



The Density Dividend: solutions for growing and shrinking cities

October 2015

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About ULI

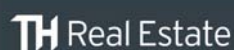
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The extended case studies that inform this report will be published online at <http://europe.uli.org/research/density/>.

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 this report is listed on page 30.

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 this 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.

Foreword

Dear Reader,

Global megatrends are re-shaping the world economic order. From mass urbanisation, to the rise of the global middle classes, ageing populations, technological trends and the shift of economic power from the West to the emerging world, all pose major implications for the built environment and the long run demand for real estate. While megatrends in emerging Africa and Asia tend to lend themselves to the more eye-watering headlines, their more subtle impact on developed world cities – and Europe in particular can sometimes get overlooked.

Understanding their impact is critical. Although the short term performance of real estate is determined by economic cycles, there may be potential risks to long term value as these trends play out. And ignoring long term structural trends in favour of short term gain could mean missed opportunities.

ULI and TH Real Estate are therefore delighted to bring you the latest report in ULI's series on density, which looks at the current state of good density across European cities and how urban change and the different challenges involved in population growth and shrinkage impact this while at the same time looking at how density can play a role in adapting and building strategies for future cycles.

When embarking on this project ULI wanted to use the principles for good density as outlined in the first report *Density: drivers, dividends and debates (June 2015)*, to demonstrate further whether and how cities with specific, different characteristics in Europe were applying them to their city development strategies.

At the same time TH Real Estate were advocating a city-level approach to real estate investment, believing that the most successful real estate strategy is likely to be city-based, underpinned by long-term, structural trends, and striking the right balance of risk and diversification, whilst taking advantage of short-term pricing opportunities.

So our joint aim in commissioning this work was to develop further lessons for the industry by developing in-depth case studies on Birmingham, Dresden, Istanbul, London, Stockholm and Warsaw and considering a number of factors that make them attractive to people and occupiers, today and in the future.

TH Real Estate already score over 200 European cities on the basis of their current size, wealth, age profile, adoption of technology and way of life. They also consider the potential for growth in each of these aspects. This report will help deepen their understanding of good density and what's needed for further improvement, helping to shape future analysis.

We hope you will find similar benefits from reading this report and the associated case studies.

Lisette Van Doorn

Chief Executive, ULI Europe

Alice Breheny

Global Co-Head of Research, TH Real Estate

Executive summary

Density is an essential component of how cities manage and accommodate the ebb and flow of urban change. For Europe's cities in particular, density is an answer to the question of how to adjust to a changing global context. Many of them were the first to begin the processes of industrialisation globally, and were also first movers in the subsequent de-industrialisation and/or suburbanisation. Today, the drivers of population growth, economic change, new lifestyle demands and sustainability mean Europe's cities have little choice but to optimise their land-use and re-imagine density for people. They have to reverse recent history.

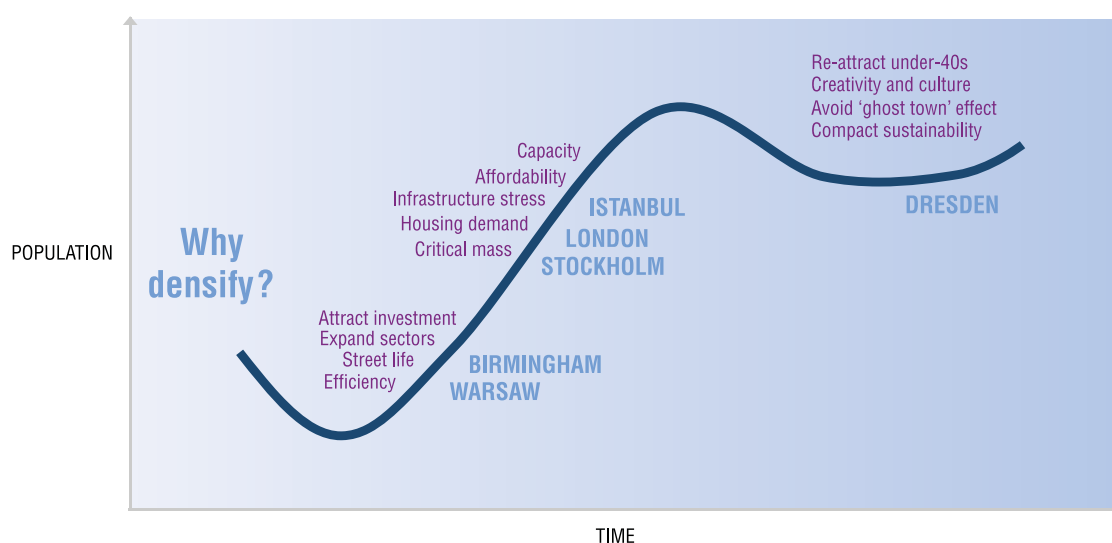
Density can be what cities make of it. European cities are on diverse evolutionary paths. Some are accelerating towards much higher populations, others towards a new mix of economic activities, and others still are adjusting to a permanent loss of population or land uses. Through analysis of six case study cities – **Birmingham, Dresden, Istanbul, London, Stockholm** and **Warsaw** – this report highlights what works and what does not work in making densification popular and successful, whether in 'strongly growing', 'bounce back' or 'consolidating' cities. The lessons are key to help cities ride the cycles of change and avoid becoming locked into uncompetitive or unsustainable models.

Good density needs to be demonstrated in order to overcome myths and memories of past failures. Whether they are immediate or long-term success stories, demonstration projects such as Västtra Kungsholmen in Stockholm, Canary Wharf in London, or Powiśle in Warsaw offer visible benefits to workers, young people, families and older generations, creating new appetite to enjoy dense cities again.

Cities are moving at different speeds towards good density. Some have 30 years or more of experience at compact city development and urban regeneration and are on to their second or third cycle of density projects with the support of clear city plans. Others are new to urban redevelopment or lack the toolkit to deliver density in an integrated way, and rely on ad-hoc initiatives and innovation.

Urgency: the density imperative. The big trends in our six cities make it clear that they have little choice but to densify. Nearly all cities have to satisfy changing population and business demand, and to meet new lifestyle preferences that favour mix, choice, proximity and opportunity. If they do not, they risk becoming locked in to models of development that are inflexible, unattractive, unsustainable, and

Fig 1 Density priorities for cities in different cycles of population growth



ultimately uncompetitive. Cities function within competitive frameworks where they must appeal to mobile investors, talent, and employers that have genuine locational choices. Failure to densify successfully can lead cities into competitive disadvantage. Investment cycles offer different cities the opportunity to make progress with redevelopment at particular times. Failure to take such opportunities can result in lengthy delays and stalled momentum. There is consequently a new urgency to optimise densification and to sustain the momentum across cycles, whatever path the city is on.

A positive psychology of density can help cities leverage the fact that people are attracted by city life again. Density is often the hidden ingredient of cities' energy, character, choice and complexity, but it needs clear language to illustrate the benefits that it enables and to overcome the conflicts that surround it. To achieve a positive psychology around density, cities need high investment in their urban fabric, a story about their future, and a vernacular with which citizens can build lasting bonds.

Fig 2 The journeys back to density in six cities.

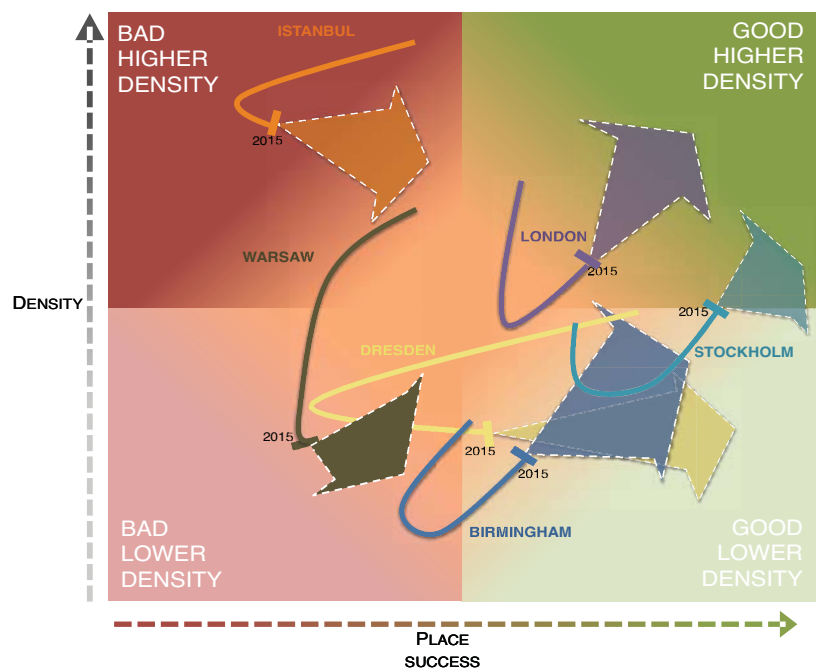
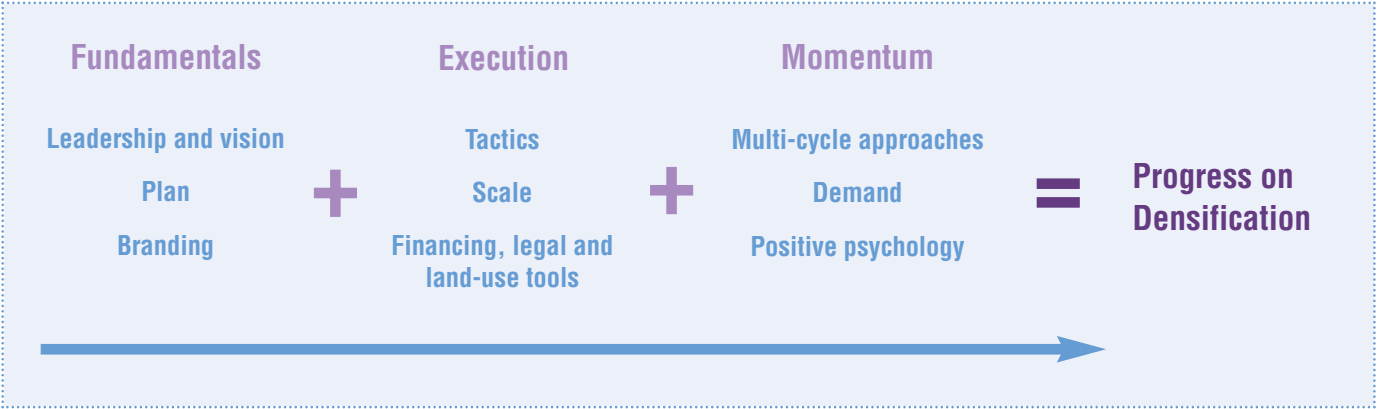


Fig 3 Equation to deliver density at pace and quality



Section 1

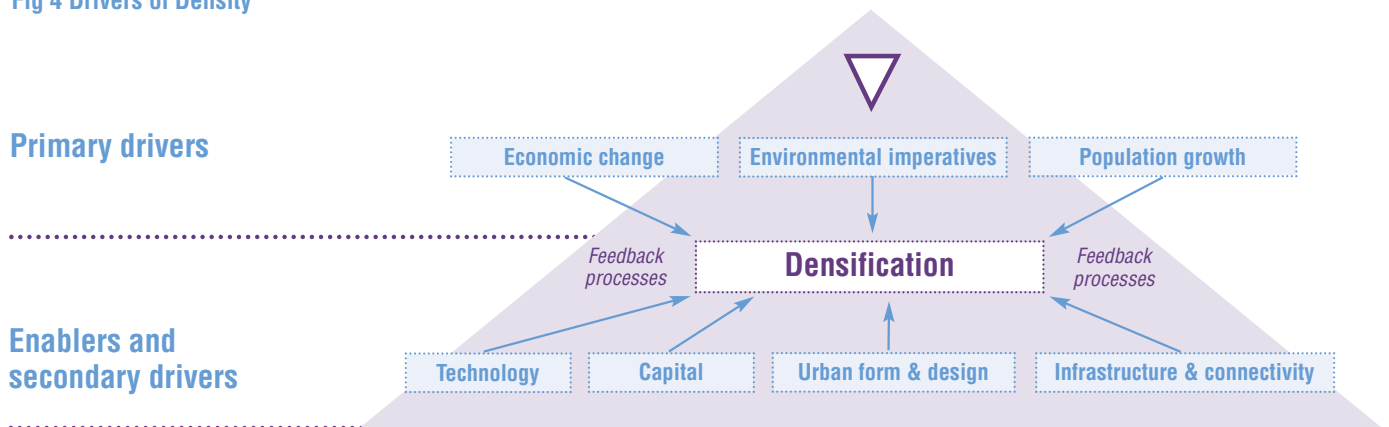
Introduction

In June 2015 ULI Europe published *Density: Drivers, Dividends, and Debates* (Density 1), which observed that 21st century cities are reaching a crossroads. The urbanisation of business, capital and innovation is now visible for us all to see, and its impact in each cycle of development creates new winning and losing cities.

Europe's cities have to adapt to a permanent loss of scale advantages. Unlike other world regions, the pace of urbanisation (now at 73%) has slowed down rapidly. Only seven of the 40 biggest metropolitan economies are now in Europe.¹ Instead, today, Europe's cities excel in terms of sustainability, quality of life, cultural depth and cutting-edge knowledge.

Europe's cities were among the first to industrialise, and later to de-industrialise and witness patterns of suburbanisation and dispersal. Today, as they once again begin to grow and attract population, there is around 5,000 sq m of brownfield land available for development in the EU alone.² Compact growth is the tool to accommodate this re-population alongside a changed economic mix, technology, capital, lifestyle demands, and enterprise in 're-modelled cities' with different mixes of public and private amenities. All of this ultimately means a new equation on density that makes cities more vibrant, accessible, walkable, sustainable and enjoyable. **It is quality rather than size that will shape Europe's model of success.**

Fig 4 Drivers of Density



As ULI Europe's first report on density showed, each city inherits its own combination of good and not-so-good density, and needs to find its own workable toolkit to forge a new way of seeing and feeling density. Density means different things to different cities, and even to the same city at different points in its development cycle. Density is the tool that helps:

- Fast-growing cities achieve much needed scale.
- Medium-sized cities find a route to quality in a new competitive framework.
- Shrinking cities manage the consolidation process.
- All cities increase vibrancy, vitality, buzz, and street life.
- Increase efficiency and sustainability in the use of energy and public infrastructure.

Fig 5 The framework of good and bad density developed in Density 1



Although what counts as 'good' and 'bad' density varies from city to city, and is widely debated within each one, there are some shared and agreed outcomes to effective densification. These include:

- Vibrancy, vitality, and variety.
- Lifestyle choices.
- Interactive and shared cities.
- New transport modes and choices.
- New destinations and locations.

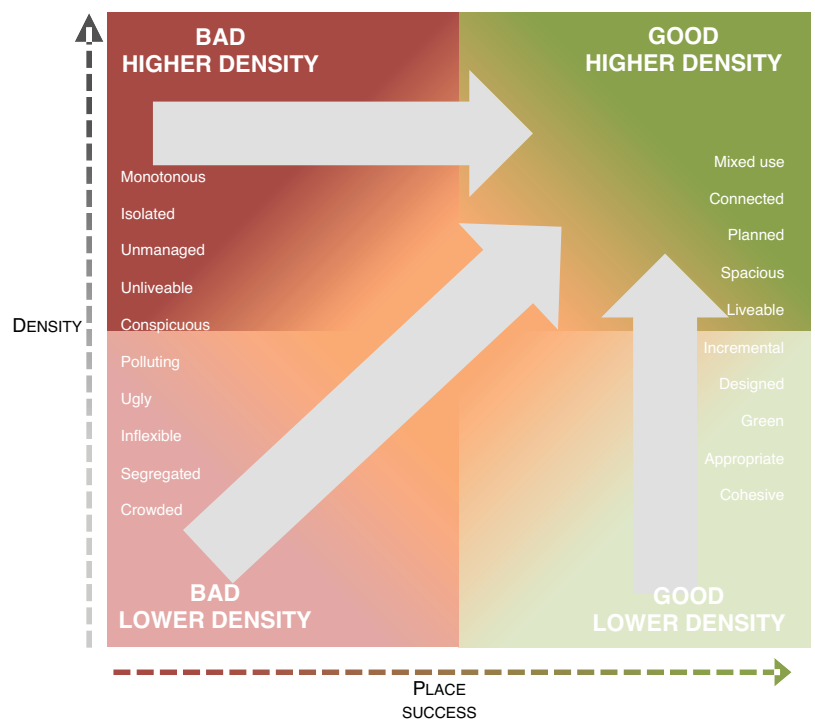
Population growth and economic change have been critical drivers of a new approach to density in many cities which have begun to reverse or slow down some of the more unsuccessful and unsustainable patterns of development in the 20th century.

1.1 Good and bad density and the imperative for cities

The ideas of 'good' and 'bad' density developed in our first report can be further developed by looking at the four quadrants diagram below. Introducing the notion of good versus bad density and higher versus lower density allows us to view the distinctive journeys that different cities are on with greater clarity.

Although the imperative to density is often compelling, cities have to overcome negative perceptions associated with failed attempts in the past to create higher density – the poorly maintained pre-fabricated housing, the characterless tower block, the segregated gated communities, and many others. Cities inherit a mix of unpopular and unsuccessful higher density areas, popular and attractive lower density areas, and fragmented suburban districts. As our six cities show, they now need to make progress with the pioneers, the projects and the tools to create effective and popular density.

Fig 6 The imperative for density in cities



Section 2

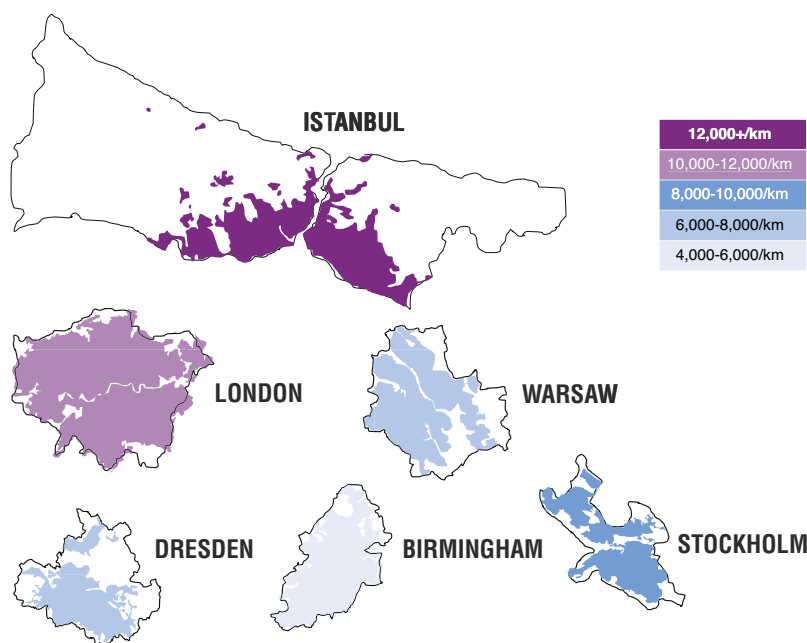
Introducing the six cities

The six cities we have explored vary dramatically in size, scale and progress in densification (see Fig 7). Istanbul is the largest and most densely populated built up area. London and Stockholm are medium-density cities with less dense green suburbs, but with some successful experience with targeted densification. Birmingham, Dresden and Warsaw are lower density in their built up area, primarily because they lack very dense city centres.

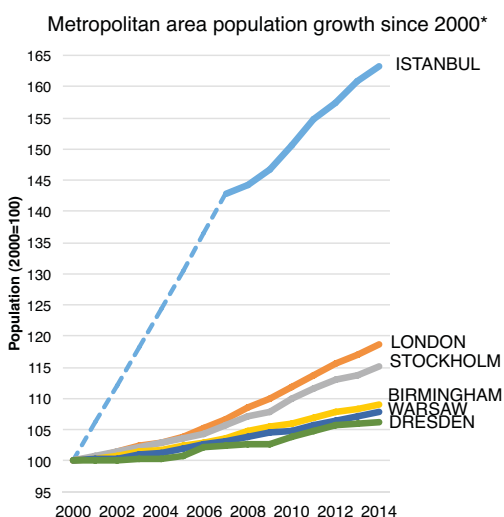
The city typologies and their densification trends

The six cities can be grouped according to their demographic trends over the last 20 years, which shape their capacity and appetite to densify. Each city begins from a different starting point, and the journey to good density in these cities is far from complete. Even though they have different demographic trends and varied track records on densification, density will play a fundamental role in the future of each of them.

Fig 7 Comparing the size, density and growth of the six cities



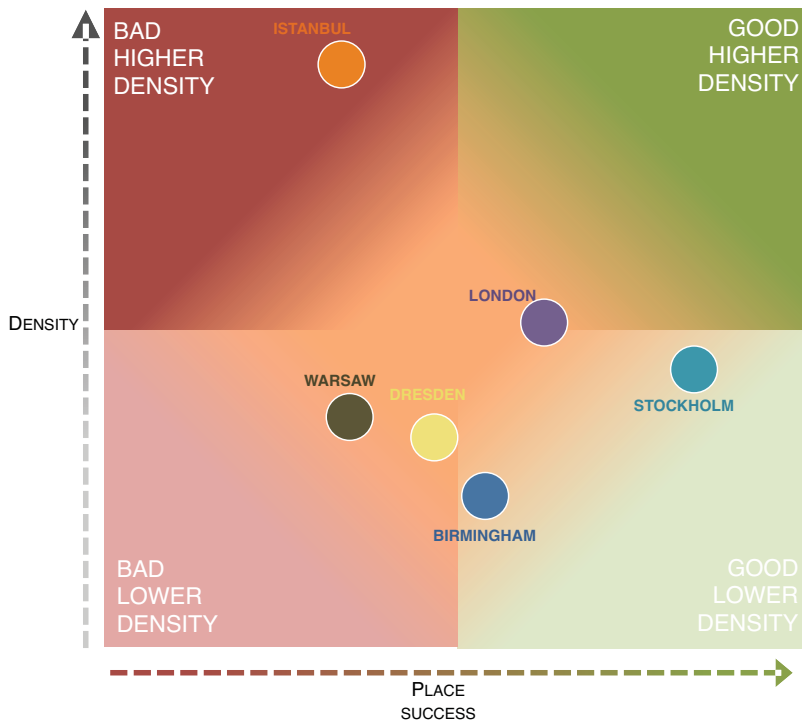
Source: City of Dresden (2015), 'Location, Area, Geographical Data'; GIGL (2015), 'Key London Figures'; Birmingham City Council (2013), 'Green Living Spaces Plan'; Ricky Burdett ed. (2009). Istanbul: city of intersections. Urban Age.



Source: LSE Cities Metro Monitor (2015); Türkiye statistik Kurumu (2014)³

- The **strongly growing cities** (London, Istanbul, Stockholm) have already picked off the 'low hanging fruit' in their regeneration and re-development. They are now reaching their capacity limits in the existing urban fabric, or are finding the next cycle of development projects more complex to assemble and deliver. Failure to address the needs of a rapidly growing populations could lead to inflation, congestion, infrastructure stress, and instability.
- The **bounce-back cities** (Birmingham, Warsaw) inherited a lower-density model and have to develop 'pull factors' for new populations whilst persuading established residents that denser growth can make the city better. Meeting the demands of new economy firms is essential to achieving competitive advantage, or they will miss opportunities to capitalise on assets.
- A city that is **shrinking or consolidating** at a lower population than its historic high (Dresden) which has to decide how to use density to consolidate land uses in certain parts of the city in order to foster dynamism despite an underused built environment. Unless these cities consolidate around specific assets and locations they risk being seen as 'ghost towns'.

Fig 8 Current profile of density in the six cities



"City position is indicative, based on available density data and evaluation from workshops."

Fig 9 Imperatives to density at different stages of the population growth cycle

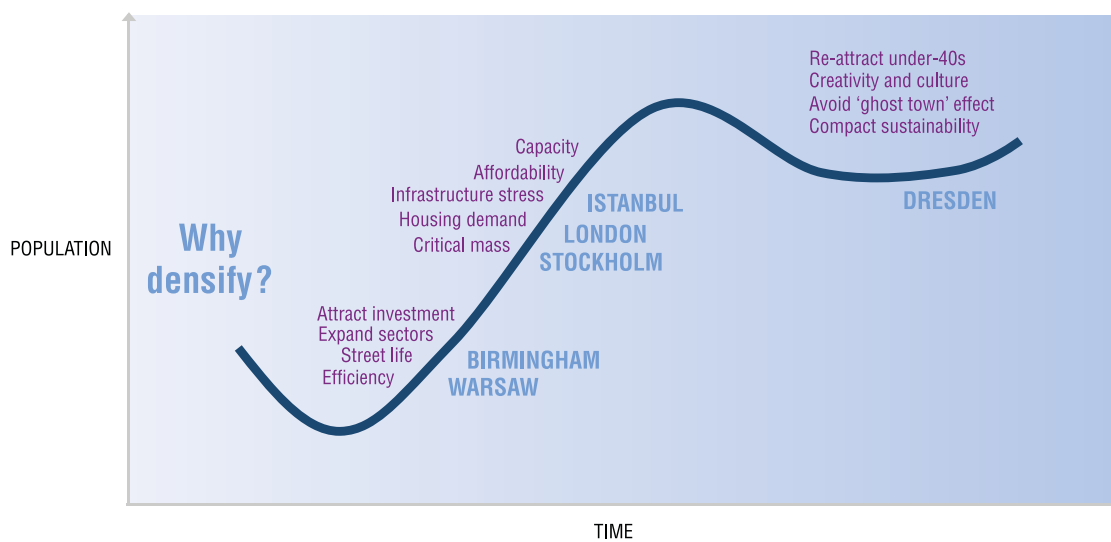
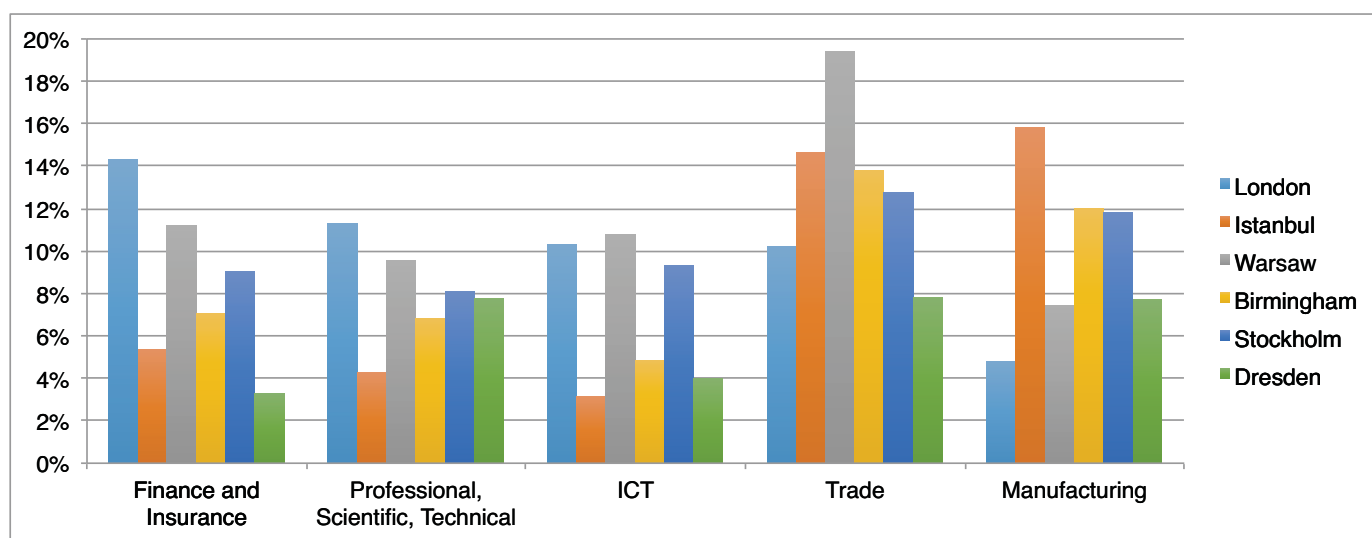





Fig 10 Share of GDP among leading sectors that impact density, in six metropolitan areas

Source: LSE Metro Monitor (2015)

Not only are cities at different stages of their population trajectories, they also inherit very different economic make-ups (see Fig 10). For an emerging city like Istanbul, manufacturing is still the largest single sector, followed by transport and logistics. An advanced global city like London is dominated by financial and professional services. Other cities have a mix of leading sectors, with a strong focus on trade in Warsaw and Birmingham, and a growing ICT sector in Stockholm and Warsaw. Different economic development paths mean cities have distinct real estate requirements and need their own tailored approach to space and density to optimise productivity and agglomeration potential.

Meeting needs through densification

Over the last century, the six cities have each been on their own journey of densification, dispersal and now re-urbanisation. Previous cycles of development have them with a mix of established dense districts, low density green suburbs, and newer higher density developments that vary in popularity and success. Decision-makers in each city recognise the need to densify and to preserve compact development where possible, but the practical and perception barriers to doing so are often serious (see box). In the next section, we highlight the innovation and leadership that has been necessary to overcome these hurdles and make progress.

		Current density profile	Why density?	Barriers and memories of density
The strongly growing cities 	London	Medium density, much higher in the inner city but low in most suburbs and beyond the green belt. Some high density areas are very successful, others more deprived.	To accommodate growth and generate extra capacity for residential and commercial growth; to meet lifestyle demands; to adapt to the new needs of corporate, innovation and sharing economies.	Association with public housing tower blocks that concentrate poverty. Concerns about affordability and congestion. Lack of agreement about where density should happen.
	Istanbul	High density right across the built up area, often poorly planned and congested.	To increase capacity and upgrade urban quality, manage earthquake risk; to limit environmental destruction; to reduce segregation and achieve shared liveability.	Density brings to mind shanty-towns, informal and precarious housing built in unstable areas, or gated communities that lack wider cohesion.
	Stockholm	Medium density inner city around transport nodes; lower density suburbs, with a lot of protected green space designed in wedges.	To meet housing demand and retain affordability; to create scale, critical mass and lifestyle; protect green space.	Cultural desire for private space. Lack of private rented sector and housing mobility.
The bounce-back cities 	Birmingham	Consistent low-to-medium density with lots of green space; popular low density and single use suburbs.	To meet housing need; to diversify lifestyle offer; to create '18-hour' city centre to serve the knowledge economy; to accelerate a polycentric approach.	Lack of confidence in post-war urban design and place-making; density associated with earlier developments which lacked access to new jobs and amenities.
	Warsaw	Low density city with medium density pockets and towers in central districts; big gaps between buildings; high congestion and car dependency.	To build capital city functions; to re-introduce street life and appetite for city living; to improve efficiency and reduce public services costs.	Dislike of Communist-era blocks; density widely assumed to mean 'more towers' and Dubai-style development. Lack of emotional connection with the city.
The shrinking and consolidating cities 	Dresden	Medium density CBD and city, with large network of allocated green space. Under-used spaces in inner city able to absorb densification.	To create urban flair, recapture buzz; to manage declining areas and integrate populations; to meet goal of becoming a 'compact ecological city'.	Density associated with characterless and poorly maintained socialist-era pre-fabricated housing.

Section 3

Lessons from the six cities

3.1 What is working?

Despite the obvious differences in context and development cycles there are some core common factors behind successful densification in the six cities:

- City-wide frameworks
- Utilising public-private partnerships and private initiatives
- Concentration in prioritised areas
- Financial tools for investment in good density
- Design and planning for place-making and liveability

Creating a city-wide framework for density

Large fast-growing cities cannot engineer a compact city approach without a workable city development plan. The London Plan has allowed London to be strategic about its re-urbanisation over the past 15 years. Now in its fourth edition, it supports compact city development and rules out sprawl as a means of accommodating the extra 300-400,000 homes and 500,000+ jobs forecast as needed by 2030.⁴ The plan is distinctive for identifying over 40 'opportunity areas' for mixed-use intensification, mainly brownfield sites around transport interchanges.⁵ It also provides an overarching vision which allows large-scale projects such as Crossrail and the Olympics to be organised and delivered with confidence. The newly-adopted London Housing Strategy (see box) provides an additional, complementary framework for large-scale housing delivery in the city.

City plans have also proven important in bounce-back cities. In **Birmingham**, The Big City Plan, and the subsequent Birmingham Development Plan 2031, demonstrate the city's desire and capability to grow. They allow big sites, such as Smithfield Market, to be managed effectively in order to improve Birmingham's reputation in targeted sectors (in the case of Smithfield, the creative and cultural sectors).

In **Warsaw**, on the other hand, a binding spatial plan only covers a minority of the city, and key areas such as Wola are currently unplanned. This deficit results in small 'islands' of development that lack coherence across neighbourhoods. There is also a lack of transparency in the development approval process. Warsaw's city leadership is now taking steps to prepare a more robust development strategy along the lines already taken by Birmingham. Those areas which have been better planned, such as Miasteczko Wilanów (see box), have proven more successful in delivering attractive and efficient density.

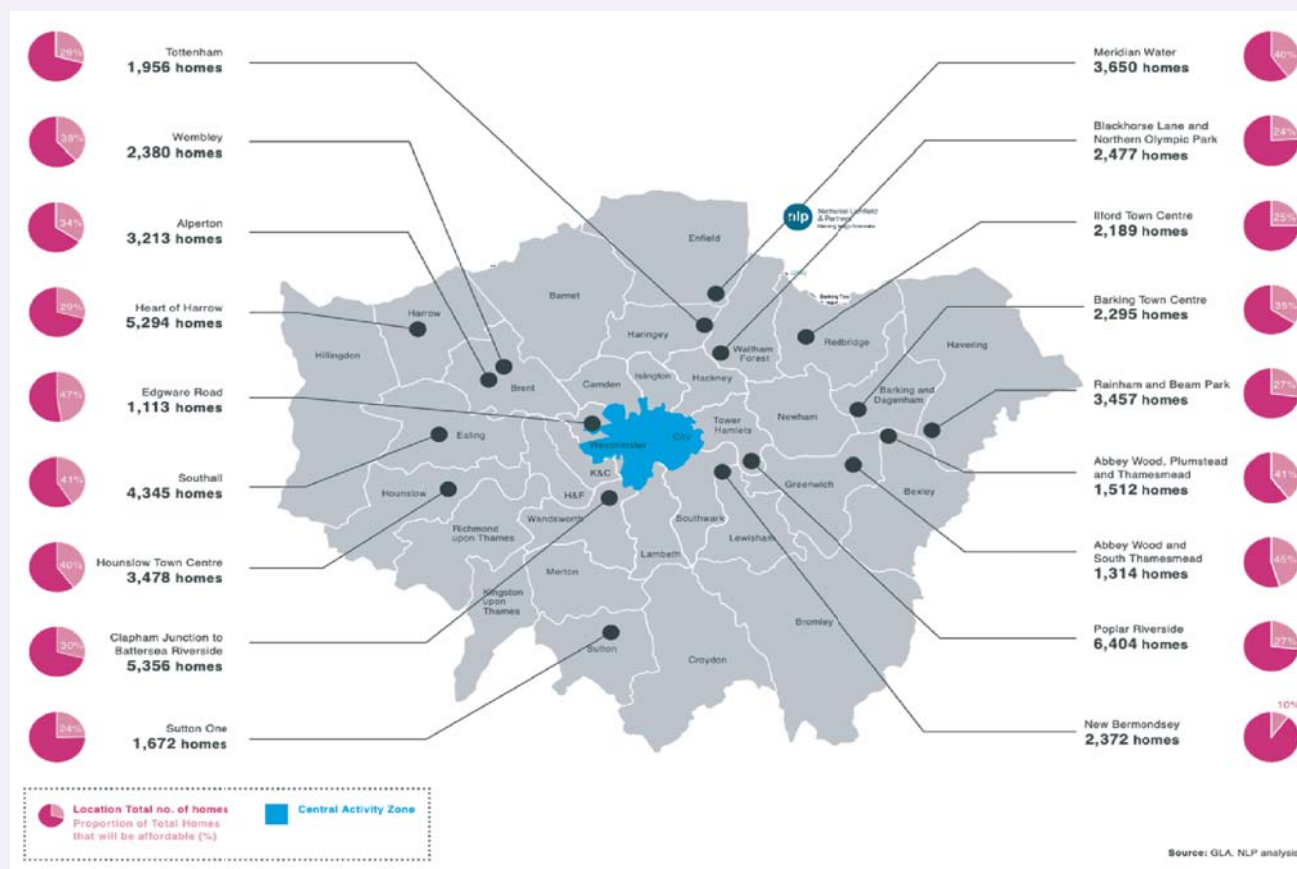
The lesson here for cities that seek to achieve and leverage density is that vision matters. Cities that build an idea and ambition about what they want to become, and which instill this aspiration in their citizens, find it much easier to achieve the behaviour change that is necessary to increase densities of interaction and development.

The cities which have ideas and a shared vision for the future have been able to then develop plans with confidence, build a compelling narrative, and then look for the financing tools to deliver and implement the vision. Over the past 20-30 years, London and Stockholm have managed to build and embed a vision of how to become open international cities. By contrast, cities which struggle to find a unifying proposition for what they will become – such as Warsaw and Istanbul, tend also to lack the planning and delivery capabilities to re-engineer the city at changed densities.

The London Housing Strategy: A toolkit for fast-track density

The London Housing Strategy reflects a shared desire among all tiers of government to urgently speed up housing delivery in London. It aims to put in place the resources to deliver more than 42,000 new homes a year in the city. The strategy defines 18 'Housing Zones' across Inner and Outer London, which are nominated by boroughs and where new fast-track approaches to planning, land assembly, funding and taxation are being implemented. The zones allow local authorities to package up brownfield land and gain planning permission in advance.

Fig 11 London's 18 Housing Zones as of September 2015⁶



The Housing Strategy involves the creation of a 'Housing Bank'. Amongst the bank's services, are (i) help in subsidising rent for households looking to buy their home, (ii) bespoke financial support to speed up house-building on public land and (iii) low-cost loans for developers and housing associations in areas such as Thamesmead and Wembley, which are provided on the back of assurances that a certain proportion of housing will be privately rented for a long-term period at below-market rates. By supporting developer cash flow in this way, the bank allows viable homes to be built now and sold in future, once values have adjusted, and so incentivises the speedy redevelopment of vacant sites.⁷

Finally, the strategy also encourages institutional investors to enter the private rented sector, by providing a more consistent and targeted regulatory framework across all aspects of the residential property market.

Miasteczko Wilanów is an example of a Warsaw district which has benefitted from better planning and is widely perceived as offering a stronger model of medium density development. Located 10km south of the city centre, the project featured in the city plan as early as 1992 as a lively mixed-use garden neighbourhood with a large housing estate at its heart. Although delivery was protracted, the project has now been realised by private capital, and provides compact development on a site that rejects the gated enclave model found elsewhere in the city. At relatively high density (around 200 people per hectare, compared to the district average of 70), its design encourages walking and an intimate connection to the local surroundings.

Miasteczko Wilanów did encounter challenges around the initial sequencing of transport and social infrastructure required to serve its elevated densities. The area still lacks significant public transport access. But the city has learnt from its early mistakes and become more active in buying land to build public amenities such as schools and kindergartens, while a hospital, clinic, supermarkets and restaurants have all been developed on site. Other large sites have emerged following Miasteczko Wilanów's example, including the Chrzanów neighbourhood in Bemowo on the western outskirts, which in the future should be linked up to the second metro line.

Fig 12 Semi-public space in Ostoja Wilanów



Source: Weronika Detlaff (2015), Creative Commons licence

Utilising PPPs in the absence of enforceable city plan

Some cities have to make progress towards better densification without strong city-wide planning tools. In **Istanbul** the 2007 spatial plan has been repeatedly ignored by political decision-makers. Without clear citywide or neighbourhood-level planning, the PPP model has become an important way of establishing and financing projects at the local level.

Concentrating efforts on a few prioritised areas

Many fast growing cities find that a barrier to expanding density outside of their cores is the lack of scale and critical mass in surrounding inner city districts, which often have a principally residential character. In **Stockholm**, the recent strategy to build nine polycentric centres at the edges of the city has gradually become more focused on three or four areas with sufficient critical mass. This streamlining allows the City to invest time and resources on attracting medium-sized or large firms and cultural institutions to key districts, creating a sense of destination and vitality. Concentrating on key areas is also important in cities that are experiencing shrinkage and which seek to consolidate around key assets or institutions. **Dresden** has adopted this approach in its city centre (see box).

Utilising financing tools to invest in good density

Investment tools are useful in creating good density in all types of city. They can be useful, for example, in fast growing cities for opening up under-optimised areas for dense development.

In **London**, for example, the Northern line of the Underground is being extended to Nine Elms by 2020. The €1.3bn extension costs are being covered by the UK Treasury and repaid using uplift in the area's business rates under a Tax Increment Financing (TIF) scheme, effectively allowing increased densities to pay for supporting infrastructure. The Northern line extension will support and enable a new cluster of seven-to-eight-storey development in the Nine Elms area, which will create 16,000 residential units, 50 acres of new green space and new schools.

In Istanbul, unanticipated population growth means that residential areas feature densities much higher than plans or services can cope with. One of the more successful examples of mixed-use densification in Istanbul is **Ataköy**, a large and established residential neighbourhood near Ataturk Airport. Initially a fairly low-rise development, the area's tourism complex benefited from a central government subsidy in the 1980s because of its mix of uses including a marina and hotel. As the site evolved, it became an iconic mixed use waterfront project, featuring a 40 storey business centre and four 18-storey hotel blocks.

Today Ataköy is owned by the State Housing Development Association (TOKİ), but under the administration of Dاتی-Mariners Ataköy Tourism and Construction Company, the residential elements of the complex are densifying. A Qatari Diar 'Sea Pearl' project, for example, is creating nearly 1,500 high-end apartment units in eight residential blocks.

Higher densities have been enabled by improvements in architectural design and high standards of sustainable, earthquake-resistant living.⁸ Large-scale public and private investment since 2005 into marinas and conference centres has also boosted the area's liveability and attractiveness to Turkish and international audiences.

Fig 13 Ataköy

Sourced: Hayrullah Uzuner, available on CC by 3.0 licence



Dresden has recently begun to accelerate in-filling its city centre, including Postplatz, the western gateway to Dresden's Old Town, which has long been a repository of potentially developable land.⁹ A new zoning policy now enables residential buildings to have in-built leisure, retail, hospitality and commercial space, and over 1,000 flats will be built in such mixed-use buildings. New buildings will pay respect to Dresden's historic architecture.¹⁰

Fig 14 Changing patterns of density in Dresden, 1990 to 2013¹¹

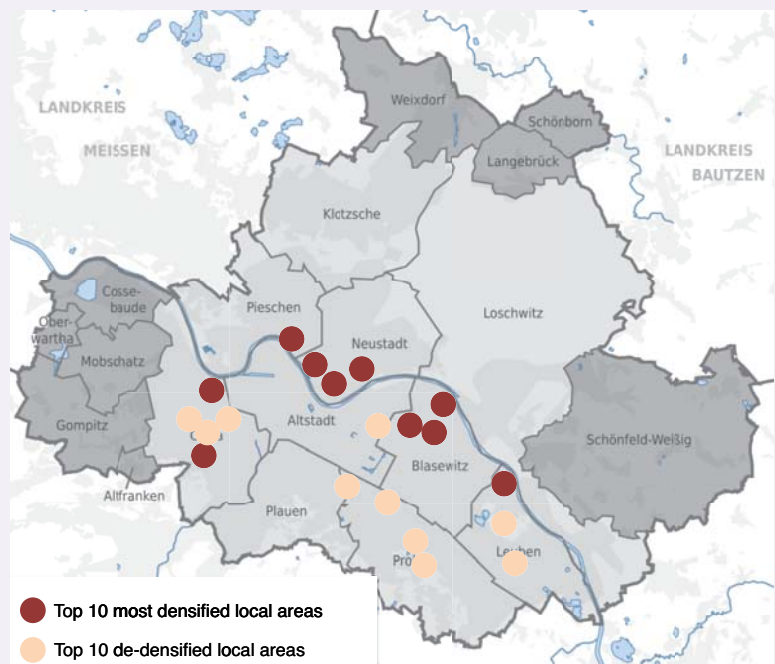
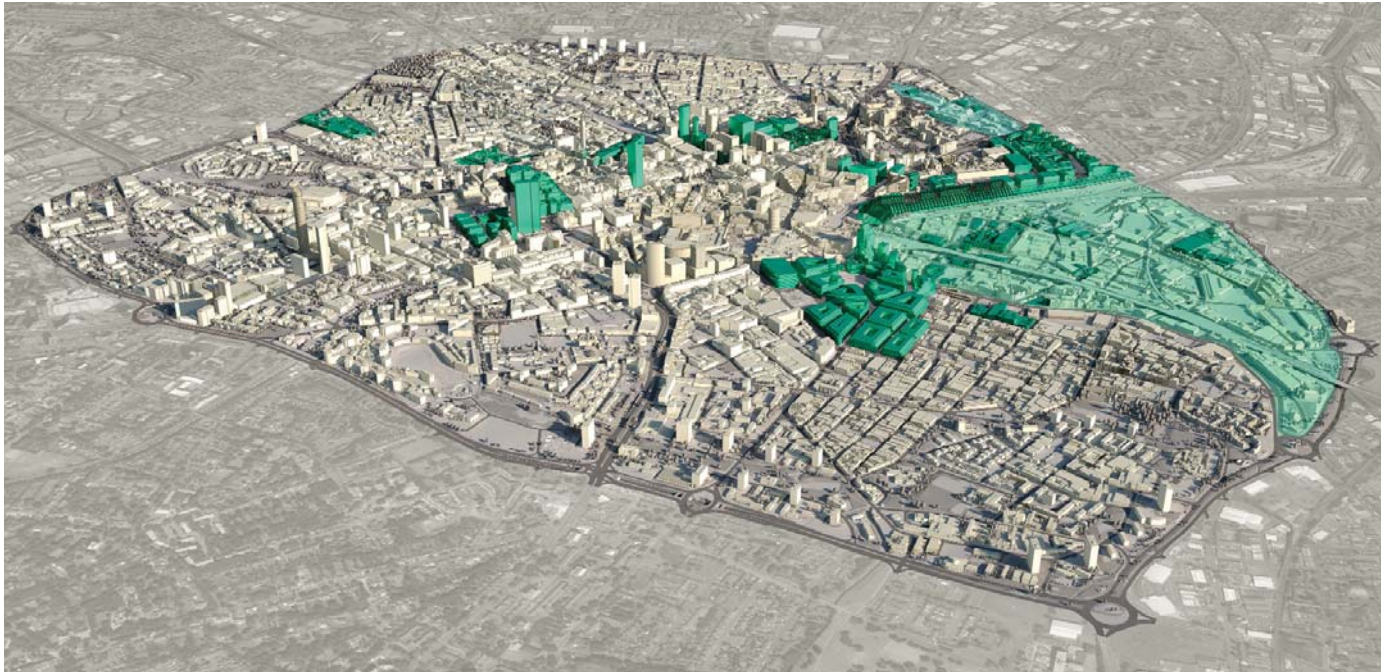


Fig 15 Birmingham City Centre Enterprise Zone

Sourced: Birmingham City Council



Many recovering cities meanwhile face challenges in acquiring, assembling and de-contaminating land in their vacated city centres. In **Birmingham**, a simplified planning process has been made possible by a **City Centre Enterprise Zone** that has allowed projects to move forward more quickly since 2011. One of the key benefits of an Enterprise Zone is the ability to retain business rates generated within the zone for 25 years, and recycle these into priority projects. This revenue has made viable many projects which needed advance investment in site clearance and utilities.

Shrinking cities may also need to take bold financial decisions. **Dresden** took the innovative step of selling its entire social housing stock to a private equity firm in 2006, using the €1.5bn proceeds to become debt-free and allow it to actively assemble land.¹²

Design and place-making for liveable density

Liveability and attractiveness are critical ingredients of good density. Bounce-back cities, like Birmingham and Warsaw, are often characterised by a lack of walkability, with car-dominated city centres. Others, like Istanbul, have their

liveability eroded by large areas which are at risk from earthquakes or flooding. This can inhibit these cities from capitalising on business demand in the inner city, and counteract wider emergent trends in favour of city living. Shrinking cities can face similar issues thanks to vacant areas, abandoned or decaying building stock.

Birmingham has made progress in putting design at the heart of place-making as a first step to increasing the appetite for city living. A cycle of development initiatives such as Brindleyplace, Symphony Court, Liberty Place and King Edward's Wharf have improved the standards of commercial development and highlighted the potential for a new style of living. Today, Birmingham's capacity to attract professionals to work in its growing knowledge economy relies on a more vibrant street life and flourishing independent retail sector. Emerging sites such as Paradise Circus and Arena Central will be essential to improving the city's reputation for pedestrian access and high quality public realm. Birmingham is also recognising the importance of better schools if the city is to attract families with small children back towards the inner city.

Dresden has managed to retain a mixed housing offer by renovating its large buildings, which has the consequential effect of maintaining higher density patterns set during the socialist period. The most notable example of this trend is Prager Zeile, which was the largest residential building in East Germany when constructed in the 1970s. Renovation of its 614 flats began in 2007 and more than 90% of the dwellings were kept, including a segmented offer of student apartments, pensioner-friendly homes and luxury penthouses.

Fig 16 The old and new faces of Prager Zeile¹⁴



Photo by: Paulae. Licence: Creative Commons by 2.0



Photo by: Craig Wyzik, Olympia, WA. Licence: Creative Commons by 2.0

3.2 Who is leading?

Density needs as broad a base of leadership and support as possible. Stockholm's experience in particular shows the value of cultivating a mature and long lasting cross-party consensus around the need to deliver medium density housing growth, backed by consistent investment in transport, and become more urban, vibrant and liveable. In other cities, individual agencies, authorities and firms have played a big role in making forward-thinking projects possible and raising the standards of future development.



- **Public authorities** may also play an essential catalytic role to show the market what is possible. In Birmingham, the City Council is playing an important role in accelerating development. Its Big City Plan in 2010 set the tone for a new bold approach to tall buildings, and began to make the public case for medium density family housing on the fringes of the city centre. At the same time the Council has become a provider of new homes for both rent and sale through the **Birmingham Municipal Housing Trust (BMHT)**. Since its launch in 2009, BMHT has fast-tracked nearly 1,500 homes on 35 sites, with a financial model that allows developers to 'build now and pay later'.¹⁵ The trust has grown so quickly it is now building nearly a third of the city's homes.

Stewardship for desirable suburban density

Dom Development is one of **Warsaw's** most prominent developers. Some of its early projects in the post-Soviet city, such as one in Białoleka, showed limited strategic thinking about the consequences of building low density multi-family development at the urban fringes with little road or rail access or recreational amenities. The lack of co-ordination with city authorities meant some basic utilities were not installed and public services became badly overstretched. Dom has learnt important lessons from this first cycle of projects and is now engineering the ingredients of good density in major centres in the city's eastern districts.

Saska, in the Praga South district, has emerged as one of Warsaw's most desirable new residential schemes.¹⁶ The 200,000 sq m project features nearly 1,600 apartments, and benefits from an appealing combination of attractive architecture, green space and good connectivity. The project's success prompted Dom Development to expand along an adjacent site in Lake Goclawski, building 600 more apartments.¹⁷ Another new greenfield site in the eastern district of Bródno, is filling in land gaps with 750 apartments near an existing shopping centre, with mixed heights of four to 12 floors.

Fig 17 Isolated sprawl in Bialoleka (l), and the well-connected and designed Saska (r)¹⁸



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Although many sites still face the hurdle of lacking a Local Development Plan with which to co-ordinate public services and social infrastructure, the new phase of projects recognise the importance of metro and bus connections. In some cases, developers even fund some transport facilities. There is also a growing recognition that traditional fenced communities are less desirable than well planned, integrated and mixed-use spaces, which is having a visible effect in areas such as Wilno, Praga, and Southern Żoliborz.

- Specialist development corporations** give some cities the ability to deliver density in local areas in a joined-up way and build a team of experts from across different sectors to do so. London's experience with these agencies has learnt the value of partnership with local authorities and communities, and being integrated into a broader city strategy. Today the **London Legacy Development Corporation** has taken over the planning and management of the Olympic site and the Thames Gateway. Elsewhere, Birmingham is now benefiting from the **Curzon Urban Regeneration Company** which has been set up to oversee and deliver a 140 hectare redevelopment of the station that will link the city up to the UK's future High Speed 2 rail line. The project is set to create 2,000 new homes and 600,000 sq m of employment space to the east of Birmingham's city centre.
- Large public sector landholders** lead in many cities where large parcels of land need to be unlocked to build density at proper neighbourhood scale. In **Warsaw**, Polish State Railways are increasingly active at mobilising land around many of the city's key stations. Warszawa Zachodnia Station and Centralna Park are planned mixed-use developments that integrate public and green spaces for both railway passengers and workers. Warszawa Główna, historically Warsaw's main railway station, is the subject of a new proposal that will sequence office and commercial development with the re-opening of the station to passenger traffic. Warsaw's station developments present an opportunity to rebalance the city's north versus south divide and show what is possible when large plots can be managed cohesively.

- Where there is a public sector leadership deficit or other planning hurdles, **experienced developers** may take the lead in terms of place-making and city-building. In Warsaw, the appetite of major investors appears to be focusing minds on the need for opportunities of scale. In this respect, as the first report in this Density series explored, capital is playing a role itself in changing urban policies in favour of larger/denser development, especially in and around the city centre (see box).

3.3 What are the policies that help?

The ability to assemble and pursue demonstration projects and then apply them more broadly is often made possible by a city's policy and financial framework.

Public investment in affordable density

Stockholm's high public investment model has maintained housing delivery rates despite resident opposition. The city is one of the largest property owners and has significantly grown their housing investment since the global financial crisis, with the Stockholm City Hall AB Group having invested an average of 8.5 billion kroner (€900m) each year since 2008 in new housing construction and refurbishment of homes, schools and other core infrastructure. This investment gives the city confidence to raise housing targets to about 5,000 per year. Housing accounts for over half of the Group's investment in the 2015-17 period.

Stockholm. Vällingby: an update to cohesive density

Nearly 60 years old, one of the original working-class 'ABC' ('Work, Housing, Centre') suburbs Vällingby continues to embody some of Stockholm's successful principles of density. Unlike some of the new towns of its time, it planned for nearly 50% as many jobs as residents and had direct metro access to the city centre.

In recent years the city has invested in creating 'ABC 2.0', a contemporary model of density that mixes uses and overcomes the separation of different functions. It launched a redevelopment plan of over €100m in the mid-2000s to upgrade some of the housing stock, improve the design of public spaces and create new retail and cultural assets. The medium-density 1,400 home Vällingby Parkstad, and the Vällingby City mall, stand out among the regeneration's major achievements. The current Hässelby-Vällingby vision 2030 focuses on social empowerment and cohesion in the neighbourhood, and the area is noted for the consensus-based and participatory character of the renewal process.

Fig 18 Vällingby, a New Town built in 1954 (l)²⁰ and now being redeveloped (r)²¹



Vällingby 1960 - Photo: Sven Markelius



Vällingby 2009 - Photo: Åke E:son Lindman

Supporting the private rental sector to build spacious and liveable density

The growth of **Birmingham's** private rented sector in the city centre has made the housing market much more dynamic, with private renting accounting for nearly a sixth of homes. High yields and occupier demand are attracting institutional funds for the first time, and the city is witnessing significant interest in large lot sizes of €30-140 million.²² With this in mind, in 2015 the City Council began building homes in the city centre for open market rent. The council aims to lead the market and show developers the opportunities of building new private rented homes at higher density. It is working towards a business case for a wholly-owned company to develop homes for market rent.²³ A key challenge will be whether the expanding private rented market can deliver home sizes and amenities to an internationally competitive standard.

A comprehensive planning concept for green density

Dresden's very clear policy framework was first enshrined in the 2002 *Integrated City Development Concept*. This was a new kind of strategic plan for the city that was a

precondition for federal funding for building demolition. The concept advocated the concentration of investment, population and economic activities in the city centre.²⁴ It dramatically reduced the number of new housing units per year and instead focused on Dresden's appeal as a compact and sustainable European city, with a high quality of life and design. The plan was complemented by an ambitious 2008 Inner City Planning Strategy which cemented the city's new commitment to favour diverse brownfield development. Dresden's thorough planning approach has sought to guarantee that density comes at no cost to quality.²⁵

3.4. What are the demonstration projects?

The experiences of these six cities shows that pioneering examples of good density play an essential demonstration role for cities in different cycles of re-urbanising and re-densifying. These demonstration projects offer visible benefits to existing communities and so catalyse new attitudes and momentum towards density and serve as 'quick wins'. They are usually most effective when supported by a broader effort of public education, civic leadership and private sector advocacy.

Stockholm: Learning the secrets of popular density

Västra Kungsholmen is part of a second cycle of densification projects in Stockholm that has learnt significantly from its predecessor Hammarby Sjöstad in how to make attractive destinations for young people. Whilst Hammarby was initially designed to serve an older demographic and had to install amenities suited to a youthful population at a later date, West Kungsholmen has immediately become a popular mid-density waterside project that captures the imagination of a younger generation.

Built on top of old bus depots, printers and bakeries, the typical development is seven to 13 storeys in height, and the project features over 25 developers in collaboration with the city and traffic authority. Many of the 5,000 homes face out west towards the water and sunset, while numerous new ground floor restaurants and stores have opened up. The area benefits significantly from the new Skanska global headquarters with more than 1,100 employees, which is an anchor for more than 350,000 sq m of commercial space.

Fig 19 Västra Kungsholmen



© Photo Lennart Johansson, City of Stockholm²⁶



London: Turning sterile density into vibrant density

Some fast growing cities have learnt that density does not work so well if introduced for single use. Today, **Canary Wharf** is a critical node of London's financial and business sectors and has merged into a residential and visitor destination of choice, but in the early 1990s it was an isolated piece of the city in trouble.²⁷ A neglect of retail, leisure and culture in the first phase of regeneration (there were just six shops when the first offices opened in 1991), combined with the failure to sequence development with rail connectivity to central London, saw the area struggle to attract high-profile tenants.²⁸ Slow infrastructure progress was one reason the project went bankrupt in 1992.

Fig 20 Canary Wharf in 1992 (l)²⁹, and by 2006 (r)³⁰



Photo by The Lud: License: CC-BY-SA 3.0

After a financial rescue, the building-use guidelines diversified the development mix, planning for restaurants, hotels and entertainment.³¹ A public private financing deal for the DLR and Jubilee Line Extension was successfully negotiated.³² By 1998, 44% of the development corporation LDDC's public spend of around €2.6bn had gone into transport and access improvements. Demand then rapidly picked up.

Over the last decade, Canary Wharf's owners have tried to shake off the area's image as a 'financial services ghetto'. They have delivered several mixed-use extensions that include a large residential offer, including some social housing.³³ As well as providing incubation support for tech firms, a new medium-rise urban village is being developed next to the trademark skyscrapers, while the new shopping centre at the forthcoming Crossrail terminal features more niche retail options. The area is now home to over 60 bars, cafes and restaurants, and has taught other parts of London the importance of '18-hour' and '24-hour' vibrancy.³⁴

For cities that are in their second or third cycle of learning what works, the successful projects are those which do not just provide pleasant spaces but have appeal and amenities to appeal to a mix of generations and lifestyles. This is the case for projects like Västra Kungsholmen in Stockholm, or Canary Wharf in London (see box).

For cities in their first or second cycle of experimenting with higher-density schemes, the demonstrator projects aim to re-introduce certain demographics back into the city centre in order to increase diversity. For Birmingham, projects like Greater Icknield aim to use public landholdings to show how it is possible to intensify family-oriented residential-led development near to the inner city. For other cities, like Warsaw and Dresden, the challenge is to re-connect young people to the street life and vitality of the city centre and waterfronts (see box).

Warsaw: Popular density to inspire the young

Situated beneath the historic Poniatowski Bridge on the Vistula River, **Powiśle** had been destroyed during World War Two and until recently was a run-down part of town consisting of prefabricated blocks, empty light industrial infrastructure and a handful of shops. Today, it is one of the first areas of post-Soviet Warsaw to offer an attractive inner city riverside destination for young people to spend evenings and weekends.

Many new venues stand out for their interior design that mix 1960s aesthetics with 21st century elegance. A new Warsaw University library and Copernicus Science Museum have been major catalysts for the area's development. The library's bold concrete and glass structure, and rooftop garden, provided a striking new public panorama of the city, while the *Czuły Barbarzyńca* bookstore has set a new trend for bookshop cafes amongst Warsaw's young readers.

Gradually, and organically, the area's streets have become the centre of a new fashion district, surrounded by cafes and housing. A restored Poniatówka-beach has even become an iconic city beach location. The area demonstrates the benefits of a 24 hour economy in attracting locals and visitors. It is encouraging developers to take more account of the historical character of districts in new development. One example is Hochtief Development's Nowe Powiśle, a new 42,000 sq m mixed-use scheme on a former power station that combines luxury residential with offices, close to metro and rail lines.

Fig 21 Powiśle's new developments (l)³⁵ and iconic meeting places (r)³⁶



Some demonstrator projects highlight how cities can provide higher-quality affordable housing without isolating people from jobs or concentrating communities of similar income and similar ethnic or religious background. Projects such as Woodberry Down in London show how redevelopment of social housing can increase densities and yet also grow social infrastructure.

In other cities like Istanbul, progress is being made with very large-scale projects such as Kayaşehir that offer access to new sources of economic growth, although transport connections to the centre remain limited. Other more central projects in areas such as Seyrantepe/Maslak have been properly sequenced with public transport, and deliver very high residential density in attractive mixed-use environments. While Istanbul is making progress at creating more distinctive 'city villages' that combine many of the positive aspects of density, challenges remain to ensure these areas are open and integrated with surrounding areas.

Three generations in Wilsdruffer Vorstadt; 1950⁴⁰, 1962⁴¹ and 2015



Wilsdruffer 1945 - Deutsche Fotothek



Wilsdruffer 1961 - Deutsche Fotothek



Fig 22 Dresden: Attracting people through quality density

Dresden is investing in the growth of creative and cultural industries as part of its effort to re-establish its status as a business location. Wilsdruffer Vorstadt, to the west of the city centre, is a focal point for this approach and exemplifies Dresden's re-densification of fragmented inner city areas. A very dense area in the 19th century, it was decimated by bombing during the Second World War. By 1990, the district was splintered and was home to numerous informal parking lots.

Over the past 20 years, the city has sought to re-populate the area by consolidating the city's cultural institutions there, including the High School of Music and Chamber Music Hall. Old power station buildings known as Kraftwerk Mitte will house the Dresden State Operetta and a youth theatre.³⁸ The city subsidised estimated clean-up costs of €10 million with €3 million of urban development funds, which will also enable reduced rents for future users in the cultural and creative industries. Federal funds were also needed for some of the public space upgrades.³⁹

Residential densification has taken place along key roads such as Freiburger Straße, where diverse housing has been built that is well integrated into semi-public, traffic-free and green play areas.⁴² High-quality residential buildings that fit in with Dresden's architectural vernacular are key to the identity and attraction of the area. The area also works well because it is integrated into existing public transport routes, and is walkable to the city centre.⁴³

Fig 23 Overview of six cities' ratings on density factors for success*

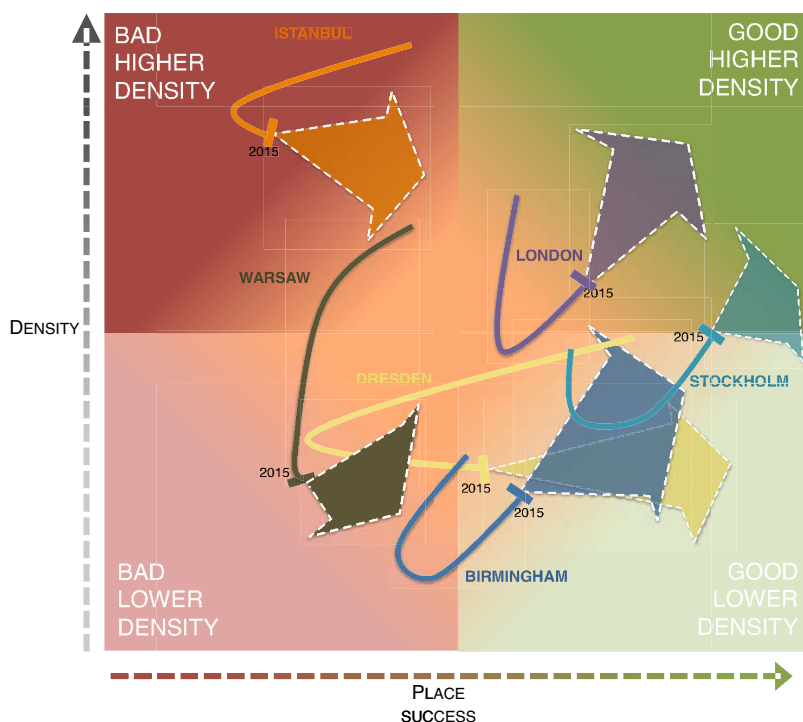
	Durable city plan	Fiscal autonomy and flexibility	Transit-oriented development strategy	Metropolitan planning approach beyond city borders	District agencies and development corporations	National planning and policy framework for cities
Birmingham	✓✓	✗	✓✓	✗	✓	✓
Dresden	✓	✓	✓	✓	✓	✓✓
Istanbul	✗	✗	✗	✓	✗	✗
London	✓✓	✗	✓✓	✗	✓✓	✓
Stockholm	✓	✓	✓✓	✓✓	✓	✓
Warsaw	✗	✗	✗	✗	✗	✗

*Ratings are indicative, based on research, consultation and findings from workshops.

Section 4

Conclusions and recommendations: creating popular density

Fig 24 Change in density pattern over time, 1940-2040



Densification is a key aspect of the changes in all of our cities, whether they are growing, recovering, plateauing or shrinking. All six cities in this report have managed to develop and sustain some higher density districts that are popular, prosperous and attractive destinations. The projects and practical progress made in our six cities illustrate how denser cities:

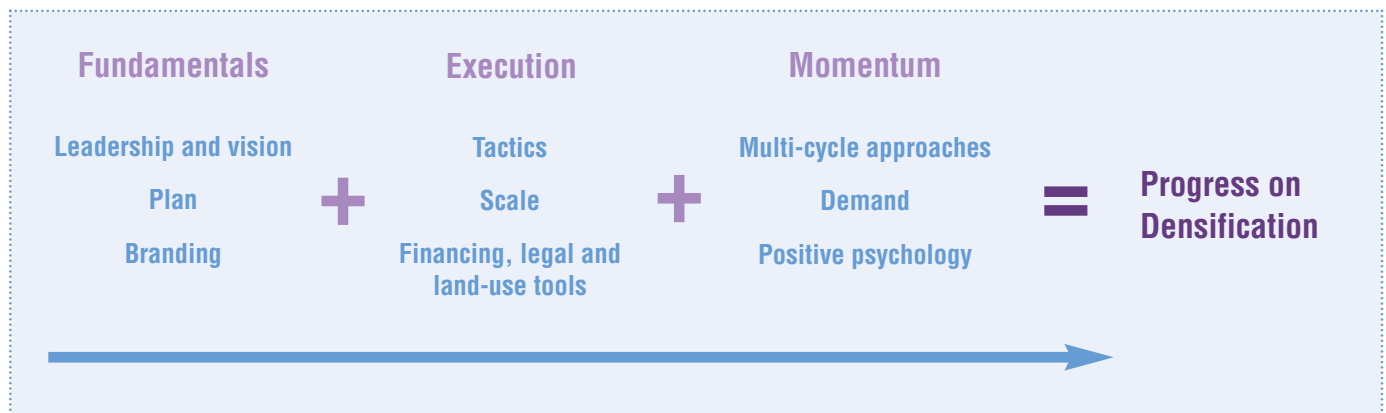
- Achieve density through mid-rise projects, without having to build extremely high throughout the inner city.
- Offer lifestyle benefits to a range of different income and demographic groups.
- Are more investment-ready because of their ability to assemble and package large sites to institutional investors and other sources of capital.
- Reduce congestion, carbon footprint and inefficiencies by minimising time and distances to work and leisure.
- Offer more amenity and opportunity in areas that have been under-invested.

Fig 24 offers an indicative way of visualising the path being taken by cities in recent cycles. It highlights the potential for these cities to make progress in the next 20-30 years, if the right tools, policies and behaviour changes are activated. It shows that London and Stockholm are moving in the right direction towards good higher density. Others are beginning to turn the corner from different starting points and can use current and future cycles to achieve the same.

The building blocks of progress

A city first needs leaders to develop an idea, story and vision for its future evolution that can galvanise attention and support from residents, workers and investors alike. It also needs a robust growth plan that provides a guiding framework within which development can proceed. These are fundamentals without which progress on density can only be partial and fragmented.

Fig 25 Equation to deliver density at pace and quality



In order to operationalise the vision of a dense city, leaders then need tactics about where and how to densify. They also need viable sources of finance, and enhanced legal and land-use management tools to shape development in the desired way. Later, in order to maintain momentum across political and economic cycles, cities also need to induce demand and focus on the attitudinal dimension to density. These elements can be understood together in the form of an equation (see Fig 25). When cities get these elements of the equation synchronised, sustained progress tends to happen towards good higher density.

4.1 Getting the Fundamentals in place

Our case study cities indicate that the ability to build an agenda for good and popular density depends on some core ingredients being established:

Leadership and vision

Leadership and vision is essential to capture peoples' imagination and provide a sense of energy and opportunity in the context of change. Public sector leaders must act as conveners of the story while the private sector must operate as innovators and demonstrators of what is possible.

Critical leadership ingredients at the local level include:

- **A compelling future story.** Leadership helps steer the transition from initial ideas into a coherent vision and message for a future city. A long-term vision eliminates inconsistencies in how density initiatives are interpreted and improves the transparency of decision-making, which is important to get citizens on-side.
- **Intelligence and scenario-building.** The cities that are accommodating density most effectively are the ones where there is clear intelligence and analysis about the needs for more dense development. Estimating future population growth, consumption patterns, or changed sector mixes, helps cities be pro-active in finding locations for more intensive development. Dresden, London and Stockholm, for example, regularly update their growth needs and scenarios over the next 15-25 year period. Cities with 'targets' are better able to remove barriers or to put in place reforms that make density easier. They are also better at signalling to the private sector, enabling it to deliver.
- **A proactive partnership between developers/ investors and public authorities.** Much of the capacity for conceiving, designing, communicating and delivering dense development lies in the private sector. Although many of the constraints to successful densification are in policy frameworks and public opinion, an active private sector development community is critical to addressing these issues and creating forward momentum with densification. As we see in cities such Warsaw and London, this occurs through demonstration, advocacy, patience and collaborative planning and design.

In Europe, many city leaders also depend on a **national framework** agreed by central government in order to be able to pursue spatial development and densification projects with confidence. The ability to re-engineer land-use and infrastructures to change from one major cycle to another can only be achieved if planning systems are trusted and observed.

In countries with low respect for planning, genuinely strategic development of the city becomes very hard to achieve. Cities such as Istanbul and Warsaw urgently need a national urban/planning policy that recognises the role of metropolitan areas, identifies which cities should develop in which ways, and how development is to be achieved. This is essential for a high trust/high investment equilibrium to emerge.

Once this kind of framework is in place, as it is for Stockholm, Dresden, Birmingham, and London, the challenges are less technical and theoretical, and more around how to **deliver** densification.

Long-term plans

The maintenance of long-term pro-active city development plans appears to be a fundamental ingredient in creating the scale of densification that is possible in cities. Such plans offer an organising narrative for accommodating growth, and show the range of scenarios in which that can be achieved. Without such a plan, it is almost impossible for a city to build a positive agenda for growth and development.

Long-term city plans can create an exciting idea about the future and map development over 20-30 year horizons. Birmingham's Big City Plan in 2010 made the case to achieve well-designed higher density developments in order to achieve the levels of growth required in the city. By contrast, Warsaw has an incomplete spatial development plan and large swathes of the CBD still await binding plan approval.

Branding and communication of density

The most successful cities show commitment to achieve good density and to learn from what works and what does not work. **But this model of successful density needs a new promotional language.** Density is not a popular word in most of the cities reviewed, even though the outcomes of good density are widely sought. Many already established high density neighbourhoods are not widely known to be dense, and simply seen as successful, with vibrant populations and amenities.

There is an important psychology to how old and new dense developments are introduced and the story that is told about them. It is important to illustrate and promote density as being the key ingredient of these popular districts, and each city needs a different vocabulary to describe the dividends of density. Commonly used and useful terms are:

- **Efficiency, convenience, proximity** to communicate the benefits to residents of larger cities who dislike congestion and long travel times, and who have high expectations for an 'on-demand' lifestyle.
- **Mix, choice, opportunity** can work in cities that have become used to different functions being separated, and for whom the distance to travel to jobs is growing. These terms highlight the lifestyle benefits of density.
- **Compact, concentration, competitive** are useful for medium-sized cities who have a story for their citizens and the rest of the world about the advantages and appeal of well-planned and cohesive city.
- **Vitality, vibrancy, vibe** help all cities focus on the lifestyle offer that density brings, and is especially relevant for smaller and struggling cities looking to improve their fortunes.
- **Smart, intelligent and sustainable** highlight how environmentally friendly density can be, if sequenced and delivered properly. This language communicates to individuals and to cities the benefits of managing their risks and reducing their energy footprints.

Not all developments will appeal to all sections of the population. Developments that are led by commercial or substantially mixed uses find it easier to build up the story of 'opportunity', especially as it relates to opportunities for new jobs and customers. Developments that offer a substantial portion of residential have to show their linkages with other areas very clearly and also communicate the new amenities that they help to create and make available.

4.2 Execution and implementation

Tactics for promoting density

Cities need tactics in their pursuit of density projects. The experience of our six cities indicates that good tactics include:

- **Finding the right locations and applying a mix of solutions in different locations.**

Many sites of successful density in our case study cities are in regeneration areas or inner city and former industrial and logistical areas. Examples include London's Lower Lea Valley, Friedrichstadt in Dresden, and Västra Kungsholmen in Stockholm. These are good sites for densification because they do not simply involve densifying existing residential areas, but offer new space for experiments and new land-use mixes.

But many cities eventually run out of brownfield land, which can be redeveloped cost effectively. Cities that rely on one approach (e.g. promote density only in brownfield areas, or only in the city centre) or one type of density (e.g. high-rise high-income communities) soon find that this model exhausts itself and that areas risk becoming monotonous or lose their edge.

Therefore, it is essential to build up the case for different forms of densification, any combination of which may be necessary at different points in a city's development cycle. This mix includes the retrofitting of individual buildings, more intensive development around key rail stations, and even land reclamations.

- **Integrated interventions and innovations.**

Successful demonstration projects work when there is proper sequencing of planning, infrastructure, design, finance, amenity, capital, branding and marketing. This means that integrated management of the development process is required, and so new capabilities often have to be created.

- **Taking the regional angle seriously.** All cities need a collaborative approach with surrounding municipalities to combine resources, avoid duplication and prevent a situation where the cost equation begins to favour sprawl again. It is essential to look at how growth and change can be accommodated in different locations.

Types of preferred location for densification

Regeneration of disused sites <i>(e.g. London Kings Cross)</i>	Intensification of transport interchanges <i>(e.g. Warszawa Zachodnia station)</i>	Redevelopment of existing buildings <i>(e.g. Dresden's Prager Zeile)</i>
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Different sites for densification

Building higher in city centres <i>(e.g. Birmingham Enterprise Zone)</i>	Suburban infill and expansion <i>(e.g. Vällingby in Stockholm)</i>	Land reclamations and manmade peninsulas <i>(e.g. Atakoy, Istanbul)</i>
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- **Active re-imagination of the suburbs.** Cities progress when they successfully promote a mindset change in their established suburbs and create appetite for family housing at higher densities and shared space.

Building density at scale

Major redevelopment that enhances density needs to operate at a scale where it is transformational, as well as being planned, and this means that it must have a critical mass of new amenities and buildings. If the arrival of companies, cultural assets and entertainment is sequenced properly and promptly, it creates a sense of destination and vitality that attracts people and increases credibility. Kings Cross in London and Telefonplan in Stockholm are two projects that have successfully recognised this.

Local level tools

Delivering greater urban density is an intensely practical task. It requires legal, financial and land-use tools that work both to make the context for density right and also to enable density to be used to succeed in achieving positive outcomes. From our six case study cities several key tools are visible:

- **District design and master-planning**

The contrasting experience of Warsaw and Stockholm shows that density has to be fully embedded in the neighbourhood structure. This requires tools such as master-planning, redevelopment zones, development corporations/agencies, land acquisition powers, and the ability to pursue a development project to reasonable deadlines.

District design and master-planning is vital for communicating with citizens and decision makers. They allow aspirations to be visualised and scenarios to be tested, as London's model of Opportunity Areas and Intensification Areas in tandem with local borough plans has begun to show. They can create a positive psychology of density by prioritising common aspirations, re-connecting with communities, and activating new shared spaces, such as schools, street life and transport.

- **Financing productive density**

How cities finance good density can be a conundrum. Many, like Warsaw, have to cope with net fiscal outflows to other less successful regions, and lack the tax-raising autonomy to finance projects with their own balance sheet. When cities lack reliable sources of finance, they can end up making short-term and short-sighted decisions to sell land or assets that ultimately work against effective and coherent density.

Our six cities show that cities need, and benefit from:

- **Enhanced allocations to fixed assets** in the investment sector, especially from institutional investors, which is having a big impact in cities like London.
- **Integrating and managing the balance sheet** of urban districts, as Dresden has done effectively in the past decade.
- **Effective advocacy for supra-national integrated investment**, as Warsaw has managed so successfully with EU regional funds.
- **Capturing the value of density to finance infrastructure**, as London has done with Nine Elms/Battersea district and elsewhere, and as Istanbul does in some of its land parcels where there is a high earthquake risk.
- **Effective PPPs**, with careful blends of public and private finance, as London and Dresden are now fairly experienced at, and as Istanbul is currently pursuing to good effect.

4.3 Maintaining momentum

Building and sustaining momentum for densification is a critical task in most of the case study cities. In some fortunate cities, ambitious long-term plans to grow and develop the city have managed to catch on, capturing imaginations, and are able to last through different leadership cycles. In most, however, NIMBY ('Not in My Back Yard') effects have tended to erode big integrated visions and leave cities focusing on a handful of individual projects, often only in locations where there is not an established nearby residential community to oppose them (such as on brownfield or post-industrial/logistical sites).

Multi-cycle strategies and flexibility

'Riding the cycles' is a critical task for all cities experiencing development and change. As demand ebbs and flows, cities need to use density to manage supply and shape a new offer. Investors know how to optimise cyclical dynamics, and cities have to learn to do the same. Cities that only do inner city urban regeneration in one cycle may well need to do suburban intensification in the next, or to focus on wholly new sites that require substantial new infrastructure and greater critical mass to make development feasible.

A multi-cycle approach takes the long view and does not just look for quick wins and sites that are easier to develop. It requires the city council to become a learning organisation and recognise that the journey to good density is a constant process of feedback and iteration.

Cities need the **fundamental** frameworks in place, the **execution** toolkit to deliver the right projects, and to foster the **momentum** that allows enthusiasm for density to endure. In our six case study cities we observe different mixes of these elements in action as well as opportunities and appetites in each city to strengthen the climate for density going forwards, sequenced with the cycles the cities are in, and the paths they are on.

ULI's objective to make the insights from successful and unsuccessful density more widely available is borne out by the desire of many in these cities to undertake best practice sharing and to better understand the demonstration projects which set the benchmarks that others should follow. Detailed case studies of the six cities are available on the ULI website, www.uli.org.

Key lessons and imperatives for cities in different growth cycles

Fast-growing cities

Improve municipal capacity and knowledge.

Be prepared to become mosaics of old and new architecture and design.

A bigger shift towards public transport is necessary to optimise space.

Housing should not be over-prioritised at the expense of commercial needs.

Bounce-back cities

Create a clear vision and build cross-sector and cross-party backing for it.

Begin with the city centre and street life, then build a polycentric approach around public transport.

Undertake comprehensive district level design, planning and management.

Make the advantages of density obvious quickly, before any negative externalities appear.

Shrinking and consolidating cities

Investment in the sense of place is the first priority.

Guide retail development to the centre to increase attachment to historic core.

Deliberate clustering is essential for emerging sectors to stay competitive.

Use national policies that incentivise compact development to launch bolder strategies.

The Psychology of Density

For nearly all cities, failed, or weak, 20th century densification projects linger in the collective public memory as places of danger, overcrowding, anxiety or boredom. As the surveys in the first ULI Europe density project found, people remember the lack of public space, the anonymity, the long commutes and the threat of crime.

Past densification obscures the fact that people are energised by cities again. People love cities' vitality and historic character, the street life, the proximity and choice, the public space, the variety of retail and food on offer, the ability to enjoy parks and waterfronts, and easy access to transport. The organised and lively complexity of cities is deeply attractive, especially those that possess human-scale. It is this density of interaction and exchange that people enjoy and which is the secret weapon of cities. People are tired of the 20th century model of long commutes and suburban tedium.

As cities solve many of the problems that afflicted them in the 20th century – crime, poor schools, pollution and car dependence – new demographics are returning to enjoy cities.

Improved public services and building design is incentivising older people to stay or return. Parents of young families are electing to bring up their children in cities where there is a good housing offer as well as plenty of green space and better schools. Investments in air quality, health and affordability mean that some cities' appeal stretches well beyond talented young people. For these new demographics, cities are becoming easier and healthier places to live.

Cities that have managed to achieve a positive psychology around density tend to combine high investment in the urban environment with a compelling story about the future. Stockholm's Capital of Scandinavia brand, and London's strategic vision to become the best big city in the world provide unified narratives about the need for the city to meet current and future needs. They show the value of consistent internal and external communication about the direction the city must travel.

Cities that have improved density perceptions also tend to possess a distinct design and vernacular that feature mid-rise buildings, tree-lined streets and high-quality architecture. They build up appetite for density through lived experiences of great places.



Notes

- ¹ <http://www.brookings.edu/research/reports2/2015/01/22-global-metro-monitor>; <http://usj.sagepub.com/content/early/2015/03/24/0042098015577773.full>
- ² <http://www.blog.urbact.eu/2014/11/4397/>
- ³ <http://www.webcitation.org/6NPUvLF4J>
- ⁴ Ibid.
- ⁵ GLA (2015), The London Plan: The Spatial Development Strategy for London – Consolidated with alterations since 2011; New London Architecture (2014), London's Growing Up! NLA Insight Study.
- ⁶ https://www.london.gov.uk/sites/default/files/Zones%20Map_V3.pdf
- ⁷ <https://www.london.gov.uk/priorities/housing-land/increasing-housing-supply/housing-zones>; <http://www.socialhousing.co.uk/peabody-takes-11m-from-london-housing-bank-for-thamesmead-regen/7008954.article>
- ⁸ <http://www.dailysabah.com/money/2014/09/16/qatari-diar-offers-luxury-residential-project-in-istanbul>
- ⁹ <http://www.sz-online.de/nachrichten/kommentar-die-lange-planung-zahlt-sich-aus-3041107.html>; <https://www.dresden.de/de/stadtraum/brennpunkte/post-platz.php>
- ¹⁰ <http://www.sz-online.de/nachrichten/fast-1000-neue-wohnungen-am-postplatz-3041109.html>; <http://www.sz-online.de/nachrichten/neue-projekte-fuer-den-postplatz-3092785.html>; <http://www.dimag-dresden.de/news/detail/2015/02/24/fast-1-000-neue-wohnungen-am-postplatz.html>
- ¹¹ http://www.dresden.de/media/pdf/statistik/Statistik_1210_18-19_E2012_Dichte_nach_ST.pdf
- ¹² <http://www.spiegel.de/international/beware-the-locusts-public-housing-sell-offs-on-the-rise-in-germany-a-446415.html>
- ¹³ <http://bigcityplan.birmingham.gov.uk/wp-content/uploads/2012/10/Enterprise-Zones-12-11.jpg>
- ¹⁴ https://de.wikipedia.org/wiki/Prager_Zeile
- ¹⁵ <http://www.theplanner.co.uk/opinion/affordable-housing-diy>
- ¹⁶ <http://www.urbanity.pl/mazowieckie/warszawa/saska-residential-estate,b5819>
- ¹⁷ http://warszawa.wyborcza.pl/warszawa/1,34889,15815758,Praga_Poludnie_kusi_nowymi_mieszkaniami__Gdzie_je.html
- ¹⁸ http://warszawa.wyborcza.pl/warszawa/1,34889,17355100,Mieszkaja_na_pierwszym_pietrze__nie_moga_sie_umyc_.html; <http://fotopolska.eu/osiedla.408,20/woj.mazowieckie.html>
- ¹⁹ Stockholmstad (2015). 'Budget'.
- ²⁰ <http://www.cardiff.ac.uk/archi/programmes/cost8/case/greenblue/stockholmgreen.html>; https://commons.wikimedia.org/wiki/File:Vällingby_1960.jpg
- ²¹ <http://www.white.se/projekt/90-vallingby-city>
- ²² <http://www.selectproperty.com/2015/08/institutional-property-investments-focusing-on-manchester-birmingham-prs/>
- ²³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/416611/150323_Accelerating_Housing_Supply_and_Increasing_Tenant_Choice_in_the_Private_Rented_Sector.pdf
- ²⁴ Landeshauptstadt Dresden (2002), Teil II: Integriertes Stadtentwicklungskonzept (INSEK) – Kurzfassung.
- ²⁵ https://www.dresden.de/media/pdf/stadtplanung/stadtplanung/spa_Leitb_DD_Leitbild_Kurzfassung_englisch_Internet.pdf
- ²⁶ <http://bygg.stockholm.se/alla-projekt/vastrakungsholmen/?acceptcookies=true>
- ²⁷ Lang, J. (2005), Urban Design: A typology of procedures and products, Architectural Press: Oxford.
- ²⁸ Ibid.
- ²⁹ <http://s202.photobucket.com/user/SELondoner/media/CanWhf2-600w.jpg.html>

³⁰ https://commons.wikimedia.org/wiki/File:Reuters_Plaza.jpg

³¹ Lang, J. (2005), *Urban Design: A typology of procedures and products*, Architectural Press: Oxford.

³² Jones, C. (2013), *Office Markets and Public Policy*, Wiley-Blackwell.

³³ <http://group.canarywharf.com/portfolio/new-phase/>; <http://www.standard.co.uk/business/business-news/success-for-canary-wharf-plans-to-swell-by-a-third-9620946.html>; <http://group.canarywharf.com/media/press-releases/canary-wharf-group-appoints-individual-building-architects-for-wood-wharf-5/>

³⁴ <http://www.standard.co.uk/news/london/canary-wharf-banking-on-bright-future-with-2bn-plan-for-shoreditch-style-shops-8218296.html>

³⁵ <http://www.garnek.pl/stanisl/14545231/warszawa-powisle>

³⁶ <http://bi.gazeta.pl/im/b6/eb/fa/z16444342Q,EC-Powisle.jpg>

³⁷ http://www.hochtief-development.pl/fileadmin/media/pdf/ECP_PL.pdf

³⁸ http://www.kraftwerk-mitte-dresden.de/de/standort_vision.php

³⁹ <http://www.sz-online.de/nachrichten/dem-kulturkraftwerk-geht-ein-licht-auf-2960135.html>

⁴⁰ https://commons.wikimedia.org/wiki/File:Fotothek_df_roe-neg_0002586_004_Blick_von_der_Kreuzkirche_in_Richtung_Wilsdruffer_Vorstadt,_Bauarbeiter_auf_eine.jpg

⁴¹ https://commons.wikimedia.org/wiki/File:Fotothek_df_ps_0002875_Aufbau_%5E_Neubauten.jpg

⁴² https://www.dresden.de/media/pdf/stadtplanung/stadtplanung/spa_download_spas_Broschuere_WilsdrufferVorstadt_Einzelseiten.pdf

⁴³ <http://www.kraftwerk-mitte-dresden.de/de/standort-vision/vision/infrastruktur-mobilitaet.php>

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