt* (Semiotext (e) intervention, 2015), 206.

113 Easterling, *Extrastatecraft*, 13.

114 Andrew Barry, *Political machines: Governing a Technological Society* (A&C Black, 2001), 1.

passions, interests, meet. So, the concept together with its sub-conceptualizations have a highly complex nature in the development, connection and assessment of those standards. However, I assume, the uses of the concept in a context like technopark, where both legal, regulatory and normative boundaries blur, are manifold.

Unlike other places, where innovative knowledge, products, information are only developed sold and bought, technoparks came as spaces where all of the sub-elements of technological zones are intertwined. For instance, on the perspective of academicians they have a laboratory to develop their prototype and connect it with other technologies and knowledge they have accumulated and assess it with various technical standards.

Here, this assessment clashes with other parties' expectations. For instance, on the part of companies as short-term profit on the accounting ledger and on the part of state office as quantitative representation of this innovation on that office's website. So, these parties not only are detached from various developmental and connection processes of sorts but also have different methods of qualification in line with these interests. I argue that understanding of these gaps is one of the important parts of approaching technopark's wider beehive as I will briefly try to demonstrate in some different cases.

Therefore, in Barry's case, formation of technological zones involves new boundary-making practices that often run into conflict with new regulatory mechanisms also clash with developed European countries' institutional traditions. Particularly, new constellations of industry-university partnerships come into greater scrutiny under the banner of knowledge society project.

On the other hand, Cross, in his ethnographic study in South Indian Special Economic Zones investigates another dimension of these zones that not only promise dream like high tech futures, but also bring precarity and suffering for their inhabitants. Concerning India's position as a back office for global software companies (and combined with the discussions related to the aforementioned demise of the Fordist structures) these zones remind export processing zones that rely on cheap labor rather than imaginary Silicon Valleys.

In line with the general zoning characteristics, these zones reduce the red tape, through containing a combination of tax, land, and labor incentives.¹¹⁵ Through his anthropological venture he combines the perspectives of a wide variety of stakeholders participating in this dubious ecosystem in chasing their overlapping and conflicting goals. Chinese success story of rapid industrialization turned zones (as SEZs) into viable options for industrial policy in other Third World contexts, but Cross argues that the reception of this model by the actors has not been meeting the expected criteria.¹¹⁶

In that sense, zones mediate experiences of social and economic change and become sites of contradictory and overlapping discourses, stories, and realities, and they constitute a space where what participants desire is reflected in various ways.¹¹⁷ These zones also provide different governmentalities with yet to be realized possibilities of growth, profit, and economic performance for audiences of potential investors. As Tsing argues, zones become perfect frontiers to conjure up “economy of appearances.”¹¹⁸ According to Cross, these appearances also “take documentary mode of anticipation that incorporates forms of modern technical expertise and modes of knowledge to envision the future. These written artefacts of planning, inspection, and policy are not sterile inert or passive documents.”¹¹⁹

Finally, the proliferation of zones also ends up with upgraded forms that jar with existing urban forms like campus or office zones.¹²⁰ Merging industrial and knowledge zones has the potential to evolve into Silicon Valley like high tech industrial parks that still bring what Palan calls sovereign bifurcation, where “states intentionally divide their sovereign space into heavily and lightly

115 Jamie Cross, *Dream Zones: Anticipating Capitalism and Development in India* (London: Pluto Press, 2014), 12.

116 Ibid, 1

117 Ibid, 135

118 Anna Tsing, "Inside the Economy of Appearances" in *The Blackwell Cultural Economy Reader* eds. Ash Amin and Nigel Thrift (Blackwell Publishing, 2004): 83-101

119 Cross, *Dream Zones*, 47. Concerning the power of documents, see: Yael Navaro-Yashin, "Make-Believe Papers, Legal forms and the Counterfeit: Affective Interactions Between Documents and People in Britain and Cyprus." *Anthropological Theory* 7.1 (2007): 79-98.

120 Easterling, *Extrastatecraft*, 19.

regulated realms.”¹²¹ According to Easterling, here “the world capital and national capital can now shadow each other, alternately exhibiting a regional cultural ethos, national pride, or global ambition.”¹²² I think, this approach is also useful in conceiving zones as spaces of contradiction in different scales.

§ 3.5 A Brief Deconstruction of Silicon Valley

As briefly discussed in the introduction, one of the primordial zones, long before the term was coined out, was born as Silicon Valley. I firmly believe that without the problematization of Silicon Valley as a best practice any research on technoparks will be amiss. So, from a critical economic geography view, Pred reads developing countries export processing zones experiences in Pacific Rim as the peripheral manifestations of the same capitalist forces that give birth to the Valley.

The vertical disintegration of the multinational companies enables them to separate various firm functions and redistribute low-value added operations to cheap zones that offer special places for multinational companies.¹²³ Along similar lines, Ong later updates this argument in mentioning dual trend of “decentralization” of Silicon Valley industry, through the outsource of mass production processes to Southeast Asia and reconcentration of high value manufacturing activities such as design in the Valley.¹²⁴

Covering a wide range of literature, I observe its contradictory presence of oscillating between an unreachable goal and a feasible dream.¹²⁵ Most of the

121 Ronen Palan, Richard Murphy, and Christian Chavagneux, *Tax havens: How Globalization Really Works* (Cornell University Press, 2013), 17-18.

122 Easterling, *Extrastatecraft*, 25.

123 Allan Pred, and Michael Watts. *Reworking modernity: Capitalisms and Symbolic Discontent* (Rutgers University Press, 1992), 4.

124 Aihwa Ong, *Buddha is Hiding: Refugees, Citizenship, the New America* (University of California Press, 2003).

125 Daniel Felsenstein, "University-Related Science Parks— 'Seedbeds' or 'Enclaves' of Innovation?," *Technovation* 14.2 (1994): 93-110; Junfu Zhang, "Growing Silicon Valley on a Landscape: an Agent-based Approach to High-Tech Industrial Clusters," *Industry and Labor Dynamics: The Agent-Based Computational Economics Approach*. 2004. 259-283; Stuart W. Leslie, and

studies on organizational innovation in general, and university-industry partnerships in particular, present it as a best practice case,¹²⁶ trying to uncover its mystical success as a formidable governance story.¹²⁷ Among critical approaches, I find useful the observation made by Amin and Malmberg that denies the spontaneity of individual initiative-which is a common characteristic attributed to Valley- in looking into ARIKENT. Through historical reading they present the role of public funding in California context in facilitation of university-industry collaboration.¹²⁸ Same trend could be captured in the histories of most renowned technoparks in Turkey that reside in the universities such as, METU, İTÜ and Bilkent. Parallel to Silicon Valley narrative, in my case, the traces of this history seem to be erased as it could be seen from general tone of technopark management firms' answers.¹²⁹

One of the first detailed accounts of the region, which also inspires his grand theory of network society, is presented by Castells. He narrates the history of the region, emphasizing the culture of freedom, individual innovation, and entrepreneurial zeal that grew out of the 1960s culture of American campuses;¹³⁰ its optimal environment and synergistic properties of the region what

Robert H. Kargon, "Selling Silicon Valley: Frederick Terman's model for regional advantage," *Business History Review* 70.4 (1996): 468; Gordon Moore, and Kevin Davis, "Learning the Silicon Valley Way" in *Building High-Tech Clusters: Silicon Valley and Beyond* eds. Timothy Bresnahan and Alfonso Gambardella (Cambridge University Press, 2004):7-39.

- 126 Charles F. Sabel, "Flexible Specialisation and the Re-emergence of Regional Economics" in *Post-Fordism: A Reader*, ed. Ash Amin (John Wiley & Sons, 2011): 128; Judith Sutz, 'The New Role of the University in the Productive Sector', in *Universities and the Global Knowledge Economy: A Triple Helix of University-Industry-Government Relations*, eds. H Etzkowitz and L Leydesdorff (London: Pinter,1997):11-20
- 127 Mark Bevir, and Rod Rhodes, *Governance Stories* (Routledge, 2006). Davies criticizes the radical interpretive approach of Bevir and Rhodes in analyzing different cases of neoliberal governance. Davies, *Challenging Governance Theory*, 12-13.
- 128 Ash Amin, and Anders Malmberg, "Competing Structural and Institutional Influences on the Geography of Production in Europe" in *Post-Fordism: a reader*, ed. Ash Amin (John Wiley & Sons, 2011): 230-231.
- 129 See appendices.
- 130 Manuel Castells, *The Rise of Network Society: The Information Age: Economy, Society and Culture*, (Blackwell Publishing, 2000) ,40.

is known as a milieu of innovation¹³¹ for the exchange of ideas and problem solving;¹³² the role of big companies and their continuous demergers throughout the 1950s and the 1960s; military-industrial complex in the Cold War; all kinds of flexibility ranging from the status of labor to organizational, institutional and legal arrangements; the invention of microprocessors, semiconductors, and software.¹³³

I believe that the importance of his treatment is comprehensive, and it shows many scalar angles of Valley's development but as it is emphasized by other critiques, his work mostly lacks the critique of power relations and asymmetries in networks and in some contexts serve as a promotional source for the technopark marketers all around the world. I first noticed this trend sitting in the ARIKENT's management company's office, encountering a brochure full of references to his work in presenting the value of horizontal networks in cooperation.

In one of the famous most referenced work in the literature that claims both to uncover the secrets of Silicon Valley and to overcome a market-based approach, authors Granovetter et al. posit this network dictum at the beginning of the article foreclosing any discussion: "The most crucial aspect of Silicon Valley is its networks. There is no proposition so universally agreed upon and so little studied."¹³⁴ Here, universal agreement denies other approaches as it is visible in the studies devoted to technoparks in Turkey. However, network approach taken by their work that is only limited to a regional context, is not in a comparable scale with Castells work that almost brought every dimension of change from all the scales.

However, the pronunciation of the word "network" was not that visible while I was doing this research, few critical approaches in some of the interviews I conducted pronounced "clientelist" nature of technoparks in general. Whereas in most of the accounts, technological independence combined with

131 Ibid., 35.

132 Ibid., 36.

133 Ibid, 61-65.

134 Emilio J. Castilla, Hokyu Hwang, Ellen Granovetter, and Mark Granovetter, "Social Networks in Silicon Valley" In *The Silicon Valley Edge: A Habitat for Innovation and Entrepreneurship*, ed. Chong-Moon Lee (Stanford Univ. Press, 2000).

developmental necessities is pronounced in ARIKENT case: In the tehcnopark management company answers, words like “synergy” and “agglomeration” are much more salient combined with a zeal of gaining technological independence for development. In my opinion, these renowned words of Post-Fordist discourse translate into a corporatist approach that stimulate the re-thinking the conditions of technopark in between technological nationalism and back offices of global and national bourgeoisie.

Along with similar concerns, Sabel unveils the myth of the synergy, by comparing the traditions of long-term collaboration between labor unions in Baden-Wurttemberg and lack of labor unions in Silicon Valley, which encourages large firms to pursue contradictory subcontracting policies under so-called loose networks of vertical disintegration. This organization involves both collaboration and hard competition in which big companies usually crush the small ones.¹³⁵ This fact also shows short-term, ad hoc character of social networks¹³⁶ and synergies as what Walter Benjamin called a “wish image of the collective,”¹³⁷ in comparison to the collaborative/cooperative political movements.

Enclosing of the knowledge produced in the university also found one of its salient examples in Silicon Valley in the shell of Industry-University partnerships that capitalizes on the common knowledge as patentable products. In presenting these dynamics, Walker criticizes the elite professoriate who pursue corporate research grants and offer lucrative consultancies.¹³⁸ As also seen in my case, albeit manifold problems, when it faces with historical contexts, this model also travels around the global policy networks, and it changes

135 Sabel, “Flexible Specialization”, 112.

136 Chris J. Martin, “The Sharing Economy: A Pathway to Sustainability or a Nightmarish Form of Neoliberal Capitalism?,” *Ecological economics* 121 (2016): 149-159.

137 Pred and Watts. *Reworking Modernity*, 2.

138 Richard Walker, “The Golden State Adrift,” *New Left Review* 66 (2010): 27.

the role of universities, the state of knowledge, and subjectivities of academicians and students in dramatic ways, as it is seen in the related literature on the emergence of entrepreneurial spirit in universities.¹³⁹

To sum up, this chapter attempted to deconstruct the totalizing concept of neoliberal governance that has a meteoric rise since the 1990s, and the tensions of its analytics of government, which mainly revolve around many uneasy balances, such as competition and cooperation; regulation and deregulation; flat network ontology and hierarchy; exclusion and inclusion, and so on. Beehive and beekeeper metaphors were presented in order to encapsulate the contradictions of governance as an apolitical/value-free concept and were briefly discussed within the wider context of modernity. Additionally, I believe that anchoring the discussion around these metaphors fits in the so-called ecosystems of technoparks.

Furthermore, conceptual framework of governmentality was briefly introduced to further deconstruct the mechanics of governance, and the manipulability of the space was presented before demonstrating the brief narrative of the contradictions of post-Fordist mode of production. Departing from production dynamics to spatial dynamics, different guises of the zones were examined. At the end, the mythical aspects of Silicon Valley were deliberated by laying the ground for the analysis of ARIKENT in its various spatial forms, social formations, governance failures through legal cases, technical/legal standards.

139 Kevin Philpott, et al. "The Entrepreneurial University: Examining the Underlying Academic Tensions," *Technovation* 31.4 (2011): 161-170; Sue Clegg, "Academic Identities Under Threat?," *British Educational Research Journal* 34.3 (2008): 329-345; Fabian Cannizzo, "Tactical Evaluations: Everyday Neoliberalism in Academia," *Journal of Sociology* 54.1 (2018): 77-91; Jae Park, "Higher Education Knowledge Production in Postcolonial-Neoliberal Asia," *Researching Higher Education in Asia*. Springer, Singapore, 2018. 51-71.

İTÜ ARIKENT in Context

This chapter will attempt to combine the historical context given in the second chapter and variegated theoretical framework presented in the previous chapter on the one hand, and the material I collected in my field research during 2010-2011 on the other. This material mostly consists of the answers to my questions presented by technopark management company,¹ the interviews I conducted with various stakeholders that took place in the ARIKENT ecosystem, the detailed web search on the status of the tenant firms in ARIKENT, various conferences and workshops I participated, general insights from the research, DDK investigation report on technoparks, and other secondary material, mostly theses and dissertations, which complement the primary data and give a broader picture for the technoparks in Turkey for my study.

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- 1 The management of the technoparks is delegated to those companies that need to have at least four more partners to establish the company. In İTÜ context, shares of the partners are distributed as following: İTÜ Development Association(İGV) sixty-four percent, İTÜ rectorate thirty percent, and TTGV one percent and various companies. In a simple sketch, partners designate a corporate board and the corporate board chooses a manager for the conduct of these zones. In the case of İTÜ, former rector Gülsüm Sağlamer stands as the persona grata of this corporate structure. The manager of ARIKENT (during 2011) was personally called after she finished her M.A in U.S by Sağlamer. The networks that she steps in could be briefly traced from here: Website of Global Relations. Forum, “Gülsüm Sağlamer”, accessed, August 2, 2019. <http://www.gif.org.tr/hakkimizda/uyelik/uyeler/prof-dr-gulsun-saglamer>.

Drawing on this bulk of material, this chapter tries to analyze a partial picture of the technoparks' reality. For a starting point, my general narrative harbored on mainly five elements: I) the partial histories(as some of them covered in the first chapter in conjunction with neoliberalization processes in the second chapter) in which technoparks and ARIKENT came into being, ii) the comparisons with other cases when it is seen necessary, iii) actors' perspectives and presentation of facts, whether directly related with ARIKENT or technoparks in general, some of which could not be reached by the researcher in the existing base of public knowledge, iv) the effects of the transformations on the positions of the actors against each other and v) my interpretations in line with my theoretical approach in the previous chapter, of the phenomena presented.

So, these elements kept in mind to partially mitigate convoluted processes, I mainly draw on the little portions of analyses of political economy, discourses and regulatory and legal processes that surround this complex ecosystem that surely deserves a longer process of research and analysis. The lack of studies in the subjects concerned surely present some part of the obstacle. Let me briefly start with a short history.

İTÜ is one of the oldest elite institutions in Turkey, and its foundation, although there is no comprehensive study on its origins and development, goes back to the eighteenth century. In 1944, its name changed from High Engineering School to its current name.² Throughout the history of the republic of Turkey, it occupies an important place, both in its scientific endeavors in research and development, with its laboratories, research and application centers, and its complex connections with military, government, and the Turkish bourgeoisie.

Her professors have long histories of industry-university partnerships through informal/formal means. Especially, they had manifold collaborative research efforts with automotive, textile, construction and consumer durable sectors.³ Its student population started to widen with the twin movement of

2 Tekeli, *Tarihsel Bağlamı İçinde*, 160.

3 For the history of MIT and faculties-industry relations, see: Henry Etzkowitz, *MIT and the Rise of Entrepreneurial Science* (Routledge, 2002).

the migration to cities and increasing attainment of Turkish youth, mostly relatively upper-middle class families from various cities of Anatolia, yet to become, the flex mental labor within global value chains.⁴ It also started to occupy an important place in Turkish politics starting in the 1960s with Demirel's appearance. Bora cites one of his biographical anecdotes:

Demirel describes watching the Boulder dam on the Colorado river for three days. He puts "zoning and reconstruction" of the Turkey as the target of Turkish nationalism. Great artefacts are the marks of superiority in the competition of nations.⁵

If one ventures to do at least a partial genealogy of Turkish neoliberal governance experiences, as a next phase in the longer modernization perspective that could nowhere be done in the partial limits of this thesis, name of Demirel could not be skipped, as the above quote demonstrates the appropriation of the model as it is demonstrated in Özal's story of inspiration from a technopark abroad. Albeit the historical differences from 1960s to 1980s, I think this modernizing zeal -with social ramifications larger than a perspective solely stuck on actors could encapsulate- has a continuum in terms of "action-based"/de-politicized orientation of engineering ideology that is imposed on the ecosystems in general and technoparks in particular. As it is presented in a different gaze by Heidegger on the condition of the Rhine river after the construction of Hydroelectric plant:

The hydroelectric plant is not built into the Rhine River as was the old wooden bridge that joined bank with bank for hundreds of years. Rather the river is dammed up into the power plant. What the river is now, namely, a water power supplier, derives from out of the essence

4 Ergin Bulut, "Learning to Flex Labor: How Working-class Youth Train for Flexible Labor Markets," in *Neoliberal Transformation of Education in Turkey*, eds. Kemal İnal and Güliz Akkaymak (New York: Palgrave Macmillan, 2012), 71-82.

5 Tanıl Bora, "Türk Muhafazakarlığı ve İnşaat Şehveti: Büyük Olsun Bizim Olsun," *Birikim* 270 (2011): 13.

6 Tanıl Bora, "Süleyman Demirel" in *Modern Türkiye'de Siyasi Düşünce: Liberalizm*, eds. Tanıl Bora and Murat Gültekinil (İstanbul: İletişim, 2005), 570.

of the power station. In order that we may even remotely consider the monstrousness that reigns here, let us ponder for a moment the contrast that speaks out of the two titles, "The Rhine" as dammed up into the power works, and "The Rhine" as uttered out of the art work, in Holderlin's hymn by that name. But, it will be replied, the Rhine is still a river in the landscape, is it not?⁷

§ 4.1 General Historical Context, Small Firms, Social Capital, Competiton and Cooperation

Technoparks, like dams, as this observation suggests, are not only places where various actors of entrepreneurial sorts draw on the energies of the public spaces, universal knowledge or students labor, but also, as neatly argued by Mitchell for dams, in the same Heideggerian venture, require “ a significant reorganization and concentration of accounting, calculation, description and knowledge.”⁸ This point of dam building’s sociopolitical function has given rise to historical claims regarding the proliferation of dam building technologies and ideologies.⁹ Concerns about its role as an instrument to neutralize political contestation¹⁰ and to gain the social consent for state initiated development projects¹¹ are presented by various critiques of Turkish politics.

Although missing in the literature in Turkey concerning technoparks, the reflection of these same concerns could also be found in a large body of work

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- 7 Martin Heidegger, *The Question Concerning Technology and Other Essays*, trans. William Lovitt (London: Garland Publishing, 1977), 16.
 - 8 Timothy Mitchell, "Economentality: How the Future Entered Government," *Critical inquiry* 40.4 (2014): 479-507.
 - 9 Dale Stahl, "Keban Dam Project and Southeastern Anatolia," in *Transforming Socio-Natures in Turkey: Landscapes, State and Environmental Movements*, eds. Onur İnal and Ethemcan Turhan (Routledge, 2019), 33.
 - 10 Joost Jongerden, "Dams and politics in Turkey: Utilizing Water, Developing Conflict," *Middle East Policy* 17.1 (2010): 137-143.
 - 11 Bengi Akbulut and Fikret Adaman, "The Unbearable Charm of Modernization: Growth Fetishism and the Making of State in Turkey," *Perspectives: Political Analysis and Commentary from Turkey* 5.13 (2013): 4.

concerning political economy and economic geography that particularly focus on these novel zoning practices, contextualized in my venture as technoparks, could also be found in various contexts, especially that focus on the developments in Asian continent.

These works read these spatial formations as constructs of neoliberal governance through manipulation of spaces in order to take seat in the global developmental race towards Silicon utopias.¹² I also read the mushrooming of technoparks in Turkey from this political economic perspective in contrast to apolitical and technical approaches piled up in the body of work concerning technoparks.

ARIKENT's historical position from this perspective will be further elaborated in terms of urban transformation, privatizations-especially in telecommunication and banking sectors- changes in the regulatory environment, partial shift to a high value-added economic outlook after 2001 and formation of entrepreneurial subjects. Through analyzing some instances and cases in which actors face each other in various levels, I will try to demonstrate part of their effects on Technopark ecosystem.

These aforementioned processes not only marked a new phase of so-called good governance for Turkish institutional landscape in general but also for university and industry partnership in particular with the enactment of the Law No. 4691. My time of the research during 2010-2011 also coincided with the gradual crisis of this governance model in Turkey followed by the 2009 crisis. Although so many normative works continued to be imposed on technopark formations up until today, the debates in critical academia mostly swing to topics like rising authoritarianism, inner conflicts within the state, intensified competition between different fractions of bourgeoisie, transformations in build environments, financialization, neoliberalization of education and so on.

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- 12 Georges Benko, "Technopoles, High-Tech Industries and Regional Development: A Critical Review," *GeoJournal* 51.3 (2000): 157-167; Jinn-Yuh Hsu, "Hsinchu Technopolis: A Sociotechnical Imaginary of Modernity in Taiwan?," *Critical Sociology* 44.3 (2018): 487-501; Diganta Das, and Tong Lam, "High-Tech Utopianism: Chinese and Indian Science Parks in the Neoliberal Turn," *BJHS Themes* 1 (2016): 221-238.

All of these phenomena have crucial pertinence to my subject as I try to demonstrate some interacting elements below. As it is mentioned in the previous section, all around the world the concept of Silicon Valley inspired technoparks clash with the contextual realities of manifold sites. ARIKENT's management firm provides strong hints to this aspiration as could both be seen directly by constant references to the model and indirectly by using the discourse emanating from its silicon landscape in the answers presented in the appendices. Last but not least, both concepts of zone and technological zone are illuminating in understanding the new dynamics in campus spaces.

For the former, the continuum between free trade zone models as they are applied in the 1980s and technoparks in terms of regulatory problems inform my research together with the large presence of multinationals companies in the space of ARIKENT that have similarities to East Asian experiences. One of the marked conceptual differences that should be emphasized from the beginning is the role of capital flight in 2001 in the formation of ARIKENT that will be discussed whereas the definition of zones successively coined by Ong and Easterling demonstrates foreign investment and global network connections in the establishment of those zones.

For the latter, the concept of technological zone as the further adaptation of Foucauldian concept of analytics of government, which is located in the history of progressive development of EU by Barry, is fruitful in diving deep into the social dynamics of standard making, feedback and common measurement in its various sub-elements. This also inspired my reading of the differences between radical and incremental innovations travelling in the different scales of interactions. In both cases of the zones presented these processes affect the interactions of actors in various ways that could only be partially demonstrated.

Since one of the important discursive tools behind the technopark formations in developing countries and recently in EU knowledge society orientation come along as the contribution of national organizations such as universities in high value added export volumes, adaptation of the term "zone" works in grasping both the need for Turkish exporters to increase the technological competitiveness of relatively traditional industries against their Chinese and East Asian rivals of vicious zoning practitioners as they reposition

themselves after Asian crisis to produce high value-added products.¹³ In the case of ARIKENT this pattern will be emphasized, through some instances of the relations with state, tenant firms and technopark management company. However, compared to the rest of the technoparks in Turkey,¹⁴ ARIKENT's orientation leaned towards post-Fordist industries, such as software and electronics.¹⁵

On the macro level, also the regulatory chaos, I witnessed during the research, should be read within the wider framework of the changing relations with EU and other international organizations. After the 2009 crisis, the needs of populist redistribution and clientelist capture of state organizations have exacerbated.

So, the inception of technoparks in 2001, during the conditions of the establishment of good governance principles marked a contrast with the time of my research in 2010-11 where both dynamics of populist redistribution and clientelism (with big "c")¹⁶ started to be intensified. Constant restructuring of

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- 13 Zelal Kotan and Serdar Sayan, "A Comparative Investigation of the Price Competitiveness of Turkish and Southeast Asian Exports in the European Union Market, 1990-1997," *Emerging Markets Finance & Trade* (2002): 59-85. This policy approach also finds its temporary attempts as it is concretized in relatively rising investments to R&D during 2009-2012 as a response to crisis.
 - 14 Aksel Ersoy, "Impact of Accessibility and Knowledge Creation on Local and Regional Development in Turkey," *Growth and Change* 47.4 (2016): 659.
 - 15 However, in 2004, automotive R&D center(OTAM) was established with a protocol between İTÜ and Automotive Industry Association as an example for an attempt to renew old institutions of peripheral Fordism. Website of İTÜ ARI Teknokent, "OTAM", accessed, October 5 2019. <https://www.ariteknokent.com.tr/tr/firmalar/otam-otomotiv-teknolojileri-arastirmagelistirme-san-ve-tic-as-117>. As the Ninth Development Plan targets: "In automotive, the objective is to create an industrial structure which produces high value-added, has a sustainable competitive edge, targets to export to the developed markets and has a sound R&D ability." SPO, Ninth Development Plan, Ankara, 2006, accessed August 29, 2019. <https://www.metu.edu.tr/system/files/kalkinma.pdf>.
 - 16 Bora uses this term in making distinction between wider social clientelism of Demirel (with small "c") and his close relations with some business groups (with big "c"). Tanıl Bora, "Süleyman Demirel," 573.

institutions and reformulations of laws¹⁷ as could be clearly seen in the multiple changes in the public procurement law starting from first years of JDP in office until today attracted the attention for multiple studies.¹⁸

For the neo-populist tendencies, in the context of technoparks, to both to mitigate the effects of 2009 crisis and increase the participation of traditional sectors (where MÜSİAD bourgeoisie constitute a big share) to higher value-added production, Karaoğuz demonstrates that JDP followed a wide distribution of R&D policies with regard to geography and sector, mostly without favoring certain sectors and institutions. However, there are exceptions to this argument. One I could spot, was Ulutek technopark in Bursa that took 33.703.250 YTL while İTÜ, third highest among all the technoparks, only received 18.503.023 YTL in 2007.¹⁹

On the social level, millennia in Turkey also marked the long forgotten development of small business enterprises, decentralization and recentralization in different scales, the mushrooming of high rises, and utilization of taxation both as a punishment and reward instrument.²⁰ On the subjective level, as it is demonstrated in the successive researches of Üstündağ²¹ and Tuğal²² concerning the effects neoliberalization on the poor people of gecekondu and sub-proletarian districts, it exacerbated the aspirations of having a home or

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- 17 According to Çeviker and Bircan, these changes are gradually forming a less transparent and less competitive environment of public procurement. Esra Çeviker Gürakar and Tuba Bircan, "Redistributive Politics, Clientelism and Political Patronage Under the AKP" in *Networks of Dependency: Clientelism and Patronage in the Middle East and North Africa* eds. Laura Ruiz de Elvira, Christoph H. Schwarz, and Irene Weipert-Fenner (Routledge, 2018), 71-97.
- 18 Gürakar notes the increasing encroachment of the exceptions that retrench the existing laws. Esra Çeviker Gürakar, *Kayıрма Ekonomisi*, (İstanbul: İletişim Yayınları, 2018), 95-96; Within this vein, Buğra and Savaşkan also mentions the bureaucratic appointments to public procurement authority in line with the general trend of JDP'S post crisis attitude of entrenching regulatory institutions. Ayşe Buğra and Osman Savaşkan, *Türkiye'de Yeni Kapitalizm* (İstanbul:İletişim Yayınları, 2015), 128.
- 19 Devlet Denetleme Kurulu, "4691 Sayılı Teknoloji Geliştirme Bölgeleri Kanunu", 22.
- 20 Buğra and Savaşkan, *Türkiye'de Yeni Kapitalizm*, 81, 128, 139, 148.
- 21 Zülal Nazan Üstündağ, "Belonging to the Modern: Women's Suffering and Subjectivities in Urban Turkey" (PhD Diss., Indiana University, 2005).
- 22 Cihan Tuğal, "'Serbest Meslek Sahibi': Neoliberal Subjectivity Among İstanbul's Popular Sectors," *New Perspectives on Turkey*46 (2012): 81, 86.

starting a company. All of these processes are in continuum with the picture of honeycomb presented in the second chapter that invites every subject in Turkish society to entrepreneurial ventures and hard competition. I posit that technoparks should be conceived one of the crucial places that meet this invitation.

Unlike these works that focus in depth on the neoliberal subjectivities, my approach diverts away from the subjects except some points to zoom in the effects of this neoliberal governance on the actors of technoparks. However, how subjects could be assembled into groups in order to create the competitive potential is one the most crucial points to understand the technoparks. In other words, the crux of the governance issue is to find the right balance between dispositive of competition and collaboration and to solve relevant issues of presenting right conditions for healthy competition and effective collaboration.

As it is mentioned, on the topic in the introduction about the design of the space and cycles of accounting, various actors were held accountable in technoparks in sustaining public benefits of being together instead of abusing each other. In parallel with the term human capital, as it is discussed in the short literature review of technoparks, the word “social capital” stands among one of the concepts that has prominence in the literature concerning whole society in general and the technoparks in particular. Early formation of the social capital in urban context is argued to be happened during 1980s given the increasing urban inequalities. In certain studies on the political economy and sociology in Turkey, it has been given an important role in explaining the rise of the Anatolian Tigers. In these narratives, communitarian, social and moral capitals of sorts are shown to be instrumentalized by Islamic businessmen as an attempt to overcome the effects of victimhood of years of political neglect echoing the long history of civil society vs. state debate in liberal societies. The application of the same approach is also given in some works concerning cluster economics that criticizes the strong state tradition for the underdevelopment of regional policies.²³

23 Murat Ali Dulupçu, "Regionalization for Turkey: an Illusion or a Cure?," *European Urban and Regional Studies* 12.2 (2005): 99-115.

It is argued that, the JDP era, gradually turned out to be a period where communitarian ethics is combined with an ethics of the self-responsibility, self-sufficiency and market orientedness.²⁴ In these approaches, a certain blend of state phobia is combined with the reconfiguration of the social in such a way that provision would be made through diverse associations, communitarian groups and agencies coordinated by market orientedness. These approaches also locate the new role of the state to get involved indirectly to the enhancement of regional, local, and social capital capacities.²⁵

When these debates translate into the context of technoparks and ARIKENT, the new role of the state envisaged by those approaches as the manipulator of these places manifest itself in this case as well. Moreover, it could be seen that, most of the technoparks materialize the discourse of small business. They mostly house small businesses, including those in prominent ones such as METU.²⁶ ARIKENT also stands in these networks having a considerable number of SMEs. Although, drawing on my web research in 2012, I note that a considerable number of them are working as subsidiaries to foreign or national firms.

In the developed examples of big city technoparks, it can be seen a little portion of the technoparks also consists of companies that belong to MÜSİAD. For the situation of capital composition and short analysis of business-ARIKENT relations, I will provide my comments on the later sections. But, in line with the previous discussion of IT Valley, and my argument as a subtheme for the discussion of contradictions of governance, I note that, as Balaban argues, those relatively high-tech companies could be conceived as

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- 24 Jenny Barbara White, *Müslüman milliyetçiliği ve yeni Türkler* (İstanbul:İletişim Yayınları, 2013), 252.
 - 25 Dilek Cetindamar, et al., "What the Numbers Tell: The impact of Human, Family and Financial Capital on Women and Men's Entry into Entrepreneurship in Turkey," *Entrepreneurship & Regional Development* 24.1-2 (2012): 29-51.
 - 26 Duygu Aslan, "Sources and Benefits of Social Capital for Technology based Firms in STPS: A Case of METU Technopolis" (M.A Thesis, METU, 2014); Ali Varol, "Kobi'lerde Ar-Ge Ve Yenilik İşbirliği Ve Üniversite Sanayi İşbirliği Algısı: ODTÜ Teknokent Örneği" (M.A Thesis, Hacettepe University, 2018), 82.

“fabourgeoisie”, in the sense that they compose entrepreneurs that form the lower stratas of industrial supply chain.²⁷

They could be taken as a new group of high-tech little bourgeoisie that mark a slight contrast with the other relatively mature high-tech class. I observe these separations in larger governance structure of zones, as it is demonstrated in the case of IT Valley, and its parallel reflections both in the ARIKENT and other technoparks that are nowhere could be demonstrated fully.

In other words, I argue that most of the literature concerning of technoparks do not include these rifts in analysis in evaluating the balance between competition and cooperation or discussing the social capital in sterile and ahistorical terms. Last but not least, although these comments are drawn from a minor data and observations, I believe, high-tech sector is an important point of contestation among these actors for the unfolding schemes of governance.

Therefore, another strand of literature solely concerning technoparks should undergo partial scrutiny which employs terms like social capital, social network, embeddedness (in micro social relations), strong and weak ties, and network society. These concepts, seem to be extracted from their historical (embeddedness), or global contexts (network society).²⁸ Especially the use and abuse of the concept of social capital by business administration studies is relatively apparent.²⁹ In Cansız’s thesis, conceptual arrangements of important carriers of neoliberal ideology such as Gary Becker, Robert Putnam, Francis

27 Utku Balaban, “Faburjuvazi ve Burjuvazi Arasındaki Gerilimin Güncel Sonuçları Üzerine,” *Birikim* 303-304 (2014): 94-104

28 For a detailed critical investigation of institutional dynamics in breeding the so-called Celtic Tiger where the concept of multiple embeddedness, that combine historical and global characteristics, is used, see: Sean O’Riain, *The Politics of High-Tech Growth: Developmental Network States in the Global Economy* (Cambridge University Press, 2004).

29 Fatma Feyza Keskin, “Relationship between Social Capital, Information Sharing, Organizational Ambidexterity and Firm Performance in Technology Parks” (M.A Thesis, METU, 2018); Gamze Köseoğlu, “Social Capital Development Among Tenant Firms and Between Tenant Firms and the Host University in Business Incubators: a Case of a Turkish Business Incubator” (PhD diss., METU, 2007).

Fukuyama are conflated with Pierre Bourdieu's complex analysis of different capital:

Closely related with these factors are the notions of human capital and social capital. While some of the researchers put more emphasis on the importance of human capital for improving entrepreneurship (Lucas, 1988), (Becker, 1993), some others accentuate the importance of the social capital (Fukuyama, 2000), (Coleman, 1998), (Bourdieu, 1986), (Putnam, 1995).³⁰

If a proper definition would be made, I endorse James Farr's definition that states: "social capital is the network of associations, activities, or relations that bind people together as a community via certain norms and psychological capacities, notably trust, which are essential for civil society and productive of future collective action or goods, in the manner of other forms of capital."³¹ Unlike the vague definitions in the quotation presented above, Bourdieu accented "institutionalized relationships of mutual acquaintance and recognition," and found (class) "distinction" is a more important "resource" than trust.³² So, this observation propagates discussion of the ills of the social capital, what are the contradictions as they are perceived by the different stakeholders of the ARIKENT? How distinctions of different sorts are coming to life in ARIKENT? What are the problems associated with competition and cooperation?

In explaining these relations, first of all, technopark management company should be conceived as an interface among the actors, as it is argued as a "queen excluder" by Scott, that is authorized by the MOİT for couple of functions, such as to regulate those places, collect data, compile databases in order to share and publish, set up meetings, conferences, events and manages the existing facilities of the technoparks. Hence, one of the crucial goals of tech-

30 Mehmet Cansız, "Innovative Entrepreneurship of Turkey (The Case of Turkish Technoparks)", Ministry of Development, Ankara, 2014, 2.

31 James Farr, "Social Capital: A Conceptual History," *Political theory* 32.1 (2004): 9.

32 Ben Fine, "The Developmental State is Dead—Long Live Social Capital?," *Development and Change* 30.1 (1999): 1-19.

nopark management is to restrict the private vices within the confines of technopark by developing certain devices or by manipulating the environment by setting certain reward and punishment mechanisms to sustain a neoliberal collaboration.

Therefore, here, the company is expected to bring both academicians and companies on the same table on the one hand, different companies on the other. Latter objective seems to be not realized according to the research literature on the technoparks that partially or solely focuses on ARIKENT³³ and the general comments of my respondents about the state of the collaboration and competition among the firms with small exceptions. Drawing on the data the analysis of the buyer-seller networks of the seventy-eight tenant companies at the time of the research, I observed only a couple of connections between the existing companies of the technopark. Even if they belong to different sectors of production or not, in my reading there was little or no collaboration in the case of ARIKENT. It should be stated that, especially for the small firms, having limited financial resources seem to be an important factor to build lack of trust instead of offering reliance,³⁴ as it will be acknowledged in the following section that is based on the formation ARIKENT, the effects of successive crises of 2001 and 2009 inflicted hard conditions for some of the small firms, observed by my informant during the both periods.³⁵

33 Polat, in his study based on the analysis of surveys with five technoparks-including ARIKENT-, finds a greater willingness for firms to benefit from the tax cuts rather the collaboration with other tenants. Polat, "Assessment of Technology Development, 59, 61. Yılmaz also uses survey analysis methods that include forty-seven firms (mostly small companies) from ARIKENT. He draws the conclusions that, nor academic involvement neither role of being in the İTÜ campus show a high significance for the firms. Moreover, he shows that sixty percent of the survey respondents do not see ARIKENT playing an active role in the industry and university collaboration. İsmail yılmaz , "Ar-Ge firmalarının faaliyetlerinde teknokentlerin rolü ve önemi: İTÜ Arı Teknokent'te bir araştırma" (M.A Thesis, İstanbul Gelişim Üniversitesi, 2016), 130, 131, 166.

34 Interview F, February 6, 2011.

35 Interview D, January 5, 2011.

It could be argued that, not only the spatial proximity, but also the temporal character of the collaboration is of significant importance in the neoliberal governance scheme of technoparks. This is especially true in the uneven dynamics of ARIKENT for small software firms that do not have much resilience and are in need of partnership. Unlike some cases presented in the previous chapter like the civic cultures of small firms in Third Italy and Baden Wuerttemberg that have historical roots, the governance of a young technopark that mostly rely on a highly speculative technological sector like software, stands as a problem of temporality of crisis as well. For instance, Walker demonstrates this temporal dimension of speculative cycles and the bankruptcies of many small firms in the case of Silicon Valley during the dot-com bubble.³⁶

However, unlike Silicon Valley path that demonstrate same characteristics in terms of sectoral composition based on software, ARIKENT's story manifests some distinct characteristics that I will demonstrate in its partial history in the triple dynamics of urbanization, financialization and privatization. Moreover, the repetitive dynamic added on this fact is trade secrets between the companies. Now, I firstly demonstrate its manifestation among the cooperation of academicians.

As one of my respondents noted, the partial picture of the state of cooperation among academicians under the conditions of academic capitalism is as follows:

Everyone is trying to hide things from each other, we could see what is going on in general academic structure, most of the people do not talk openly, except some people in close circles everyone tries to save themselves...I don't know why...I also blame myself, when I think I missed so much opportunities.³⁷

36 Walker, "The boom and the bombshell", 127-132.

37 The original text is as follows: "Herkes birbirinden bir şeyler saklamaya çalışıyor, genel akademik yapıda neler olduğunu görebiliriz, birçok insan birbiri ile açık bir şekilde konuşmuyor. Birbirine yakın olanlar haricinde herkes kendini kurtarmaya çalışıyor...Bilmiyorum...Ben de kendime yükleniyorum, düşününce bir sürü fırsatı kaçırdım." Interview C, January 5, 2011.

I argue that, this quote shows the illusionary perception which blinds the audience from outside. A seemingly transparent building on the hand, and the opaque nature of business inside on the other. This picture demonstrates the problems with transparency, social capital and collaboration together. Here, I think, “secrecy” - that is one of the contradictions of collective action³⁸ in the form of private interest - is only one of the causes of the problem.

Another factor that does have strong contribution for this problem stands as the short-term project-based nature of technopark jobs. In the context of technoparks, the reality of project not only intensifies the working conditions in relations with customers but also technopark management firm’s accountability criteria also causes anxiety. As, I observed during my research adding to the micro level, this anxiety related with the problem of meeting the project evaluation criterias of the technopark management firm also develops already intense competitive pressures.

As a solution to this lack of cooperation, respondents convoke both the state and technopark management as facilitators to enhance cooperation. Some of the devices of technopark management firms crystallize in activities such as trainings of the managers and employees, exhibitions, fairs, conferences etc. Although I have no evidence of the viability of these linkages, the temporary structure of weak ties (as also demonstrated in the subject of chance element in chapter two) is questionable both for middle term and long-term collaborations as envisaged by the twin developmental goals of the companies and the state.

One specific factor that could be observed in ARIKENT is the technopark management company’s answer³⁹ to my question about turn-overs among the companies. It is in line with some sectoral patterns that turnovers among the small companies are rather limited, while for the big companies, circulation is higher.

In this dynamic one of the obvious reasons is the high level of reliance of the small companies to their mental labors. This reliance comes from the facts that most of the projects require specific coding requirements that are hard to

38 Claus Offe and Helmut Wessenthal, "Two Logics of Collective Action: Theoretical Notes on Social Class and Organizational Form," *Political Power and Social Theory* 1.1 (1980): 67-115.

39 See question three in Appendix B.

fin the labour market and also the issue of business secrets grow higher in small companies. For them, losing an important idea or product could cause a great harm.

Another factor also maybe of importance is the presence of the capital owner or general managers of the firms in the technopark dynamics, also argued by Koçak and Özge,⁴⁰ since more than sixty percent of the ARIKENT companies are either owned by academicians or international/national big firms as the firm composition suggest, this possibility is of a little chance for a long-term collaboration in the honeycomb of ARIKENT. Here, in this article technopark management firm is invited for the brokerage between these firms. Along with this, another technique that is in use for the technopark management company in this governance design, is keeping database of companies that meet quantified desires of the parties involved whether they want to collaborate or not.

On the part of the state, one of my respondents narrates exclusionary character of some state institutions, that echoes the governance problems related with the changes in public procurement law, as follows:

There is a wall with some institutions of the state. In many occasions, state organizations tend to work with companies and people they previously worked...For instance for the case of procurement, many of them has a habit to work out with exceptional tenders instead of open processes.⁴¹

Given the histories of regulatory downfall after 2009 crisis and neo-developmental ambitions of corporatist behaviors, this statement demonstrates the effects of public procurement law in the perception of my respondent, even in 2010-11, while I was doing research. Since the relations with state is limited in ARIKENT in comparison to other technoparks, I did not find any evidence in

40 Özgecan Koçak, and Özge Can, "Determinants of Inter-Firm Networks among Tenants of Science Technology Parks," *Industrial and Corporate Change* 23.2 (2013): 467-492.

41 The original text is as follows: "Devletin bazı kurumları ile arada bir duvar var. Birçok durumda, devlet kurumları önceden çalıştıkları şirketler ve kişiler ile çalışmaya yöneliyor... Örneğin, kamu alımlarında, herkesin katılabileceği ihaleler yerine önceden istisnaları belirlenmiş ihaleler ile çalışma alışkanlığı var." Interview C, January 5, 2011.

line with this trend except with general talks on clientelism on this topic. However, another dynamic on the part of the state offices and academicians' relations demonstrate itself in the long histories of doing work together and its effects, as an exclusionary social capital, in joining collaborative dynamics, as interviewee D narrates:

Here in this environment we are like a family, almost all the professors we have worked with up until now are either our professors, our former class mates etc. we hope these relations will last.⁴²

For another example on the theme of exclusionary social capital:

At the beginning, trust is the main issue, we have enough people to work with, still we have some contacts outside Turkey, but we are doing it in the familiar networks, you know it is not easy to work with other academicians in Turkey, besides more than a person being a stranger, the real concern is capability. How could I trust somebody that I don't know given that I am in a rush. No time to waste.⁴³

Last point that concerns the exclusionary characteristics in my presentation comes in the form a legal document called "nondisclosure agreement," this document as the name suggests, obliges parties of the agreement to keep secret any information about the joint-research and projects. In contradiction to the many elements of governance, this artefact could be grasped as one of the crucial sites where problems of collective action, that I try to present, manifest itself. Among the other technologies of secrecy/invisibility such as, using certain coding techniques, verbal warning, security investigations for defense firms and so on.

42 The original text is as follows: " Şimdi bu ortamda biz bir aile gibiyiz, şimdiye kadar çalıştığımız bütün hocalar ya bizim hocalarımız ya eski sınıf arkadaşlarımız... umarız bu ilişkiler sürmeye devam eder." Interview D, January 5, 2011.

43 The original text is as follows: " Başlangıç olarak, güven ana mesele, birlikte çalışacak yeterince insana sahibiz, Türkiye dışında da bazı bağlantılarımız var; ama bunu hep bildiğimiz çevreler içerisinde yapıyoruz. Biliyorsunuz ki Türkiye'deki diğer akademisyenler ile çalışmak kolay değil, bir kişiyi tanımamaktan da öte asıl meselemiz kişinin kapasitesi. Bilmediğim birine nasıl güvenebilirim hele bir de acele hareket etmek durumundayken. Harcanacak zaman yok." Interview F, February 6, 2011.

Initially, nondisclosure agreements appeared to me just as a set of words on the ongoing slights in management classes during my undergraduate studies, but I was shock with its widespread usage in technoparks that seriously limit the prospects of the common research. Some of the respondents indicated that, the making of these contracts involve legal experts from both parties, and the process requires, sometimes weeks of translation between legal and technical terms of innovation. However, albeit the other issues involved, the crucial dynamics behind these agreements appear on the level of how it affects interactions of the actors.

Before I present some of the peculiarities of ARIKENT in the next section, the last remark by interviewee G under the topic of “collaboration” also demonstrates the thin balance between sharing and hiding that may harm the strong ties of friendship. This point will also be revisited in the last section in discussing the effects of the patents in the technopark ecosystem. As it becomes salient in this case, it conveys another contradiction by the usage of the vocabulary, such as “over protectionism” or “over openness” (here open source serves a mediation for the narration):

For one thing, over protective research makes it unfinishable. Also, opposite is the problem, even if you are old friends, you should settle the terms from the beginning. You should make a contract or formal agreement before the start. Or else, as it is in the field of open source, common. You say from the beginning, I accept the over openness, that is kind of an agreement. If you do not do the agreement uncertainty eats your brain, people bank on “trust” (as a concept) too much, for example they go to the same school, they have friends in common, they think there will be social pressures. But in the end, I myself, left my partnerships with my old school friends when the money was involved⁴⁴

44 The original text is as follows: “Şöyle ki, aşırı korumacı araştırma bitirilemez hale geliyor. Aynı zamanda tersi de mesele, eski arkadaş bile olsanız şartları önceden belirlemeniz lazım. Baştan sözleşme veya resmi anlaşma yapmanız lazım. Ya da, açık kaynak alanında olduğu gibi, baştan

§ 4.2 Transformation of ARIKENT's Wider Habitat: Maslak, TÜSİAD, and Market Barriers

As mentioned in the theoretical chapter, in and outside of its beehive like ecosystem which continuously expands, ARIKENT houses a complex heterarchy of actors with different clashing and colliding imaginaries, normative prescriptions, interests and identities. As a millennial fruit of meek Turkish attempts of liberal neo-developmentalism⁴⁵ in the serial financial crises context of the 1990s,⁴⁶ it finally came into being in Maslak campus in 2003 (two years after Technological Development Zone law was enacted). Let me briefly move on with these partial histories.

The transformation of Maslak from an industrial district to a potential global city⁴⁷ command center, has utmost importance in ARIKENT's existence as a reflection of the wider global trend of world cities, and of financial and business services that provide the bread and butter of technopark firms in their initial inceptions. For a similar development, Begg and Cameron argues for the British context that: The centralization of production in the major metropolitan and provincial cities is anticipated also because of their proximity to markets and the agglomeration economies deriving from access to qualified labor, finance, business services, and so on."⁴⁸

aşırı açıklığı kabul ettiğinizi söylersiniz bu da bir anlaşma çeşididir. Eğer anlaşmayı yapmazsanız belirlirsizlik beyninizi yer, insanlar güven meselesine fazla güveniyor. Örneğin aynı okula gitmişler, ortak arkadaşları var, sosyal baskılar olacak diye düşünüyorlar. Fakat sonunda ben de işin içine para girince eski okul arkadaşlarım ile ortaklığı terk ettim." Interview G, March 3, 2011.

45 For the elaboration of the term see: Cornel Ban, "Brazil's Liberal Neo-Developmentalism: New paradigm or Edited Orthodoxy?," *Review of International Political Economy* 20.2 (2013): 298-331.

46 Boratav, Korkut, and Erinç Yeldan, "Turkey, 1980-2000: Financial Liberalization, Macroeconomic (in)-stability, and Patterns of Distribution," in *External Liberalization in Asia, Post-Socialist Europe, and Brazil*, ed. Lance Taylor (Oxford University Press, 2006), 417-455.

47 Saskia Sassen, *The Global City* (New York: Princeton University Press, 1994).

48 Iain G. Begg, and Gordon C. Cameron, "High technology location and the urban areas of Great Britain," *Urban Studies* 25.5 (1988): 361-379.

Maslak is one the most prominent city hubs of Istanbul; developing rapidly starting from the beginning of the 1990s, and it carries the weight of flight from productive capital⁴⁹ to finance and service sectors, which coupled with eyes of the crowd on newly settling shop windows in the consumer society that newly flourish;⁵⁰ the business diversification attempts of national bourgeoisie against falling rate of profits; endless trials of pulling the foreign capital and privatizing the commons; imported technology that yield to exacerbated current account deficits; attempts to destabilize dissident movements at the outskirts of industrial districts; continuous “official” violation of the city’s masterplan; constant back and forth between deregulation and regulation; unaccountable deep state governance of risk;⁵¹ and the second term of dreaming to become a member of the emerging EU knowledge society.

The development of industry along the axis extended to Maslak in the 1970s and the 1980s. A few banks and some of the largest holding companies bought land between Zincirlikuyu and Levent, opposite the large pharmacy and automotive industries, anticipating the value of the land to rise in the future.⁵² Yapı Kredi together with many other banking firms also later became an important source of demand for the software products that were necessitated to be used after 2001 banking (accounting) crises.⁵³

In the 1970s, these plans stuck into the bureaucratic vision that concerns the environmental commons of the city, but after Motherland Party came to power and neoliberalization processes set the stage, masterplans were bypassed by leading the way to radical transformations in the region, in its most extravagant form to, as it coined by Pred, sky “(tax)scrapers.”⁵⁴

49 Even throughout the 2000’s, foreign capital entry mostly does not target productive sector.

50 Nurdan Gürbilek, *Vitrinde yaşamak* (İstanbul: Metis Yayınları, 2001), 31-33.

51 Ryan Gingeras, "Last Rites for a ‘Pure Bandit’: Clandestine Service, Historiography and the Origins of the Turkish ‘Deep State,’” *Past and Present* 206.1 (2010): 152.

52 Binnur Öktem, "The Role of Global City Discourses in the Development and Transformation of the Buyukdere–Maslak Axis into the International Business District of Istanbul," *International Planning Studies* 16.1 (2011): 27-42.

53 Interview C, January 5, 2011.

54 *Ibid.*, 32. By the means of this play of words, Pred evokes continuous tax evasions performed by big companies in the case of Sweden: Pred, *Recognising European modernities*, 193.

At this point, the central government empowered the municipalities that accelerated the finance of these arbitrarily planned constructions. Despite the desire to pull foreign investments into the built environment, most of these buildings were constructed by local actors, mostly by TÜSİAD bourgeoisie, combined with some exceptional cases through which MÜSİAD bourgeoisie, and foreign capital investors were also involved.

It is worth noting that as certain industrial histories of Turkey and some of the practitioners by whom I am informed attest that TÜSİAD bourgeoisie is not much involved in science and technology policies compared to their interest in education in general⁵⁵ and technopark dynamics in particular, even in İTÜ ARIKENT during the time of my research.⁵⁶ I argue that this point also should inform the political economic analysis of technopark that I am trying include into the analysis by also looking into the networks of the tenant firms, the relations between businesses and the university and a short discussion of the developmental position of ARIKENT.

For these concerns, I have compiled three reasons that could be named at minimum en passant:

a) They mostly rely on technology transfer because of their suspicious look on new firms' products viability -as one of my informants coined the term "Vahdettin syndrome"⁵⁷ combined with their decades long partnerships with foreign companies in some sectors.

b) Their tradition of producing in-house or their reliance on pre-established subcontracting networks of outsourcing. Especially their habit of producing some of the relatively new technologies in-house is known called as "vandalization of the market" by interviewee C. Here vandalization refers, by

55 Although, their role in the 1990s should be acknowledged in laying the ground for university and industry partnership. Metin Özuğurlu, "Üniversite-Sanayi İşbirliği Programı Üzerine Bir Eleştiri," *Kültür ve İletişim* 1.2 (1998): 47-76.

56 Interview C, January 5, 2011.

57 The expression used in software circles to mock the big bourgeoisie attitude against the technological development Interview F, February 6, 2011

the interviewee, both to distortion of hypothetical ideal markets of equal competitors and their repetitive failure of R&D production in the end of the most cases.⁵⁸

c) Their general tensions with JDP during the onset of technopark policies that result in the relative exclusion of TÜSİAD bourgeoisie from science and technology policies in general and technopark policies in particular.

On the following sections of the chapter, I will go into some investigations of the tenant firms' supply and demand networks, employed in various debates as it suggests an explanatory value to partially add on these observations. Of course, one can point out that both expressions like "Vahdettin Syndrome" and vandalization of the market have long histories in the cultural political economy but as I searched for them on the internet before the writing process of this thesis, I did not manage to find a single entry that gives a hint to their wider reception. This indicates their limited usage in a narrow community of professionals in the field.

The historical allusion of the former is apparent in the designation itself, but more than that it also touches upon an important tension on technoparks' governance (rather than software environment in Turkey) that I will demonstrate later on the comparison between the technical terms such as incremental and radical innovations in the context of technology dependency. When it comes to the latter, I consider that the term "vandalization" both points to the uncooperative nature of big bourgeoisie towards small scale entrepreneurs (and academicians who are trying to take part in the entrepreneurial game) and the fabrication of entry barriers to the market due to this behavior that some of them discussed in the previous section under the banner of problematic nature of social capital. These barriers also further be elaborated in the next section as important issues of neoliberal governance.

As for the developments in Maslak, the successive electoral victories of Social Democratic Party and Welfare Party brought a halt to first construction boom. Then, economic crisis in 2001 also contributed to this slowdown.⁵⁹ This

58 Interview C, January 5, 2011.

59 Öktem, "The Role of Global City Discourses", 34.

moment also represents a short period of obstacle against ongoing neoliberalizations and attempts to commodify public land under a social democratic governmentality. Nevertheless, JDP's arrival marked a new era, as it was mentioned in the second chapter, roll out liberalism with constant changes in laws and regulations in a contradictory combination with populist and clientelist tendencies brought about a period of relative stability until the second crisis in 2009 that is witnessed by ARIKENT.

At the cross section of some factors that marked this era such as privatization-regulation-populism dynamic until the time I undertook this research, ARIKENT in particular, and technopark formation in general, witnessed dramatic changes. In the next section I will focus on the partial effects of these dynamics, particularly focusing on the changes on urban dynamics and privatization to explain their effects on the formation of ARIKENT.

§ 4.3 The Rise of its Software Industry, Academia, and Legal Conflicts of Governance, Maslak Fordism, Garage, and Rent

Especially privatization of Halkbank and its shift in operations⁶⁰ from being a relatively cheap credit provider for the SMEs to an individual customer oriented service bank had shaken the SMEs in general who badly needed liquidity.⁶¹ In the case of some of the ARIKENT firms, it also created a relative monopoly position in their sectors because of the cost reduction advantages they enjoyed, such as tax cuts, various incentives, and insurance premium discounts for their employees.

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- 60 Aylin Topal, "The State, Crisis and Transformation of Small and Medium-sized Enterprise Finance in Turkey." In *The Political Economy of Financial Transformation in Turkey*, (Routledge, 2018), 228.
- 61 Fikret Şenses, and Erol Taymaz. "Unutulan Bir Toplumsal Amaç: Sanayileşme Ne Oluyor? Ne Olmalı?," in *İktisat Üzerine Yazılar II: İktisadi Kalkınma, Kriz ve İstikrar*, eds Ahmet Haşim Köse, Fikret Şenses and Erinç Yeldan (İstanbul: İletişim Yayınları, 2003): 429-461. It should be mentioned that Halbank played an important role during the crisis ridden environment in 1996 KOSGEB made a partnership with Halkbank to provide support for relatively high value-added products firms. Topal, "The State, Crisis and Transformation", 225.

For the relatively small portion of ARIKENT tenant firms, which are firms mostly established by academicians, liquidity conditions started to present a pressing issue.⁶² On the other side, in some cases, mergers and acquisitions resulted in both new markets and absorption by foreign oligopolies for technopark tenant firms. Last but not least, newly flourishing telecommunication sector was soon to be privatized open also a new sector to capitalize by companies of ARIKENT.

If we count some of the ICT firms, operating in diverse fields, which is not demonstrated in the pie chart in, almost more than sixty-five percent of the firms are doing business with banks or telecommunication firms.⁶³ Most of them are SMEs. However, except the firms established by few academicians many of the small firms are subsidiaries of foreign or national oligopolies or they work in their technologically driven global value chains as buyer and adapter of giant multinational companies' software licenses.

Second aspect of the privatization, maybe in a de-facto form of individual ventures of academicians and various university and industry partnerships, should be conceived in line with neoliberal transformations that dramatically affect the education system in general, and higher education in particular. My aim is to put a distance between my study and those works that only focus on the effects of neoliberalism on the teachers or academicians and limitedly concern for themes, such as commodification of knowledge, marketization of universities, and degradation of academic values.

Although these bear an important effect to governance dynamics of universities and technoparks, almost none of my academic interviewees from İstanbul and Ankara universities directly brought those issues on the table unless sometimes they are directly asked. I think strongest factors on this observation are about their departments that enjoy the benefits of newly flourishing technopark industries.

In line with the huge body of celebratory literature on higher education and technoparks, they endorse ideas such as, union between theoretical and

62 Interview C, January 5, 2011.

63 For the pie charts that demonstrate the sectoral distribution of technopark firms, see answers to the questions 1 and 8 in Appendix B.

practical knowledge (at the expense of the theoretical) and normality for academicians to do extra jobs. But through the readings, observations and talks one of the most important temporal dimension of the technoparks manifest itself as the tension between the needs of long-term commitment to research and relatively short-term expectations of companies and state offices.

At these points, the themes that concern the downside of this ongoing transformations mostly revolve around the increasing workload⁶⁴, the difficulties of building a company and doing business with some partners from the private sector, the problems with bureaucracy faced against various actors such as rectorate, technopark management firm, various other state organizations, such as MOİT as the authorized regulator of those places, TÜBİTAK, TTGV, KOSGEB etc. and International organizations like WB and EU.

In that sense, the establishment of technoparks has similarities, in terms of academicians' positions, to Bayh-Dole act that was enacted in U.S in the 1980s, that grants the ownership of inventions made with federal funding to the inventors.⁶⁵ That is widely referenced in the literature together with the Silicon Valley. In Turkey, formerly, academicians who were doing business with outside parties with the official permission of the rectorate were giving a

64 Cris Shore, "Beyond the multiversity: Neoliberalism and the Rise of the Schizophrenic University," *Social anthropology* 18.1 (2010): 15-29, Riyad A. Shahjahan, "From 'No' to 'Yes': Post-colonial Perspectives on Resistance to Neoliberal Higher Education," *Discourse: Studies in the Cultural Politics of Education* 35.2 (2014): 219-232, Ayhan Kaya, "Critical Voices Against the Bologna Process in Turkey: Neo-liberal Governance in Higher Education," *New Perspectives on Turkey* 52 (2015): 105-133.

65 We could observe the initial increase in the rate of new park formations about the time of the Bayh-Dole Act's passage, the enactment of the R&D tax credit, and the rise in research joint venture activity encouraged through the National Cooperative Research Act. Albert N. Link, and John T. Scott, "US Science Parks: the Diffusion of an Innovation and its Effects on the Academic Missions of Universities," in *Universities and the Entrepreneurial Ecosystem*, eds. Albert N. Link and David B. Audretsch (Edward Elgar Publishing, 2017), 44-56. Steven Brint, "The Rise of the 'Practical Arts,'" in *The Future of the City of Intellect: The Changing American University*, ed. Steven G. Brint (Stanford University Press, 2002), 245. For the Investigation of the Wider Dynamics of Academic Capitalism in Western World, see: Slaughter, Sheila, Sheila A. Slaughter, and Gary Rhoades. *Academic capitalism and the New Economy: Markets, State, and Higher Education* (JHU Press, 2004).

large portion of their income (only around twenty percent was left to them) to universities' revolving funds. With the enactment of the technopark law academicians had a chance to do business without leaving their fair share to university and, as it is seen, in the case of ARIKENT, universities compensated this income loss with extra income coming from the rents of leased offices and new opportunities of conducting business with various companies situated in the campus.

However, during the period of my research, I also witnessed concerns brought in the conference on managing intellectual property held in Boğaziçi University about the planned statutory changes on the revolving funds in the higher education institutions.⁶⁶ By the means of this law, the aforementioned shares taken by the university and the academicians are planned to be reshuffled to redistribute most of the shares to the academician who engages in commercial activities.

Moreover, an already existing law, concerning R&D (Law No. 5746⁶⁷) already impeded the desires of technopark managers and rectorates for the participation of the big companies to technoparks. By the means of this law those firms with more than 500 workers benefit from certain tax cuts in their private research centers. By 2012, 134 enterprises have accrued authorization.⁶⁸

Both previous laws and ongoing regulations came in contradiction with the discursive part of the developmental model solely specialized on the technopark development that favor big businesses over small ones. In other words, here contradictions within the Law No. 4691 that draw the boundaries of the goals set in technopark governance manifest themselves that stimulate questions like whether to support and include the big business or the SMEs? How the balances could be drawn? Notwithstanding the fact that, these tensions

66 For the detailed information about the organizers and the topics of the conference, see: "International Conference on Managing Intellectual Property in Universities," Boğaziçi University, April 14-15, 2011, accessed, October 2, 2019. <http://www.ipconference.boun.edu.tr/ipconference-2011/contact.php>.

67 "Araştırma Geliştirme Faaliyetlerinin Desteklenmesine İlişkin Uygulama ve Denetim Yönetmeliği," Resmi Gazete, July 31, 2008, accessed September 29, 2019. <https://www.resmigazete.gov.tr/eskiler/2008/07/20080731-2.htm>.

68 Cansız, "Innovative Entrepreneurship of Turkey, 41.

nowhere novel either for technoparks in general or ARIKENT in particular. However, most of the research on regional clusters demonstrate the unwillingness of big firms to collaborate with small ones, as parallel with the situation in Silicon Valley that is brought to light by Sabel, given in the previous chapter, where the practices of crushing the small companies are common.

In ARIKENT'S case, market barriers, that are illustrated above, do not manifest themselves as big problems since there is so much demand for the technopark space. However, for the other technopark cases, these laws present a big impediment for the desirability of participation both from academicians and big companies because of the existence of revolving funds and research centers. As it is also noted by Longhi in his historical study on the establishment and development of the Sophia-Antipolis on the flat surface of sunny French Riviera in Nice, big companies have large significance to create the economy of appearances in the zones-in the case of ARIKENT also apparent in the constant references given to İTÜ's culture, reputation and location in Maslak- that form the conditions on attracting foreign investment instead of nourishing baby industries.⁶⁹

Albeit these contradictions presented above, as one of my respondents argue, these laws also open at least two possibilities for the small firms who want to build research partnerships with universities and academicians.⁷⁰ First, as it is mentioned above, existing laws of revolving funds have exclusionary nature for small firms because of high price of research on the part of academicians. Second, another exclusionary element is the privileged position of big companies in applying to technoparks. Unlike KOSGEB applications, most of the application requirements to technoparks are higher in terms of the levels of commercial status, R&D capability and legal preparedness. In sum, the contradicting legal frameworks of technopark governance present both impediments and opportunities for the different actors in the beehive that demonstrate the various interactions between legal processes and actors' enrollments.

69 Christian Longhi, "Networks, Collective Learning and Technology Development in Innovative High Technology Regions: the Case of Sophia-Antipolis," *Regional studies* 33.4 (1999): 333-342.

70 Interview F, February 6, 2019.

So, the establishment of the technopark should be conceived as a considerably new hexagon in socially, politically and legally already complex beehive of the university and wider honeycomb of Turkey. Here, at this point, technoparks could be conceived not only as a simple university and industry partnership but also a literal integration and symbiosis of the two parties. In other words, long-term leasing of offices⁷¹ and even buildings to the companies in the campus as it is seen in the case of Turk Telekom⁷² in ARIKENT and academicians being partners with technopark companies or building their own companies in the campus has wider implications that are impossible to cover in the depths of this study.

In that sense, seemingly long-term settlement of Turk Telekom could be conceived as a moment of alignment between the interests of technopark management firm. As I was asking about these balances to technopark management firm's employee, she states this position as follows "we need some companies to come and stay."⁷³ Obviously, this statement suggests the celebratory approach of the management firm towards the big companies. Last but not least, it also pulls the interests and new control mechanisms by various state officers on the space of the technopark in particular and the university in general. Further concretized contradictions will not be discussed within this scope.

Furthermore, in this fairly new context of above-mentioned symbiosis, the academicians' identities are changing for a more entrepreneurial attitude in the new environment. Their new roles are also required to be understood from different angles. Since revolving doors and boundary spanners between different private, public, international spheres and hybrid/schizophrenic subjectivities⁷⁴ became intensified. It might also be misleading to decipher the multiplicity at hand from just one perspective. However, it could also be argued

71 As I checked recently, most of the big companies and their subsidiaries still reside in technoparks after all those years from the time of the research.

72 "Türk Telekom, İTÜ'de teknoloji üssü kurdu," NTV, August 12, 2011, accessed, September 27, 2019. <https://www.ntv.com.tr/turkiye/turk-telekom-itude-teknoloji-ussu-kurdu,sCSYJfoykkSOwCCs5tGHlw>.

73 Interview B, April 2, 2011.

74 Brint, *"The Future of the City of Intellect"*, 245.

that the position of academicians is becoming the most complex in comparison to other parties in this new context. I will try to demonstrate further at least some portions of their positions in relation to their colleagues, companies and various state offices. Now I turn to the contradictions visible in the higher echelons of the governance, namely the management level.

In the context of the relationships between the rectorate, technopark management firm and other organs of the state, it should be emphasized that these entities stand, sometimes paralyzed, at the intersection of many legal and regulatory arrangements (and their pertinent institutions), such as Public Procurement Law, State Personnel Law, Ministry of Finance regulations, General Directorate of Foundations, YÖK regulations, and independent regulatory agencies supervision, to name a few.

So, introduction of the Law No. 4691 in 2001 into the picture shakes the thin balance of string cords that surround all of these institutions. This also combined with possible but less often interventions of higher institutions of the state such as DDK or Council of State. As it is witnessed many times throughout their histories, yet not open to the accounting of the wider public audience, break downs in the system, through deliberate malpractices or simple negligence, can result in the tense conditions for the ecosystem. This might also demonstrate not only legal and developmental accounting concerns, but also other conflicts between different fractions of the businesses and government party. At this point, the successive inspections of the DDK⁷⁵ in 2009 and Court of Account⁷⁶ in 2011 in response to the allegations should be taken as important moments in the contradictory governance of İTÜ and ARIKENT.

75 Devlet Denetleme Kurulu, “4691 Sayılı Teknoloji Geliştirme Bölgeleri Kanunu”, 2,3.

76 Here, responses from former rectorate Muhammed Şahin and former manager of technopark management company to the allegations could be found in the following sites: “İTÜ de RedHack’ten nasibini aldı”, Sözcü, January 16, 2013, accessed, September 16, 2019. <https://www.sozcu.com.tr/2013/gunun-icinden/itu-de-redhackten-nasibini-aldi-189984/>; “RedHack’in Hacklediği Gizli Belgelerden İTÜ de Nasibini Aldı,” ari24, January 17, 2013, accessed, September 16, 2019. <http://ari24.com/haber/redhackin-hackledigi-gizli-belgelerden-itu-de-nasibini-aldi-570>.

In one of the cases, as it is presented in the DDK report, these complex laws combined with power struggles between İTÜ rectorate and İTÜ Development Association⁷⁷ (as the largest shareholder of the technopark management firm with sixty-four percent) points to the conflict of interest that is emanating from interlocking positions of the actors. Here, reports indicate that, for the proper management of technoparks, the situation of double-headedness should be abolished that confer to the authority of the single person for the stability. As it is triggered by the change in the Law of Foundations Law No. 5772,⁷⁸ the rector on duty could not also be the head of university foundations. So, the change brings the possibility of conflicts while the conditions of interlocking seats are eliminated by the law.

The perspective given in the Council's report should also be grasped as an allusion to strong leadership, stability and elimination of separation of powers. I think this allusion also provides reconsideration under three rubrics for the workings of technoparks which present familiarities with single party histories in Turkish neoliberalization: i) an inherent contradiction in the importation of the supposedly democratic and horizontal Silicon Valley model that unfolds as it touches ground in developing countries' realities, ii) power struggles that result with economic failures (as it is narrated in the related extract below taken from the report) in turn laying the bureaucratic and social grounds for the call of authoritarian forms of governance, and iii) the problems with the discourses of collaboration/synergy/networks. I argue that these also provide a space to rethink the discussions about increasing prominence of national capitalisms in post crisis period of 2009.⁷⁹

77 The same association was also previously reported and fined for leasing university dormitories after a court of account inspection. "Üniversitelerin vurgunu 110 milyon," Haber7, August 9, 2008, accessed, September 17, 2019.

<http://ekonomi.haber7.com/ekonomi/haber/337168-universitelerin-vurgunu-110-milyon>.

78 "Yükseköğretim Kanununda Değişiklik Yapılmasına Dair Kanun," TBMM, June, 18, 2008, accessed, September 17, 2019. <https://tbmm.gov.tr/kanunlar/k5772.html>.

79 Cemal Burak Tansel, "National Neoliberalism in Turkey," *Dissent* 66.3 (2019): 48-56.

Equipping part of these reconsiderations, I will briefly zoom in the event of the election of the new rectorate which forms a terrain of contestation between the old and new rectors between 2004-2008. The story is given as follows in the report:

This contest could reach a dimension where one party captures the control of the technopark. This, in turn, seriously harms the operations of the technopark. Here, a case at point is between İTÜ rectorate and İTÜ Development Association resulted with the halt over smooth functioning of technopark for long period like 4 years between 2004-2008.⁸⁰

Therefore, the tone of the quote condemns unproductive competition between the heads of foundations and rectors that result in the capture of one party over the technopark management. By the means of this problematization of the lack of smooth functioning, report, on the one hand, rejects the one-man rule originated from the clash of private vices as unhealthy for profit and cherishes strong leadership without competition on the other.

Concerning the high governance of the beehive, another change in foundations legislation also indicated by the report⁸¹ was about the full authorization of the university rectorate in deciding to technopark management firms' benefit from the facilities and services provided by the university. As it is pointed out by the technopark management firm during my interview,⁸² this change brings the speculations on further problems in the possible cases in which the rectorate and technopark management firms' interests do not coincide.

In the case of the latter, management firm's answer to the question 'what the level of support and interest from the government is'⁸³ demonstrate the extent of relations between technopark and government as limited with information exchange with MOİT. They numbered one of the important reasons for this relative autonomy as the ownership of Maslak campus land by the İTÜ

80 Devlet Denetleme Kurulu, "4691 Sayılı Teknoloji Geliştirme Bölgeleri Kanunu"

81 İbid.

82 Interview B, April 2, 2011.

83 See answer 12 in Appendix A.

development association.⁸⁴ I note, this fact demonstrates not only the importance of university to have her individual assets to be able to relatively free from the possible interventions of the ministry, but also for the technopark management firm to put a distance from the politics during a time debates on new forms of clientelism were getting ripe.

At this point it should be mentioned that as many of the technopark cases attest, mushrooming of technoparks coincide with the greater penetration and control of the government over the university management through the incentives, such as allocations of land. In other words, not only a sort of de-facto privatization occurs in the campuses as the recent stage of long history of university and industry partnerships but also the exposure of universities into further government encroachment in the case of failures to meet the expectations.

However, although both the general tone and specific answer to the question pertaining to government involvement, demonstrate a limited involvement on the part of technopark management, it is also possible to look different connections by investigating the composition of the technopark firms. For this purpose, my web search on company profiles through various sources indicate that there are a few connections.

Besides the complex connections between various technopark companies with government on different levels, such as, being a provider for government tenders or having people that worked for the government in corporate boards, I note that one particular case is of greater significance for ARIKENT involving companies of Istanbul Metropolitan Municipality with three subsidiaries including İGDAŞ.⁸⁵

Besides its large presence in the limited space of technopark, it also employs an academician from one of the engineering departments who located in interlocking positions such as being also the general director of those companies in different periods. At this point my approach does not reside on questioning whether they are innovating or not or testing the necessity of the municipality to benefit extra tax cuts in addition to exceptions it already enjoys

84 Interview with technopark management firm, March 17, 2011.

85 İGDAŞ is one of the biggest natural gas providers in Turkey and has monopoly position for gas provision in İstanbul.

from its given status. But the problem it posits for the governance of ARIKENT in general.

In the evidence that technopark space is full and many of the applicants are waiting a long queue for entrance, this presence also confirms a point of exclusion, an entry barrier for the other firms in the seemingly flat-synergetic surface presented in the promotional texts.⁸⁶ This situation could also be grasped from a political level where the rectorate is appointed from the president who is supposed to be close to the governing party. In sum, albeit the distance from the government, implied by the technopark management company in the answers, this instance may demonstrate that office spaces of technopark could also be rented as concessions given from one party to the other.

Last but not least, as a case that marks the thin cords between different laws that bind the actors and made them face with each other in new forms, changes in the Article thirty-nine of the Law No. 2547 that concern the assignment principles of the academicians is also of particular importance at least to demonstrate the remnant of bureaucratic suspicion in the regulations and its effects on the social ground of technoparks. One of the changes in those principles enables them to do their sabbaticals in technoparks. This change was made to avoid problems concerning the research in the confines of the technoparks because of the difficulties of getting permissions from departments and rectorate, as it is also coined by one of my academic respondents in the case of İTÜ⁸⁷ as the “locking down in the campus.”⁸⁸

But this restriction was nowhere limited with aforementioned former YÖK regulations but also with the restrictive nature of the Law No. 4691 that was in effect while I was doing the research. After a short while from the period of my research, some amendments were passed both to deregulate and reregulate the flows, the permission for sabbaticals given above is one of

86 See answer 5 in Appendix A.

87 Interview C, January 5, 2011.

88 As the conversation unfolded he also drew chains of associations between this restriction, his historical perception of Turkish bureaucracy and implications of these two on development level of Turkish economy.

them.⁸⁹ In my opinion, this restriction was also related with the rationale behind the law that has the remnants of the old perception of public duty. In other words, crystallized in this case as the bureaucratic suspicion on the part of the lawmaker that lean on the assumption that if workers of the technoparks leave the vicinities of the zone, there are automatically presumed not conducting research.

Of course, this disciplinary approach also brought many instruments of breaking the law, one of the most familiar ones to other sector employees working in buildings that have automatic tollgates, is electronic card sharing as a practice of silent resistance. However, new governmental devices in the form of face scanners are introduced that ends these attempts of breaking the law. These chains of events could be positioned within the framework of a certain mixture of the remnants of a statist approach of governance and entrepreneurial work ethics that locks the individual to office.

Here, I argue, beekeeper plays as a guardian between public benefits and private vices that also echo larger concerns on the state of science, university and commons. On the other hand, various actors use their chances to capitalize on these concerns, but here as it is seen in the aforementioned effect of locking down on the individual also depreciates the desirability of “honey trap works.” This term promises autonomy and control over time on the individual also brings intensification and extension of the working time, as some if its aspects discussed in the previous section in the case of social capital.⁹⁰

Moreover, the expression of locking down connotes to the individual frustrations of project-based works, restrictive spatial practices, strict time limitations and the cracks in the developmental imaginaries relying on the technopark. In this context, concept swings from a subjective dimension to a macro one as well in the continuing narrative of my informant presented as one of the reasons of flight from bureaucracy. Moreover, this case also demonstrates one of the important aspects of legal theory concerning disjointing and harmonizing dual nature of legal and regulatory processes. Finally, it also

89 Alp Aktaş, "6676 Ar-Ge Reformuyla (6676 ve 7033 Sayılı Kanun) Teknoloji Geliştirme Bölgeleri Kanununda Yapılan Değişikler Neler Getiriyor?," *Mali Çözüm Dergisi* Vol. 28 (2018): 141,149.

90 Kodalak, "Personal Consequences", 99.

demonstrates the dynamic nature of power struggles against disciplinary practices of this system of neoliberal governance.

Furthermore, concerning new regulatory frameworks after the 2001 crisis, they did not also bring variegated processes of overlapping multiple jurisdictions, that complicate the relationships between actors further (as some of them presented above), but also an opportunity for newly flourishing local software firms in ARIKENT to provide various software solutions of finance for the restructuring of banking sector. Moreover, developments such as e-finance and need for internet security systems, together with the concomitant rise for the need of mobile phone applications, increased the customer base of the technopark companies.⁹¹

In this context, I think, Turkish banking sector participation to global and European analytics of government as putting common measurements and appropriating “standards” also pulls Turkey in general and İTÜ ARIKENT in particular into global and European technological zone further but brought the chaos of the regulatory passage.⁹² As for an example, according to one of my respondents previously existing giant firms such as SAP and Oracle became tired with the Kafkaesque complexities and problems of Turkish banking sector and accounting laws, mainly with the dishonesty of the accounting system, insufficient technological infrastructure and lack of expertise.⁹³ They ended their operations as a result. This, in turn caused firms like Logo and Netsis that originate in Turkey to enjoy an oligopolistic market share in the absence of competition from foreign firms.⁹⁴

Technopark management firm also indicated the intricate relations between them, some of the holding companies and the banks during the interview in following phrases: “we have strong relations emanate from hard

91 Kemalettin Conkar, Abdullah Keskin, and Canturk Kayahan, “Banking Crises and Financial System in Turkey,” *Journal of Modern Accounting and Auditing* 5, no. 7 (2009): 24.

92 For a general quantitative overview of Turkish software industry and the importance of financial sector as the main source of demand, see: Ulaş A. Emiroğlu, “A Comparative Analysis of Software Industry Development Strategies: India, Ireland and Turkey” (M.A Thesis, Middle East Technical University, 2007), 78-85.

93 Conkar et al., “Banking Crises,” 30.

94 Interview C, Jan 5, 2011.

times.....”, “we are working like back offices of the banks”.⁹⁵ These relations formed in various webs such as certain academicians’ relations with those companies, İTÜ’s proximity to their newly establishing plazas, and respective facilitator roles local/national politicians and TTGV.

One particular point is worth to mention here, these relations are narrated to be going back to the crisis period in 2000’s while first contacts were made to establish the technopark, but the 2001 crisis retarded this development. Although, the linkages between holdings and technopark’s prospective management with the interaction of the presented actors lay the partial ground for the formation of technopark that also caused the overwhelming presence of the technopark firms in software industry.

In other words, both local networks and global capital flight at the initial phase of technopark formation paved the way into a structure where some firms find their early tickets for the offices without fair competition in application processes. This phenomenon, also combines with my analysis on the firms through various techniques of web search and talks with the informants, that manifest the interlocking positions of some early supporters and existing companies in corporate boards, semi-autonomous state organization offices and tenant firms in the technopark.

At this point this uneven distribution also has some reflections on the departmental divides in academia in participating the technopark. Some of the departments such as computer engineering and electrical-electronics engineering that could be conceptualized as post-Fordist departments are highly represented whereas, other relatively Fordist engineering faculties such as mechanical, textile, construction engineering etc. find a small representation. As it will be mentioned below, the legal bias behind the Law No. 4691 towards the development of software industry also puts another structural barrier for the entry of other firms.

However, it is also visible from the analysis of the origins of the firms, companies that are established by academicians mostly originate from these departments in most of the cases by the means of transferring their activities in

95 Interview with technopark management firm, March 17, 2011.

their laboratories-which was also previously open to joint activities with industries-to technoparks to enjoy relatively lax regulatory environment and larger tax benefits, incentives and possible exclusive networks.

In one of those encounters by “chance” with an academician in the Maslak campus from one of those departments that belong to “old” industries, in a very short interaction of less than five minutes of walking in the campus, he uttered that when I asked him about the technoparks: “Come find me, I will tell you how they evade tax and other things.”⁹⁶ Moreover, based on the rest of the short dialogue we had, he also emphasized his distance from technopark because of not only a political and ethical stance but also his previously established business connections that were still active. Last but not least, it could also be argued that most of the firms manifest Fordist characteristics are in relation with the MÜSİAD bourgeoisie through certain networks.

It could also be argued in line with the historical formation of SMEs and theoretical approach presented in the narrative of post-Fordism and Silicon Valley. Apart from those small firms of academicians and couple of entrepreneurs that are former İTÜ graduates and Silicon Valley returnees, most of the firms stand out as medium or big firms, including all the subsidiaries of national and global firms. Last but not least, some of the members of the latter group are acquired during their operations in İTÜ technoparks by big capitals. So, these findings, partially demonstrate the capital centralization tendencies of the technopark firms’ in the nature of so-called post-Fordist companies of the İTÜ.

I have found only one company as the remnant of the fragmentation of a multinational company after the web search I have conducted. As it is discussed in the debates over the Fordism above that briefly cover certain dimensions of ARIKENT, the structure of technopark tenant firms conformed with the requirements of the new economy. However, here the patterns also partly show the effects of political economy, urbanization and various social relations between the actors that resulted with the present conditions of the sectoral

96 The original text is as follows: “Gel ve beni bul, sana nasıl vergi vermekten kaçtıklarını ve başka şeyleri anlatacağım.”

distribution of the firms (mostly tipped towards software industry) and rather centralized structure in their capital ownership.

Moreover, from a technical point it should also be presented that since software offices do not need any extra space and equipment like other manufacturing companies, it is easier for them to rent standardized technopark offices. Last but not least, the nature of software products cheaper and easier to serially produce (even though in the case of paying license fees to big global software oligopolies) give them wider desirability because most of the tax advantages-that mostly focus on the production of prototypes of products- do not cover serial production.

It could be observed that especially in the case of miniscule existence of big company fragmentation in ARIKENT, the reality does not match with the Silicon Valley governance stories including the fable of Frederick Terman and his treacherous students.⁹⁷ I could argue that this story which is being told and retold like the fall of Roman Empire that gave birth to today's Europe around various academic and marketing circles stands as one of the prototypical case of the demise of Keynesian-Fordist economy in the U.S.

Grasped as a deviant moment, like Silicon Valley story, that is triggered by the compassionate teacher that gives the key of his garage to his students that facilitate their escape from the rigid structure of families, schools, military and government. I believe the subjectivity and group formation dynamics presented in the story are of peculiar importance to capture the meaning of the entrepreneurial ventures in technoparks. Last but not least, it demonstrates some departing points between ARIKENT governance model that has been presented and Silicon Valley model.

I found this story at the intersection between Foucauldian passage from disciplinary society to neoliberal governmentality and political economic dynamics for the centralization and decentralization of capitals. For the former, in his anthropological reading mainly concerns on the relationship between philanthropy and American culture, Abélès defines the garage as the place of bricolage (do-it-yourself) culture that marks the escape from the structures

97 June Anne English-Lueck, "Silicon Valley Reinvents the Company Town," *Futures* 32.8 (2000): 762.

mentioned above.⁹⁸ He also locates the garage as a place of machine breaking against parent founders of previous technologies that also resonates in the dichotomy between Apple and IBM. So, this attitude also contains the position of the isolated inventors in the garage that are stuck in between the pendulum of individualism and society that also has a crucial place in the literatures on social capital, synergy, cooperation, and networks.

Here, as it is encountered in the same stories the concept of “band” serves as the temporary negation of these dichotomies in U.S context. Which is appropriated into various historical, cultural, economic contexts. Here the difficult question comes-as a re-emphasis on the social capital- in the context of Turkish history in general and ARIKENT in particular, not as the question of “which passions or interests could be healthy” but the question of “which clientelism/band could be taken as the right pill? In the case of one of the former İTÜ rectors, there was an obvious answer to the question as it is presented below that is taken from an affirmative comment made-in of the conferences concerning the state of higher education in Turkey- about her term in administration:

During your administration much have changed in İTÜ, we have been saved from the cumbersomeness of the state. We have witnessed many civilized solutions were created by *donorship* by purifying ourselves from the complaints against the austerity of the state.⁹⁹

Here, in the garage of İTÜ, all of the above elements narrated ready for the recipe of neoliberalization: An influential figure, a do-it yourself community, certain dose of state phobia in the form of weak expectations from the state

98 Marc Abélès, *Nouveaux Riches (Les): Un ethnologue dans la Silicon Valley* (Odile Jacob, 2002), 23-24.

99 The original text is as follows: “Sizin İdareciliğiniz döneminde İTÜ’de çok şey değişti, devletin hantallığından kurtulduk. Devletin kaynak aktarmamasında sorunu bulmak yerine, bağışçılık ile pek çok çağdaş çözümün yaratılabileceğine tanık olduk.”

and a “band of donors”.¹⁰⁰ This donation model which has also different implications for the changing governance structure throughout the Turkey’s history crystallized in the case of İTÜ Development Foundation and TTGV. İTÜ Development Foundation’s position in the conflicts of higher level of governance and its appearance on the inspection of DDK and media already covered. On the other hand, TTGV’s position will briefly presented here. Before I turn to the garage of the neediest grantee of the governance scheme: Students.

I note that TTGV stands out as one of those important semi-autonomous public institutions that was formed through the rapprochement of the Turkish government and WB during the 1990s. I note that the organization has offices in some university campuses in Ankara and İstanbul and also stand out as one the first institutions that successfully facilitated industry and university partnership in Turkey. TTGV’s presence could also be read in the framework of establishment of newly invented good governance measures in Turkey after the collapse of success story in the end of 1980s. So, those conditional credits are provided in expected exchange of institutional changes.¹⁰¹

During my research, I have not had the chance to speak with any member of TTGV. However, it is worth to mention that TTGV’s significance is two folded in the formation and workings of ARIKENT. Firstly, as interviewee D from one of the technoparks’ tenant firms noted,¹⁰² TTGV was channeling a considerable amount of money from WB partnership projects in the mid 1990s, and also it seems that ARIKENT is the party most benefited from these supports. Secondly, TTGV is also a minor shareholder for ARIKENT, and also, one of the board members of the TTGV has interlocking positions being the vice president of one of the tenant firms in technopark.

100 In this journalistic account Sağlamer’s ability to collect donations is also praised and as the story in the article narrates the relationship between the rector and the former ministry of finance, it is obvious that donation model did not necessarily exclude state as a donator. İsmet Berkan, “Siyasi Bir Hastalık,” March 12 2002, accessed 04 October, 2019. <http://www.radikal.com.tr/radikal.aspx?atype=haberyazdir&articleid=626506>

101 İlhan Tekeli, “Dünya’da ve Türkiye’de Üniversite Üzerinde Konuşmanın Değişik Yolları,” *Toplum ve Bilim Dergisi* 97 (2003): 123-143, 358, 376.

102 Interview D, January 5, 2011.

I argue that, this pattern demonstrated before, between the relationships with certain companies and technopark management company in the establishment of ARIKENT also manifest itself here with TTGV. I think in the governance structure of ARIKENT, it stands in the form of a neoliberal institution of good governance, as a remnant of good governance projects in the 1990s, that facilitates university and industry relationship. At least, three points could be thought concerning TTGV's position.

Firstly, it represents a relatively successful model of a neoliberal institution that managed to embed itself into national and local context for a relatively long period through the particularistic relationships with certain local actors and needs to fulfill new governmental rationality. Secondly, I argue that this model also creates a hierarchic position in the seemingly flat surface of ARIKENT. TTGV's position in multiple interlocking positions carry the risk of future conflict of interests among the parties and entry barriers for the prospective members of the ecosystem. Finally, TTGV should also be conceived as the most involved institution in ARIKENT context being one of the primary facilitators of the import of the metrological standards of the governance.¹⁰³

Whereas, in the lower stratas of science and technology policies and technopark structures, students had little participation in the management of governance structures. If one remembers the SANTEZ program, which is another module of industry-university partnership, that integrate the graduate studies with industrial commercial activities, I will briefly evaluate the position of the students in the ecosystem. On the domains of the legal processes, Irani demonstrates in Indian case, a particular moment of the law-making to invite individuals to form one-man companies to make garages in which they pursue their coding ventures in control of the state.¹⁰⁴

Moreover, through the absorption of the large companies with the same level, Indian state also enforced them to contribute to the incubators (where micro companies grow to maturity) in the universities. Along the same lines, SANTEZ, and techno-entrepreneurship capitals are two modules to facilitate

103 For a detailed history of the functions and involvement of TTGV in science and technology policies of Turkey, see: Tarık Çelik, and İlhan Tekeli, *Türkiye'de Üniversite Anlayışının Gelişimi II (1961-2007)* (Türkiye Bilimler Akademisi, 2009), 519, 542-45, 563.

104 Irani, *Chasing Innovation*, 10.; Lueck, *Cultures@Silicon Valley*, 6

the student participation to the larger system of science and technology policies. I ponder that this presentation, by the related parties, was in the form of a social project (of responsibility), as told by Irani, where students are left to the benevolence of their professors and industry. While I was doing the research, there was not much opportunity for students (even for the young academicians) to participate to the ecosystem of ARIKENT in particular and R&D developments in general. This participation was rather limited on the level of internship where most of the students were working for various technopark companies on project-based works for short spans of time. However, after almost ten years, the scene has changed so much witnessing the growing increase of the incubators and similar forms of entrepreneurial hotbeds everywhere.

Although their material significance in science and technology sector could be conceived as still small, the governmental value of the model (incubators, start-ups etc.)¹⁰⁵ that draw on student's early absorption into production networks both as co-entrepreneurs(bands) with their professors or as self-made businesspeople should be read in the wider historical conditions of precarity in Turkey. Some of the dimensions of these conditions are presented in empirically rich studies conducted with new graduates¹⁰⁶ and young academicians.¹⁰⁷ As, it is acknowledged by both works, project-based short-term work conditions,¹⁰⁸ project fetishism and being an enterprise of the self¹⁰⁹ are all become highly salient themes in understanding the young students, graduates and academicians.

In ARIKENT, there was also similar labor pattern of internships in the short-term projects. What is more, my website research on the companies and

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- 105 For instance, in the cas of Israel, whole nation is reconceptualized as a start-up as a developmental strategy. Dan Senor and Saul Singer, *Start-up Nation: The Story of Israel's Economic Miracle* (Random House Digital, Inc., 2011).
- 106 Aksu Bora, et al., *Boşuna mı Okuduk?": Türkiye'de Beyaz Yakalı İşsizliği* (İstanbul: İletişim Yayınları, 2016).
- 107 Aslı Vatansever and Meral Gezici Yalçın, *Ne Ders Olsa Veririz: Akademisyenin Vasıfsız İşçiye Dönüşümü* (İstanbul: İletişim Yayınları, 2015).
- 108 Bora et al., *Boşuna mı okuduk?*, 215-218, 247.
- 109 Vatansever and Yalçın, *Ne ders olsa veririz*, 184.

academicians demonstrated that the pattern of working under certain professors as research teams were common in departments that relatively belong to Fordist industrie. Furthermore, although not a single company was established by recent graduates or existing students at the time of the research extra exceptions that were granted to academicians were also granted for İTÜ students and the students of other universities in the form of rent discounts at the rates of fifty percent and twenty percent respectively. However the office space provided in this offer was rather very limited in comparison to the large offices that were given to already established companies.¹¹⁰

Last but not least, in the limited talks on the topic, one theme became emphasized that indicates a long-standing dichotomy in the academia which is also absorbed in the parlance of technopark: Flexibility. This dichotomy also marks another line of separation that demonstrate contradictory nature of technoparks in terms of academicians' positions into each other marked by the term of "flexibility" in this narrative:

At the moment, the doctorate students are the most useful people for us. Because they are flexible. It is easy to put them in a mold compared to the traditional academicians... That is why I prefer to work with young academicians.¹¹¹

On a global scale, flexible nature of capital movements emanating from the mythical garages of Silicon Valley and destructive effects they impose on the environment presented from an ecological perspective by Swyngedouw.¹¹² Although it is not possible within the confines of this thesis to discuss the effects of technoparks on different environments. As far as I can observe, three phenomena were visible during the research: I) the expansion of technopark within the campus space, ii) limited but promotional activities that emphasize

110 See question and answer 8 in Appendix B.

111 The original text is as follows: "Şu anda doktora öğrencileri bizim için en kullanışlı insanlar. Çünkü esneyebiliyorlar, geleneksel akademisyenlere göre onları bir şekilde sokmak kolay. Bu yüzden genç akademisyenler ile çalışmayı tercih ediyorum." Interview D, January 5, 2011.

112 Erik Swyngedouw, "Post-Truth and the Politics of Autocratic Neoliberalization" in *Neoliberal Turkey and its discontents: Economic Policy and the Environment Under Erdogan*, eds. Fikret Adaman, Bengi Akbulut, and Murat Arsel (I.B Tauris, 2017): 254-262.

the environmentally friendly campus projects and iii) environmentally friendly language. In this vein by trying to employ a partial approach to the urban context in its dual structures and by mocking the ecological and zoo-morphic discourses of these developmental and entrepreneurial models with discursive metaphors, I have tried to embed an ecological dimension into my discourse. After covering another dimension of equality, students, and ecological phenomena in the governance structure of ARIKENT, now I turn to the effects of urban transformations on the speculative position of ARIKENT.

Larger ecosystem of the beehive also faced with the movement of peripheral Dubai capital as an ambitious attempt to commodify a large part of the public land in Maslak in the form of a megaproject around mid 2000s. As it is discussed in the previous chapter, this project could be conceived as an early zoning attempt in offshoring part of the urban land. Nonetheless, both the dynamics of power struggles between Court of Account and JDP, and the undeveloped commodification of land in Turkish context halted this operation.¹¹³ However, JDP's attempts to capitalize on urban lands relatively relaxed from oppositional and legal pressures with a change of jurisdiction that transferred the control of the smaller districts of Maslak and Ayazağa to Sarıyer from Şişli which was under the RPP's municipal control.¹¹⁴

Therefore, the following years witnessed a horrible speculation in the land value, together with the attraction of foreign capital, and increasing rent values of tenant firm offices, which brought a considerable income for the technopark management company and the university rectorate. As Massey argues for the context in UK:

Indeed, much of the discussion and concern about science parks on behalf of their private-sector financial participants is centered far more

113 “Dubai Şeyine danıştay darbesi,” Sonsayfa, last modified May 14, 2009, accessed, September 30, 2019. <http://www.sonsayfa.com/Haberler/Guncel/Dubai-Seyhine-danistay-darbesi-111860.html>.

114 “Maslak ve Ayazağa Sarıyer'e bağlandı, Sarıgül Ankara'ya gidiyor!,” T24, October 18, 2012, accessed, September 30, 2019. <https://t24.com.tr/haber/maslak-ve-ayazaga-sariyere-baglandi-sarigul-ankaraya-gidiyor,215494>.

on a logic of accumulation through real estate than any concerns about production.¹¹⁵

So, as it is presented in this approach by Massey in observing cases of technoparks in Britain, in my case technopark firms only rent the office for supposedly short period of time. In the case of İTÜ, like in the most of the technoparks around Turkey, the technopark management company stands as the sole authority of collecting the tax and sharing it with rectorate. This position raises the ongoing tensions about the questions such as “how this money is spent”, “what is the job of technopark management besides being landlord” and “is there any chance for a small firm to pay these rents and have place in technopark”. As with the wider perceptions on technoparks that questions the viability of technoparks as developmental models through certain indicators such as the export volume, patent numbers, capacity of qualified labour etc. Along the similar concerns, State Supervisory Council inspection report also a case at point:

Technoparks in general are seen as income generating spaces that finance the lack of budget of universities. From this perspective, rent and service prices should be controlled under centralized authority as a more efficient mechanism. Regional standards that concern the prices of utilization should be defined and controlled. As a result, technoparks will not be seen as real estate offices.¹¹⁶

It is clear from the tone of the report that problematique is presented to be solved with a centralized control and establishment of common metrological standards. Along with the other problematizations, the contradictory approach in the general tone of the report could be conceived under two faces. On the one hand, the facilitator face that both suggests easing the property relations and enhance tax supports and infrastructural incentives for the parks. On the other hand, the controlling face that checks that things are done as written in the law and instructs the parties including the authorized MOİT.

115 Doreen Massey, and David Wield, *High-tech fantasies: Science parks in society, science and space* (Routledge, 2003), 213.

116 Devlet Denetleme Kurulu, “4691 Sayılı Teknoloji Geliştirme Bölgeleri Kanunu”, 196.

This side of the report also criticizes the lack of accounting standards and deviation from the developmental ideals.

Here in the case of ARIKENT, as it is discussed earlier, having offices in Maslak district within the confines İTÜ campus provide both marketing opportunities for the firms and symbolic value that emanates from İTÜ's reputation. Besides these selling statements, as interviewee D informed me, the relative price advantage in comparison to paying rent in the plazas was an important reason of the attractiveness of ARIKENT despite she was still the most expensive technopark in terms of rents.¹¹⁷ Here tax cuts, as most of the studies demonstrate, and my observations and interviews attest are the most important reason to be in technoparks in general and İTÜ in particular. Mostly because they even compensate the high rents by decreasing significant portion of tax payments.¹¹⁸

Moreover, as the same informant also emphasized, there is also a pejorative perception among the science and technology public about the position of technoparks as commercial complex ("İş Hanı") and shopping center.¹¹⁹ These similarities drawn between two entities not only emphasize the role of the technopark company as the landholder of the public land but also the suspicious looks about the viability of the innovation produced in the technoparks in the eyes of the public. In other words, I argue that, the suspicions against many informal practices, particularly fictitious exports and trade zones experiences in this context, also materialize in the conditions in which one assess other one's capability. This situation presents an important point of tension, as it is told, about the sustainability of technopark model in terms of its collaborative and developmental characteristics.

Last but not least, thinking technoparks in continuum with various free zones and fictitious export practices may give the historical and cultural backgrounds of the suspicious looks presented above which will be revisited in the next section. Moreover, although technoparks became an important tool of techno-nationalism on the one hand, on the other hand nationalist tendencies

117 Interview D, January 5, 2011.

118 OECD Territorial Reviews, Istanbul, Turkey, 2008, 118, accessed October 3, 2019. <https://www.istka.org.tr/media/117168/oecd-territorial-reviews-istanbul.pdf>.

119 Interview D, January 5, 2011.

that construe practices, such as spatial exceptions and tax freedom in general as a challenge to the indivisibility of the nation also have strong effects on the perceptions of public observers and official auditors of these places.

Finally, mechanism of rent also presents itself as a point around which different actors converge and interact with each other and have asymmetric positions. For instance, in the case of ARIKENT, technopark management company cuts fifty percent of the rent expenditure if an academician of İTÜ wants to join the technopark. This cut falls to twenty percent, if an academician wants to join from another university. This practice is of nowhere a new phenomenon limited to technoparks but creates segregations between insiders and outsiders that also want to join the technopark. As the requirements of competition in software business is so tense, as of my respondent emphasized,¹²⁰ this confirms another dimension of unfair competition on the part of technoparks.

In the following section, the flows of some governance elements among the actors will be presented in trying to answer the questions such as: How they travel through different scales, through different cultural specificities, what sorts of differentials they bring, and what is the place of those in the discourses of synergy, accounting, competition and standardization. By the means of presenting a short sketch of the different destinies of technical vocabularies in two different fields: Technical terminologies on innovation, and their appropriation on a legal text. This is how the importance of unpacking the mystical shell of state will be shown in studying dynamic ecosystems of technoparks.

§ 4.4 Two Manifestations of Analytics of Government: From a Technical Concept to Legal Textuality

As I work on the subject, and interested in the types of technology, I tackled with the question of what is real innovation? I have come up with certain cat-

120 Interview C, January 5, 2011.

egories/definitions of innovation as distinctive ways of thinking and questioning¹²¹ that could only be in use for my investigation, which is mediated through the ways it affects/governs the relationship between different actors. My aim, however, is not to make global assessments on whether technoparks are successful or not¹²² as an instrument of neo-developmentalism; rather I try to deconstruct their workings-so far presented as successful or failed governance stories- through an eclectic framework of readings of political economy and Foucauldian governmentality.

In this vein, one particular categorical difference between the concepts of “incremental” and “radical innovation”¹²³ echoed throughout my studies in the informal talks, in the formal interviews, in daily debates, in the planning reports and in the related literature. So, the technical difference that the concepts imply puts the gap of the level of progress in between the different linguistic utterances of two terms. In other words, links between different scalar levels such as levels of innovation of the R&D, levels of development and dynamics of social relations positioned according the established linkages between these two (macro-micro) scales will tried to be grasped.

Here, by way of translating two terms into Turkish, I will try to make a small genealogical analysis at three level, that encompasses different domains such as cultural political economy, cultural distrust, and politics of marginalization. This attempt of exposing small technical differences as big cultural/political effects and vice versa is also illuminative in understanding manifold forms of governance, presented in the different ideal model of zones that travel through different cultural contexts.

Unlike the English connotation of the word “incremental,” which implies a small but steady progress, in Turkish, the word “marginal” has meanings like negligible, someone deviating from the norm, politically dissident groups and so on. So, firstly, pertaining to the political economy, if one dully captures the

121 Dean, *Governmentality*, 35.

122 Kutlay, and Karaoğuz, “Neo-Developmentalist Turn,” 289-316.

123 Taha Sıtkı Çalışır, “İnovasyon, Teknoparkların Teknoloji Geliştirmedeki Önemi ve Türkiye Örneği” (PhD. Diss. KTO Karatay University, 2019), 8-9.

narrative of modernity in developing countries as a late coming/being backward conditioning in general, and in Turkey in particular, this linguistic shift from “slow but steady” to “negligible”-as the translations of incremental-could be conceived.¹²⁴

Especially, in today’s context of hasty and risky ventures of catching up with other countries or having a place in the endless series of acronyms¹²⁵ through reaching some quantitative criterias or excelling governance indicators¹²⁶, the despise inflicted on “slow but steady” innovation is telling. I believe that this is also the point where Foucauldian governmentality meets the hasty and destructive zonings in both linguistic and material spaces that are accelerated in considerable pace from the time of the research up until today. Super Multimedia corridor¹²⁷ a la Turca, IT Valley, that was planned and constructed for years, as briefly mentioned in the first chapter, ironically fills this gap between two sorts of spaces (material and linguistic) with a rather unpleasant taste left behind.

Secondly, on the societal level, what has been briefly mentioned in the second chapter as social polarization is also exercised in this act of utterance/translation, in the very context of the laboratory life of technoparks. One of the most common narratives I encountered with was about this distrust against the other who is doing nothing with all the opportunities presented to

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- 124 For a discussion of this perception of backwardness in the context of Turkish modernity, see: Joel, S. Migdal, "Finding the Meeting Ground of Fact and Fiction. *Some Reflections on Turkish Modernization*" in *Rethinking modernity and national identity in Turkey* eds. Sibel Bozdoğan and Reşat Kasaba (Univ. of Washington Press, 1997): 252-259.
- 125 By reassembling deceptively mutually exclusive domains of linguistic practice, state policies and developmental and capitalist concerns in a nihilistic tone, Taussig pronounces that “Such acronymic virtuosity exists because plain language has lost its value since nobody believes anything anymore. *Acronyms are the dams meant to hold language from total collapse.*”(emphasis added) Michael Taussig, *Palma Africana* (University of Chicago Press, 2018), 16.
- 126 In his article, Tansel both exposes the real unsustainable content of the growth narrative and demonstrates in how many BRICS like set of acrynomns Turkey is takes place: Cemal Burak Tansel, "The Shape of ‘Rising Powers’ to Come? The Antinomies of Growth and Neoliberal Development in Turkey," *New Political Economy* (2019): 1-22.
- 127 Tim Bunnell, *Malaysia, modernity and the multimedia super corridor: A critical geography of intelligent landscapes*. Routledge, 2004.

him in the safe ecosystem of beehive. Statements such as “They are not innovating,” “they are just evading tax,” “they work as the back office of a multinational company,” etc.

All of these statements encapsulate the incremental distrust against the other (tenant of the ecosystem) who is fixated at the concept of “incremental innovation.” Instead of pursuing “whys” about the origins of this distrust at the first hand, I would just like to demonstrate at least two gestures behind these complaints: 1- a call for the beekeeper (the state) and 2- a distrust to your neighbor¹²⁸ (or hate for your neighbor?). When these two gestures are inserted into the so-called formula of new high modernity through its endless emulations promoted in the guise of harmonious/sovereignless/ /synergistic social relations collapse, at least in this particular study, from what I observed by trying to read theory in the light of my data, situated into my context.

This also brings me to what Somers called “dark side of social capital(bands)”:

First, not all relational entities are positive and ‘healthy’ phenomena. What others have called the ‘dark side of social capital’ and which include such groups as fascist youth associations and Nazi brown shirts, today’s skin heads, urban gangs, and even certain reactionary and racist evangelical ‘Christian’ churches, makes it clear that excluding the issues of power and politics from the concept of social capital is tantamount to eliminating one half the human record of history and society.¹²⁹

As we take together the concept of “resentiment,” borrowed from Wendy Brown in the, as presented in the third chapter, and the utterances of the words

128 This word “neighbor” had a common usage while I was doing the research among the tenant firms of the technoparks in continuum with the older commercial complex experiences and relatively novel neoliberal experimentations of industrial districts and free trade zones.

129 In this article Somers argues that especially in post-soviet countries, after the waning of solidarity movements the term social capital was introduced in the second-generation reforms to function as a recombinant DNA to compensate for the unregulated reforms of first generation to reassemble the society. Margaret R. Somers, “Let Them Eat Social Capital: Socializing the Market versus Marketizing the Social,” *Thesis Eleven* 81.1 (2005): 5-19.

mentioned above, I come to my final vista to be covered: The politics of marginalization. This time, I would like to turn my eye to the utterance of “radical” instead of “incremental.” One of the earliest pronunciations of the term appears as “forming an inherent or fundamental part of the nature of someone or something.”¹³⁰ So being the inherent(s) of the ecosystem-the beehive or the honeycomb model as metaphorical reverberations that I utilized to visualize, theorize, and narrativize a distasteful ecosystem/governance story of my own-“radicals” now became the marginals, as one makes the cultural translation into the Turkish context; radical came into full circle with incremental (as marginal), meaning at a point where they become on , a purgatory like state where one despises both the slow and the fast, the old and the new, this resentment harbored both for the radical and for the marginal make us dark cultists a la Somers of neoliberal governmentality who needs to reconsider whether to eat it or not?

After attempting to travel from cultural history of political economy, to social distrust and to politics of exclusion, I tried to demonstrate how the very elements of governance/so-called values that I have been presenting throughout this thesis could be thought to be unpacked by analyzing the difference between two technical terms through their simple genealogies, translations, and enunciations.¹³¹ The material I draw on ,while doing this exercise, is one of the most common stories I continuously heard from the different natives of technopark ecosystem. This approach, also resolved in calling the beekeeper, could be conceived as the restaging of the distrust against older zoning practices such as free trade zones that have far below than expected performance in the Turkish context.

Especially those zones both because of enjoying exceptional tax, labor regulation advantages and free land allocations were called as similar to nightmares in the offices of the ministry.¹³² One of my informants underwrote this,

130 Online Etymology Dictionary, “radical”, accessed, October 2, 2019. <https://www.etymonline.com/word/radical>.

131 Matti Bunzl, "Boas, Foucault, and the “Native Anthropologist”: Notes toward a Neo-Boasian Anthropology," *American Anthropologist* 106.3 (2004): 435-442.

132 “Maliye bakanlığının kabusları olarak bilinen.” Interview D, January 5, 2011.

and he also stated that “state officers who took their own lessons from the experiment of free zones became more prepared for the supervision of the tech-nopark.”¹³³ Even though these words demonstrate the ever-mutating character of regulation in its historicity, they also should not convince reader that the gap between legal and illegal/formal and informal is fully closes.

All in all, travelling from the corridors of linguistics, political economy, sociology, politics, and ethics, I will note another linguistic iteration -this time, that was also stamped on the law¹³⁴ as an unscented translation- called “tech-nological product.” I assume that the term is coined by my interviewee, his linguistic inventor, in the purest of the sense of the word possible that might get some Chicago School neoliberals jealous who are after the computerized precision of optimum market dynamics without needing to complement the methodological atomism with the unresolved element of “the social”, as could be seen in terms like social capital, social network, and embeddedness.¹³⁵

Now I turn from discursive analysis to a flesh and blood actor who reaches Odyssean proportions when he narrates his deeds:

Yeah my namesake, I had gone through so many hardships in putting Istanbul in proper shape (*on the right track of modernity*). Once..(*around 1980s*) I was dealing with that night club in Beyoğlu, they were not paying their bills for months... Almost a year maybe... “the administration¹³⁶ funds” were really insufficient. We really needed this money to be collected to deal with the defunct infrastructures of the city. So, I devised a plot. I called upon my friend from the fire-fighting department. In the light of the day, I called the other man (in the club) down to negotiate one more time... Can you believe, in those times, even my plot was under the peril because firefighter truck did

133 “Serbest bölge deneyimlerinden dersini çıkartan memurlar teknoparkın kontrolüne daha hazırlıklıydı.” Interview B, April 2, 2011.

134 “Teknolojik Ürün Destek Programı Hakkında Yönetmelik, ” Resmi Gazete April 29, 2014, accessed, October 2, 2019. <http://www.resmigazete.gov.tr/eskiler/2014/04/20140429-4.htm>.

135 Mark Granovetter, "Economic Action and Social Structure: The Problem of Embeddedness," *American journal of sociology* 91.3 (1985): 481-510.

136 Here, he particularly refers to İstanbul Water and Sewerage Administration (İSKİ).

not arrive on the expected time.... Inadept officers, mafias, bad politicians were everywhere... What can a man do? Wait till the things settle... after ... the truck came, I made him (butler of the nightclub) call his boss threatening him to submerge that place if he does not pay his bill today... Do you know what happened namesake? He paid his bill... but not that day, just the day after. (emphasis added)¹³⁷

From Demirel to the high ranking bureaucrat informant who is the owner of this story. This fable, among many others of him fighting against the bad tides in his beloved country, that he told me that day, sparing a long span of his time for a day of duty, is the prototypical poetics¹³⁸ of a modernizing zeal which is very common among self-made sociologists¹³⁹ that I have spoken during the “data” collection phase of this research. Another story, this time, is a brief one, through which he informed me about how he inscribed the word “technological product” in the regulation of the ministry. After complaining about the bureaucratic rigidity of revising texts, he reveals his purpose as “to be more precise.”¹⁴⁰ Just as it happened in the case of free trade zones, regulation of technoparks brought certain achievements blended with so many malpractices. Therefore, in order to resolve the confusion of what bureaucracy expects from academicians and companies, he made up this very straight word, embarking his expectations on the various stakeholders of technopark ecosystems.

137 Interview A, January 27, 2011.

138 Brian Larkin, "The Politics and Poetics of Infrastructure," *Annual review of anthropology* 42 (2013): 327-343.

139 As it is presented in Latour's narration, as a dialogue between an engineering student and a sociologist(Norbert), of the dead of the high-tech public transportation project called ARAMIS: "You see, my friend, how precise and sophisticated our informants are, 'Norbert commented as he reorganized his notecards. 'They talk about Oedipus and about proximate causes . . . They know everything. They're doing our sociology for us and doing it better than we can; it's not worth the trouble to do more. You see? Our job is a cinch. We just follow the players.'" Bruno Latour, and Catherine Porter, *Aramis, or, The love of technology* (Cambridge: Harvard University Press, 1996).

140 Interview A, January 27, 2011.

This case could also be read as a bureaucrats' attempt to maintain certainty against chaotically fleeting metrological standards¹⁴¹, seemingly strict definitions, or manifold misinterpretations and lax regulations on the definition of R&D. It also involves closing the space for unexpected mistranslations that have demonstrated in the discussion about the difference between radical and incremental innovations. One last parable told by him also particularizes obviously unclear demarcations of the concepts, be it governance, technology, or social capital. While talking about his seemingly endless number of visions, he also touched upon Silicon Valley, even though he never had a chance to see it, his imagination at a distance¹⁴² seemed to me really authentic. This time the story reveals itself clearly as the concretization of the utopia appropriated from U.S context to phantasmal national neo-developmental schemes, ended up just to be miniaturized¹⁴³ on an island¹⁴⁴ on Turkish borders:

Once I was invited to one of the councils of ministers meeting, which concerned the developmental plans. Prime minister at the time was very angry about the lack of ideas among the ministers that would catapult Turkish economy in higher echelons of world economy. He looked at me and asked at one point. "Do you have any ideas?" I started to tell him about my dream of building a Silicon Valley island. His anger fled away after couple of minutes of listening to my plan. When I

141 For the developments in metrological standards in Turkish context, see: Vinod K. Goel, et al. *Innovation Systems: World Bank Support of Science and Technology Development* (The World Bank, 2004), 2, 18.

142 Nikolas Rose, and Peter Miller, "Political Power Beyond the State: Problematics of Government," *British journal of sociology* (1992): 173-205.

143 Scott, *Seeing like the State*, 4.

144 In this connection, Bach uses the island metaphor to explain zones as miniatures of the West that draw their power from their exceptional status combined with an aspirational impulse to be models for the future of the whole country. He also broadens the definition of zones as "zonelets" that expand in the existing cities and blur the line between satellite cities, suburbs, gated communities and zones such as Biopolis, Technopolis, Fusionpolis, Infracity, Technocity and so on. Bach, "Modernity and the Urban Imagination in Economic Zones," 111.

finished, he stopped for a moment and cried in joy... See... See... This is the vision I am talking about.¹⁴⁵

This so-called miniaturized dream of importing Silicon Valley could be read in parallel with Scott's aforementioned concept of "miniaturization" as a desire to create more controllable micro-orders laid down in the case of failures of modern development projects. I think my informant's narrative (as I asked him about the problems of university-industry relations) started with the problems of Turkish modernity, going back to his days working as a street bureaucrat for İSKİ, was not a coincidence but a deliberate choice of an attempt of commonsensical reading to give a sense of continuity between the problems of city's infrastructure and the problems of the technoparks. I argue that same phenomena could be seen as the continuum between previous experience of zones in Turkey and these technological zones. Within this context, most of the blame of the private sector was reverberated by him as "the reluctance of business to bring problems about R&D." Universities and academicians also had their fair share in his stories of oscillating between contradictory positions, such as, being old-fashioned against commercialization and craving to make a quick buck without putting innovative efforts.

This conversation took place in one of the high-end offices of TOBB in Ankara. Before leaving one skyscraper to embark on Maslak, a skyscraper as reported by Graham:

It is clear that the new super-tall towers act at key anchors within the wider construction of what Mike Davis and Dan Monk have called 'Dreamworlds of neoliberalism': Enclaves of largely unregulated capitalism organized around the production of speculative, fantasy landscapes for leisure, consumption, investment, finance and tourism.¹⁴⁶

145 Interview A, January 27, 2011.

146 Graham Stephen, *Vertical: The City from Satellites to Bunkers* (Verso Books, 2016), 324.

§ 4.5 Different Guises of Finance, Patents, Military and Various Scales of ARIKENT

A little while back in Maslak, Higher Planning Institution proved Ninth Development Plan of Turkey, which proposed İstanbul International Finance Centre Strategy and Action Plan. This meant a newer international legal system, augmentation of the physical and technological infrastructure, providing a new qualified workforce, and setting up another “sales” department to pull foreign direct investment in the after-crisis conditions of policy proliferations and regulatory chaos that also marked my research in the post 2009 environment.

As briefly mentioned in the historical and theoretical chapters, finance (with big “f”) capital converges with and diverge from productive capital in entangled forms. Most of the accounts I have presented on different shades of political economy throughout this thesis acknowledge this struggle within the very dynamics of capitalism.¹⁴⁷ As it is seen in Turkish history, financialization until the iron clad financial regulations and fiscal discipline after 2001 crisis seems to have been tamed on the one level and to grow unabashedly at the other level, as it seen in increasing consumer financialization.¹⁴⁸

As a subject of financialization, speculative economies could be conceived as an important part of this study, whether in the guise of Silicon Valley, zones, technoparks, fictitious products, radical innovations, post-Fordism and so on. Hence, I find useful to endorse Cross’s universal approach to dream zones in India, as the constitution of spaces where participants’ desires reflect back in various ways. In other words, dreams gain speculative character as long as the network of expectation grows high, that is why, I argue that, the possibilities of getting finances more of a product of network rather than extensive research and discovery of a radical innovation.

I think this dynamic also absorbs the difference between radical and incremental innovation. Stakeholders of the ecosystem bank on the former to

147 Yalman “The Neoliberal Transformation,” 5; Robert Albritton et al., *Phases of capitalist development*. (Basingstoke: Palgrave Macmillan, 2001), 160.

148 Elif Karacimen, “Financialization in Turkey: The Case of Consumer Debt,” *Journal of Balkan and Near Eastern Studies* 16.2 (2014): 161-180.

enhance their future promises in the drawing right balance between legal criterias, financial requirements and level of innovation of the research they are conducting. Here empty signifiers of future promises could be conceived as historical constructs that is filled by the complex interaction of the actors.

For instance, in the case of fictitious products as discussed in the Özal period they gain meaning through a change in institutional and incentive regime coupled with clientelist networks together with another artefact that was left from 1980s which is the trade/industrial zone. However, these practices together with free trade zones experiences also harm the establishment of proper structures to establish sustainable financial mechanisms that relatively require transparency and accountability in companies' operations.

Therefore, it could be argued that, in the Turkish case, underdevelopment of capital stock exchange, transnational finance institutions operations, security and derivative markets, venture and angel investorship, on the one hand restricted in various ways the operations of stakeholders of technoparks and on the other hand all delayed the deeper effects of the 2009 crisis because of the lack of financialization of bad debts and relatively lesser indebtedness of the companies in productive sector in comparison to today's conditions of growing indebtedness. However, 2009 crisis manifests itself as a crisis of relatively low-value added industrial production that forced JDP to take populist measures by assuming the role of various functions that are provided by the financial institutions and instruments presented above.

So, as it is mentioned in the historical chapter, JDP's solution was to tilt towards enhancement of clientelist networks in different levels instead of choosing the path of a third regulatory phase that is offered by EU in 2008. This regulatory promise was not seen realizable on the part of the government given the expediency to sustain a large electoral coalition. Thus, the decision brought the regulatory chaos that members of the technoparks find themselves in. So, the public finances allocated to R&D in various forms and the number of technoparks all increased after 2011. The successive revisions of the Law No. 4691, YÖK regulations, new incentive packages that conflict with the existing ones could all be conceived within this context.

As it is demonstrated previously in the second section, the conflictual nature of the laws, lag of harmonization among them, the lack of detailed guidelines, biases in their making all form the regulatory chaos where actors face each other. These encounters are framed with some of the elements of Finance (with big “F”), that will now be laid down.

As it is emphasized in the second section, there are three important linkages between Finance and formation and operations of ARIKENT: I) rather facilitating role of the 2001 crisis as it is narrated drawing on my research and secondary readings. Here, I also pointed out the historical dynamics between the actors in the formation of technopark and the uneven sectoral distribution of the tenant firms, ii) the role of financial crises on the providers of finance for small firms which is also discussed in the case of decreasing incentives from KOSGEB due to the privatization of Halkbank, generally tighter conditions for getting credit and increased incentives to reproduce the clientelist relations with big business and government supporters and iii) the role of interplay between financialization and software which is also shown in the necessity to restructure accounting mechanisms of the banks. However, in this case a pattern different than Silicon Valley exists since the registry to stock exchange is very low among the software firms and the venture capital has a very limited place.

However, the finance (with small “f”) is the one of the core problems that is discussed and studied in high tech industries. During my fieldwork, in line with the increasing state investments on science and technology policies, I could have caught a glimpse on the early flourishing of the venture/risk capital of sorts, but it was nowhere as of important as it is seen the ideal typical Western contexts.¹⁴⁹ As of 2012 a new law of venture capital is enacted by the government that support angel investors by paying back 75 percent of what they invest.¹⁵⁰ This law could be read as an attempt to encourage hesitant private

149 See question and answer 5 in Appendix A. For a discussion of venture and risk capitals of various sorts, see: Thomas Hellmann, and Manju Puri, "Venture Capital and the Professionalization of Start-up Firms: Empirical Evidence," *The Journal of Finance* 57.1 (2002): 169-197.

150 “Melek yatırımcı”ya vergi avantajının süresi uzadı,” *Ekonomisi Online*, January, 26, 2018, accessed September 25, 2019. <https://www.ekonomist.com.tr/m-fatih-kopru/melek-yatirimciya-vergi-avantajinin-suresi-uzadi.html>.

sector participation in the financing of innovation and start-ups. So, government used methods to both directly and indirectly stir the productive sectors.

So, here, the state enters the picture as the “Great Financier” with different masks worn that both face with the reluctance of big bourgeoisie and the absence of risk capital and credit of sorts. However, on the other hand, my presentation of the bureaucrat’s story also contains the budget disciplinary mentality even in the case of MOİT which has historically uneasy relationships with Ministry of Finance, mostly because the weight of incentive distribution and tax cuts on the general budget. Besides the weighted effects of certain state offices, it should also be acknowledged that they are nowhere homogenous. Interestingly, one sub-unit of the Ministry of Finance might have a less frugal attitude in comparison to other units and the minister himself.

In line with the variegated but rampant historical reflexes of the Turkish bourgeoisie of all shades, in most of the accounts concerning technoparks in general, the state is envisioned as a financial and regulatory enabler of entrepreneurs’ ventures.¹⁵¹ It could also be argued that in this relatively new and dynamic neoliberal construct academicians started to adopt same reflexes yet in different contradictory forms. Here finance (with small “f”) is needed through the different phases of production cycle that I simply sketched in the second chapter in presenting the general dynamics of technoparks.

So, the most common enabling financial mechanisms that stir early needs of idea to sellable product cycle(production cycle) stand out as TÜBİTAK-TEYDEB (Technology and Innovation Funding Program Directorate) programs¹⁵² and KOSGEB supports and incentives. As mentioned in the second

151 For Gramscian critiques of so-called strong state literature that “overstates” the state: Demet Dinler, “Türkiye’de Güçlü Devlet Geleneği Tezinin Eleştirisi.” *Praksis* 9 (2003): 17-54; Gavin Smith, et al. “The State (or Overstated)/Commentaire sur The State (or Overstated)/Commentaires sur The State (or Overstated)/” Overstated” Objections? /Where Failure Is Not an Option, just a Bad Choice: A Comment on the (Over) stated/Reply to Respondents.” *Anthropologica* 52.1 (2010), 165.

152 Some of my interviewees noted that because of bureaucratic nature of TEYDEB programs, sometimes the funds do not reach the recipients on the expected time. Notwithstanding, the

chapter, KOSGEB mostly plays an early incubation role vis-a-vis the technoparks;¹⁵³ if one firm wants to grow business from KOSGEB, it needs to find an available office in technoparks to upgrade the possible benefits of zoning practices. Without excluding the possibility that in different university contexts different outcomes could exist, it should be noted that in this study KOSGEB and ARIKENT have close relationships in resource sharing and company transfers.¹⁵⁴

The lack of office space could also be taken together as a barrier for opportunity in the governance structure of ARIKENT which is relatively close to participation. Thinking the extent of different clientelist dynamics and priorities given to foreign capital and national big companies, that are partially discussed in previous sections, marked a stark contrast with the discursively promoted governance model that encourage new entrepreneurs in incubator like offices.

Another source of finance as a mechanism to capture rents in the form of intellectual property laws were quite underdeveloped during my research. Especially for those small companies and early entrepreneur academicians that are stuck in the first phases of production cycle. Thus patents were not working as a prime capturing tool of profit and wealth accumulation¹⁵⁵ for most of the tenants in ARIKENT context, nevertheless İTÜ still had the highest number of patents among other technoparks.¹⁵⁶

existence of academicians who enjoy years long close relations with TÜBİTAK that have the capacity to significantly reduce these times. Interview C, January 5, 2011.

- 153 Notwithstanding the fact that some exceptions could be made for their own academic personnel, unlike KOSGEB, if someone wants to rent an office space in technoparks he/she needs to have a preestablished firm. Moreover, application process consists of three phases for the firms: 1) Preliminary application, 2) Official application and 3) Assessment council meeting. See questions and answers 2 and 5 in Appendix A.
- 154 See question 2 and answer in Appendix B.
- 155 Manfred Bienefeld, "Suppressing the double movement to secure the dictatorship of finance" in *Reading Karl Polanyi for the twenty-first century*, eds. Kaan Agartan and Ayşe Buğra (New York: Palgrave Macmillan, 2007), 25.
- 156 According to the inspection report of DDK, ARIKENT has forty seven percent of the patents together with fifty-seven percent total exports of all technoparks. Devlet Denetleme Kurulu, "4691 Sayılı Teknoloji Geliştirme Bölgeleri Kanunu" Also, see answer 6 in Appendix B for the

However, when it comes to the composition of patents. As I searched in depth, as answers presented by technopark management company did not provide the details of the companies because of business secrecy. However, through my search I discovered that a considerable number of the patents belonged to Vestel's subsidiary firm called Vestek.¹⁵⁷

This fact does not only demonstrate the allocation of public resources to oligopolistic activity but also uneven nature of commercialization of the research findings. Besides, as it is presented by the studies on science and technology in Turkey, more than ninety percent of the patents developed by Turkish Patent Institute (TPE) belonged to international firms at the time of the research.¹⁵⁸ So, in this case government's attitude resembles to the South Asian counterparts as it is argued by Öztürk in favoring oligopolistic firms like Vestel in demonstrating neo-developmental attitude of the government. As of the share of patents applied by technoparks only consists of 1.2 percent of the total patents.¹⁵⁹ Here Vestel stands at a privileged position among other TÜSİAD members vis a vis the relations with government.

Moreover, the existence of patents also presents not only a threat of the enclosing of the public knowledge by private benefits but also an inferior position for the academicians that work with the companies for the consultancy on short-term projects who does not have the legal and economic means to

number of patents. Here within the scope of this thesis I do not discuss the different sorts of patents as both standard making analytics of government and commodified commons or the role of patents as a commodification mechanism of the commons. For the former see: Stefano Guzzini and Iver B. Neumann eds., *The Diffusion of Power in Global Governance: International Political Economy Meets Foucault* (Palgrave Macmillan, 2012). For the latter see: Susan K. Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge University Press, 2003).

157 Özgür Öztürk argues that in 2000's Zorlu group enjoyed a privileged position in R&D incentives and its passage from textile to electronics has similarities with Korean big business groups ("chaebols"). Özgür Öztürk, *Türkiyede Büyük Sermaye Grupları Finans Kapitalin Oluşumu ve Gelişimi* (İstanbul: SAV, 2009), 181, 353-361.

158 Özlen Pekol and Bahar Çelikkol Erbaş, "Patent Sisteminde Türkiye'deki Teknoparkların Yeri," *Ege Akademik Bakış*, (2011): 1327-1346.

159 Cansız, "Innovative Entrepreneurship of Turkey," 152.

capitalize on their knowledge like the companies. On this argument, as one my informants argue:

In the end, they(*companies*) will make money... You will just present solutions and then retreat. This is how the works go... After that, how do I know... You should not think like your efforts are not compensated...Because of our (*as academicians*) risk avoidance this always happens... That is why many of the professors started to set up their own business, this is how things go... One needs to be conscious of the new rules of the game unless state does not enter the equilibrium in changing these rules. (emphasis added)¹⁶⁰

Moreover, another problem, vocalized by interviewee C was about the exclusive status of some of the departments, that fit with the model of technopark in giving various consultancies, trainings, and participating contracted research that result with a very skewed distribution of income among the members of the university. When I asked him about “what could be done to overcome this”, he went to a little trip to the 1980s, narrating how Özal led the activation of the revolving funds, and inspired entrepreneurial ventures among the engineers and doctors in the university departments.¹⁶¹ So, what marks one of the important differences from the governance of 1980s to my context in terms of the commercialization of the university is the extent to which the processes are accelerated and expanded. In the case of technopark, the bias of the Law No. 4691 and political actors towards certain sectors and departments create another hierarchic depth to the honeycomb that is in continuum with the commercialization histories of universities started in 1980s.

Together with these comments, another observation that was presented over and over in the patent conference I had participated in 2011 was about

160 The original text is as follows: “Sonunda, şirketler para kazanacak... Sen sadece çözümler sunacaksın sonra çekileceksin. İşler böyle yürüyor... Sonunda, nereden bileyim... Emeklerinin hakkını almamış gibi düşünmemelisin... Riskten kaçınmamızdan dolayı bu her zaman olur... Bu yüzden birçok hoca da kendi şirketlerini kurmaya başladı, işler böyle yürüyor... Devlet denkleme girip kuralları değiştirmedikçe kişi oyunun yeni kurallarından haberdar olmalı.” Interview D, January 5, 2011.

161 Interview C, January 5, 2011.

the bureaucratic nature of patent application processes which bring time taking formalities and complex legal structures for the applicants, especially in the case of academia. As a result bureaucratic and financial difficulties causes academicians not to join the patent system.¹⁶² As, I also searched from the websites of ARIKENT companies for patents obtained, I have come up with a single company which is founded by an academician from the field of biotechnology.

So, these observations demonstrate the dual perception of the state in the eyes of academicians that, on the one hand, call the beekeeper into action against private firms and on the other hand complain about the bureaucratic difficulties and complex laws of other state offices. Moreover, the portrait of the risk taker academician also demonstrates the viability of the entrepreneurial models on the academicians in order to overcome the vices of the unequal conditions in university-industry partnership. In those stories, where state and venture capital fail to provide for the funds, entrepreneurial academicians with less risk avoidance draw on their resources or help of their families to initiate or develop their businesses.

Besides the role attributed to the state in solving the academicians' unequal participation to the industry-university collaboration, different faces of the state could be seen in other qualifications such as the general role attributed to the state among many of the respondents not only as an angel investor of various entrepreneurial ventures but also as a facilitator of the industry-university relationships in building and mitigating uneasy dynamics of synergy. Moreover, they also locate the state as the buyer of the end product of their research as a pre-competitive strategy, within this vein one of my informants complained about state's reluctance on buying the products of the technopark evoking also the authenticity of his prototype that was not measured as useful in the metrological zones of state offices:

162 See: "International Conference on Managing Intellectual Property in Universities," Boğaziçi University, April 14-15, 2011, accessed, October 2, 2019. <http://www.ipconference.boun.edu.tr/ipconference-2011/contact.php>.

It is better if the state-funded projects benefit from the institutions of the state. The use of something that has been tested in different institutions successfully passed through various evaluation processes should be required to be used by state institutions...¹⁶³

When taken together with another respondent's call for the state in giving privilege to the product production which are dependent to foreign products in technoparks,¹⁶⁴ these approaches should be conceived as the contradictory nature of the entrepreneurial ventures of neoliberal governance. In this vein actors devise discursive and non-discursive strategies in the face of hard political economic facts that attribute different roles to the state through their adventures in commercialization of their research. As one my interviewees, who also first drew my attention to the continuum between technoparks and organized trade zones/free zones in Turkish neoliberal zoning experiences, mentioned:

In China they have the mentality to "go and learn" these things. They have also serious supports.¹⁶⁵

Within this line Öniş, in his article discussing the challenges of the authoritarian governance and state capitalism in Turkey, he pronounces the concept of reactive state model to position Turkey's political economic transitions in parallel with the authoritarian features that are also visible in Russia-China axis of global governance. According to him China's emergence from sidelines inscribing huge mega projects on the surface of the earth such as "One Belt One Road" will bring dramatic consequences.¹⁶⁶

163 The original text is as follows: "Eğer devlet tarafından desteklenen projeler devlet kurumlarından faydalanırsa daha iyidir. Başarıyla çeşitli değerlendirme süreçlerinden geçen, farklı kurumlar tarafından test edilen bir şeyin devlet kurumları tarafından kullanılması zorunluluk haline gelmelidir." Interview E, January 20, 2011.

164 Interview G, March 3, 2011.

165 The original text is as follows: "Çin'de gidip bir şeyler öğrenme mantıkları var, ayrıca ciddi teşvikler var." Interview F, February 6, 2011.

166 Ziya Öniş, "Turkey Under the Challenge of State Capitalism: The Political Economy of the Late AKP Era," *Southeast European and Black Sea Studies* (2019): 1-25, 2.

I think that these calls in the technopark sector that were pronounced almost ten years ago of the post-crisis era-the point where authoritarian tendencies started to manifest themselves most visible on the part of the government-could also be read as social and expert base of the idea of building “a national industry” with frequent references to Fordist industries on national defense and national car.¹⁶⁷ Of course, these calls are not radically new sounds in the room of development as could be seen in the manifold comparisons made throughout the academic histories of political economy between Turkey and other countries such as, Japan¹⁶⁸, South Korea¹⁶⁹, Israel¹⁷⁰ or more recently Malaysia. But reading them in the distinct temporality of post-2009 crisis will also reveal its distinctive characteristics such as the rising intensity of academic capitalism in the form of technoparks, as their new institutional forms, when it is compared with other periods that have long brought vistas for different analyses.

However, unlike the discourses of statism both on the level of policy actors and on the ground level of technoparks, as I observed with the lens on ARIKENT’s tenant firms’ production networks (through which foreign licenses are mostly obtained from giant companies such as Oracle, Cisco, SAP and Microsoft) , fast cycle of project-based innovations and their service of customized service products, with little or no innovation, mostly for the demand of national and global sectors of finance and telecommunications demonstrate that, at least in ARIKENT’s case, the reality for the greatest part present a different picture.

167 Ibid., 10.

168 Robert E. Ward, and Dankwart A. Rustow eds., *Political Modernization in Japan and Turkey* (Princeton University Press, 2015).

169 Serkan Polat, “Türkiye”de Planlı Dönemden İtibaren Uygulanan Bilim ve Teknoloji Politikalarının Sonuçları açısından Değerlendirilmesi ve Güney Kore Karşılaştırması” (M.A Thesis, T.C Kara Harp Okulu, 2006) ; Nazlı Yılmaz Özdemir, “Yeni Ekonomi’ye Dönüşümde Bilim ve Teknoloji Politikaları (Güney Kore-Türkiye Karşılaştırması)” (M.A Thesis, Osmangazi Üniversitesi, 2007).

170 Arnold Reisman, "Comparative Technology Transfer: A Tale of Development in Neighboring Countries, Israel and Turkey," *Comparative Technology Transfer and Society* 3.3 (2006): 303-350.

Moreover, as it was shown in the situation of patenting as an element of political economy, the main difference between China and Turkey will be clearer. The former is well known for its reverse engineering¹⁷¹ and offset agreements¹⁷² whereas in Turkish industry of the neoliberal era it is quite the opposite as could be seen limitedly given the fact that both sorts of agreements are lacking. Last but not least, technopark's management company's answer to the question of "what they think about Silicon Valley"¹⁷³ also given in a manner that emphasize the role of national offsets. In this situation, solution to problem of "having scarce resources and lack of experience" is given by calling the beekeeper into immediate action in cashing out the underutilized options of offset agreements to catch up with the Silicon Valley.

On the other hand, on the subject of finance as an institution that manifests itself in various forms, such as stock exchange, the transfer of stock exchange in Ankara to İstanbul could be seen as a sign of ever growing shift from Republican past to the "New" Turkey, as acknowledged in many of scholarly works.¹⁷⁴ Notwithstanding the fact that long lasting electoral rule of JDP has been mitigating this tension.¹⁷⁵

With respect to a shortlist of differences between technoparks in Ankara (mainly Bilkent Cyberkent and METU Technopolis),¹⁷⁶ and İstanbul, the most pronounced fact come up during the interviews was the role of Military-Industry-Academia partnerships in these two sites also justified by research on

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- 171 Term means adapting a technology to a national context which involves the deconstruction of the technology into its designs, architectures, or components.
- 172 Term stands for the contracts in international trade, mostly of military technology and equipment, that oblige the exporter to undertake activities, in order to satisfy a second objective of the importing entity, which are distinct from the acquisition of the goods and/or services that form the core transaction.
- 173 See answer 12 in Appendix A.
- 174 Gürbilek traces this shift until the beginning of the 1980s, as the Ankara Utopia loses its glamour, İstanbul appears as a promise of another modernization, of a relatively autonomous business world, unlimited consumption and free circulating money. Gürbilek, *Vitrinde Yaşamak*, 68.
- 175 Deniz Göktürk, Levent Soysal, and İpek Türel. *İstanbul Nereye?: Küresel Kent, Kültür, Avrupa*. Metis Yayınları, 2011, 60.
- 176 Göksidan et al., "Catching-up and the Role of University-Industry Collaboration", 83-113.

the nature of those partnership clusters.¹⁷⁷ It should be historically acknowledged that the events such as the first establishment of internet in Turkey for military purposes in 1992 and the rise of Aselsan as the best case practice from the early experiences of university and industry partnership in METU also attest these facts.

For ARIKENT, on the level of surface appearance there is a small connection. Within this regard, during my interview with the technopark management company it is pronounced that Sağlemer's business minded attitude and American style of management kept military at bay.¹⁷⁸ This reminds Vannevar Bush's attitude (as one of the fictional heroes of industry-academia partnership and the person that inspires ventures originate from garages) against military: "I don't understand how a serious scientist can play around with rockets."¹⁷⁹

This position also find resonance in the story of Özal's supposed distance with military. Bora claims that these positions could gain meaning under the wider discussions about civil society in the 1980s.¹⁸⁰ As it is seen in this presentation, I argue that the governmentalities of the former rectorate, an ideal American academician and Özal all overlap at the point where a solution should be provided in assembling optimum conditions to solve the general tension between competition and cooperation. So, balance tilt towards a different neoliberal path where private companies could flourish freely in ARIKENT, I think this would be still an oversimplification given the first sectoral formation of finance companies in ARIKENT within the dynamics of financialization after the 2001 crisis.

However, drawing on my search based on the technopark tenant firms' networks from their websites and a general search on the web, it is still visible

177 Suna S. Yaşar, "Knowledge Networks and Cognitive Communities in Clusters: The Case of ICT Cluster of METU Technopolis and Agricultural Tools and Machinery Cluster of Konya" (M.A Thesis, METU, 2010), 117.

178 Interview with technopark management company, March 17, 2011.

179 Paul Benneworth et al., "Old and New Lessons for Technopoles," in *Making 21st Century Knowledge Complexes: Technopoles of the World Revisited*, eds. Benneworth et al. (Routledge, 2015), 304.

180 Tanıl Bora, "Turgut Özal," in *Modern Türkiye'de Siyasi Düşünce: Liberalizm*, eds. Tanıl Bora and Murat Gültekinçil (İstanbul: İletişim Yayınları, 2005), 591.

that around five to ten firms among seventy-eight total had connections with the military. It was also apparent that most of the firms developing technologies for military are coming from engineering departments such as, aeronautics, space, electrical, and mechanical that demonstrate a pattern of Fordist structures.

This pronounced distance resides in the belief that uncollaborative, secret and institutionally rigid nature of military R&D projects impede the working of the cluster economies of the technoparks that lean on so-called synergistic networks. In that pattern, the distinction between İTÜ and METU fits into the demarcation presented by Saxenian between Route 128 and Silicon Valley.¹⁸¹ For the former, the relationships with army are still strong and for the latter, the links are gradually left behind in order to create an ideal model where multinational high-tech giants could reign.

Moreover, cooperation between Ankara firms vis-a-vis the cooperative context of İstanbul is presented as much stronger which is pronounced as locally embedded by its promoters.¹⁸² In this vein, one should pronounce that, as it is demonstrated in the literature concerning technoparks in Turkey, embeddedness analyses are directly imported from its Western contexts only aggravating the flaws of various social capital and network analysis models by without critically transferring them into developing country contexts.¹⁸³

So, as could be seen from the studies presented above conducted by Saxenian and its import to Turkish context by Eraydin and Armatli-Köroğlu, neither of them provide the unequal structure of networks in which the spaces and actors in situ are embedded, nor they address the struggles between different parties involved, issues of power differentials and the histories that anchor those differences.

Finally, concerning the alleged synergies with other universities, in competition to be the best practice to be a national model against the technoparks

181 AnnaLee Saxenian, "Inside-Out: Regional Networks and Industrial Adaptation in Silicon Valley and Route 128," *Cityscape* (1996): 41-60.

182 Eraydin and Armatli-Köroğlu, "Innovation, Networking and the New Industrial Clusters", 251.

183 For a detailed discussion of the concept used in different scales, see Greta Krippner et al., "Polanyi Symposium: a Conversation on Embeddedness," *Socio-economic review* 2.1 (2004): 109-135.

in Ankara, İTÜ is also drawn in regional cluster formations as it was seen in the establishing of the Finance Technopark in partnership with Boğaziçi University which lacked the expansionary opportunities that is enjoyed by ARIKENT and METU, the manifold reasons behind this lack exceeds the scope of this study.

ARIKENT is also a member of the European Union Sixth Framework program of technological zone project. This program also provides different opportunities for finance to the companies and academicians in İTÜ. Although in comparison to funds provided by TÜBİTAK, they compose only a little portion of the total support finances in ARIKENT. During my interviews, the different programs of fundings were mentioned, and only two remarks were made that could have wider implications for ARIKENT governance.¹⁸⁴

One interviewee pointed out to the problems of application to and reception of the funds related both to the bureaucracy involved and experience and connections required. So, he indicated that the big companies and influential academicians that have connections with the EU institutions are more likely to receive these funds. But, one crucial difference about the evaluation criterias applied by the various parties in the EU fund structure stands out in marked contrast with the attributes, that concern selection criterias, given to funding institutions in Turkey under the rubrics of political favoritism, lack of meritocracy or protecting known acquaintances. The same respondent acknowledging the partially exclusionary character of these international networks also stated the marked differences between different EU funds in terms of their technical and financial requirements.¹⁸⁵

I argue that the existence of these translations, -together with the presence of TTGV and multinational companies- also makes global technological zones and ensuing standards much more visible in the context of ARIKENT in comparison to other technoparks in Turkey. This observation partially demonstrates that the gap between incremental and radical innovation at least closes for a small portion that in turn decrease the tensions of governance on the convergence of standards. This also brings new exclusionary structures,

184 See answer 7 in Appendix B for the detailed tabular presentation of the supports from all the organizations involved from the different scales.

185 Interview C, January 5, 2011.

for instance for the departments that provide limited vistas for fast commercialization and companies that are working in the relatively old technologies.

As it is argued in the first and the third chapters, recently, models of development also demonstrate effects of convergence with certain Asian neo-developmental contender states, but the appearance of the model in ARIKENT demonstrates the characteristics of Silicon Valley model and technological zone models more heavily. Albeit its high composition of multinational capital structure, from both a discursive, social and material angles ARIKENT stands close to Silicon Valley model.

ARIKENT is also a member of ISPA. ISPA stands as an exclusionary extra-parliamentary governance body in setting the governance indicators and sharing information among wide range of international partners. Relations between two organizations is presented as restricted with knowledge sharing for building a governance indicator database. I believe, Technopark's firm emphasis on independence uttered in the phrase "they have no sanction on us", also manifests a technological nationalist developmentalist tone that denies foreign entrenchment and rejects any financial involvement with this organization.

As it is argued in the previous chapter, ISPA's mission is to build different benchmark cases for industry-university partnerships although not being limited to universities, together with WEPZA as Easterling argues, they manifest the shift from Bretton Woods System of intergovernmental organization with member nations to nongovernmental organizations with membership from private enterprises.¹⁸⁶ I argue that together with other benchmarking indicators imposed by European Union Knowledge Society initiative and MOİT that composes of indicators, that focus of on the end results of efficiency instead of processes of governance, such as degree of exports , level of technology , size of foreign investment , qualified labor and so on, they could be conceived as an invitation for an harsh competition rather than a collaborative promise in international ecosystem.

186 Easterling, *Extrastatecraft*, 8.

§ 4.6 Summary

In conclusion, in this chapter, I first attempted to locate İTÜ technopark in its local context, which has expanded along with the concomitant urbanization, privatization, and financialization processes. Wider scales of some of its national and global connections have also been presented together with some portion of her stakeholders. Moreover, wide range of actors and things (such as legal documents, and technical terms) that participate in the grumbling beehive have been described and analyzed drawing on my data.

Using an amalgam of political economic theories and Foucauldian methods together with the discussion of the shifting spatial imaginaries such as, Silicon Valley, technological zones and zone a la Easterling, the chapter argues that ambitious neoliberal governance schemes as it is presented by ARIKENT, carry fundamental contradictions at the point where developmental imaginations, global standards, legal arrangements, and their subjective interpretations (whether from high command of bureaucracy to tenants of the technopark) intersect.

I have tried to show the modernizing visions as governing at a distance (concretized in the story of the technological product) and the conflictual translations of technical terms such as incremental and radical innovation. All in all, I dispute that technoparks in general and ARIKENT in particular are fruitful places of multi-actor relationships to analyze neoliberal governance effects on spaces, institutions, actors, discourses and practices.

Conclusion

This thesis attempted to conceive the machinations and contradictions of neoliberal governance through a case study on ARIKENT. Technoparks in general, and ARIKENT in particular, are zones of entanglement where university, government, and industry worked together in various collaborative and competitive modalities. Contrary to the larger trend in literature which sees these spaces as practical measurable solutions for catching up with the late train of modernity, I contend that these engagements are full of contradictions that uncover the schemes of neoliberal government.

However, technoparks are neither exceptional nor unique cases as spatial formations. That is why I have tried to locate them at the nodal point of certain developments, such as the relative passage from Fordism to post-Fordism, emergence of zones, new forms of urbanization, technological developments, and changing conditions of global political economy (and its reflections to homelands), to name a few. In this sense, this study takes a critical stand against the vision of modernity that is presented by neoliberal governance in general, and ARIKENT in particular, with a limited primary data.

Nevertheless, concerning the literature on this issue, the subject at hand was tried to be conceived through the presentation of various works from a wide range of disciplines, such as governmentality studies, political anthropology, (neo)Marxist political economy, development studies, urban sociology, innovation economics, education sociology, economics sociology, science

and technology studies and so on. The reason I am forced to take such an approach is the lack of critical and comprehensive studies on the subject to be used as a template or guideline to move from. This problem is not only limited to Turkish academia, but also could relatively be seen in the larger literature. Therefore, I had to collect bits and pieces of the subject, not because of a deliberate methodological choice or an impulse of theoretical and historical stretching, but rather due to the fact that the search for a proper framework enforced me to travel through various departmental territories and historical temporalities. Moreover, the actors (state, companies, and academicians), whose various relations were tried to be captured within the context of İTÜ, have been studied by many disciplines.

I assume that this aforementioned problem in the literature is strongly related to the conjectural function of technoparks on the one hand, and barriers of studying of it on the other. This putative function is their service to various material interests and imaginaries that invite researchers in two different, yet intersecting directions. On the first line, the subject falls into various fields of academia, ranging from engineering to economics, business administration to architecture, which conduct optimization studies to offer proposals in order to enhance productivity, effectiveness, and efficiency of these places.

Most studies in the literature usually employ mathematical models that quantify the quality of social reality or presume models of excellence -such as Silicon Valley- on which they could judge the performance of the case at hand. Depending on the subject, they might also employ methods, such as in-depth interviews, focus groups, or surveys to pretend that they also give voice to the inhabitants of these spaces. I deliberately use the word “pretension,” not to blame those researchers, but to indicate the methodological futility of these studies in explaining the causes of a perceived problem.

I believe that one of the reasons of this futility is the limit in their sample size (which is hard to overcome especially in a case like technopark where people are busy and need to act in the confines of business secrecies). Another reason, on the other hand, is the existence of diverse actors both on campus and outside (in my case interviewee A who was working in the ministry which was authorized with governing these places at a distance), this diversity makes

any microscopic study, which does not tackle with the theoretical debates or provide a historical framework, insufficient.

Thus, these studies, without presenting any theoretical or historical context and relying on the experiential data, present arguments that cannot be generalizable to other contexts but still, contradictorily need mathematical precision to sell their analysis as a study of optimization. As far as I can observe, most of the analyses on technoparks, science and technology policy, urban transformation etc., fall under this category as “practical” subjects to be handled.

On the other hand, a relatively critical line as the second direction in literature, I think, in a dispersed fashion would be of use. These are literatures, such as regional economics, urban sociology, innovation sociology, education sociology, governance studies, science and technology studies and varieties of capitalism (especially on the subject of developmental state) and so on. There are significant variances among them but commonly, they diverge from the aforementioned first line by not being restricted to micro level and also by having a relatively critical posture against modernity. However, most of them are stuck in meso level analysis that do not offer a kaleidoscopic view that go in between different scales, which I have tried throughout this thesis.

Furthermore, many studies assume a flat ontology without recognizing the hierarchies on the so-called networks (ecosystems), and they do not elaborate more on the historical baggage of competing modernities, inherent contradictions (depoliticized and ahistoricized under the mystical shell of governance indicators) they bring, which I have tried to demonstrate through a series of metaphors taken from a politician (honeycomb), a liberal thinker from the eighteenth century (fable of bees) and from a political sociologist (beekeeper) that draw upon repetitive problems concerning collective action and principal-agent relationship. These metaphors are not only allusions to case at hand as a narrative technique, but they briefly speak for Turkish society (honeycomb), market (fable of bees) and state (beekeeper), respectively.

Therefore, in order to deconstruct the analogies, I have deployed, first, a historical narrative that exposes the polarized habitat of Turkish society and shortly encapsulates various processes that pave the way for the formation of technopark, and second, (in the third chapter) various anthropological and

neo(Marxist) approaches that work on revealing the contradictions of neoliberal governance as it is seen in its various institutions. Moreover, I have employed two concepts of zone, successively coined by Barry and Easterling, to conceive the spatiality of technoparks and particularly ARIKENT. I argued that technopark zone bends towards the Barry's definition of enhancing organizational and technological standards to catch up utopic stand of Silicon Valley, but still they are stuck in between dual governmentality of developmental state and global corporations/transnational organizations that are characteristics of zone as it is defined by Easterling. However, both attempts of conceptualization of zones do not provide the audience with the contextual specificities that I demonstrate in the case of ARIKENT such as the position of business groups, different faces of the state, role of finance, differences between academic departments and the intricacies of social capital.

I have presented two ways of seeing these places-in order to dismantle seemingly synergistic, cooperative, horizontal, accountable etc. nature of technoparks- in the third chapter, which are: 1) (neo)Marxist or institutional political economy approaches that conceive those places as "a metonym" of imperialism or global capitalism and 2) Foucauldian approach and its anthropological variations that conceive these sites as the effects of different competing neoliberal- without ignoring the fact that sovereign power also stays under neoliberalism (whether it is an authoritarian state or imperialist force)- outlooks.

Within these theoretical and narrative concerns, I have tried to show the changing conditions of neoliberalization in Turkey, starting with its violent inception. In a piecemeal fashion, I narrated different processes, such as institutional arrangements, relations between different businesses and state, financialization, technological conditions, changes in spatial formations, and subjectivities. I also talked about the processes by which technopark started as a dream of a politician (embracing a societal dream of jumping on the bandwagon of modernity), as a promise on plans, reports and academic texts, and finally finding flesh and blood through different processes in its hotbed, İTÜ Maslak campus.

In the final chapter, I have tried to locate ARIKENT in its local context, which have been exposed to foreign winds starting in the 1980s back and forth.

So, concomitant processes were also affected by these winds such as urbanization, privatization, and financialization processes that are narrated in conjunction with increasing real estate value of technopark, rising software industry, and expanding domain of the technopark. This domain is presented through the scales of some of its national and global connections, which ended up with its growing/grumbling ecosystem/beehive.

Acknowledging Foucauldian analytics of government and political economy approach, I contend that zones are “economy of appearances,” places of aspiration for high modernism, manipulable spaces, “milieux of innovation,” and “anti-politics machines,” which are governed from a distance through national legal arrangements, different effects of capital movements, and globalized standards, and technologies.

Furthermore, wide range of actors and things (such as legal documents and technical terms), which recombine/disentangle the space of technopark, have been described and analyzed drawing both on my data and historical elements. Here, equipping anthropological approach on technical standards and legal texts, I have tried to demonstrate how technical standards are translated in the local contexts and, through this translation, how they reveal deep seated conflicts in society, emanating from larger concerns of modernity that spilled over on the tenants of technopark and constantly disturb the taken granted balances of the technopark ecosystem in particular, or social capital/network in general.

In addition, a distant, a high seated bureaucrat, by employing a small elite ethnography (that complements the successive stories of Özal, Demirel, and Sağlamer), I have tried to uncover the elite histories of envisioned modernity, through the textual and developmental concerns that lived through the narration of a textual construct. I argued that the concern of certainty at the practice of stamping the technological product on the text is fundamentally linked to sustaining the balance between thin cords that bind tax exemptions, high value-added export performance, social distrust, and legal texts. Finally, I believe that the very existence of ARIKENT also stands in that labrytine maze of governance nightmares that are exemplified in changes in legal structures that affect parties involved in chain reactions.

As for the limitations of this study, the presentation of mundane details, intended genealogies, subjective dispositions, encounters between the actors, proper discussion of concepts of governance, more written and discursive data could not be exhaustively provided because of space limitations and interviewee's secrecy concerns. Last but not least, although the partial comparisons and updates are presented from the time of the research to the writing of this thesis, the arguments should be reconsidered in light of the updated material and theories.

This study is one of the first sociological studies that is conducted on tech-noparks in general, ARIKENT in particular in Turkey. Despite aforementioned limitations, I still believe that this study travels around a wide range of disciplines, presents historical and theoretical context with some technique of narratives, which might be of use for the wider audience of science and technology studies, urban sociology, and governmentality studies.

This thesis is presented nowhere as a finished text, but as an incomplete process, involving the interpretation of better non-machinic ecosystems. Last but not least, it opens the way for manifold comparisons between different zone-like spaces or multi-actor governance ecosystems for future studies.

Appendix A General Questions

SORU 1

*Teknoparklar kimlerin inisiyatifi/isteği ile hangi dönemde açılmaya başlamıştır?
Teknoparkın kurulması nasıl finanse edilmiştir?*

Teknoparklar Dünya’da ilk olarak 1950 yılında Amerika’da Stanford Üniversitesi’nde ortaya çıkmıştır. Şimdiki adı "Silikon Vadisi" olarak bilinen bu teknopark bünyesinde Google, Intel, Adobe Systems, Yahoo, VeriSign gibi yüzlerce küresel firmayı barındıran ve dünyanın en çok tanınan teknoparkıdır. Türkiye’de ise bu çalışmalara ilk olarak 1991 yılında ODTÜ (Orta Doğu Teknik Üniversitesi) tarafından başlanmış olup 2001 yılında yasal altyapıya kavuşturulmuştur. Günümüzde 39 adet Teknoloji Geliştirme Bölgesi kurulmuş olup 28’i faaliyette bulunmaktadır.

Teknopark’lar ilk olarak Üniversite içerisinde çeşitli akademik araştırmalar yapan ve bunları ticarileştirme çabasında olan küçük bilimsel topluluklar tarafından kurulmuş olmakla birlikte şimdilerde üniversitelerin bilimsel, özel sektörün ise girişim desteği ile birlikte özellikle devletlerin teşvik ettiği önemli kuruluşlar olmuşlardır.

İTÜ ARI Teknokent: Teknoparklar, devlet tarafından teşvik ediliyor ve çeşitli yönetmeliklerle düzenleniyor olsa da kuruluş sermayesi yönetici şirket tarafından temin edilmektedir. Girişimci AR-GE firmalarının faaliyet gösterecekleri binalar yönetici şirketler tarafından yaptırılmakta ya da kendilerine içlerinde bulundukları Araştırma Merkezi /Enstitü/Üniversite tarafından tahsis edilmektedir. Bu noktada, ARI Teknokent Proje Geliştirme Planlama A.Ş’ye ilk binası olan ARI1, İTÜ tarafından tahsil edilmiştir. ARI 1 2003 yılı Eylül ayında hizmete girmiştir. Toplam inşaat alanı 6.000 m2, AR-GE ofis mekânı 3.737 m2’den oluşmaktadır. ARI Teknokent Proje Geliştirme Planlama A.Ş, ARI1’den elde ettiği gelire ek olarak banka kredileri kullanmış ve yeni ofis mekânları inşa etmiştir. Benzer süreç devam etmekte olan diğer bina inşaatları için de geçerlidir.

SORU 2

Teknoparklar neye yarar, kimlere çalışır, kimler teknoparklara katılabilir?

Teknoparklar üniversitelerin bünyesinde araştırma geliştirme (Ar-Ge) faaliyetlerinin desteklenmesi amacıyla kurulmuş olan ve devlet tarafından desteklenen yapılanmalardır.

Daha geniş tanımı ile Teknopark “Bir veya birden fazla üniversite veya diğer yüksek öğretim kurumu ve araştırma merkezleri ile resmi veya faaliyet bazında ilişkili, bünyesinde bilgiye ve ileri teknolojilere dayalı sanayi firmalarının kurulup gelişmesini teşvik etmek üzere tasarlanmış, içinde yer alan kiracı firmalara, teknoloji transferi ve iş idaresi konularında destek sağlayacak bir yönetim fonksiyonuna sahip, teşvik ve mülkiyete dayalı bir teşebbüstür.”¹

Teknoloji Geliştirme Bölgelerinin temel amaçlarından biri olan Üniversite – Sanayi işbirliğinin sağlanmasının en kolay uygulama alanının Üniversiteler olduğu kanaatine varılmıştır. “Üniversitelerdeki teorik bilginin sanayi ile buluşturulması için en iyi yol, üniversitelerle sanayi kuruluşlarının irtibat içinde olabileceği fiziki mekânlar oluşturmaktır. Bu doğrultuda, üniversitelerle sanayi kuruluşlarının iç içe olduğu yeni alanlar tasarlanmış ve böylece teknoparklar ortaya çıkmıştır.”

Teknoparklar Üniversite bünyesinde yer alan, devlet tarafından sınırları belirlenmiş olan Teknoloji Geliştirme Bölgesi arazisinde Ar-Ge faaliyeti gösterecek olan firmalara yer kiralaması yapar. Teknoparklar çeşitli sektörlerden firmaların Üniversite içerisinde Teknoloji Geliştirme Bölgesi olarak sınırlandırılmış alanda bir araya getirip, hem firmaların birlikte çalışabilmesine hem de üniversite ile işbirliği yapılmasına olanak sağlamaktadır. Teknopark'lara devletin belirlemiş olduğu mevzuat çerçevesinde araştırma geliştirme faaliyeti yapan ya da yapacak olan firmalar dahil olabilmektedir. Bunun için teknoparklar bünyesine girmek isteyen firmaların belirli şartları taşıması gerekliliği bulunmaktadır.

1 Uluslararası Bilim Parkları Birliği (IASP) Teknopark tanımı

Bunlar:

- Kurulmuş bir firmanın olması gerekmektedir.²
- Firmanın hali hazırda yürüttüğü ya da yürütmeyi düşündüğü araştırma geliştirme faaliyetlerinin bulunması gerekmektedir. Araştırma geliştirme (Ar-Ge) alanına giren her faaliyet (yazılım, donanım, ürün vs.) mevzuat kapsamından yararlanabilmektedir.

Ayrıca eğer firma Akademik bir firma ise; yani %51 ve üzerinde öğretim üyesi hissesi var ise Teknokent bünyesine kurulu olmadan da başvuru yapılabilir ve başvuru prosedürü devam ederken firma kurma işlemlerini tamamlayabilmektedir.

SORU 3

Bu yerlerin yönetimi/idaresi kimlere delege edilir? İdare edecek kişilerin seçilmesi nasıl olur?

Teknoloji Geliştirme Bölgeleri kuruluşunda belirlenmiş yönetici şirket tarafından idare edilmektedir. Yönetici şirket Anonim Şirket yapısındadır. Şirketin en az 5 ortağı bulunmakta ve hisse çoğunlukla Üniversite ve/veya Üniversiteye bağlı Vâkıfa ait olmaktadır. Teknoparkın Yönetimi ortaklarca belirlenen Yönetim Kurulu tarafından idare edilir. Yönetim Kurulu tarafından belirlenen yöneticilerse genel idare ile Teknoloji Geliştirme Bölgesinin yönetiminden (firmalara kiralanan yerlerin yönetimi, idare ve denetiminden) sorumlu olurlar.

2 Üniversite Akademik Personeli Teknopark bünyesine faaliyet göstermek istediğinde henüz firma kurulmamış ise akademik çalışmaları dahilinde kabul edilebilmektedir.

SORU 4

İTÜ teknopark hangi firmalara ev sahipliği yapmaktadır?

İTÜ ARI Teknokent'te şu anda 78 firma faaliyet göstermektedir. Bu firmaların isimleri Ekı'de iletilmiştir.

SORU 5

Teknoparka gelen şirketler nasıl gelmişlerdir? Nasıl finansman bulurlar? Risk sermayesi nerede duruyor? Risk sermayesi ile ilgili organizasyonlar var mı? Neden teknoparkı tercih etmektedirler?

Teknopark'ta faaliyet gösteren firmalar için yönetici şirket belli alım prosedürleri uygular. İTÜ ARI Teknokent firma alım prosedürüne göre 3 aşama bulunmaktadır. Bu süreçler sırasıyla şöyledir;

- **Ön Başvuru:** Ön başvuru aşaması <http://www.ariteknokent.com.tr> sitesinde mevcut olan “Yeni Başvuru” linki aracılığı ile gerçekleştirilir. 6 adet formdan oluşan ön başvuru dosyasının tek oturumda doldurulması gerekmektedir. Başvuran Firma ilk başvuru formunu tamamladığında, firmaya bir kullanıcı adı ve şifre verilir. Verilen kullanıcı adı ve şifre ile firma dilediği zaman başvurusuna kaldığı formdan devam edebilmekte gerekli düzeltme, ekleme ve güncellemeleri yapabilmektedir.

Başvuru Formlarının doldurulmasını tamamlayan firma ariteknokent@ariteknokent.com.tr adresine Ön Başvurusunu tamamladığına dair bir elektronik posta gönderir. Elektronik postanın ARI Teknokent Yönetim Ofisine ulaşmasıyla birlikte firmanın Ön Başvuru'sunun değerlendirilmesine başlanır. Bu değerlendirme kısmında herhangi bir eksik, hata bulunması durumunda firma ile iletişime geçilerek düzeltmeler yapılır. Ön başvuru tamamlandıktan sonra firmaya esas başvuru aşamasına geçebileceğine dair bir mail gönderilir.

- **Esas Başvuru:** Esas Başvuru dosyaları <http://www.ariteknokent.com.tr> internet sitemizde belirtilen içerik doğrultusunda firma tarafından hazırlanır ve Teknokent Yönetim Ofisine 1 orijinal+2 kopya şeklinde teslim edilir. Esas başvuru dosyası eksiksiz bir şekilde teslim alındıktan sonra yönetimimizce

firmaları incelemek üzere uzmanlık alanlarına göre hakem ataması yapılır. Söz konusu hakemler hakkında firmaya bilgi verilir ve firmadan yazılı onay gelmesinin ardından dosyalar hakemlere gönderilir. Bu aşamada Hakemler öncelikle, firmanın bildirdiği proje önerilerini detaylı olarak inceleyerek bu projelerin belirtilen çalışma takvimi, bildirilen insan kaynakları ve şirket yapılanması ve benzeri kriterler içinde gerçekleştirilip gerçekleştirilemeyeceğini denetler. Firmanın sunduğu bilgiler ve kendi incelemeleri ışığında Hakem değerlendirmesini tamamlayarak ARI Teknokent Yönetimine firma ve başvurusu hakkında detaylı bir rapor sunar. Bu raporda hakemler Firmaya 100 üzerinden bir değerlendirme puanı vermektedir.

- Değerlendirme Kurulu Toplantısı: ARI Teknokent Yönetimi tarafından belirlenen gün ve zamanda bir değerlendirme kurulu toplantısı gerçekleştirilir. . Bu toplantıda firma, değerlendirme kurulu üyelerine 10-15 dakikalık, firma ve gerçekleştirilen / gerçekleştirilmesi planlanan projeler hakkında kısa bir sunum yapar ve kalan süre içerisinde Değerlendirme kurulu üyelerinin sorularına cevap verir. Firma bu toplantı neticesinde yine 100 üzerinden bir değerlendirme puanı alır. Değerlendirme Kurulu, İTÜ'ye emeği geçmiş ve geçmekte olan değerli akademisyenler ve Teknoloji Geliştirme Merkezlerinin yöneticilerinden oluşmaktadır.

Esas başvuru dosyalarının incelenmesi neticesinde hakemlerden alınan puanlar ve değerlendirme kurulu toplantısı neticesinde alınan puanlar değerlendirilerek firmaya genel bir puan verilir ve sıralama firmaya bildirilir. Genel olarak başvuru süreci bu şekilde gerçekleşmektedir. Toplamda başvuru süreci 2-3 ay kadar sürmektedir.

Teknokent'te ofis alanı açılması durumunda, en yüksek değerlendirme puanına sahip firmadan başlayarak ofis alanı teklifleri sunulur. İTÜ ARI Teknokent'te boş ofis alanı olmaması ve buna karşın talebin çok yoğun olması Değerlendirme sürecini firmalar açısından çok önemli kılmaktadır.

Teknokent'e başvuran firmalar finansman sağlama konusunda Sanayi Bakanlığı, TÜBİTAK-TEYDEB ve KOSGEB'in destek ve teşviklerinden yararlanabilmektedirler.

ARI Teknokent, firmalara Teknokent bünyesinde, teknolojiye trendler ve gelişmelerle ilgili bilgi akışına yönelik hizmetler, danışmanlık hizmetleri

verilmektedir fakat risk sermayesi organizasyonları ile organik bağı bulunmamaktadır. Bu yönde çalışmalar yapan yerli ve yabancı oluşumlar, ARI teknokent'ten yatırım yapılabilecek ya da işbirliği kurulabilecek firmalarla görüşme yapabilmek için zeminin hazırlanmasını talep etmektedirler. ARI Teknokent her talebi titizlikle inceleyerek faaliyet alanı, firma ölçeği, sermaye tibi gibi kriterleri gözeterek uygun firmaları ve sermaye gruplarını buluşturur.

SORU 6

Şirketlerin Executive Board'larında (Yönetim Kurulu) kimler bulunmaktadır?

ARI Teknokent'in Yönetim Kurulu'nda ARI Teknokent Proje Geliştirme Planlama A. Ş'nin hissedar kurumlarının yetkilileri bulunmaktadır.

Hissedar Kurumlar

- İTÜ Geliştirme Vakfı 64%
- İTÜ Rektörlük 30%
- TTGV 1%
- GAMA Endüstri A.Ş. 1%
- ENKA İnş ve San A.Ş. 1%
- Orimpeks Tekstil İth İhr A.Ş. 1%
- ATA İnşaat San. ve Tic. A.Ş. 1%
- Alarko Holding 1%

Yönetim Kurulu

- Ertuğrul Kurdoğlu – Yönetim Kurulu Başkanı (Ata Holding Yönetim Kurulu Başkanı)
- Yaman Kök – Yönetim Kurulu Başkan Vekili
- Haluk Zontul – Yönetim Kurulu Başkan Vekili (TTGV İstanbul Temsilcisi)
- Prof. Dr. Muhammed Şahin – Yönetim Kurulu Üyesi (İTÜ Rektörü 2008-)
- Prof. Dr. Gülsün Sağlamer – Yönetim Kurulu Üyesi (Eski İTÜ Rektörü 1996-2004)
- Şahap Özer – Yönetim Kurulu Üyesi (Yüksek Mühendis)

SORU 7

Teknopark'ta bulunan/işletilmesinden sorumlu/açılmasında yer alan bütün taraflar ne şekillerde bir araya gelmektedir? Örnek olarak karar alma süreçlerinde nasıl toplanılır?

Sanayi Bakanlığı'nın da teşviki ile her Üniversite bünyesinde bir teknopark kurulması hedeflenmektedir. Teknopark fikri ilk olarak Üniversite yönetimi (Rektör vs.) ile öğretim elemanları tarafından ortaya atılır. Sermayenin bir kısmı Üniversite ve/veya Üniversiteye bağlı vakıftan diğer kısmı ise hisse verilen şirketler tarafından karşılanmaktadır. Karar alma süreçlerinde Yönetim Kurulu toplanır ve oy birliği/çokluğu ile Teknopark'ın yönetimine ilişkin kararlar alınır.

SORU 8

Teknopark ülke ve dünya için ne ifade etmektedir? Teknoparklar ülkenin ne gibi bir eksikliğine, küreselleşen dünyanın ne gibi bir gerekliliğine cevaptır? Türkiye ekonomisi dünyadaki ekonomik aktörlere, piyasalara ne derece açık olmalıdır?

Teknopark'lar Ülke ve Dünya için Teknoloji üretme potansiyeli yüksek olan bölgeler olarak bilinmektedir. Teknoloji Geliştirme Bölgelerinin en önemli getirisi araştırma geliştirme faaliyetlerinin desteklenerek ülkenin teknolojik birikimine katkı sağlamasıdır. Günümüz bilgi ve teknoloji çağı olduğu üzere yeni ve gelişmiş teknoloji sahibi ülkeler gelişmişlik düzeylerini artırabilmekte, diğer ülkelere göre üstünlük sağlayabilmekte ve ekonomik olarak kalkınma sağlanabilmektedir. İTÜ ARI Teknokent Ancak, kendi teknolojisini üretebilen ülkeler bağımsızdır prensibini benimsemiştir bu kültürü bünyesindeki firmalara da yansıtmaktadır.

SORU 9

Kişilerin teknoparklar ile ilgili karar verme pozisyonlarında bulunmaları veya/ve şirketlerinin teknoparklarda bulunması onlar için ne ifade etmektedir? Teknopark'da bulunmadan önce aldığı eğitim ve çalıştığı yerler? Gelecekte kendilerini nerelerde görüyorlar?

Şirketlerin Teknopark'larda faaliyet göstermesi birçok yönden fayda sağlamaktadır. Hem teşvik ve avantajlardan yararlanabilmekte hem de sadece Ar-Ge'ye özgü bir bölgede yer almakla bile teknoloji ürettiklerini ispat ederek sektörde ön plana çıkabilmektedirler. Bir diğer avantajlı husus ise bölgedeki sinerji ve kümelenme ortamından yararlanmaktır. Gerek üniversitenin laboratuvarları ve akademik bilgi birikiminden yararlanmak, gerekse farklı teknolojileri üreten firmalarla işbirliği yaparak disiplinler arası ürün çıkartmak açısından Teknoparklarda yer almak Ar-Ge firmaları için prestijli ve avantajlı bir zemin oluşturmaktadır.

ARI Teknokent şirketlerinin çoğu Deloitte Fast 50 arasında yer almakta, ülke ekonomimizde ve Dünya ölçeğinde önemli yer teşkil etmekte ve büyüme ivmelerini arttırma yönünde çalışmalar yapmaktadırlar.

SORU 10

Teknoparkın üniversite ile olan ilişkisine dair ne düşünülmektedirler? Üniversite ve teknoparkda bulunan farklı şirketler için avantajlar nedir? Bu ilişkide iki taraf için de ne gibi problemler olabilir/olmaktadır? Yeni araştırmalar /ürünler /patent alımları nasıl etkilenmiştir?

Teknoloji Geliştirme Bölgelerinin temel amaçlarından biri olan Üniversite – Sanayi işbirliğinin en kolay uygulama alanı, üniversite insan kaynağının değerlendirilmesidir. İTÜ ARI Teknokent Teknoloji Geliştirme Bölgesinin İTÜ kampüsü içinde bulunması bu işbirliğini kolaylaştırmakta, gerek firmalara gerekse öğretim elemanları ve öğrencilere çok çeşitli ve farklı imkan ve olanaklar sağlamaktadır. Bu nedenle başta İstanbul Teknik Üniversitesi lisans, lisansüstü ve doktora öğrencileri, mezunları, öğretim elemanları olmak üzere üniversite mezunu nitelikli iş gücüne yarı / tam zamanlı iş ve staj olanaklarının sağlanması, Üniversite ile işbirliği, danışmanlık, hizmet alımı, ortak proje

yürütülmesi, Üniversite'nin alt ve üst yapı imkânlarından yararlanılması projelerin sağlıklı yürütülmesi açısından büyük önem arz etmektedir. Özellikle akademisyenlerin birçoğu sadece proje bazında kalan çalışmalarını Teknoparklarda Üniversite-Sanayi işbirliği içerisinde gerçekleştirerek ürün/patent sayısında artma olmaktadır.

SORU 11

Devletin vergi indirimleri ve üniversitenin sağladığı alt yapı hakkında ne düşünülmektedirler?

Cevap 11: İTÜ ARI Teknokent bünyesinde yer almayı planlayan girişimci firmalar Esas Başvuru aşamasındayken hazırladıkları Esas Başvuru Dosyası için internet ortamında doldurulan Esas Başvuru Formu doldurmaktadırlar. Bu formun içerisinde yer alan BF05-1 bölümünde firma yetkilisinin ARI Teknokent'in hangi olanaklarından yararlanmak istediğini soran ve 1'den 8'e kadar önem sırasını yapması beklenen bölüm yer almaktadır:

- 4691 sayılı Kanun ile sağlanan teşvik ve istisnalar
- İTÜ ile işbirliği yapma olanağı ve isteği
- Sanayi ile işbirliği yapma olanağı ve isteği
- Altyapı ve üstyapı olanakları
- Sağlanan diğer olanaklar (kütüphane, sosyal tesisler vb.)
- Konumun sağladığı avantajlar (ulaşım kolaylığı, vb.)
- Çevresel faktörler

ARI Teknokent'e başvuruda bulunan firmalar bu sıralamada 1. ve 2. Sırada "4691 sayılı Kanun ile sağlanan teşvik ve istisnalar" ile "İTÜ ile işbirliği yapma olanağı ve isteği" seçmektedirler. ARI Teknokent'in bu kadar yoğun talep görüyor olmasının sebebi İTÜ kültürü, altyapısı ve işbirliği olanağıdır. ARI Teknokent'e başvuru yapan firmalar bu iki maddeye yüksek derecede önem vermektedirler.

SORU 12

Başta bir ideal tip olarak Silikon vadisi ve dünyadaki diğer üniversite-sanayi işbirlikleri hakkında ne düşünüyorlar?

Silikon Vadisi'nde her gün 63 yeni dolar milyoneri hayata kazandırılmaktadır. Business Week 18 Ağustos 1997". Bilginin sinerjik ortamlarda, yani sinerjisi yüksek teknoloji bölgelerinde, teknoparklarda, girişimci inkübatörlerinde yeni bir yaşam biçimini benimseyerek hızlı üretimi, bu tip düşünceye sahip toplumlarda çok ileri zıplamalar yaptırmaktadır. Her ne kadar Silikon Vadi tecrübesini yakalamak kolay bir iş olmasa da her ülke ve hatta Amerika içinde bile her eyalet bu tecrübeyi bir ölçü birimi olarak almakta ve ona ne kadar yaklaşırlarsa o kadar başarılı sayılmaktadırlar.

Türkiye'nin kıt para imkanları ve tecrübe eksikliği henüz hiç bir alanda yaratıcılığı hızlandıracak kritik kütleyi oluşturamamaktadır. Off-set fonlarının nakide çevrilerek Tübitak, Teknoparklar ve Üniversitelere özellikle devamlı gelir temin edecek yönlerde kullanılmaları şartıyla tahsisi gündemde bir numaralı önemli işler sırasına yükselmiş ve acil durum arz etmektedir.

Bir diğer açıdan bakarsak, Silikon Vadisi 1950 yılında hayata geçmiştir ve gelişimi için çok yüksek fon sağlanmıştır. Türkiye'de ilgili yasanın 2001 yılında yürürlüğe girdiği düşünülürse biraz zaman tanınması gerektiği de önemli bir gerçektir. Zorlu bir kriz ortamından geçen Yunanistan'da Türkiye'nin girişimleri örnek gösterilmiş ve övgüyle bahsedilmiştir.

SORU 13

Uluslararası organizasyonların (UNESCO, UNDP, IASP) rolüne dair ne düşünüyorlar? Ne gibi yaptırımlar oluyor?

İTÜ ARI Teknokent, bir çok teknoparkın dahil olduğu Uluslararası Teknoparklar Birliği'ne (IASP) üyedir. Bu üyeliği herhangi bir yaptırım doğurmamakta, sadece küresel sinerjik ortamın bir parçası olmasını sağlamak ve dünyanın diğer ülkelerindeki gelişmelerin takip edilmesi açısından önem arz etmektedir.

SORU 14

Devlet kurumlarının (DPT, TTGV, IGEME, BTYK) desteęi-ılgısı ne düzeyde?

Hissedarlarımızdan olan TTGV ile yoğun bir organik baęımız bulunmaktadır. Dięer devlet kurumları ile olan baę ise bilgi alışverişı ile sınırlıdır.

SORU 15

Dięer teknoparkları nasıl görüyorlar, ne kadar bilgi sahibiler?

Türkiye’de faaliyet gösteren 39 Teknopark bulunmaktadır. Üniversitelerin yoğun olduęu bölgelerle paralellik gösteren Teknoloji Geliştirme Bölgeleri ülke içindeki teknolojik gelişimin saptanması ve yenilikçi fikirler için, deneyim ve bilgi birikimimizle dięer Teknoparklara örnek olma çabasındayız.

Teknoloji Geliştirme Bölgelerinin başarı kriterleri; ihracat, patent, faydalı model, Ar-Ge projeleri, Ar-Ge teşvikleri gibi değerlerdir. İTÜ ARI Teknokent, Türkiye’deki Teknoloji Geliştirme Bölgeleri arasında en yüksek istatistiklere sahip olup, İstanbul Teknik Üniversitesi’nin altyapı ve üst yapı olanakları ve İstanbul’un merkezinde yer alan konumuyla Türkiye’deki lider teknoparklardan biridir.

SORU 16

Geliştirilen teknoloji kimin talebiyle gelişiyor? Ne kadarı kime ait oluyor? Hangi ağların içerisinde ne gibi arz-talepler oluyor?

Geliştirilen teknolojiler ve çıktıları tamamen girişimci firmalara aittir. Bu konu firma stratejisi ile ilgili olup paylaşılmaz ve bilinmez. ARI Teknokent bünyesinde küçük/orta/büyük; yerel/ulusal/uluslar arası gibi kriterler çerçevesinde her yapıda şirket faaliyet göstermektedir. Buradan hareketle; kendi ürünleri için teknoloji üreten firmalar olmakla birlikte, başka firmaların ürünlerini geliştirmek üzere proje bazlı çalışan firmalar da bulunmaktadır.

SORU 17

Şirketlerin büyük şirketler (holdingler, çok uluslu şirketler vs.) ile ilişkisi ne düzeyde?

2010 yılı itibariyle bünyemizde faaliyet gösteren 14 firma yabancı sermayeli (çok uluslu) şirket yapısındadır. Ayrıca bünyemizdeki bazı şirketler holding iştirakı da olabilmektedir.

SORU 18

KOSGEB (küçük ve orta ölçekli işletmeleri geliştirme ve destekleme idaresi başkanlığı), TEKMER (teknoloji geliştirme merkezleri) ile teknoparkların farkı ne? Herhangi bir işyerinden teknoparkın farkı ne?

Ekonomik kalkınma ve istihdam sorunlarının çözümünün temel faktörü olan girişimciliğin yaygınlaştırılması ve başarılı işletmelerin kurulmasını sağlamak amacıyla girişimci adaylarına çeşitli destekler sağlamaktadır. Bu desteklerin amacı girişimci adaylarının işletmelerini kurarken yaşadıkları mali sıkıntılara çözüm getirebilmektir. Bu destekler en temelde KOSGEB ve TEKMER tarafından verilmekle birlikte Teknoloji Geliştirme Bölgeleri 4691 sayılı kanunla hizmet verip firmaya bazı vergi muafiyetleri sağlamaktadır.

Ülkemizin ekonomik ve sosyal ihtiyaçlarının karşılanmasında küçük ve orta ölçekli işletmelerin payını ve etkinliğini artırmak, rekabet güçlerini ve düzeylerini yükseltmek, sanayide entegrasyonu ekonomik gelişmelere uygun biçimde gerçekleştirmek amacıyla T.C. Sanayi ve Ticaret Bakanlığı Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı (KOSGEB) kurulmuştur. KOSGEB 3624 sayılı kuruluş kanunu hükümlerine göre hizmet veren imalat sanayiinde 1-250 arası işçi istihdam eden net satış hasılatı ve mali bilanço toplamı 25.000.000 YTL'yi aşmayan işletmelere (KOBİ) devlet destekleri sunan tüzel kişiliği haiz bir kamu kuruluşudur.

Teknoloji yönelimli iş inkübatörleri olan TEKMER'ler KOSGEB ile Üniversiteler arasında imzalanan protokoller ile 1991 yılından itibaren faaliyete başlamışlardır. TEKMER'in KOSGEB'den farkı Ar-Ge çalışmalarına ağırlık vermesidir. Teknoloji yönelimli projelerini gerçekleştirmek isteyen girişimciler TEKMER'e başvurabilmektedirler.

Teknoloji Geliştirme Bölgeleri ise tüm bunlardan farklı olarak Üniversite'ye bağlı olarak Sanayi Bakanlığının denetiminde kurulan bir oluşumdur. TGB'e arazisinde bulunan ofis alanları Ar-Ge çalışmaları yapan firmalara kiralanır. Bu alanlarda bulundukları müddet içerisinde 4691 sayılı kanunun vermiş olduğu istisnalardan (Bknz Ek 3: 4691 sayılı kanun) faydalanırlar.

Kısacası; KOSGEB, küçük ve orta büyüklükteki işletmelere işlik ve personel sağlayarak kuruluşta veya gelişme aşamasında, Teknoparklar ise ürün çıktısında vergi muafiyeti sağlayan teşvik birimleridir. İTÜ KOSGEB TEKMER binası Arı Teknokent Koordinatları içinde kaldığı için KOSGEB firmaları talep etmeleri durumunda, ARI Teknokent bünyesine KOSGEB'de yer aldıkları süre ve proje çerçevesinde kabul edilmekte ve ilgili yasadan yararlandırılmaktadırlar.

SORU 19

Teknopark kurulduğundan beri/şirketiniz teknoparkda bulunduğundan beri ne gibi değişimler gözlemleyebildiniz? Değişim hızını nasıl algıyorsunuz?

4691 sayılı Teknoloji Geliştirme Bölgeleri Kanunu yürürlüğe girdiği yıldan bu yana çeşitli yönetmelik değişikliklerine uğramış ve bu durum doğrudan Teknoloji Geliştirme Bölgeleri Yönetici Şirketlerine yansımıştır. Kanun ile uygulanan vergi istisnaları 2013'ten 2023'e uzatılmıştır.

Teknopark kavramı yaygınlıklaştıkça daha çok firma başvuruda bulunmakta ve mevcut firmalar bölgede büyümek istemektedir. Talep yoğun, azr kısıtlı olduğu için TGB bölgesinde faaliyet gösterebilmek için dana nitelikli Ar-Ge çalışmaları üretilmekte ve bu durum Türkiye'nin gelişimine ve AR-GE'den elde ettiği gelirlere doğrudan yansımaktadır.

Entelektüel mülkiyet hukukuna dair dönüşümler ne gibi etkilerde bulunuyor?

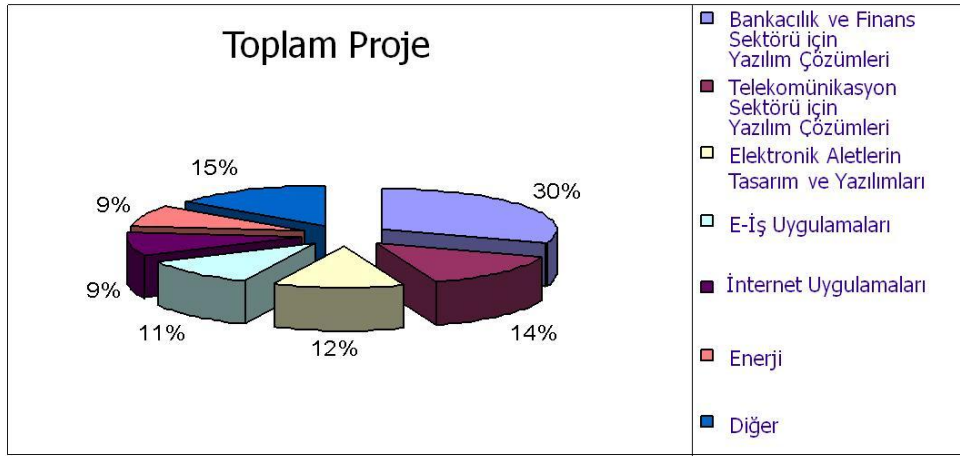
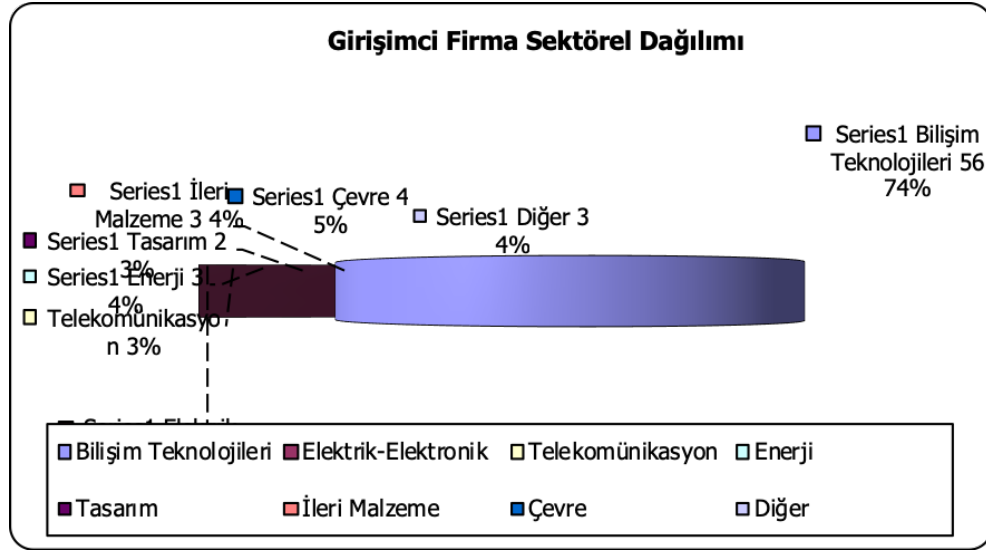
Patent ve Marka Tescili günümüzün teknoloji şirketlerinin de öncelikli çalışma alanını oluşturmaktadır. Biz ARI Teknokent olarak bu konuda firmalarımıza gerekli bilgilendirmelerde bulunup konunun önemine vurgu yapıyoruz, ancak, Teknoloji Transfer Ofisimiz henüz mevcut olmadığı için doğrudan bir etkimiz bulunmamaktadır.

Appendix B Quantitative Questions

SORU 1

Şirketin hangi sermaye ile finanse edildiği? Şirketlerin hangi sektörlerde olduğu ve ölçekleri?

ARI Teknokent Proje Geliştirme Planlama A.Ş kendi özkaynakları ile finanse edilmektedir. Gelirinin önemli bölümünü mevcut ofis alanlarından elde ettiği kira bedelleri oluşturmaktadır. Sadece, yeni bina inşası gibi büyük çaplı projeler olduğunda banka kredisine başvurmaktadır.



SORU 2

Şirketlerin satılma ve kapanma durumları neler?

Zaman içinde çıkan firmalarımız olmakla birlikte bünyemizde kapanan firma bulunmamaktadır.

Ocak 2010'dan bu yana ARI Teknokent bünyesinden 9 firma ayrılmıştır. Bu firmalardan 4'ü KOSGEB firması olup, KOSGEB'de geçirmeleri planlanan süreyi aştıkları ya da olgunluk seviyesine eriştikleri gerekçesiyle KOSGEB bünyesinden çıkmışlardır. KOSGEB Binası ARI Teknokent Koordinatları içinde kaldığı için, KOSGEB TEKMER'de faaliyet gösteren bir firma talep etmesi durumunda ARI Teknokent Bünyesinde ve 4691 Sayılı Kanunun sağladığı teşviklerden yararlanabilmektedir. KOSGEB'le ilişkisi kesilince ARI Teknokent'le de kesilmektedir. Söz Konusu firmalardan biri KOSGEB sürecini tamamlamasının ardından ARI Teknokent'e 5. Soruda anlatılan süreç çerçevesinde başvurmuş ve ARI Teknokent'e geçiş yapmıştır.

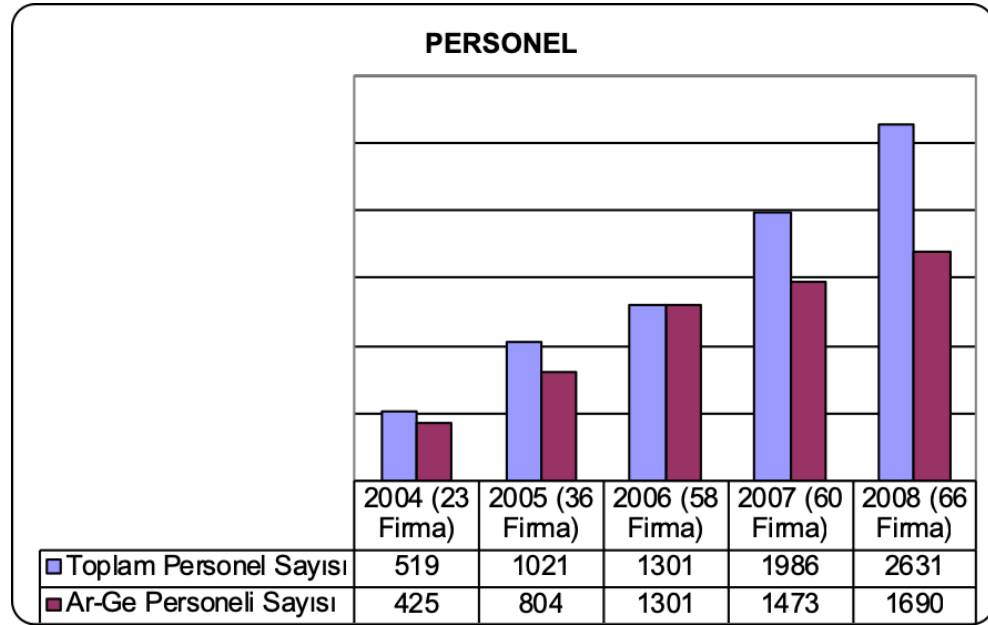
Ayrılan diğer 4 firma ise; Onaylı Ar-Ge Projelerinin süresini bitmesi ve devamında yeni proje önerisi vermeyerek ya da proje önerileri Teknokent Yönetim ofisi tarafından mevzuat kapsamında yürütülmesi uygun görülmemeyerek ARI Teknokent bünyesinden ayrılmıştır.

SORU 3

Sirket içi çalışanların devir daimleri nasıl?

ARI Teknokent Firmalarında iş gören devir oranları firmaların ölçeğine göre değişmektedir. Büyük ölçekli firmalarda yüksek iş gören devir oranı, küçük ölçekli firmalarda ise düşük devir daim yaşanmaktadır. Mikro ölçekli firmalarda Ar-Ge faaliyeti çoğunlukla kurucular ve yöneticiler tarafından yürütüldüğü için daha kalıplaşmış personel yapıları bulunmaktadır.

AR-Ge personeli ve destek personelinin oranları ve yıllara göre dağılımı aşağıda verilmiştir.



Teknoloji Geliştirme Bölgesinde Çalışan Personel

	2009				2010		
	1-3 Ay	3-6 Ay	6-9 Ay	9-12 Ay	1-3 Ay	3-6 Ay	7-9 Ay
Yasa kapsamında							
Yerli çalışan	1487	1519	1548	1547	1583	1585	1636
Yabancı uyruklu	4	5	6	5	5	4	3
Yerli öğrenci	76	57	67	65	61	55	59
Yabancı uyruklu öğrenci	0	0	0	0	0	0	0
Yönetici şirkette çalışan personel	0	0	0	0	0	0	0
Toplam	1567	1581	1621	1617	1649	1644	1698
Kapsam dışı	963	727	756	534	536	564	591
Yönetici şirkette çalışan personel	18	19	19	39	18	19	19
Genel toplam	2548	2327	2396	2190	2185	2208	2289

Teknoloji Geliştirme Bölgesinde Çalışan Firmaların Personel Sayılarına Göre Dağılımı

Personel Sayısı	2009				2010		
	1-3 Ay	4-6 Ay	7-9 Ay	10-12 Ay	1-3 Ay	4-6 Ay	7-9 Ay
<10 Kişi	15	17	18	22	22	23	22
10-25 Kişi	21	24	24	23	21	20	19
26-50 Kişi	12	13	12	13	15	15	16
>50 Kişi (*)	14	10	10	10	10	9	9
Toplam firma sayısı	62	64	64	68	68	67	66
Bölgede çalıştırılan engelli personel sayısı	12	11	14	14	15	16	17

NOT 2010 yılı 3. Dönem itibari ile toplam firma sayısı 66 olup; 4. Dönemde ARI4 Binası hizmete girdiği için yer açılmış ve yeni firma kabulü yapılabilmektedir. Ayrıca, KOSGEB bünyesinde faaliyet gösterirken 4691 Sayılı Yasadan yararlanmak isteyen firmalardan da yoğun talep olmuştur. Bu sayede İTÜ ARI TGB'de faaliyet gösteren firma sayısı günümüz itibari ile 78'e ulaşmıştır.

Teknoloji Geliştirme Bölgesinde Çalışan Personelin Eğitim Durumu

	2009				2010		
	1-3 Ay	4-6 Ay	7-9 Ay	10-12 Ay	1-3 Ay	4-6 Ay	7-9 Ay
İlköğretim	54	31	31	31	32	30	31
Lise-meslek lisesi	452	241	253	241	230	237	239
Meslek yüksek okulu	21	27	24	25	26	25	25
Ön lisans	181	117	114	116	119	118	122
Lisans	1482	1526	1568	1380	1391	1416	1473
Yüksek lisans	313	318	339	317	335	325	340
Doktora	26	30	28	25	32	36	34
Doçent	1	8	7	5	8	11	13
Profesör	0	10	13	11	12	10	12
Toplam	2530	2308	2377	2151	2185	2208	2289

SORU 4

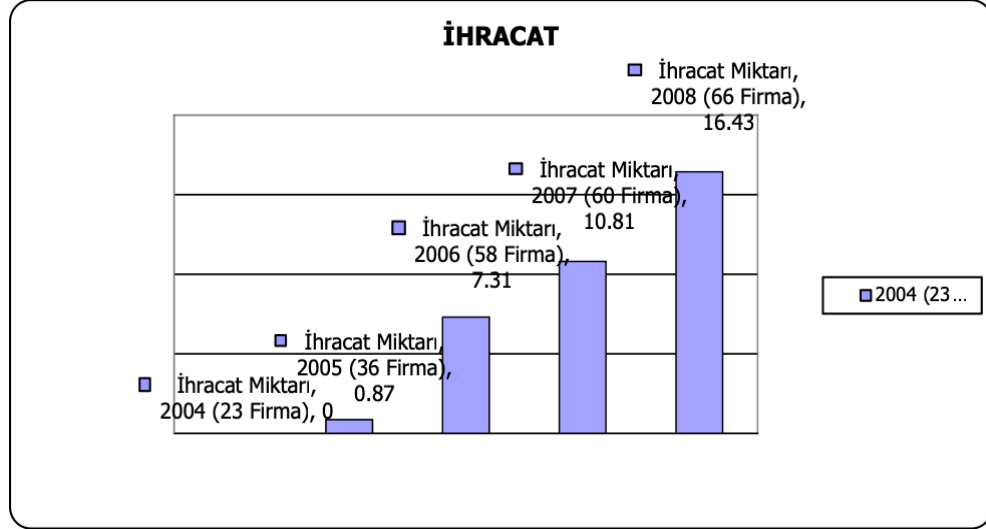
Ar-Ge faaliyetlerine dair rakamlar nelerdir?

Proje Sayısı (TGB'nin Kuruluşundan 2010 Sonuna Kadar)

Biten Proje Sayısı	Devam Eden Proje Sayısı	Sonuçlandırılama- yan Proje Sayısı	Toplam Proje Sayısı
1108	200	134	1442

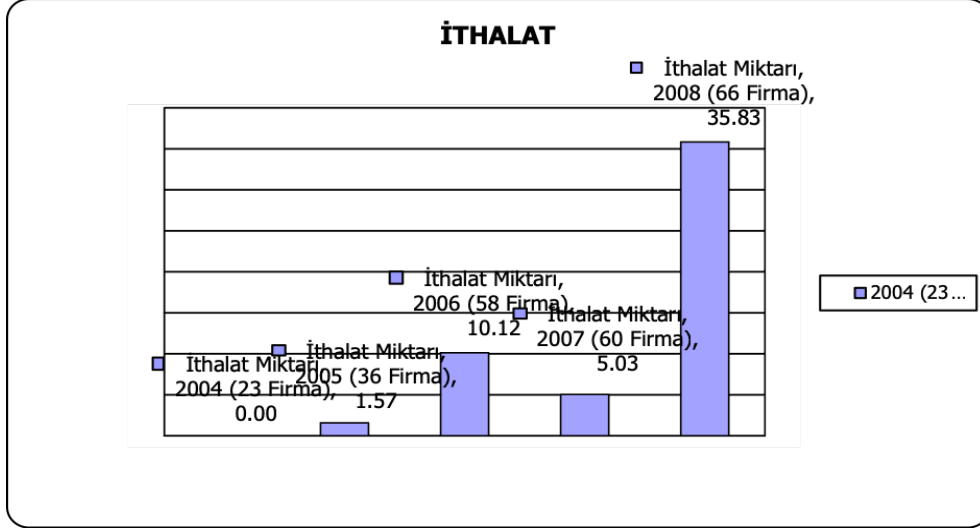
SORU 5

İhracat-ithalat rakamları nelerdir?



Teknoloji Geliştirme Bölgesinden Yapılan İhracat (\$)

		Toplam
2009	1-3 Ay	\$3.069.459,57
	4-6 Ay	\$2.615.283,05
	7-9 Ay	\$1.914.265,56
	10-12 Ay	\$4.463.643,40
2010	1-3 Ay	\$1.314.941,42
	4-6 Ay	\$2.489.465,15
	7-9 Ay	\$4.852.326,82



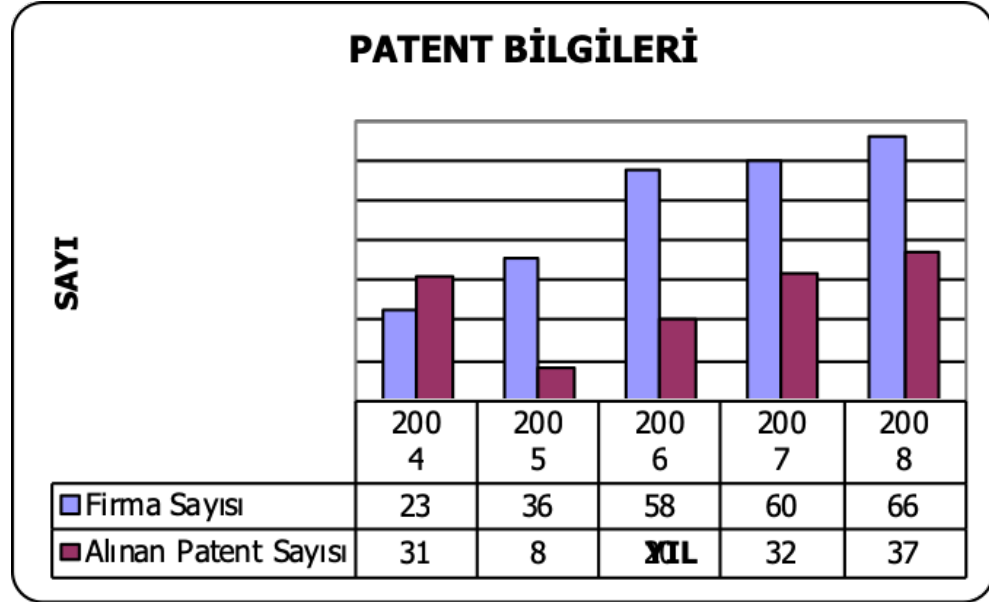
Teknoloji Geliştirme Bölgesinde Yeralan Firmaların Yaptığı İthalat (\$)

Toplam		
2009	1-3 Ay	\$66.894,10
	4-6 Ay	\$277.150,06
	7-9 Ay	\$220.421,65
	10-12 Ay	\$311.750,90
2010	1-3 Ay	\$103.645,88
	4-6 Ay	\$263.866,75
	7-9 Ay	\$608.092,54

SORU 6

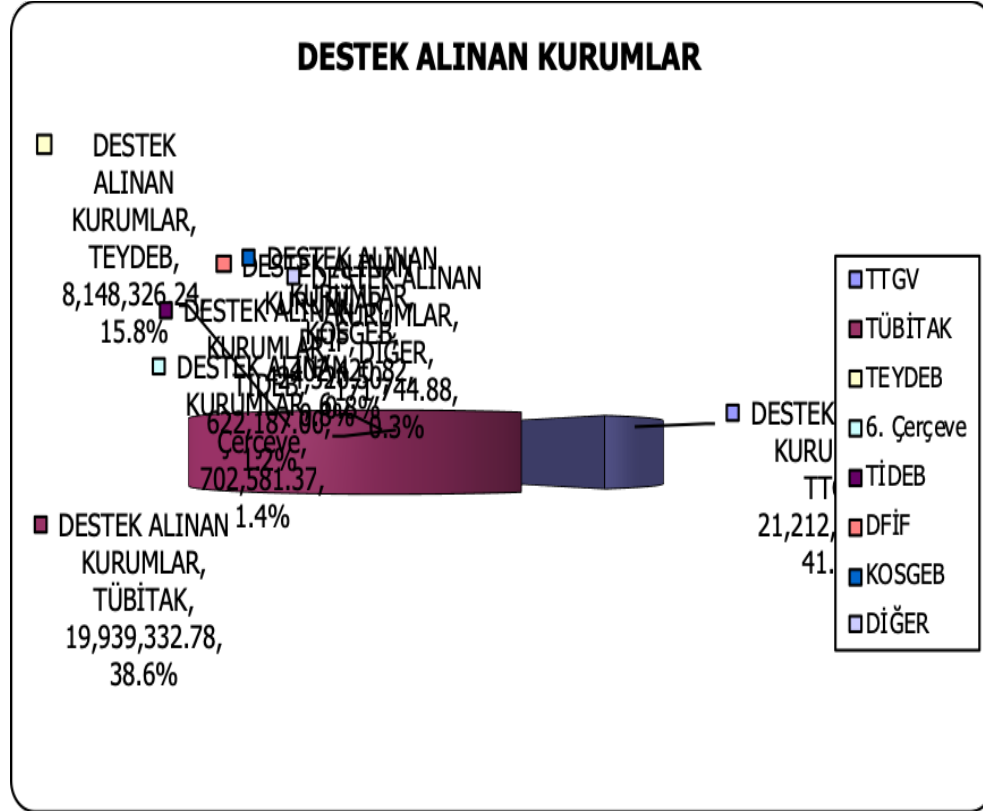
Alınan patent sayıları nelerdir?

2010 yılı Ocak ayı itibariyle alınmış toplam patent sayısı 145’dir.

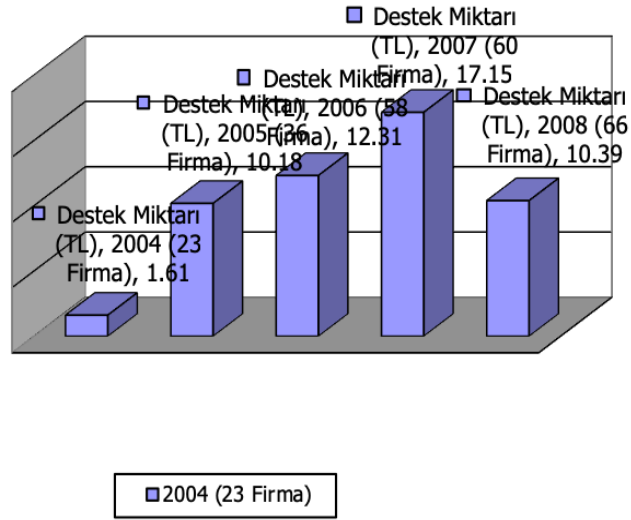


SORU 7

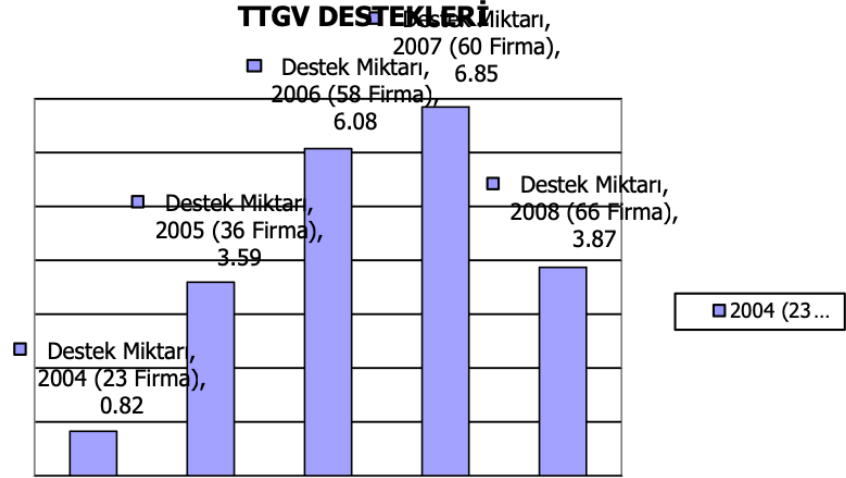
Yatırım teşvikleri ne miktarlardadır?



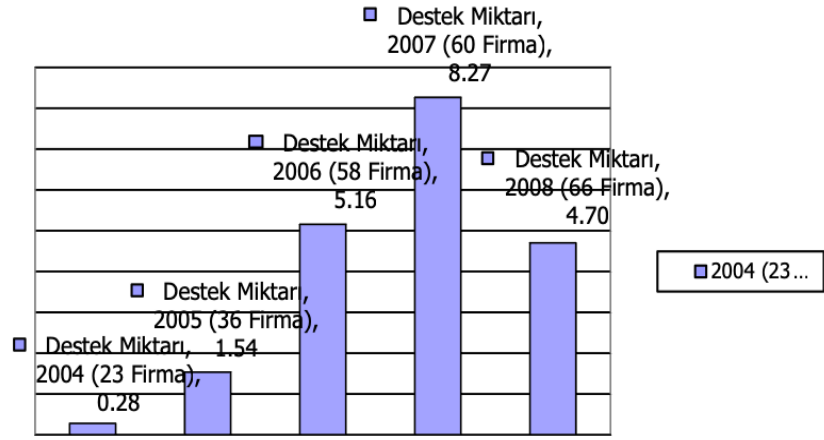
DESTEKLER



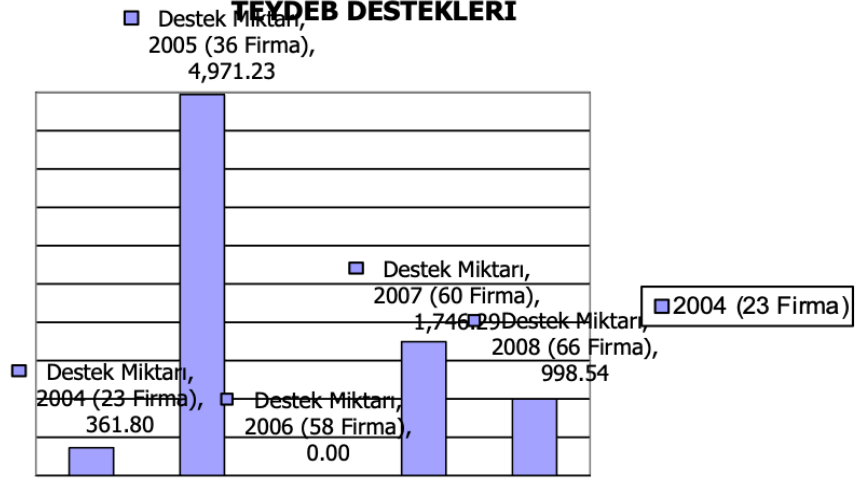
TTGV DESTEKLERİ



TÜBİTAK DESTEKLERİ



TEYDEB DESTEKLERİ



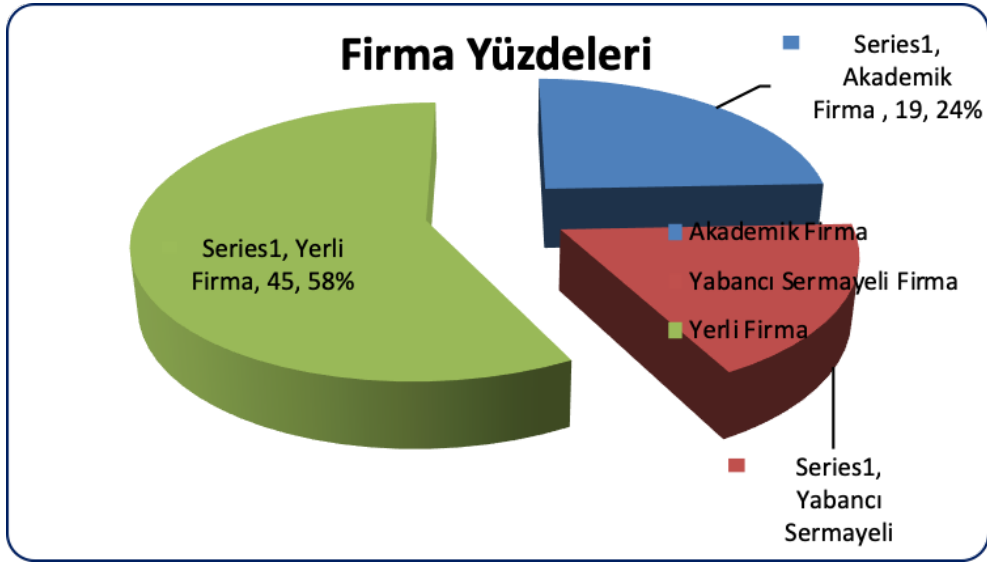
SORU 8

Akademisyenler ile bağlantı ne düzeyde – A) yok B) danışmanlık c) informal danışmanlık d) akademisyen şirket sahibi E) öğrencisi şirket sahibi, bunların oranları nedir?

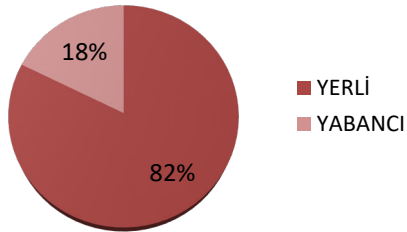
Firmalar İTÜ öğretim üyeleri ile diğer Üniversitelere bağlı öğretim üyelerinden danışmanlık, informal danışmanlık alabilmektedirler. Ayrıca İTÜ Akademisyenleri ve Öğrencilerinin şirket sahibi olduğu firmalar da bulunmaktadır. Akademisyenlere ve öğrencilere yönelik firma kurmayı teşvik eden özel avantajlar ARI Teknokent tarafından sunulmaktadır. İTÜ Akademisyen ve Öğrencilerine 2 yıl ve 30m2 ile sınırlı kalmak üzere %50 kira indirimi,; diğer üniversite akademisyen ve öğrencilerine ise yine aynı sınırlar çerçevesinde %20 kira indirimi uygulanır.

2010 yılı içerisinde yapılan tüm bu çalışmalar sonucunda İTÜ Akademisyenleri tarafından kurulmuş girişimci firma sayısı %180 artış göstermiştir.

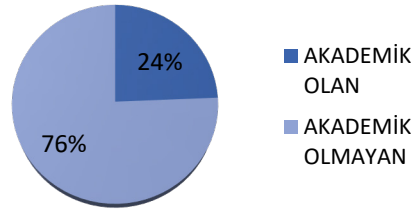
İTÜ ARI Teknokent Teknoloji Geliştirme Bölgesi içerisinde faaliyet gösteren girişimci firmaların şirket yapısına baktığımızda; 78 girişimci firmanın %24'ünü Akademik firmalar, %18'ini de Yabancı Sermayeli firmalar oluşturmaktadır. Genel dağılımlar aşağıdaki tablolarda gösterilmiştir.



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