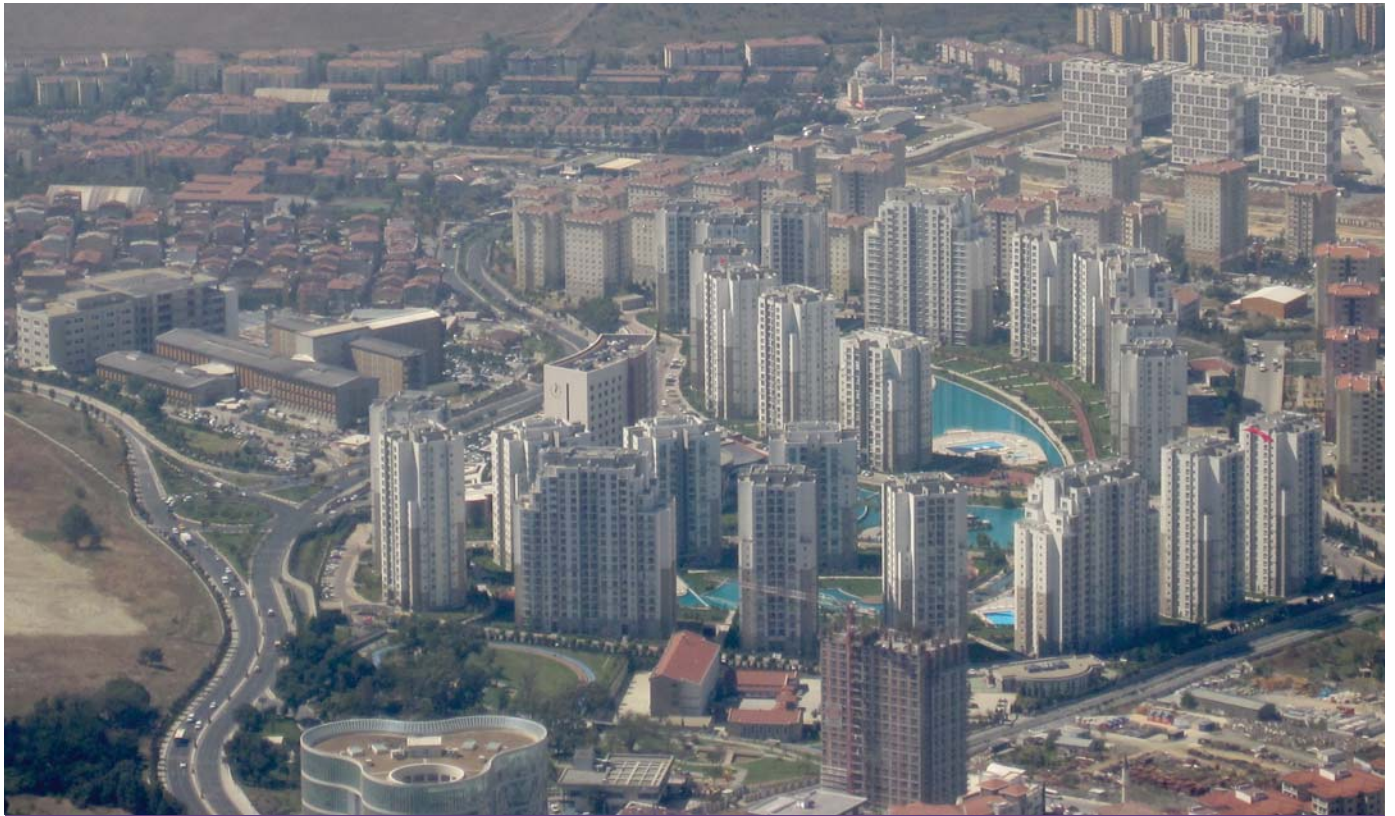




The Density Dividend: solutions for growing and shrinking cities

Appendix

Case study: Istanbul

Authors:

Prof Greg Clark

Senior Fellow, ULI Europe

Dr Tim Moonen

Director of Intelligence at The Business of Cities Ltd

About ULI

The Urban Land Institute (ULI) is a non-profit research and education organisation supported by its members. Founded in Chicago in 1936, the Institute now has over 35,000 members in 75 countries worldwide, representing the entire spectrum of land use and real estate development disciplines, working in private enterprise and public service.

ULI has been active in Europe since the early 1990s and today has over 2,200 members across 27 countries. It has a particularly strong presence in the major European real estate markets of the UK, Germany, France and the Netherlands but is also active in emerging markets such as Turkey and Poland.

ULI's mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. The Institute is committed to:

- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialogue, and problem solving;
- Exploring issues of urbanisation, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both the built and natural environments;
- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

To download information on ULI reports, events and activities, please visit <http://europe.uli.org>.

TH Real Estate

About TH Real Estate

TH Real Estate is an established investment management company, specialising in real estate equity and debt investment worldwide. As one of the largest real estate managers in the world, TH Real Estate has the scale, capital resources and knowledge to provide creative and effective real estate investment solutions for clients. With a focus on the retail, office, logistics, debt and multifamily residential sectors, TH Real Estate emphasises sustainable practices to protect assets and maximise their value.

The company is owned by TIAA-CREF, a US financial services and Fortune 100 company, with \$869bn assets under management*. Launched in April 2014, TH Real Estate has a dedicated global presence with offices across America, Asia and Europe, representing c.\$28.5bn* of real estate assets across c.50 funds and mandates. Together with TIAA-CREF's US real estate assets, the global real estate platform of \$86.6bn* represents one of the largest real estate investment management enterprises in the world.

www.threalestate.com

* As at 30 June 2015



Copyright ©2015 by the Urban Land Institute.

ULI Europe, all rights reserved. No part of this report may be reproduced in any form or by any means, electronic or mechanical, including photocopying or recording, or by any information storage and retrieval system, without written permission of the publisher. ULI has sought copyright permission for all images and tables.

Front cover image: Photo by: Adrian Grycuk. License: CC-BY-SA 2.0

Contents

Acknowledgements	iv
This report	iv
Methodology	iv
 Executive Summary	1
 History of urban change in Istanbul	5
 Current trends and future drivers of density in Istanbul	9
 The enablers and constraints of density in Istanbul	11
 Istanbul examples of ‘good’ and ‘bad’ density	15
 Future outlook and the journey towards good density	18
References	20

Acknowledgements

The preparation of this report was supported by a steering group of leading ULI members and staff including:

Kathleen Carey, Rosemary Feenan, Lisette Van Doorn, and Clare Game. The authors are very grateful for their guidance and support.

The authors wish to thank all those who have participated in the ULI workshops, and those who contributed their ideas, knowledge and opinions. A list of those who gave exceptional assistance to the development of the case studies is listed on page 30 of the summary report.

This report

ULI Europe has identified *density* as a major theme for its content programme. This report is the second of a series of studies into the impact, implications and importance of density in today's cities.

The first report, *Density: drivers, dividends and debates (June 2015)*, examined what we mean by the term *density*, and explored the long term benefits density offers to people, the environment and on investments. This was done through consultation with ULI members, city experts, and industry leaders.

This report explores the question of density and urban change by looking more closely at the experience of six European cities. It examines how density may play a role in helping cities in cycles of growth or shrinkage to adapt, prepare and succeed in the future. The six case study cities – **Birmingham, Dresden, Istanbul, London, Stockholm and Warsaw** – cover a wide span of population trends, political frameworks and spatial evolutions. Together they offer many lessons for cities in different cycles of development.

Methodology

For this report, we initially undertook historical research on each of the six cities to understand the development path they have taken and what this means for the appetite of their residents and leaders for city living and future densification. Then, we developed detailed case studies for each of the six cities, which each identify the key drivers, enablers and attitudes to densification, and feature timelines of change. We identified and spoke with four to six specialists in each city – including city planners, academics, architects and development professionals – in order to clarify and calibrate these cases.

The case studies were used as the basis for discussion with ULI members at workshops that took place in each of the cities, except for Dresden where the workshop took place in Berlin. The feedback from the workshops was used to update and improve the case studies as well as to inform the summary report.

Authors

The authors of the report are **Prof Greg Clark**, Senior Fellow at ULI Europe, and **Dr Tim Moonen**, Director of Intelligence at The Business of Cities Ltd.



Executive Summary

Istanbul is today dealing with the effects of 50 years of rapid growth that make it one of the densest built-up areas in the world. This half century followed a broad pattern of (i) high-density inner-city development (ii) unplanned expansion around the city's first bridge and connecting highways, and (iii) central business district (CBD) spillovers in the direction of high-income neighbourhoods along the Bosphorus. A process of unmanaged, informal and small-scale development resulted in residential areas with densities much higher than anticipated in local and city plans.

Istanbul is a city of extraordinary vibrancy and street life, but its 'un-planned high-density' model has created many unintended effects. These include vehicle congestion, uneven access to public services, risk of earthquake damage, threats to forest and water basins, and a loss of urban vernacular. Segregation between high-end and low-end development continues to inhibit mixed-use

development and well serviced densification. Istanbul is now digesting these impacts and looking to re-engineer its compactness to create a better city. The shift required is bad higher density to good higher density.

A more empowered metropolitan government, and state-funded mass housing initiatives, help Istanbul inch towards a more sustainable approach to its spatial growth. The ideas for a managed poly-centric city with sub-centres unlocked by infrastructure investment are now familiar although not always followed. Examples of incremental and better designed mixed-use districts such as Atakoy have appeared since the 1980s, enabled in recent years by demand from global capital, although challenges of income segregation persist. There are also signs that new financial tools and incentives accelerate private sector-led transformation of Istanbul's informal housing stock. The ingredients of 'good density' are on the radar for the first time, but substantive progress is yet to become visible.

Figure 1 Population, economy and density in Istanbul's city limits and functional urban area

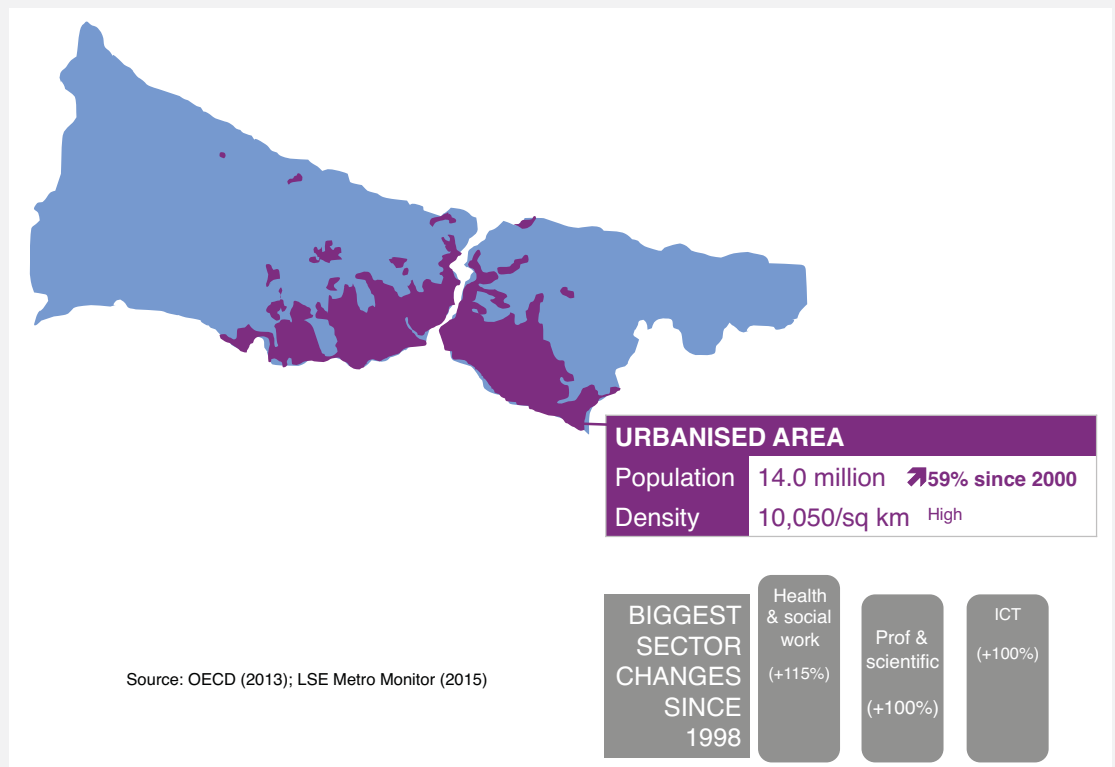
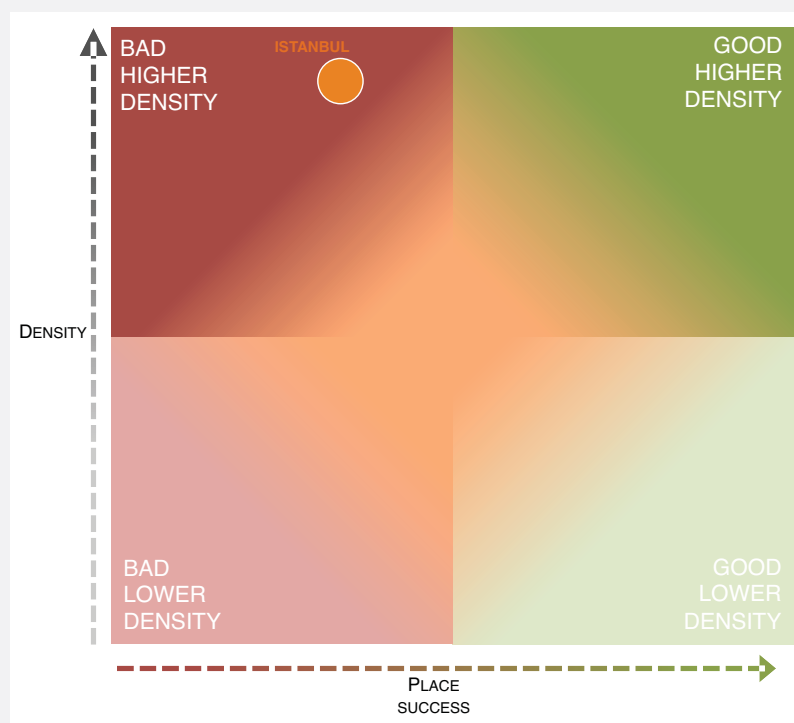


Figure 2 Istanbul's current density profile



The prospect of Istanbul as a 20 million person metropolis is now on the horizon. As an emerging world city, Istanbul seeks to play strategic trade and finance roles between Europe, the Middle East and Asia, while also preserving its unique natural and cultural identity. The move towards a diversified medium and high value economy relies on space being opened up for its finance, insurance, logistics and cultural industries to grow.

Istanbul now needs a new and better approach to density and spatial development in order to achieve five of its strategic imperatives:

- Poly-centric growth across its metropolitan region.
- More earthquake resilience.
- Create mixed-income and mixed-opportunity districts.
- An expanded creative economy including advertising, architecture, design, fashion, film, music, performing arts, publishing, research and development (R&D), software and media.
- Effective commercialisation of education and research to serve industry specialisations.

Failure to address these imperatives present a risk that Istanbul will lose momentum and fall behind other emerging world cities that have made reforms to tackle congestion and infrastructure stress. Well-managed land-use is a tool for Istanbul to retain its competitive advantage.

Istanbul has experimented with financing and land-use tools in recent years, and has also seen some of the benefits of development at a large scale (see Figure 3). However the city lacks some of the fundamentals to steer densification effectively: a binding plan, a clear vision or framework, and a persuasive message about the reasons for change. Planning and co-ordination failures mean Istanbul does not have a proven tool box of instruments that work, and is not yet able to build strategies to sustain momentum and appetite for urban restructuring across multiple cycles.

Figure 3 Warsaw's ingredients to achieving progress on density

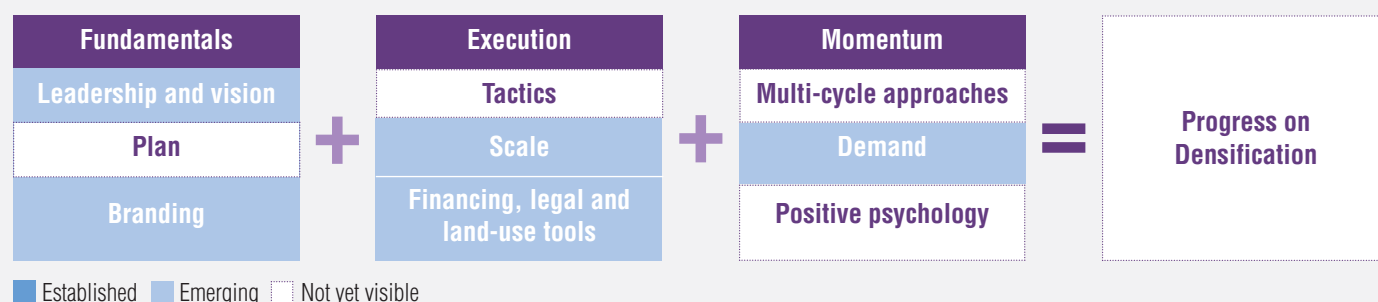
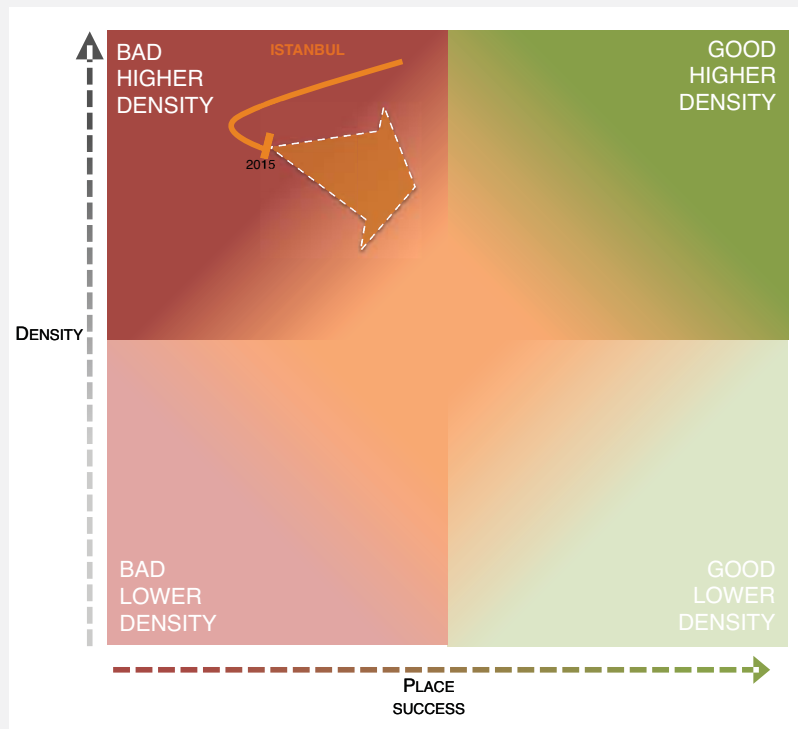


Figure 4 Istanbul's journey towards good density**Istanbul's density outlook**

The programme of huge infrastructure projects in train are a great opportunity to avoid the sprawl model that afflicts most other emerging world cities. Yet there is also potential for the infrastructure pipeline to lock the city in to a model of high car dependency and low liveability. The pipeline can support poly-centric development that adopts new densities and urban quality but it needs to have a place-making agenda added to it.

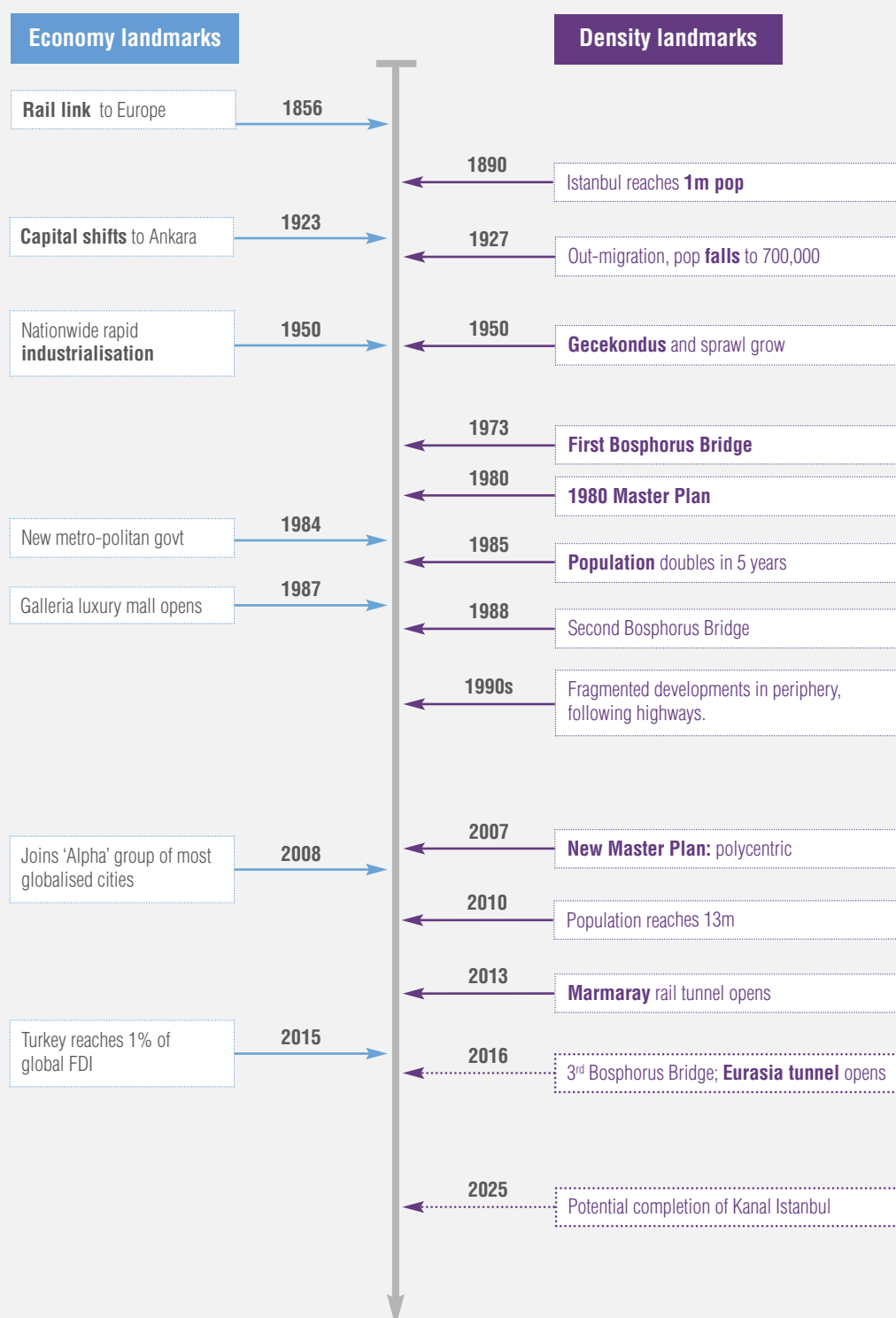
If Istanbul is to retain its compact and vibrant character in the next cycle, and follow the path to prosperity and liveability taken by Seoul rather than Mumbai, it may need to:

- Ensure the sequence of huge construction projects in train can be delivered sustainably and raise public transport use significantly.
- Use the earthquake resilience agenda as an opportunity for good densification, with much better district planning, sequencing of infrastructure, and street management.
- Overhaul the planning system to ensure suburban areas guarantee access to social infrastructure and jobs.

As Istanbul becomes a metropolitan city on the world stage, pressures to grow east and west are creating incentives to build a regional approach. Districts 30–60km from the centre such as Kartal and Silivri are identified as centres of future growth, while more remote cities 100–150km away are witnessing a housing and retail boom. The regional dimension is likely to be key to Istanbul's ability to absorb and steer demand in the next cycle.

The re-planning of Turkey's national system of cities is a prerequisite to Istanbul understanding its future role and pursuing it with confidence. A stronger framework is needed to provide clarity about the balance between new cities and existing cities, and Istanbul's relationship with Turkey's other leading urban centres.

Figure 5 Timeline of economic and spatial change in Warsaw





History of urban change in Istanbul

2.1 Early modern development

With a population in excess of 14 million, Istanbul is the biggest city in Turkey, one of the largest agglomerations in Europe and has the fifth largest population within city limits in the world.

Istanbul's built environment depends on a uniquely diverse historical heritage, as Istanbul served as a capital of four empires: the Roman Empire (330-395), the Byzantine Empire (395-1204 and 1261-1453), the Latin Empire (1204-1261), and the Ottoman Empire (1453-1922). The latter has had the greatest influence on the city's current spatial format. The city's strategic position along the Silk Road, sea routes, and international railway connections, have left lasting influences on the city's structure and design.¹

Istanbul has effectively grown 100-fold since 1900, from a 25 sq km city to a 2,500 sq km metropolis

After opening its market to external investors in the mid-19th century that led to a process of westernisation until the early 1900s, Istanbul entered a new era in 1923 when its status as a capital was re-assigned to Ankara. This decision, combined with the effects of the First World War and the 1922 War for Independence saw a significant decrease in population, from over one million inhabitants in the 1890s to under 700,000 in 1927. In 1923, only 5 percent of Turkey's population lived in Istanbul, but since then this share has grown to 18 percent.²

2.2 A new model of unmanaged sprawl after 1945

A new cycle of urbanisation in Turkey, beginning in the 1950s, left an important imprint on Istanbul's spatial form. Industrial growth in textiles, footwear and metal industries saw the city receive the lion's share of foreign and public investment, triggering a surge in rural migration that shifted the city boundaries outwards. Istanbul's population nearly doubled between 1950 and 1965 alone.³ The CBD grew substantially while additional sub-centres appeared across the city.

Rapid migration led to the emergence of informal low rise *gecekondus*⁴ (literally 'landed at night') as city authorities struggled to meet housing demand. These detached *gecekondus*, often located on valley slopes, tended to lack basic infrastructure. They were followed by a second cycle of construction that created so-called 'post-*gecekondus*' which were vulnerable to periodic earthquakes. These informal residential areas have started to expand into the water basins, forests and agricultural land at the city's periphery, with challenges for their long term sustainability and their capacity to host future development at higher density.

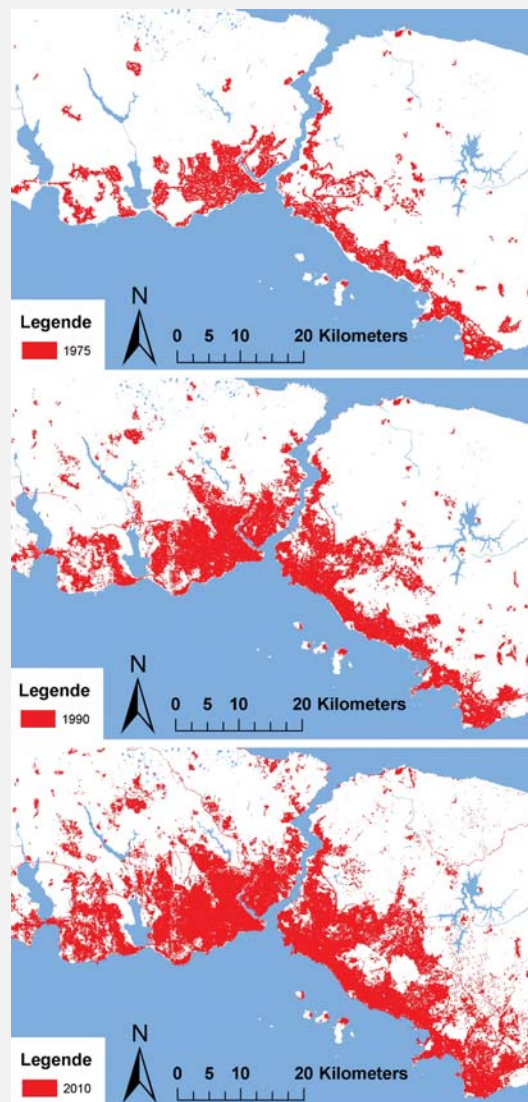
Figure 6 Gececondus and towers in Esenyurt, 25km west of Istanbul city centre⁵



Photo by: buzkozan. License: CC-BY-SA-3.0

Istanbul doubled in population in just five years, from 2.7 million in 1980 to 5.4 million by 1985.

Figure 7 Istanbul's growth, 1975-2010⁷



Source: livescience. Credit: DLR.

Disorganised sprawl became endemic in Istanbul as agricultural land was rapidly converted outside the city boundaries into plots for residential use. Industrial companies acquired cheap land at the periphery and the popularity of cars began to create congestion issues. The completion of the first Bosphorus Bridge in 1973 did not signal a more planned approach, with central government continuing to ignore the challenges of cities.

A second phase of industrialisation period began in the 1980s as a result of central government reforms implemented by the newly elected liberal party. Istanbul was defined as a global city for the first time. Another wave of immigration in the early 1980s saw migrants continue to settle on the cheap agricultural land beyond the municipal boundaries.⁶

It was during this period that Istanbul lost much of its green space. It now has the lowest share of green space in its urbanised area of any city in the world. This was largely a product of a lack of urban development planning and communication, which gave rise to a culture of 'every man for himself', with residents taking the initiative to solve their own problems.

Among the major projects included the demolition of industrial buildings on the Golden Horn shore and the relocation of industries from the city centre to the outskirts.⁸ Redevelopment aimed to transform an old city into a modern one, based on Western city architecture and layouts with wide boulevards and streets and large recreational areas. This approach, outlined in the city's Master Plan of 1980, encouraged excessive car use, worsening the traffic congestion.⁹

Construction of the second Bosphorus Bridge and other motorways accelerated Istanbul's northward growth and the emergence of new subcentres. The lack of planning saw the built up area between the first bridge and second bridge develop very poor housing conditions, but the complexity of ownership and occupancy has made it hard to undertake regeneration.

Economically, Istanbul's shift towards finance, insurance, real estate and business sectors boosted construction of high-end office centres, luxury hotels and transport infrastructure. This had been encouraged by the 1982 Act on the Promotion of Tourism which weakened building regulations for the sites declared as 'Tourism Centers'. The legislation was widely used not only for tourism but also for business purposes leading to the emergence of high-rise office and hotel towers in many districts in Istanbul. The new developments altered the city's skyline with the skyscrapers and towers now overshadowing the minarets.

Today Istanbul is a metropolis where most people live in a 100km x 20km strip on the Sea of Marmara. The city's masterplan drawn up in 2007 aimed to limit further population growth and encouraged new sub-centres to preserve sensitive natural areas.¹³ However, the plan was effectively ignored as population continued to rise and the central government announced plans to build on fragile land.

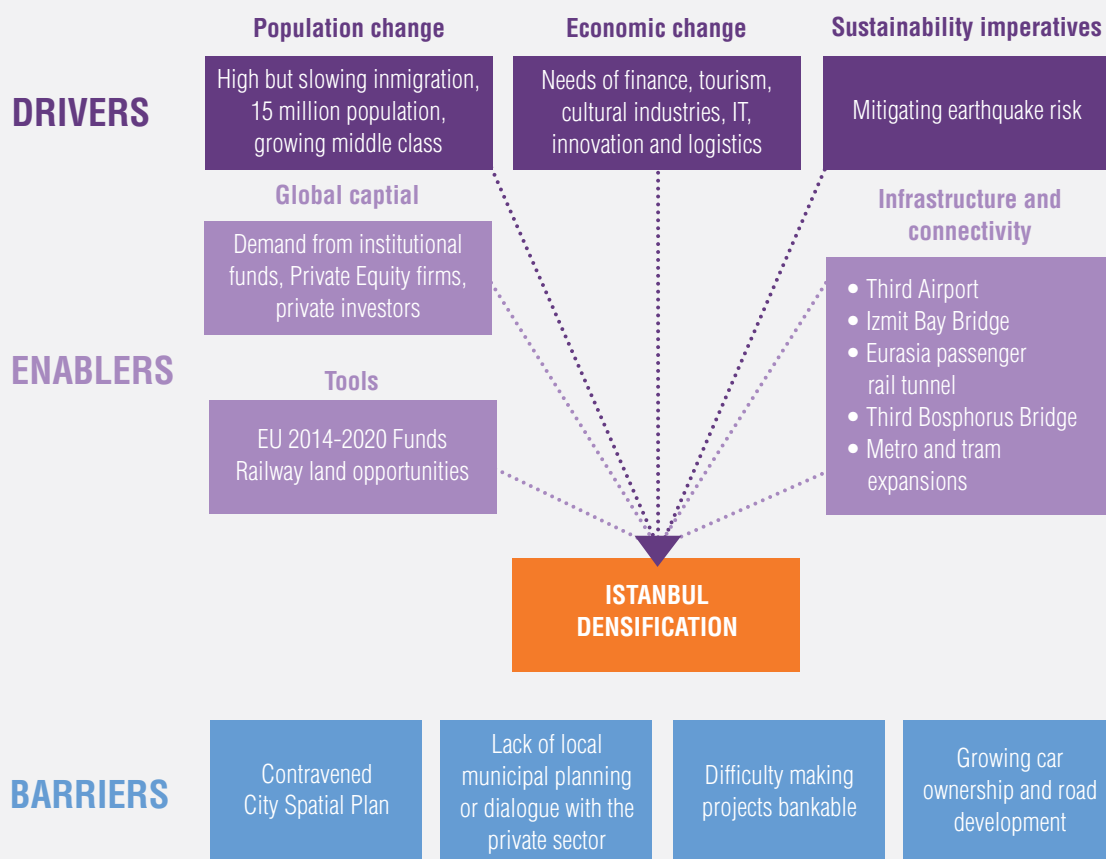
With peak population reaching well over 15 million each day, the municipal authorities are concerned about the externalities of such fast-paced growth, and are looking for the ways to manage movement more effectively while adding to infrastructure capacity to absorb minimum growth.¹⁴ This is therefore putting density on the agenda as a strategic imperative for the first time.

Istanbul's growth has triggered the development of other smaller cities in the macro region within 100-150 km of the city. Cities such as Çorlu, Yalova and Kocaeli have been seen a boom in housing development and investment in shopping centres, office and hotel investments in these cities are also contributing the regional development. This regional dimension may prove to become an important part of Istanbul's ability to absorb growth and demand in the next cycle.

Current trends and future drivers of density in Istanbul



Figure 9 Drivers, enablers and barriers to densification in Istanbul



The pace of population and economic change in Istanbul create an urgent imperative to increase capacity and upgrade urban quality, manage earthquake risk, limit environmental destruction and to create shared and cohesive city districts.

Rapid population growth

The major driver of densification is the fact that Istanbul will have nearly doubled its 2000 population within a decade, but has limited land where it can host sustainable growth.¹⁵ This has triggered major new city housing projects on both sides of the Bosphorus, with a combined capacity of 500,000 dwellings and two million residents.

One large housing project of 250,000 units has been started on the European side, on land reserved by the Ministry of Environment and Urbanization. The scale of change is far faster than other European cities: recent estimates indicate that more than half of Istanbul's entire existing housing stock has been built in the last 20 years.¹⁶

Earthquake risk

Istanbul has tens of thousands of buildings and hundreds of thousands of residents facing earthquake risk, and there is a real urgency to rebuild and redevelop. An earthquake at eight Richter scale intensity could claim over 500,000 lives and create economic damage of \$60 billion (€53bn).

“For Istanbul it is predominantly better-off social groups that are able to form segregated spatial configurations, especially in urban areas closer to...amenities and partially around the city centre. Lower social groups, on the other hand, seem to prefer congregating in the certain areas of the city in order to get benefit from social network[s]”

– Ela Ataç, Department of City and Regional Planning, Gazi University

Incremental density in Atakoy

Atakoy in the coastal Bakirkoy district 10km west of Sultanahmet, is one of the city's most planned and fully established residential neighbourhoods. Historically populated by business professionals and government workers, the area highlights the potential for liveable density even though there is high income segregation.

Ataköy was one of the first examples of development outside the city centre that adopted a modernist emphasis on rational design and greenery. It attracted many higher income residents because of the lifestyle, walkability and proximity to the beach. The centrepiece of the second phase of development in the 1980s was the pioneering Galleria Shopping Centre, the first of its kind in Turkey. Benefiting from political support, the low rise project was part funded by government banks, and central government subsidy was enabled because of the mixed-use nature of the project that included a marina, hotel and other uses. As a result, the complex now features a 40-storey business centre, and four 18-storey hotel blocks.

Today owned by the State Housing Development Association (TOKİ) but under the administration of Dati-Mariners Ataköy Tourism and Construction Company, the Complex has emerged as an iconic waterfront project integrating residential and commercial use. Buildings originally given construction permits for use as aparthotels have now been sold as residences. Large-scale investment since 2005 has improved the area's liveability and attractiveness to Turkish and international audiences.

A 140,000 sq m manmade peninsula is now being constructed to extend the complex, because it has run out of space for new building. The Mega Marina will be used as a marina for large cruisers, featuring conference halls, convention centres, restaurants and clubs. Other developments include a three-story trade and entertainment centre, two-story convention centre, and five-story administration building.²¹

At the same time, Atakoy is hosting much increased residential densities. A Qatari Diar 'Sea Pearl' project is creating over 1,400 high-end apartment units in eight residential blocks, and a mix of other uses on 128,000 sq m of land. This higher density is enabled by improvements in architectural design and high standards of sustainable, earthquake-resistant living.²² The main concern is that it entrenches the model of gated and uncohesive communities which is dominant in Istanbul.

The renovation of these structures, and 11 sq km of risky land, part-funded by central government, offers a new long-term opportunity to create both density and liveability.¹⁷ In most cases, half of the buildings will be delivered to the private sector. Under the agreement, owners will be given 85 percent of the housing sites and 35 percent of the land share (per building), and 2.5 houses will be constructed for each dwelling currently in place. The other 50 percent is reconstructed by the owner in a one-to-one turnover ratio. All in all, 3.5 houses will be constructed for every two houses demolished.¹⁸ The system avoids having to ask for public finance up front and effectively finances redevelopment through the doubling of density. Although this system is not planned but agreed parcel by parcel, it is a promising mechanism if eventually combined with district planning and design.

Economic diversification

Istanbul's economic future is based on a more diversified profile of finance (including Islamic banking), tourism, cultural industries, information, innovation and logistics. Many of these sectors require new or enhanced space in the right areas of the city if their agglomeration potential is to be optimised. New zones and corridors are characterised by more mixed-use and transport-led development. Middle class population growth and consumer demand

The rise of middle and upper middle class gated communities in Istanbul has typically involved high-end residential towers adjacent to shopping malls and office developments such as Akmerkez, Metro City, and the Sapphire building.¹⁹ Many are located in suburban areas at the periphery and sit close to *gecekondu*s, the low-income squatter settlements. The segregation between the two kinds of development can be an inhibitor to mixed-use development and densification. Other examples, including in Atakoy (see Box), are more incremental and are somewhat more successful.²⁰

The enablers and constraints of density in Istanbul



Global firms and global capital

Istanbul has entered a new cycle where more land has come onto the market, encouraging more large-scale developments, which are driven not only by real estate but also by consumption and recreation. An enormous influx of foreign investment and trade has seen Istanbul become a centre of attraction for foreign firms as a regional headquarters location.²³ More than half of the 19,000 foreign companies operating in Turkey are located in Istanbul.

The influx of global capital is creating demand for trophy architecture by world-reowned architects such as Zaha Hadid, Ken Yeang, and Kisho Kurokawa. For example, the Kartal development on the Asian side of the city was determined by the masterplan prepared by Zaha Hadid and is a part of the city's plan to create sub-centres on the both European and Asian parts of Istanbul.

Financing redevelopment at higher density

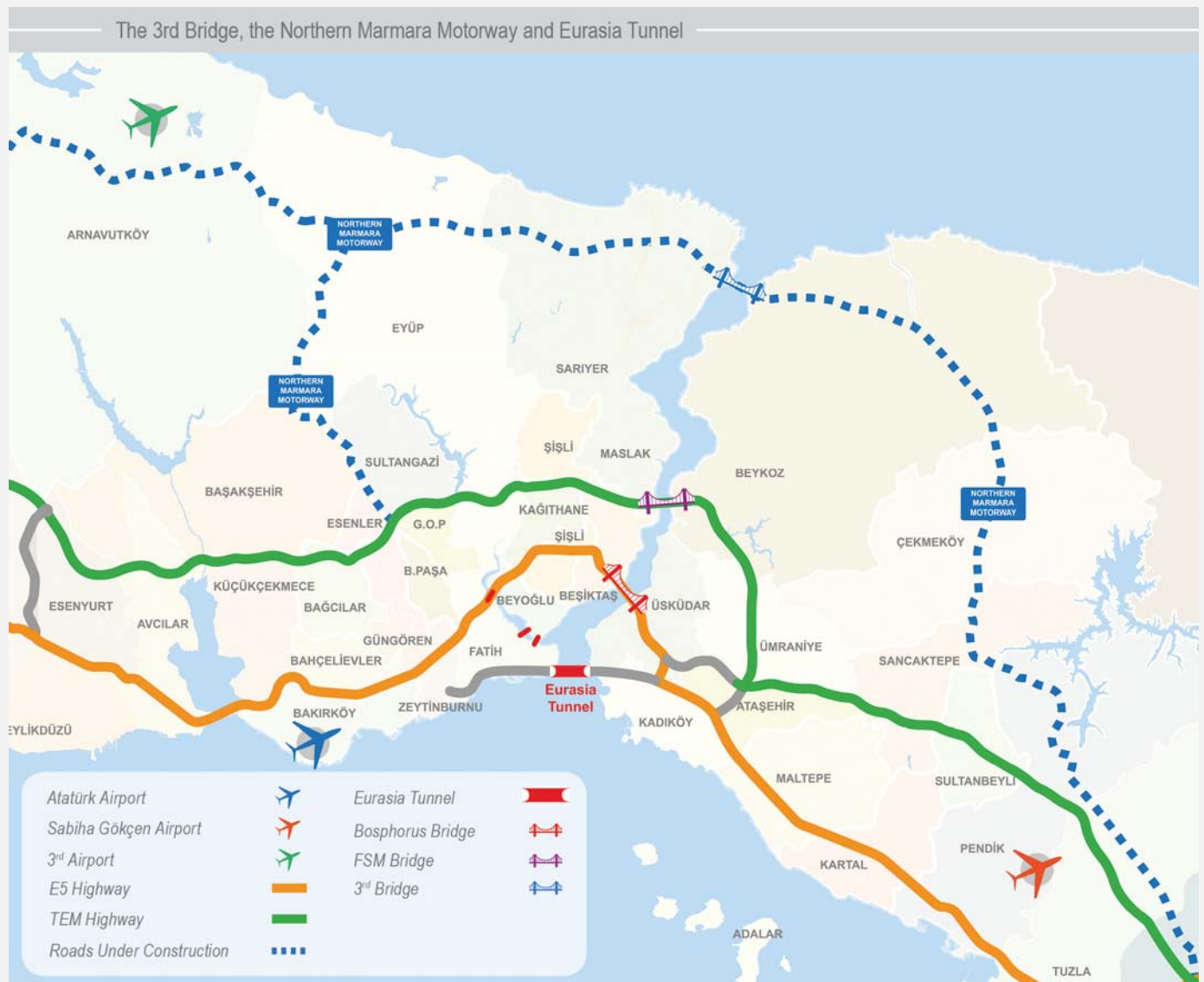
Istanbul has developed several new financial models and tools, including an increased role for investment funds and alternative funds. Banks play a key role and many large projects are financed by consortia of private Turkish banks. New incentives such as increases in zoning, zoning rights transfers, housing credits, interest compensations, rent grants, and tax exemptions have all been explored for the first time.

A significant amount of vacant public land is now reserved for new housing needs. Large housing projects are promoted there through exemptions from four percent title deed fees and two percent licence fees, as well as reductions in VAT. These inducements encourage investment in many projects, mostly located at the edge of the city. These slightly extend Istanbul's built-up area without creating the worst effects of sprawl, and retain the city's high density model.

Infrastructure development

Istanbul has a huge number of large construction projects in train that will increase commercial demand and agglomeration, enable more reliance on public transport, and shift Istanbul towards more poly-centric, densified development.

- The **third airport**, which is set to open in 2018 on the European side of the city, is a driver of activity in the north west of the city. With 150 million potential passengers, the privately financed airport will be linked in to the third bridge and the northern motorway, making it a prime area for logistics and trade-oriented densification. The major concern is its location in a very precarious ecosystem that makes its long-term sustainability or ability to host clusters of development around it very uncertain.
- **Izmit Bay Bridge** is at the centre of a \$6.5 billion motorway project that will rapidly improve connections between Istanbul and Izmir, once opened in 2018. It is expected to catalyse development in the southeastern peripheral suburbs of Gebze and Pendik.
- A **Eurasia passenger rail tunnel** between the Asian and European sides is expected to open in 2015, and is projected to help increase the share of rail trips in Istanbul from 4 percent to 28 percent, a very ambitious change in modal share. It will reduce passenger times from 100 minutes to around 15 minutes.
- **The Third Bosphorus Bridge**, which will be tolled, and which has driven price rises on both sides of the Bosphorus in anticipation of urbanisation.
- **Kanal İstanbul** will connect the Black Sea to the Sea of Marmara, if it is eventually approved.
- Metro and tram expansions.

Figure 10 Istanbul's sequence of infrastructure projects²⁵

The new cycle of infrastructure investment is already having a clear effect on patterns of density in central areas of Istanbul. The infrastructure capacity projects have triggered a greater focus on optimising densities around key hubs.²⁶ Road capacity also helps developers to build higher rise residential and retail projects complemented by better quality public space where possible.

Figure 11 Progress at the Third Bosphorus Bridge in 2015²⁷



Photo by Myviki. Licence: CC-BY-SA-4.0.

Planning and zoning

Big projects in Istanbul face the challenge to create a healthy mix of uses. The scarcity of land encourages investors to consolidate all functions within one building. This presents problems in terms of managing the cost-sharing between these different functions. Many projects require more careful management to deal with these conflicts. At the same time, local authority planning is a major constraint for the effective management of neighbours. There is a lack of dialogue between municipalities and the private sector and limited sharing of good practices. Improving channels of communication to ensure that social infrastructure is built in to projects will be an important enabler in the next cycle of projects.

Learning the lessons of bad density - Gaziosmanspasa

The district of Gaziosmanpasa is an example where Istanbul has begun to learn the lessons of unmanaged density. Located near to the E80 and O-1 highways and with good access to the Bosphorus Bridges, its empty lots were originally developed as residences for Balkan immigrants in the 1950s and 1960s, partly in order to access nearby industry. This was followed by a cycle of immigration from eastern Turkey.

Much of the area was initially built upon illegally in the form of small standalone buildings. The area witnessed a steep decline in building quality and health conditions and an increase in crime. A series of laws were enacted to encourage demolition and to turn low-rise squatter houses into higher density apartment blocks. However, the area continued to suffer from a chronic lack of social infrastructure – libraries, culture, clinics or schools.²⁸ Much of the district has also been vulnerable to earthquakes, with over 100,000 people affected.

Figure 12 Gaziosmanspasa's densification approach²⁹



Source: Gaziosmanpasa municipality

A process of regeneration has been underway for over a decade. Property owners negotiate with a private sector company called GOPAŞ, which is a co-partner of the local municipality, to agree the scope for redevelopment. In October 2014, the Urban Regeneration Master Plan was completed, and in December 2014, development plans at scales of 1:5,000 and 1:1,000 are in process. There is a range of residential density options for the phased redevelopment in order to be flexible in how the population will be accommodated.³⁰ As such, the project will function as a demonstrator for how more appealing and effective densities can be achieved for Istanbul's low-income populations.

Transport is the major focus in the new master plan for the district, which aims to genuinely understand future demand. There is still a very strong priority given to the car, with key strategies to improve the road network, and create a better parking system, resulting in a nearly 400 percent increase in parking slots.³¹ But from 2016 the district will be connected by rail to the city centre for the first time.

Istanbul examples of ‘good’ and ‘bad’ density



Istanbul is looking to re-engineer many of its unplanned and under-planned projects that have the features of ‘bad density’ – monotonous, inflexible, segregated and vulnerable to environmental threats. As a result urban densification projects are underway both on the outskirts and in the city centre, with mixed results.

In inner-city examples, such as the **Tarlabasi** district, land was gradually acquired by developers under guidance from TOKI using the historic renewal law. The project mixes office, retail and residential space, a pedestrianised high-street, which patterns Istiklal Street. Its redevelopment promises to increase the density of interactions and uses by adding public realm according to a human-scale design. But at the same time the process is perceived by some as a form of heavy-handed gentrification.³² The tension seen in Tarlabasi reflects the balance some older neighbourhoods have to find in developing opportunities for business or tourist growth against the importance of cultural heritage and established populations.³³

Ad-hoc policies and weak planning have created many instances of ‘bad density’. Many of these feature a high concentration of low-income populations with poor connections to the public transport network and limited access to shops, schools and services. **Gaziosmanspasa** is one prominent example (see Section 4). Car dependence is a key inhibitor to effective densification and Istanbul’s model continues to focus on road widening, traffic lanes and high-rise apartment blocks with big parking facilities.³⁴ In addition, poor planning has also allowed the

“ *Projects in Istanbul need more leisure area. Planning is essential. First Turkey, then the regions, and then Istanbul should be planned.* ”

– **Dr. Abdurrahman Arıman**, Coordinator, ULI Turkey

development of hyper-dense, higher income clusters which provide good self-contained mixed amenities, but at the same time lack coherence and connectivity with their wide environment, leading to uncertainties what their long-term spatial impact will be. The developments around Maslak financial district are one example (see box below).

Other regeneration and transformation projects set in Istanbul aim to make better use of under-utilised land and to upgrade areas where there is a lot of informal, unregistered or unsafe housing. The historic **Haliç Shipyard** on the Bosphorus is soon to be transformed into a 400,000 sq m site that features residential, marinas, hotels, a mosque and cultural amenities. The project adopts a Build-Operate-Transfer (BOT) model including four years of construction and 45 years of operation. The challenge for Istanbul’s public and private sector leaders in these areas will be not only to deliver the physical benefits of regeneration but to achieve some social regeneration and improve the economic profile and performance of the districts.

Seyrantepe and Maslak: attractive but potentially uncohesive islands of density

The areas of Seyrantepe and Maslak are hosting large-scale new housing-led mixed-use developments. They are already popular due to their proximity to the CBD and to Maslak financial district. However the scale and nature of the projects involved present several spatial challenges.

High density projects include Agaoglu Maslak Project 1453, Vadistanbul and Skyland. Individually, most are well designed and furnished. Agaoglu Maslak Project 1453 for instance is a mixed-use development that intends to create “a town centre away from the town centre”, with full self-contained leisure, retail and office amenities alongside housing. Vadistanbul will be built, along the same lines, with developments often exceeding 30 storeys or more.

Figure 13 View from Maslak metro station

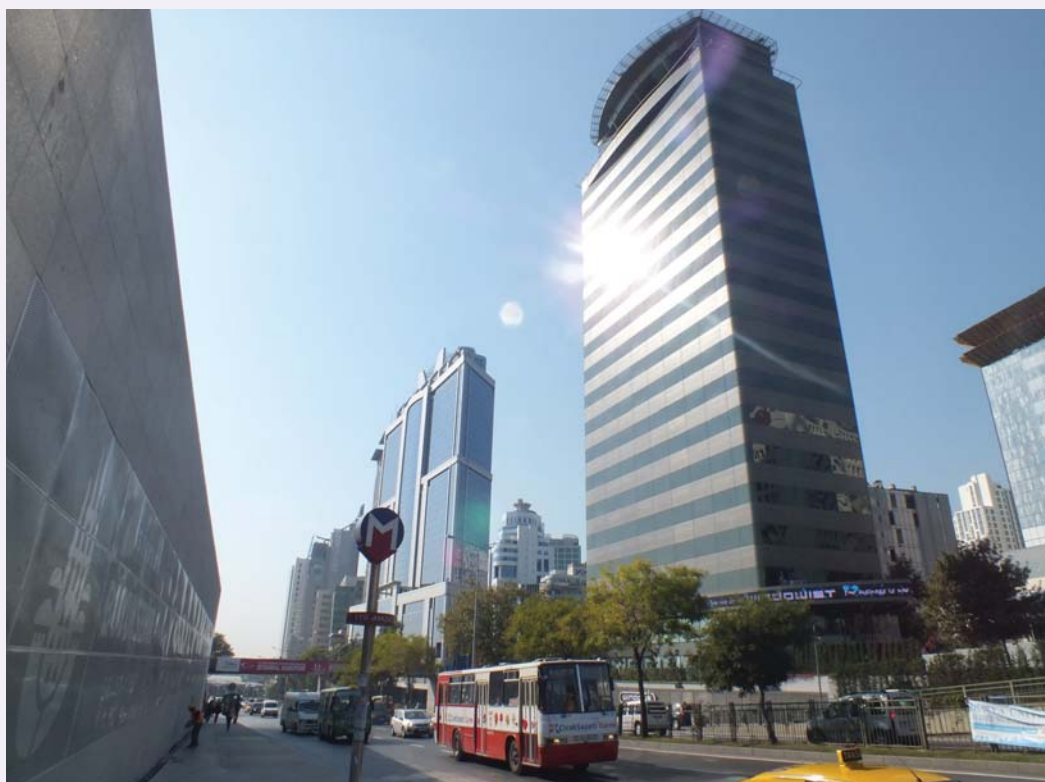


Photo by B'Tian D. P. Dorsam. Licence: CC-BY-SA-3.0.

While the neighbourhood will be connected to the metro, these very dense projects are not necessarily fully integrated with access to the network (e.g. direct pedestrian access) as developments are clustered in separate ‘islands’ that are not always joined up. Whether they have the flexibility to one day become part of a fully integrated urban realm remains to be seen, especially as there seems to be no overarching plan to achieve spatial cohesion in the area. In addition, the pace of change is raising concerns about the capacity of the local road, motorway and public transport networks to cope.

Dynamic or detached density? Kayaşehir

TOKI, Turkey's public housing administration, plays an influential role in Istanbul's housing sector and has significant government backing to deliver high volume for low income populations. Although the scope of TOKI's interventions are limited compared to the size of the need, and do not deliberately seek to create density per se, it does aim to build housing at approximately 600 people per hectare where possible.³⁵

Kayaşehir is one of TOKI's new satellite towns to the north-west of Istanbul. The plan is to develop 65,000 homes on the 1.1 sq km site, to be inhabited by 200,000 residents. Residents include new arrivals in Istanbul and residents of other regenerated areas given the option to live in these newly built high rises. Many of the properties are sold through a lottery system.

Figure 14 Location of Kayaşehir³⁶



© Kayaşehir



Source: Toki Kayabasi Konutlari and Peter Fitzgerald, License: CC-BY-SA-2.0

Currently, the site is fairly remote, near to the Ataturk Olympic Stadium and a two-hour bus ride from Taksim Square. The cost of fares is high and has deterred some from seeking jobs in the city centre. A new rail line connecting Esenyurt to Kayaşehir rail line has begun construction, scheduled for 2019. The site is however designed to be mixed-use, with clinics and a large shopping centre. TOKI aims to provide 36 sq m of green space for each resident.

Kayaşehir may benefit from the surrounding development of three commercial projects – Bio Istanbul, Health City and Magnet City – which will become home to a biomedical science park, a children's hospital, a cancer research centre and a vibrant mixed-use scheme that will offer a range of amenities.

Future outlook and the journey towards good density



Istanbul is still digesting the implications of the last cycle of extraordinary growth. The infrastructure projects in train are very welcome and have the potential to effect an important shift to more public transported oriented growth that has a stronger focus on place-making. This will be important if the city is to retain its compact character and vibrant image the next cycle. But to ensure the sequence of huge construction projects in train can be delivered sustainably and with more equitable outcomes, the city needs fundamental planning and implementation tools (see Figure 15).

Istanbul is clearly set to densify because of continuing population growth, business sector demand and the effect of large construction projects that are in train. State agencies are more active than ever with housing supply and currently there are over 40,000 social housing units constructed annually.³⁷ Although many argue that Istanbul must stop population growth very quickly, there is now also active debate about how and where Istanbul can sustain a potential population approaching 18-20 million by 2030.³⁸

High urban density is widely promoted as a more sustainable land-use approach, but the lack of planning means there is **wide public sentiment that density is already intolerable**, and serious concerns about the environmental and social viability of dense urban structures in precarious parts of the city. The costs of density are more visible than the benefits at the moment.

One scenario is that Istanbul will witness a continuation of its half century of dense sprawl while also densifying in those built-up areas where redevelopment is politically and technically feasible. Istanbul's capacity to steer its growth will depend on building medium and long term plans in place of ad hoc or discretionary regulation.

The regional dimension has become more important to Istanbul's decision-making about the future. With the rapid growth of regional cities there are clear opportunities to de-centralise both west and east (see Figure 17).

The regeneration of industrial areas can help unlock land for the development of advanced manufacturing, digital sectors, cultural and service-based industries. Land for development has been identified at three points of an economic 'triangle' at the edge of the city, namely Basın Express Road near Ataturk Airport, Cendere Valley to the north, and Kartal New Center on the Asian side.

The re-planning of Turkey's national system of cities is a prerequisite to Istanbul understanding its future role. A stronger framework is needed to provide clarity about the balance between new cities and existing cities, and Istanbul's relationship with Turkey's other leading urban centres.

Figure 15 Fundamentals of success for good density in Istanbul

	Durable city plan	Fiscal autonomy and flexibility	Transit-oriented development strategy	Metropolitan planning approach beyond city borders	District agencies and development corporations	National planning and policy framework for cities
Istanbul	*	*	*	**	*	*

*** Established ** Partly visible * Not strongly visible or developed

Figure 16 Perspectives on Istanbul's future density

Create a new masterplan to control growth

"Megaprojects will lead to a population boom in İstanbul... A new master plan should be drafted for İstanbul."

Semih Tezcan, professor in civil engineering

Income segregation is inevitable

*"Instead of building exclusive urban exclaves on the city's outskirts, an increasing number will be built inside the city: islands for upper-class housing, modern office space and commercial enterprises."*³⁹

**Kees Christiaanse, Mark Michaeli and
Tim Rieniets, ETH Zurich**

Make high density efficient and liveable

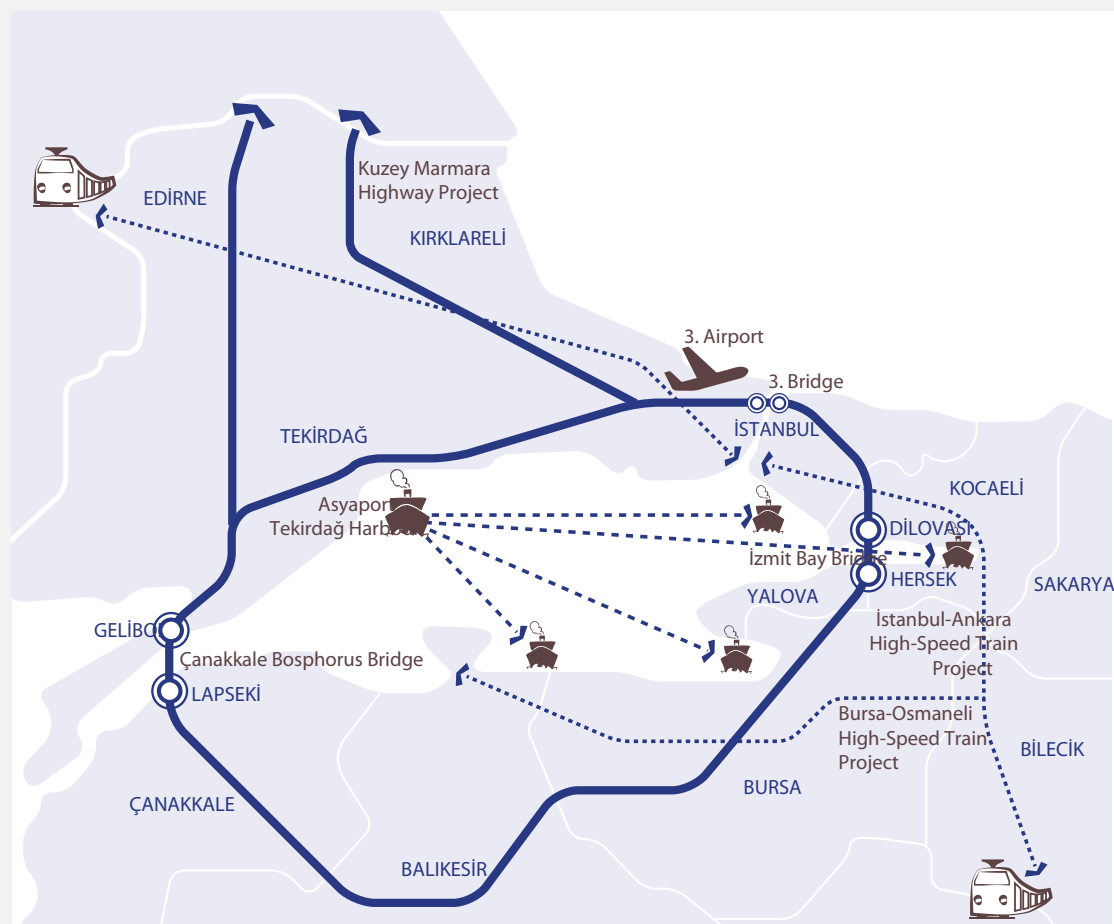
*"When we take a look at similar examples in the world, we see that there is never traffic congestion in any part of the Netherlands. The density of population is higher than that of İstanbul. Here, the issue is not the density of the population. The important thing is to maintain a balance in the population and have well-planned construction within the city"*⁴⁰

Korhan Gümüş, architect

Istanbul is a city of contradiction

"İstanbul is a megacity with 99% of its 15 million inhabitants living in an urbanised area, yet, it is still possible to find a 'slow city' lifestyle within the city's boundaries."

Yasar Adanali, blogger and urbanist⁴¹

Figure 17 The emergence of a regional dimension of Istanbul's growth⁴²

References

- ¹ Gonder and Gyula Nagy. Istanbul Urban Sprawl. University of Szeged, Economic and Social Geography Department.
- ² Wagner et al., 2014. Dimensions of Urban Re-development. The Case of Beyoğlu, Istanbul.
- ³ Wagner et al., 2014. Dimensions of Urban Re-development. The Case of Beyoğlu, Istanbul, p. 50.
- ⁴ Zeynep Merey Enlil, 2011. The Neoliberal Agenda and the Changing Urban Form of Istanbul. International Planning Studies. Vol. 16, No. 1, 5–25, February 2011.
- ⁵ https://commons.wikimedia.org/wiki/File:Esenyurt_Star_Towers_Kıraç_İstanbul.JPG
- ⁶ Wagner et al., 2014. Dimensions of Urban Re-development. The Case of Beyoğlu, Istanbul, p. 50.
- ⁷ http://i.livescience.com/images/i/000/016/714/original/Istanbul_over_time.jpg?1305651163
- ⁸ Wagner et al., 2014. Dimensions of Urban Re-development. The Case of Beyoğlu, Istanbul, pp. 51–54.
- ⁹ Terzi and Kaya, 2008. Analyzing Urban Sprawl Patterns Through Fractal Geometry: The Case Of Istanbul Metropolitan Area. UCL Working Papers Series, Paper 144 – August 08.
- ¹⁰ Burdett R., 2009. Istanbul: city of intersections. Report. This version available at: <http://eprints.lse.ac.uk/33333/>
- ¹¹ Zeynep Merey Enlil, 2011. The Neoliberal Agenda and the Changing Urban Form of Istanbul. International Planning Studies. Vol. 16, No. 1, 5–25, February 2011.
- ¹² <https://secities.net/media/objects/articles/urban-spaces-in-and-around-istanbul/en-gb/>
- ¹³ Terzi and Kaya, 2008. Analyzing Urban Sprawl Patterns Through Fractal Geometry: The Case Of Istanbul Metropolitan Area. UCL Working Papers Series, Paper 144 – August 08, pp. 6–7.
- ¹⁴ Wagner et al., 2014. Dimensions of Urban Re-development. The Case of Beyoğlu, Istanbul, p. 47.
- ¹⁵ www.newgeography.com/content/003020-the-evolving-urban-form-istanbul
- ¹⁶ <http://socialspacejournal.eu/9%20numer/Ela%20Atac-%20Segregation%20in%20Istanbul.pdf>
- ¹⁷ http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/GHFC_2021_Haluk_Sur.pdf
- ¹⁸ www.gyoder.org.tr/img/mc-content/20150318171858_2622restructuring-of-istanbul---mipim-2015.pdf
- ¹⁹ Zeynep Merey Enlil, 2011. The Neoliberal Agenda and the Changing Urban Form of Istanbul'
- ²⁰ <http://socialspacejournal.eu/9%20numer/Ela%20Atac-%20Segregation%20in%20Istanbul.pdf>
- ²¹ www.hurriyetdailynews.com/manmade-peninsula-under-way-in-istanbul.aspx?pageID=238&nID=83349&NewsCatID=340
- ²² www.dailysabah.com/money/2014/09/16/qatari-diar-offers-luxury-residential-project-in-istanbul
- ²³ Burdett R., 2009. Istanbul: city of intersections.
- ²⁴ www.gyoder.org.tr/img/mc-content/20150318171858_2622restructuring-of-istanbul---mipim-2015.pdf
- ²⁵ <https://realestatenews.com.tr/the-major-infrastructure-projects-in-istanbul/>
- ²⁶ Burdett R., 2009. Istanbul: city of intersections.
- ²⁷ https://commons.wikimedia.org/wiki/File:Poyrazköy%27den_3._köprü.jpg
- ²⁸ www.irbnet.de/daten/iconda/CIB5117.pdf
- ²⁹ www.gaziosmanpasa.bel.tr/tr/galeri/fotograflar/k-254

³⁰ www.jtp.co.uk/public/uploads/pdfs/gaziosmanpasa_turkey.pdf

³¹ https://www.fig.net/resources/proceedings/fig_proceedings/fig2015/papers/ts01i/TS01I_usta_ulger_et_al_7750.pdf

³² www.nytimes.com/2012/07/05/world/middleeast/05iht-m05-turkey-tarlabasi.html

³³ <http://pulitzercenter.org/reporting/eurasia-turkey-istanbul-development-housing-gekekondur>

³⁴ Burdett R., 2009. Istanbul: city of intersections. Report.

³⁵

https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCIQFjAAahUKEwjep63Qg7PHAhXF7RQKHR1DCE4&url=https%3A%2F%2Fwww.politesi.polimi.it%2Fbitstream%2F10589%2F80201%2F1%2F2013_04_OZENC_AHMET.pdf&ei=IVrTVZ6TJcXbU52GofAE&usq=AFQjCNFaET6QDjN9u36yvEhP9KJh033joA&sig2=2c9eSd-C4Rdv2PrpcglahA

³⁶ https://commons.wikimedia.org/wiki/File:Istanbul_districts_map.png; www.tokikayabasikonutlari.net/toki-kayasehir-havadan-fotografllari/

³⁷ <http://pulitzercenter.org/reporting/eurasia-turkey-istanbul-development-housing-gekekondur>

³⁸ www.newgeography.com/content/003020-the-evolving-urban-form-istanbul

³⁹ http://eprints.lse.ac.uk/33333/1/Istanbul_City_intersections_2009.pdf

⁴⁰ www.todayszaman.com/national_uncontrolled-growth-in-istanbul-main-cause-of-nightmarish-traffic_329204.html

⁴¹ www.theguardian.com/cities/2014/jul/21/urbanist-guide-istanbul-giant-construction-site

⁴² www.gyoder.org.tr/img/mc-content/20150318171858_2622restructuring-of-istanbul---mipim-2015.pdf