



# **Delivering Infill Development**

**A London 2050 briefing paper**



## About London 2050

Designed partly to supplement the Mayor's draft London Infrastructure Plan 2050, **Future of London's multi-part London 2050 programme** looks at the spatial and practical aspects of accommodating growth. It started with an internal FoL Steering Group presentation, and expanded to a June 2014 session at City Hall: London 2050 – Grow up or grow out?

*Delivering Infill Development* is the second in a series of follow-up events and briefings that look in depth at delivery and governance issues. This briefing paper is the follow-up piece to a senior roundtable on the topic, held on 30th October 2014 and kindly hosted by **Arup**.

There are three additional streams in the London 2050 programme:

**Working Beyond Boundaries:** Senior roundtable (26th September 2014) and follow-up briefing.

**Surface Tension: Underground London's impact on the world above:** Half-day conference (26th November 2014) and online summary.

**Capturing Value:** Senior roundtable (10th December 2014) and follow-up briefing.

#London2050

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# ARUP

The senior roundtable at the core of this briefing was kindly hosted by **Arup**. Arup is an independent firm of designers, planners, engineers, consultants and technical specialists offering a broad range of professional services.



All briefing papers in the London 2050 series are available freely with thanks to **Regeneris Consulting**. Regeneris is a specialist economic development and regeneration consultancy that provides quality, research-based advice to clients across the UK in both the public and private sectors.

## About Future of London

Future of London is an independent not-for-profit policy network focused on the challenges facing regeneration, housing, infrastructure and economic development practitioners in the Capital.

We are a borough-led membership organisation with a number of external partners, which provides top career development, expert-led policy research, and topical networking and speaker-led events.

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# Introduction

If it wasn't already clear, the 2011 Census was confirmation: Greater London is highly urbanised. Using its 'built-up area' classification (its proxy for urbanisation), approximately 85% of the Capital is urban. With the majority of the remaining land within the Green Belt or otherwise unavailable for development (for example, designated parks), there is simply very little capacity for greenfield housing development in London.

While brownfield developments (namely Opportunity Areas) have been a focus of regeneration, these sites alone cannot overcome London's housing shortage. Enter infill development: using capacity within

the built-up fabric. Making the best use of vacant or underutilised land is critical, whether that's identifying or freeing up public land, seeking estate regeneration opportunities, or making the most of changing high street and town centre landscapes or identities.

This briefing paper is about making infill development work. With an emphasis on public-sector interventions, it focuses on identifying and delivering homes on infill sites that contribute to the success of place, community and the housebuilding industry. In concluding, it relates back to the London Infrastructure Plan 2050 and suggests other policy levers for taking a comprehensive approach on infill development.

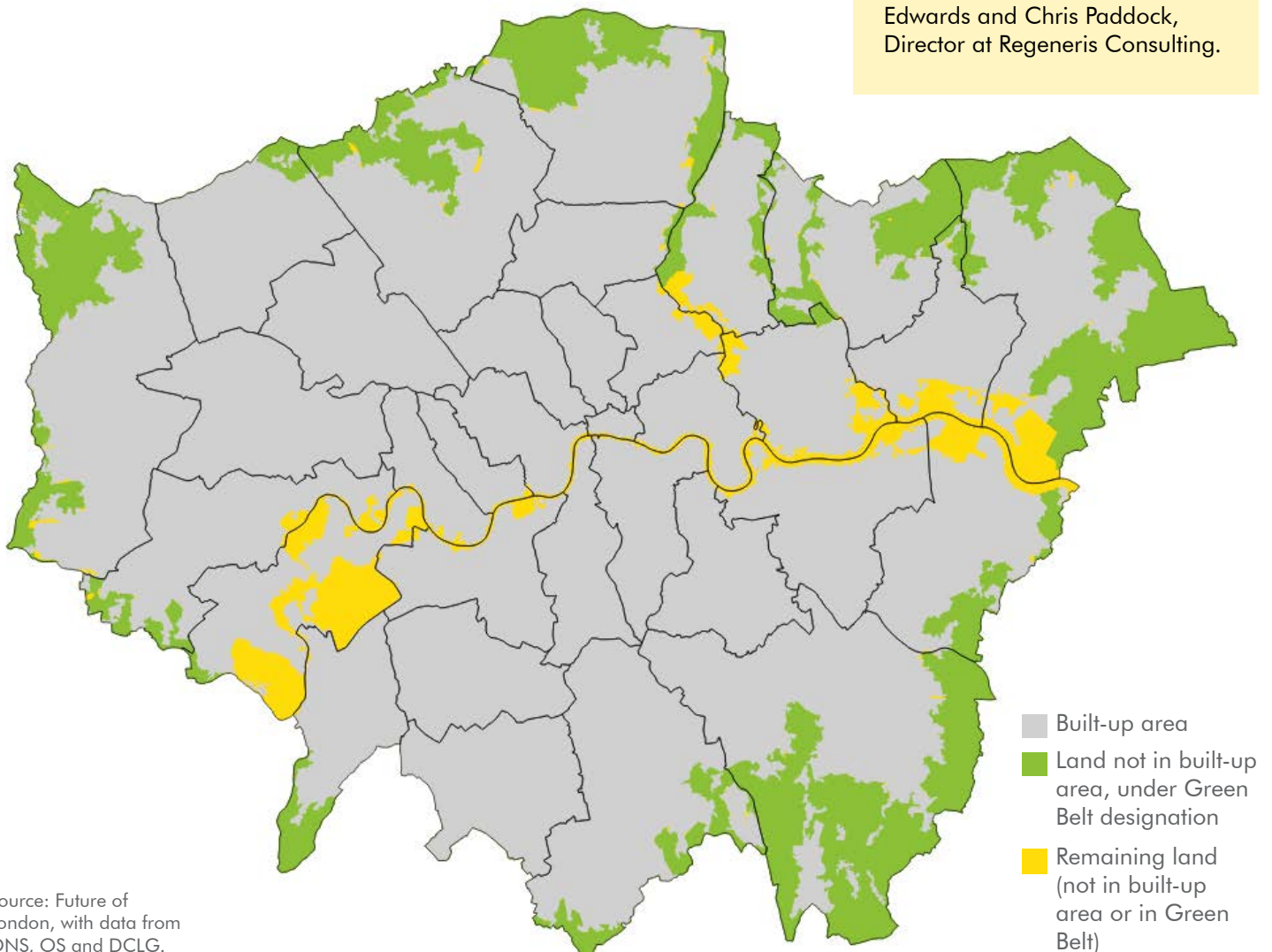
## Practitioner views

This briefing paper summarises and builds on a senior roundtable on the topic, hosted by Arup in October 2014. It also draws on a Future of London debate held in June 2014 at City Hall: London 2050 - Grow up or grow out? The diverse groups of experienced practitioners who attended these events work across London's public, private and third sectors.

Both events were Chatham House Rules discussions, meaning points raised are not attributed here to an individual or organisation.

This briefing paper also includes attributed contributions from Andrew Beharrell, Executive Director at Pollard Thomas Edwards and Chris Paddock, Director at Regeneris Consulting.

## London's land: Built-up areas and Green Belt designation



Source: Future of London, with data from ONS, OS and DCLG.

# Why infill?

To deliver enough housing for its growing population, and to overcome the existing supply shortage, London will need many more homes by 2050: 1.5 million additional homes, in fact – about as many as have been delivered across the entire United Kingdom from April 2005 to March 2014. Put another way, this equates to building at least 49,000 dwellings per year. No small feat.

This need becomes more urgent against the backdrop of recent housing delivery in London. New housing supply has lagged behind demand in the past few decades. Over the past ten years, completions have averaged around 25,000 per annum, and are still recovering after being hit by the 2008 economic downturn that pushed delivery to a low of 19,185 completions in 2010/2011.

Given such high delivery targets, much attention is deservedly given to large-scale opportunities. London's Opportunity Areas are a focus of the London Plan, with collective capacity for nearly 300,000 homes. The Mayor of London's housing strategy also points to surplus industrial land as a potential source of capacity, if its release is carefully managed under the London Plan's and the Industrial Land Supplementary Planning Guidance's geographical and economic criteria.

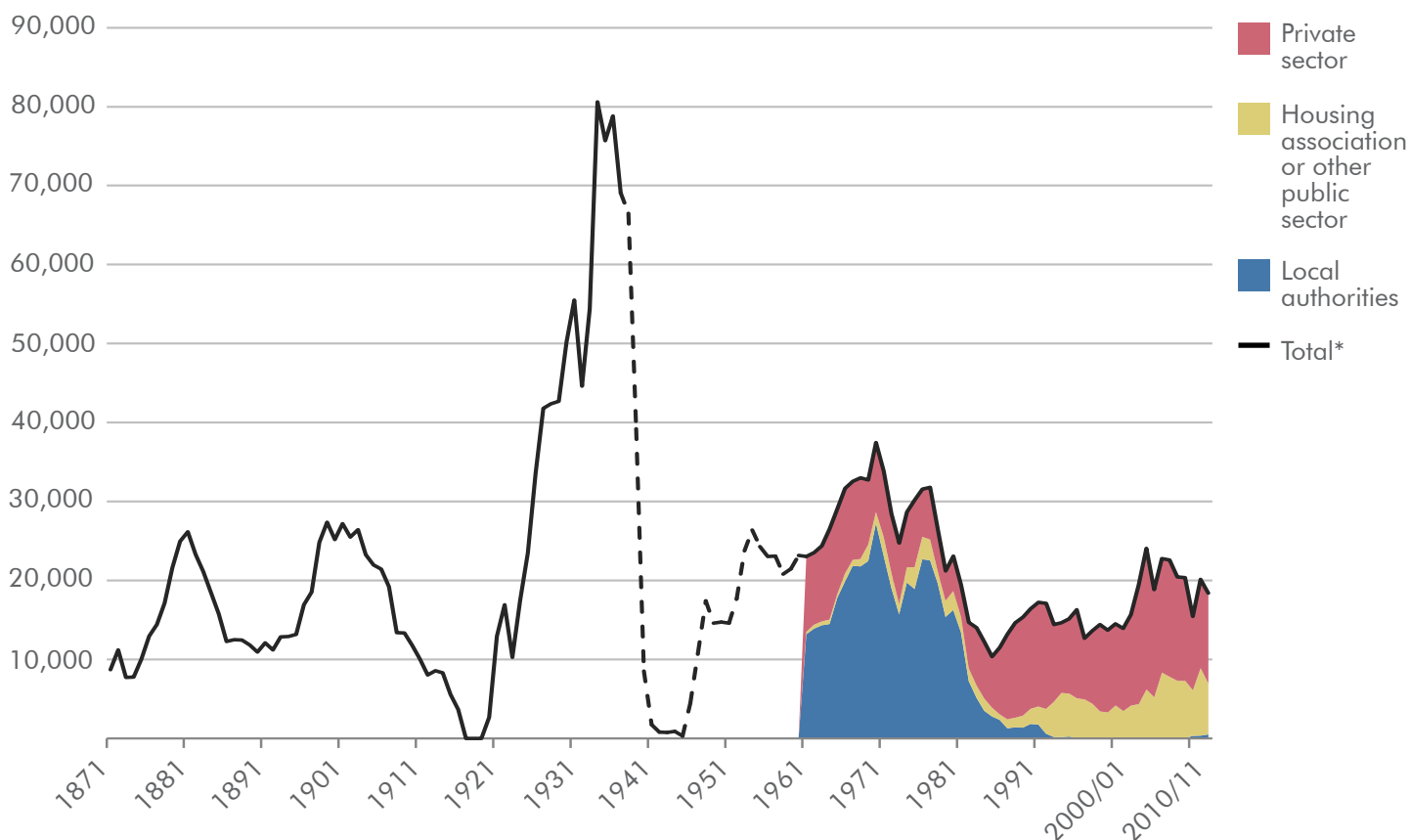
Further potential for large-scale housing delivery may be found in the wider South East. As discussed in Future of London's *Working Beyond Boundaries*, analysis undertaken to inform the London Infrastructure Plan has suggested that 1m additional people could be housed in the areas surrounding London. Practitioners

participating in that research indicated that there was some appetite among out-of-London authorities to accept more housing development – if it was sufficiently incentivised.

It's not just large brownfield and greenfield sites driving London's growth, as many more tall buildings join the city's skyline. A March 2014 report from New London Architecture identified at least 236 tall buildings that were proposed, approved or under construction in the Capital, 80% of which were primarily residential.

So, should London grow up or grow out? Delivering housing that remotely approaches supply targets likely means both strategies – and more. When Future of London posed this question at a June 2014 debate, panelist Chris Hall (Director, GVA) put forward an

## New homes built in London, 1871-2013



\*Dashed line indicates estimates from national data

NB: This chart only reflects gross house building and thus understates new supply resulting from conversions or changes of use.

Source: GLA, 2013: *The 2013 London Strategic Housing Market Assessment*.

“in between proposition”: that, along with scope for higher ‘hub and spoke’ densities, London’s built environment offers capacity for infill development at a significant scale.

Broadly, infill refers to the development of vacant or underutilised sites at all scales, within existing communities and so with some supporting infrastructure already in place. This loose definition, used by this paper, is itself an important first hurdle to approaching infill development as a typology, as organisations and practitioners may take narrower or differing views of what qualifies as infill.

Infill schemes have long been part of London’s housing delivery, but there has not been a comprehensive approach to these sites as a typology – though there are signs of change. Several participants at the *Delivering Infill Development* roundtable which informed this paper indicated infill development was being ‘mainstreamed’ in their work, as more clients and stakeholders evaluate the delivery potential of these sites. Infill development is also surfacing in London’s strategic planning documents. For example, the Mayor of London gives credence to the potential of infill sites in the London Housing

Strategy, which states that “[the] Mayor will explore with boroughs the opportunities available in identifying and developing small parcels of land, either undeveloped or with unrealised housing capacity, that could support infill housing development.”

There are many other benefits to infill development beyond its potential contribution to housing targets: thoughtful schemes may improve existing communities; smaller sites offer opportunities for new approaches and market entrants; successful infill schemes may create market interest and set the stage for larger developments. For these reasons and others, London’s practitioners are looking to best practice on delivering infill development.

## Practitioner view

Andrew Beharrell

### What do we mean by infill?

PTE usually define residential infill sites as those requiring no demolition of existing homes. They sometimes do require demolition of ancillary structures such as garages or redundant small commercial and community buildings set with a residential neighbourhood. Given the densely developed nature of London, such sites tend by definition to be small. They are sometimes called ‘gap sites’.

We would not usually classify air-rights development or the conversion of existing buildings as infill.

Infill development could form one aspect of a larger regeneration scheme, alongside wider demolition and redevelopment.

## three BIG QUESTIONS

From placemaking to market testing, practitioners across London’s public, private and third sectors have diverse interests – and perspectives – when it comes to infill development. To focus the topic, this briefing paper and related roundtable have been framed around three big questions:

- Q What are the main barriers to delivering infill development? How can they be overcome or mitigated, and who should bear this responsibility?
- Q Is infill housing development a threat to other uses, or is it an opportunity for new placemaking?
- Q What attitudes do existing communities have towards infill development and how can organisations delivering these sites respond?





## What are the main barriers to infill?

There is a lack of empirical evidence on infill development: what planning policies and economic incentives support its delivery, what impact it has on the market and on existing communities, and even what qualifies as infill. In London, it is difficult to quantify the full potential of infill development as there is a lack of comprehensive data aggregating different opportunities.

The Strategic Housing Land Availability Assessment (SHLAA) – which identifies housing capacity across the Capital to inform borough-level delivery targets – does not separate out infill development. The SHLAA does, however, quantify small sites (defined as sites under 0.25ha, including new build, conversions and change of use), which in many cases may be indicative of opportunities for infill development.

In the 2013 SHLAA, projected development on small sites totals 106,476 homes for 2015-2025. Their impact is significant across the Capital, but especially:

- In four London boroughs, where these sources form at least 50% of their 2015-2025 targets
- In six London boroughs, where expected delivery from these sources exceeds 5,000 homes.

Extrapolating from data provided by 13 boroughs, the recent GLA Conservatives' report *Gap in the Market* suggests that at least 10,000 homes could be delivered on infill sites over the next decade. This report indirectly highlights the challenges boroughs face in identifying infill development opportunities: some figures were provided in number of homes while others in number of sites, and some borough figures relied on housing association research while others could not supply any data.

Elsewhere, the GLA's *Accommodating Growth in Town Centres* offers further pause. The 2013 SHLAA quantified housing capacity in town centres, and independent sensitivity testing of those figures for the growth report suggests that as many as 64,000 additional

homes may be accommodated in town centres to 2025. Clearly, quantifying infill capacity is complex.

The next barrier focuses on who will deliver these homes. Recent experience indicates that development by the private-sale market will be insufficient to meet future need, with private-sector completions over the last 20 years averaging 11,600 per annum. New delivery models are needed, and infill development offers an avenue for encouraging new market entrants and offers.

For example, infill development offers an opportunity to engage SME developers, contractors and designers. For firms, this work may be more accessible than larger schemes given comparatively small investments or entry costs. In turn, London's housing sector can benefit from innovative approaches that new market entrants can provide.

Engaging small and medium house-builders in infill development can also contribute to wider housing aims. Many smaller firms exited the sector during the economic downturn, concentrating delivery under the largest builders. This structure is at odds with the times of highest housing delivery in London, when there were a large number of SMEs operating in the sector. Noting this historical trend, a key aim of the Mayor's housing strategy is fostering greater dispersion and competition in the industry by re-engaging small and medium builders. Infill development offers an entry point.

New entrants can also lead to innovation in the market, as is the case with Pocket Living. Pocket delivers infill homes that are at least 20% cheaper than the local market rate by challenging conventional private sale developments parameters. While 500sq ft had typically been the minimum space standard accepted by councils for new one-bedroom homes, Pocket's highly-designed plans succeeded in winning mayoral backing for a 400sq ft minimum. Pocket has had further public sector support: to

### Practitioner view

Andrew Beharrell

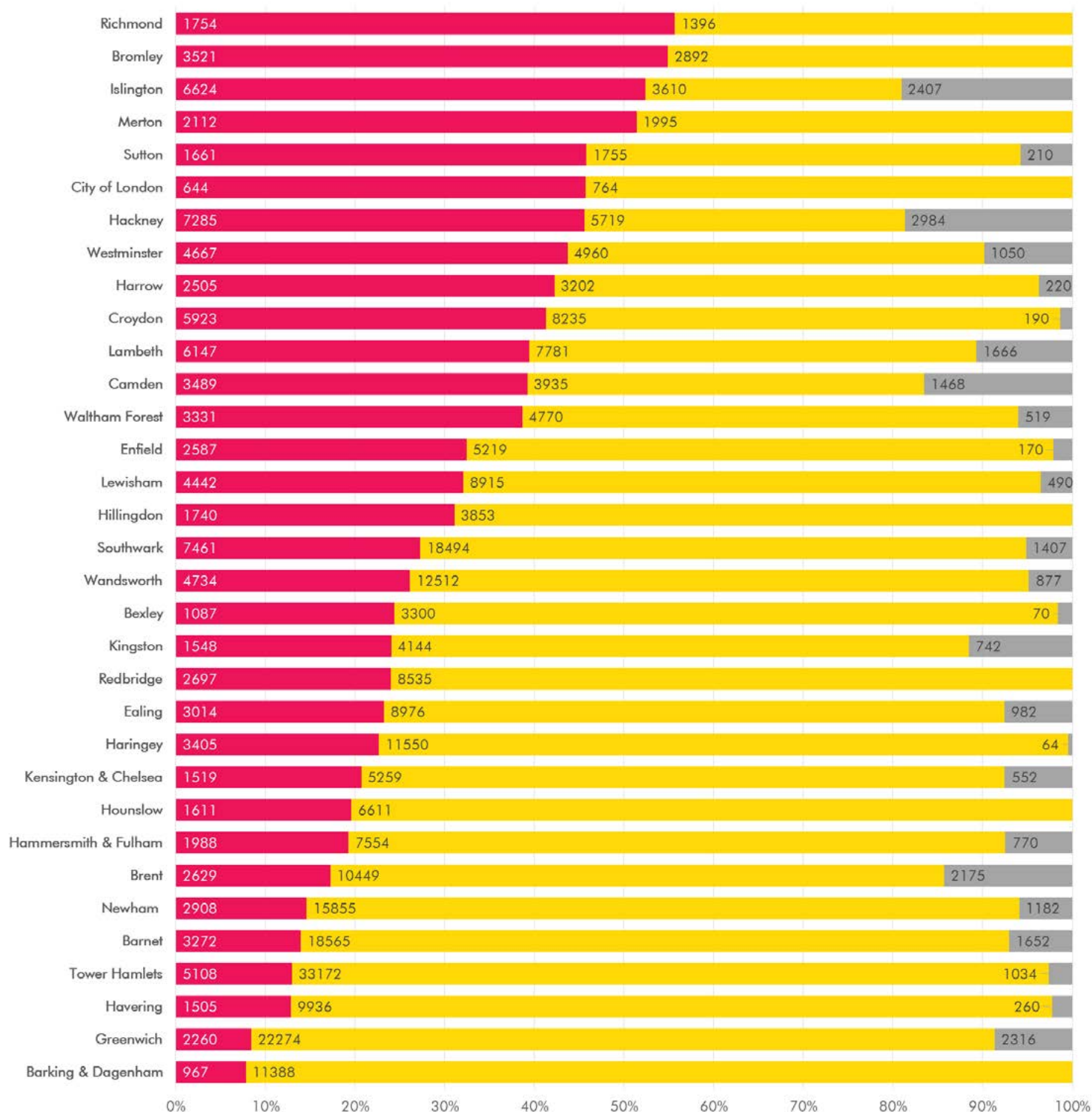
#### Can infill development really help to solve London's housing crisis?

Most London councils have carried out audits of their land holdings, including housing estates, to see what scope there may be for development. These exercises vary widely in how detailed, reliable and comprehensive they are. Some do not take account of basic planning and technical constraints on specific sites, but merely multiply a site area by a target density and come up with a notional housing capacity.

We are not aware of a single reliable and comprehensive database of housing infill sites on estates. The GLA's Housing Land Availability Assessment does note separate out infill sites, but does claim capacity for over 100,000 homes on small sites under 0.25 hectares. Other commentators have asserted that there is capacity for between 200,000 and 700,000 new homes to be built on land in local authority ownership.

PTE's own current experience (at January 2015) is as follows. We have around 500 homes on estate infill sites either under construction or in planning or pre-planning. These are spread across ten estates with capacity varying from 6 homes to 140 homes per estate. In addition we have carried out recent feasibility studies on around 30 other estates, which may or may not proceed. We know of other practices with similar workloads.

## SHLAA-assessed housing capacity for 2015-2025 delivery, by type of site and by borough



Proportion of capacity by type (with absolute values indicated), sorted by proportion of capacity on small sites.

- Small sites
- Large sites
- Other delivery (student housing + long-term vacants)

Sources: Future of London, with data from GLA, 2013: *Strategic Housing Land Availability Assessment 2013*

help it build up to 4000 homes over 10 years, it was awarded a £21.7m interest-free loan from the Greater London Authority. It also secured a significant investment from the sale of shares to the Greater London Enterprise Group social investment fund. Together, this marks the first time that the GLA and all of London's local authorities have invested in a profit-making private housing developer.

Left to the market, infill construction can be high-risk and low-margin, which is a particular barrier to new entrants who need time to build financial capacity and establish cash flows. "We can't assume viability is a given", offered one practitioner, reflecting a common view at the roundtable that getting financing in order is critical.

Public sector assistance here could be directed directly at businesses; for example, backing lenders through a loan guarantee scheme could support firms fitting a defined criteria. Public spending could alternately focus on de-risking infill development through site preparation (demolition, land remediation, infrastructure provision, etc.). Making public land available for private infill development is another option.

These public-sector tools could advance many infill sites, but enabling the market to deliver these schemes themselves won't work everywhere. Local authorities could become development partners in bringing forward these sites, an approach with momentum as many councils undertake large building programmes. Best practice-sharing could help here: roundtable participants called for GLA leadership in sharing models for how boroughs can become development partners.

## Practitioner view

Andrew Beharrell

### What are the long-term benefits and drawbacks?

There is clearly scope for infill to make a significant contribution to housing numbers. However, in our experience this is much less than could be achieved through comprehensive redevelopment. Post-war housing estates, in particular, are often very inefficiently planned by today's standards. They can look big and forbidding, but actually achieve quite modest densities. This is partly because the common typology of deck-access flats and maisonettes has a very shallow building section and poor ratio of common circulation space to private living space – and partly because of large areas of land given over to surface parking and degraded outdoor space.

Infill can be absolutely the right solution, but sometimes it is a short-term pragmatic solution which then prevents implementation of a bolder scheme for the next several decades – it will be even more difficult to demolish poor-quality stock if it is closely hemmed about by newer homes filling every available gap. Our recommendation is always to carry out an objective assessment of the options first – and then select infill for the right reasons.

Pollard Thomas Edwards carried out some of the earliest regeneration projects on housing estates in the 1980's – sometimes estates which were less than 20 years old and yet already displaying significant social and physical problems. Over the past 25 years we have seen significant changes to trends in estate regeneration: radical remodelling under Estates Action; fully grant-funded redevelopment of social

housing under the Housing Action Trusts; mixed-funding and mixed-tenure redevelopment; low-cost refurbishment with residents in situ; stock transfer from Councils to local housing companies and housing associations; withdrawal of grant leading to fully cross-subsidised schemes with more homes for sale and higher development densities; Decent Homes programmes etc. Infill development has often played a part in these wider initiatives. Now it has moved to centre stage.

### What are the other barriers to successful infill development?

Here are a few other miscellaneous issues which are often over-looked.

**Below-ground infrastructure** – there may be a very good reason for that gap being there! The cost of moving pipes and wires may be prohibitive, and negotiating permission to build over can take years.

**Divided ownership** between different council departments (typically housing and highways) - and between councils and their successors following stock transfer – can be very complex and time-consuming to negotiate.

**Valuation of future receipts** from homes for sale can be crucial to the viability of schemes. It is difficult to estimate the potential discount below prevailing local market values for homes which are built in very close proximity to existing council blocks. However, as buyers continue to be priced out of London's housing market, the attraction of moving to a lower-value regeneration area increases. The ideal of tenure-blind development, where homes for sale and rent look identical, cannot be achieved where modern homes are integrated with older stock.





# Is infill housing development a threat to other uses, or an opportunity for placemaking?

"How useful are these sites in their current form? What could they be? And what do you do with this information?" These three questions, posed by a practitioner, are key to delivering infill development. The nature of these sites involves taking them from their current state and putting them to new use. Implicit in this is an evaluation of their utility, a point of discussion at the roundtable.

While some infill sites may have long been vacant, the reality of London's built-up environment is that many potential sites have been previously developed. Some portion of this is existing residential suitable for infill due to low density or vacancy, but a large part of the opportunity for infill housing will come from more fundamental changes of use. At the June 2014 debate and at the roundtable, three types of sites were particularly discussed for their infill potential:

**Housing estates:** and in particular, the generation of estates built in the 1960s and 1970s. Though estates from that era were typically dominated by tall tower blocks, their layout was often inefficient, resulting in surprisingly low residential density. Even without comprehensive redevelopment, there are frequently opportunities to make substantial increases in density by developing areas between buildings and along the edges of estates, or by converting ancillary buildings.

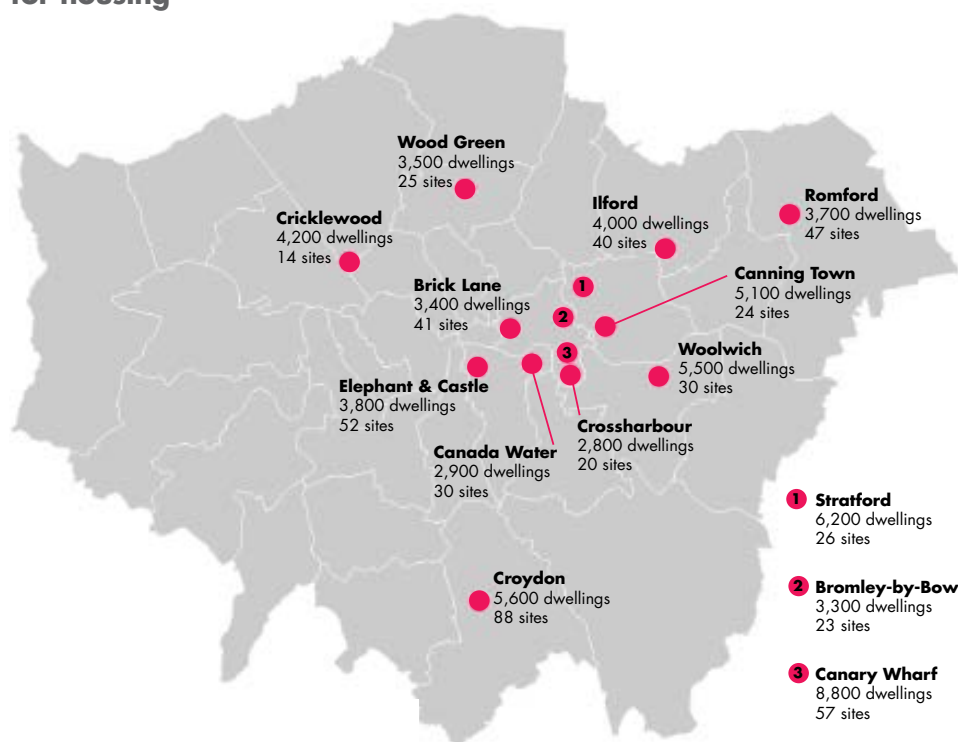
In London, LB Wandsworth is at the forefront of this approach. The council has delivered 238 homes over ten years with its 'hidden homes' initiative, which delivers small-scale housing for rent or shared ownership on disused or problematic space on estates. Many other boroughs are active in similar veins; for example, the Homes for Harrow programme has identified potential capacity for 50 homes across 13 sites. Elsewhere, LB Enfield has recently appointed architects to carry out design feasibility for a number of infill sites on estates.

*See pg 9 for more on infill development and estates.*

**High street corridors:** Many of London's longer, linear high streets are characterised by low density development, from single-storey retail to dedicated surface car parking. Many are also undergoing a market-driven transformation, as the changing nature of retail and service provision is leading to their contraction. These two elements – existing low density and contraction – open up new development opportunities, including for housing.

A GVA study illustrates the scale of opportunity. The property consultancy examined the A1010 Corridor/ Tottenham High Road, identifying a range of sites that could be suitable for development: vacancies, backland, ageing high street, intensification, estate renewal and industrial land. Aggregating these sites, GVA found latent capacity for 3,000 homes within 400m of the high street. As Chris Hall shared at the June debate, "these are not sites that don't have a future – they are intimately connected to employment growth locations [such as Kings Cross]", thanks to Victoria Line upgrades servicing the southern end of the corridor.

## London's town centres with the largest capacity for housing



Source: Future of London, with data from GLA, 2014: *Accommodating Growth in Town Centres*, and OS.

**Town centres:** Of all the potential sites for infill development, town centres may be the most discussed – and the most contentious. Like high street corridors, the shifting retail and service economies have been felt by many of London's town centres, though not equally as larger centres agglomerate while others decline. Accordingly, many practitioners expect to see some reordering of uses as town centre identities evolve.

The 2013 SHLAA identified town centre capacity to deliver 15,400 homes per annum, with individual capacity as high as 8,800 homes; further sensitivity testing in *Accommodating Growth in Town Centres* indicated that total town centre delivery could be as high as 21,800 homes per annum. These aren't just small sites: the SHLAA indicated that 54% of housing capacity from large sites (>0.25ha) is found in town centres or within 300m of them.

When it comes to infill development, London's town centres benefit from comprehensive work by the GLA and others, focused on best practice-sharing at the local authority level. Alongside town centre strategies, there is a range of proactive investment, delivery and asset management mechanisms to support town centre intensification and mixed use development. This was a focus of *The Intensification and Diversification Issue* of the Mayor's High Street Fund newsletter, which pointed to four particular levers that are excerpted here:

**Land assembly:** Local authorities can use compulsory purchase powers as a development tool to assemble sites, facilitate redevelopment and sustain town centre regeneration through strategic acquisitions of parts of their town centres. Land within public ownership can be a particularly useful resource in delivering town centre projects.

**Direct funding and Housing Zones:** The direct provision of new local authority housing is an important part of housing delivery and regeneration with the removal or revision of boroughs' debt caps to help generate funds for complex regeneration projects. Focusing Housing Zone investment in town centres can also help them adapt to changing needs.

**Private rented sector (PRS):** There is still capacity for long-term private finance to move into residential development, especially for new, high-quality private rented homes. PRS offers a flexible form of tenure and can meet a range of housing needs. Substantial institutional investment in private rented housing could provide a new source of funding for the housing sector, speed up delivery and increase choice of available accommodation. Development of institutional PRS homes could be particularly relevant for town centre intensification as mixed use developments can be held in single ownership over time, allowing investors the flexibility to better manage the commercial elements.

**Joint ventures:** Numerous forms of commercial arrangements between public and private entities could help solve problems of ownership and risk and help deliver viable development in town centres. The parties involved may share their resources, expertise, land, capital, market knowledge, talent, enthusiasm and commitment. Arrangements such as Local Asset Backed Vehicles, Tax Increment Financing or Real Estate Investment Trusts can be used by public sector partners to receive a share of profits in return for its land investment; allow them to borrow against a projected future expansion in their business rate or council tax base; or allow investors to pool their investments with the associated risks and rewards, without the need to own or develop the properties individually.

These levers – land assembly, direct funding, Housing Zones, PRS and joint ventures – aren't limited to town centres; many of the principles are highly relevant to estates, high streets and infill opportunities more generally, and all were discussed at the roundtable.

## Practitioner view

Chris Paddock

Infill development obviously takes place on the less obvious, less visible sites. This raises challenges in terms of design and viability, which often means these potential projects are tagged as too difficult. The lack of activity on these sites is becoming an increasingly important missed opportunity for London. This could be potentially avoided with a more holistic approach to deciding whether a development is worth pursuing.

As infill development becomes more necessary as the city grows, a broader appraisal of potential projects and their long-term value becomes more important than ever. Activity on these sites needs to be judged not only on their ability to deliver developer profit, but also upon their potential to deliver economic, strategic and social value to a location. The Treasury's *Green Book* provides us with the tools to do this, but it is a somewhat under-utilised tool – particularly in London's more central town centres.

It is the public sector who will need to be the conduit for a broader consideration of the case for intervention on infill sites. Taking this further, a broad mapping of infill opportunities would enable a grouping of potential interventions and ultimately a more compelling, multifaceted case for investment and action.

## Practitioner view

Andrew Beharrell

Why is there a renewed focus on infill development on housing estates?

Recent changes to legislation which allow local authorities to carry out their own direct development and to fund this through their housing revenue account have brought a renewed interest in infill development across London.

Many local authorities are moving away from traditional regeneration models, based on land disposal, towards models which give them greater control and a share of development value (albeit with more exposure to risk). These include joint ventures and local authority owned development companies.

There is considerable scope to develop more homes and better homes on surplus and poorly utilised land, and at the same time to bring about estate-wide improvements. This is perceived to be an easier, cheaper and quicker solution than more ambitious plans for comprehensive redevelopment.

Conversely, demolition and redevelopment of existing occupied blocks has become more complex, more costly and more controversial. The main reason is the random distribution (or pepper-potting) of homes acquired under the Right to Buy among blocks of homes otherwise owned and managed by councils (or their successors) as affordable rented housing. The replacement of a block may make perfect sense against every other criterion, but be unviable because of the high cost of buying back these properties from leaseholders (and sometimes freeholders in the case of houses). The cost is typically market-value plus home-loss and disturbance payments.

So, redevelopment plans are often determined not by the best outcome, but by the pragmatic consideration of the leaseholder issue – how many homes in a particular block would need to be bought back and at what cost? (A very basic rule of thumb is that it takes three new homes for private sale to fund the buy-back of one leasehold property – hence the pressure to drive up development densities to achieve viable estate regeneration).

Of course, there are many other social and economic issues around the Right to Buy – including the high incidence of properties which have ended up in

the private rented sector (and not always with the most salubrious landlords). This all outside of the remit of this discussion: we merely point out that it has become a serious practical obstacle to the redevelopment of existing estates. This has made infill more attractive.

Here are a couple of estate infill projects by Pollard Thomas Edwards being built out in 2015: a small project for GLA-funded affordable homes and a larger one for several gap sites across one estate, to be filled with a mix of affordable and market-sale homes.

### Bradwell Street



This LB Tower Hamlets scheme will deliver 100% affordable housing based on GLA grant-funding

### Dover Court



A mixed-tenure scheme in LB Islington with cross-subsidy from integrated market sales.





## How can infill development support the existing community?

Given that a defining aspect of infill development is its location within an existing community, winning local support is crucial. Just as with large schemes, community engagement – and concern – is to be expected: that new homes won't be occupied by local people, that more residents will be a burden on infrastructure, that converting non-residential sites to housing will cause economic, social or environmental harm.

Part of confronting this is in acknowledging negative impacts and mitigating them wherever possible, for example by allocating some homes for existing residents, or by investing in shared amenities. But an important part of working with existing communities "is [also] about how you tell the story of change". Speaking from experience, practitioners felt that paying early attention to the narrative is time well spent, as is identifying and working with community leaders. Where an element of NIMBYism exists, honest conversations can also be a powerful tool.

Integrating sites into the existing fabric is also important. The nimbleness of infill development is both an advantage and a risk. On one hand, the small scale of many sites can help in expediting their delivery, making near-term contributions to local housing supply; on the other hand, ad hoc infill schemes may preclude or complicate masterplanning in future. Being intentional about infill development was a key point at the roundtable.

There doesn't have to be a clash between infill development and wider regeneration. "Done well, infill can give [communities] confidence for bigger schemes," pointed out one practitioner. Faster to deliver than big placemaking, infill sites can be delivered in an early phase of a wider programme.

Infill development can also be used as a tool to broaden the existing offer. For example, estates offer significant infill capacity, particularly for boroughs

looking for new sites to build council homes. With a view to diversifying the community and raising revenue, these infill schemes often feature tenures other than social rent. The London Plan encourages this diversity, stating – in its only mention of infill – that "infill schemes in predominantly social housing estates should primarily be targeted for intermediate and market housing." Anecdotally, many practitioners feel this diversification is a hard sell, with gentrification frequently on the lips of residents.

For town centres, a key concern relates to change of use, especially where permitted development rights are resulting in ad hoc conversions. In many town centres already feeling a decline, introducing more housing is arguably the best economic use of space, given the expenditure and footfall that new residents bring. Some practitioners have success in advocating for higher-value activities in commercial and retail spaces while freeing up under-utilised space for housing, but the reality remains that the evolution of town centre identities is highly political.

Inner and Outer London also offer contrast. In Inner London, a principal concern on infill development speaks to a wider problem: that given high land prices, schemes for private sale or rent will likely be out of financial reach for many Londoners unless their development is subsidised in some way. In Outer London, a legacy of low-density development may be a driving concern – but one worth challenging. Cited in the infrastructure plan consultation, the Supurbia project estimates that as many 400,000 new homes could be delivered if 10% of semi-detached homes in Outer London were redeveloped at higher densities. From affordability to neighbourhood character, infill development must be highly sensitive to the existing community and fabric.

The sensitivities in infill development can make delivering small sites is as complicated as large ones. From a public sector perspective, the fine grain of infill means that a site-by-site approach is resource-intensive while making a minimal contribution towards wider housing and regeneration aims. Organic, market-driven development

### Town centre change in Dalston



In Dalston, local stakeholders helped to develop Making Space in Dalston, a strategy that focused partly on increasing housing without compromising the existing place.  
Source: Tobias Govert, GLA, 2012

may shy away from more complex sites, or may take a profit-maximising view on what to deliver.

Practitioners at the roundtable agreed that planning is the public sector's most powerful tool for encouraging infill development that meets wider aims. Planners at the borough level are well-placed to navigate development constraints and create planning policy that reflects their local situation. This often involves engaging the local community in developing an area-based vision or masterplan, which can then be drilled down into detailed development briefs for particular sites.

Supplementary planning documents (SPDs) can also be applied with success. Some practitioners pointed to area-based SPDs as a potential tool if developed for neighbourhoods with a consistent character – and with sufficient sites to make the time spent developing and consulting on the guidance worthwhile. Topic-based SPDs can also be useful, and some already approach infill under a broader umbrella such as residential standards or small sites. Producing guidance focused on infill development as a typology may be worth pursuing, and is a strategy the mayor could also consider in producing supplementary guidance on London Plan policies.

Alongside the enthusiasm for infill development and its delivery potential, practitioners were also pragmatic. Speaking from an ambitious local authority, one practitioner shared how they expect to turn 2-4% of their stock a year, with clear potential to deliver infill homes as part of this strategy. To deliver this 'great estate' mindset, they estimated they would need 10 times the internal capacity to deliver development at scale in this way. Upskilling existing staff and sharing best practice amongst organisations can go some way in facilitating delivery, but this capacity obstacle is undeniable – and universally felt.

## Practitioner view

Andrew Beharrell

### How can we win the support of existing communities?

When PTE started in practice in 1974 the idea that local people might actually have something to say about the future of their own homes and neighbourhoods was something of a novelty. Along with others, we helped to pioneer what was then known as Community Architecture and has now become a political orthodoxy known as Localism.

Local communities certainly have a voice today – and often they will use it to prevent change unless the process is carefully managed.

Although the big schemes of comprehensive refurbishment and redevelopment take many years to negotiate, they usually do offer an eventual benefit to existing residents in the form of a new or improved home.

Infill development is much less disruptive, but the benefit to existing residents may not be so clear. They may only perceive that 'their estate' is going to be filled up with homes for outsiders. Garages and play areas which have been totally neglected and unloved for years suddenly become precious assets to be protected.

The most common offer to help reconcile local people to new development is to fund improvements to the public realm: community centres; play areas and other open space; parking areas; common entrances; estate lighting; refuse and cycle stores etc. This is also a very effective way to engage people in helping to shape and determine the proposals. However, to make a real impact, estate improvements will add a significant cost to the overall project.

One way to counter local opposition is to ring-fence a proportion of the new homes for local lettings to local people – helping to solve over-crowding and to enable different generations of the same family to live near one another.

Schemes which run a healthy development surplus (which are rarity) can also contribute to the upgrading of existing homes and blocks.

Finally, we need to win people over to the idea that increasing the local population is good for neighbourhoods: more people create more customers for local shops and bring with them increased funding for local services. Introducing market and intermediate homes into mono tenure estate creates more balanced and aspirational communities.



# Implications for London 2050

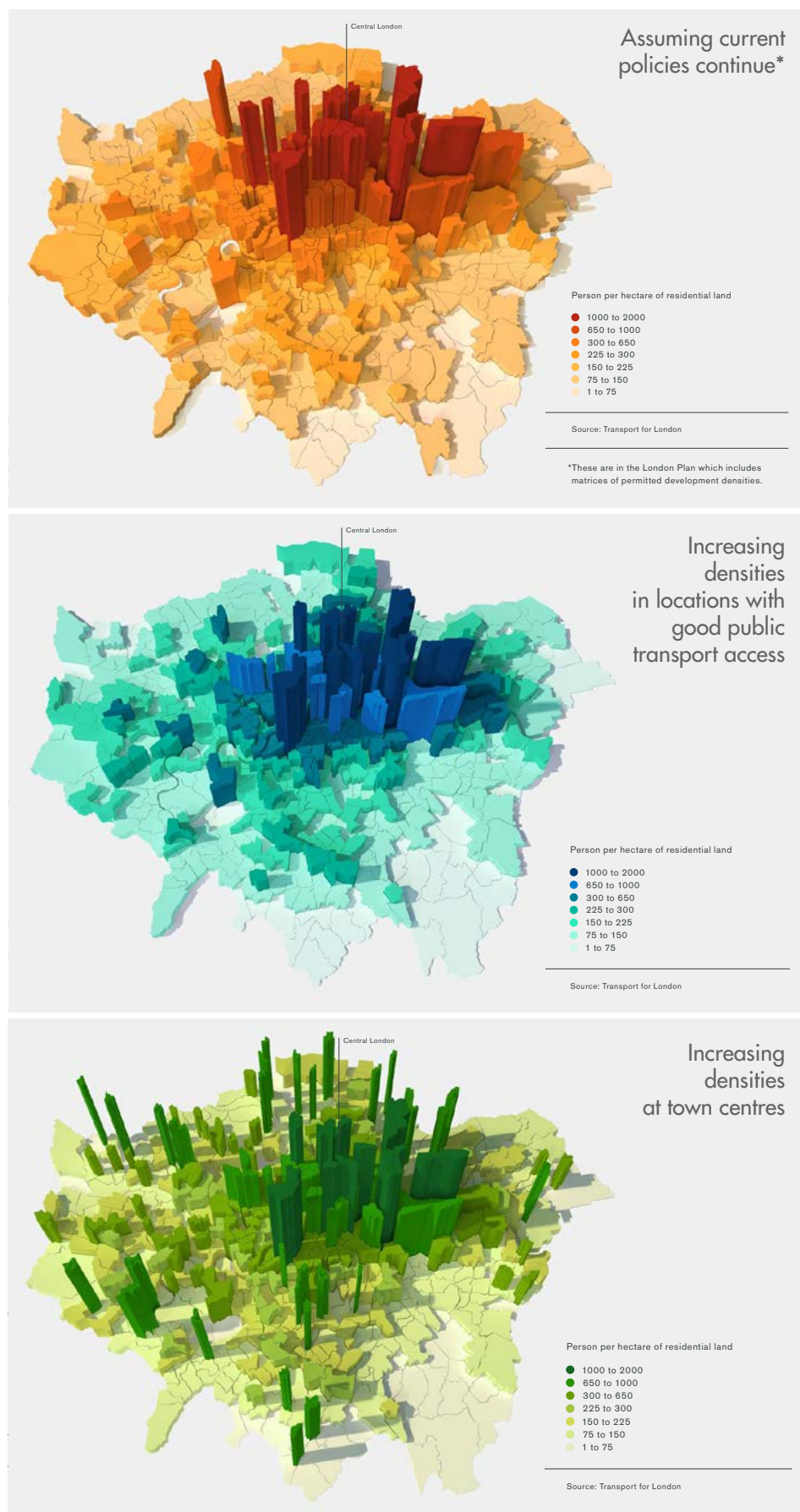
Many of London's recent policies and needs assessments have pointed to a similar conclusion: that the city needs a long-term plan for world-class infrastructure so it can remain economically competitive, improve Londoners' quality of life and deliver the homes the Capital needs. This has driven the development of the London Infrastructure Plan 2050, which sets out to identify what infrastructure is needed over the next half-century to support these aims, and to identify mechanisms for its delivery.

Besides estimating housing need and corresponding delivery cost, the infrastructure plan does not directly detail housing provision; instead, it focuses on how infrastructure can unlock potential housing sites. It asserts that land use planning alongside transport investment will largely determine where growth happens. Importantly for infill development, the plan's consultation document indicates that increasing densities in existing locations plays an important role in meeting housing need.

Scenarios developed to inform the plan illustrate how choices about the geography of growth may result in very different population density levels. For example, concentrating on areas with high public transport accessibility could accommodate 11.24m people with much of this growth occurring in Inner London, whereas an emphasis on town centre intensification could similarly accommodate 11.21m people but with much higher growth rates in Outer London.

This key challenge of where growth will occur is central to the infrastructure plan. When it comes to infill development, understanding the desirable geography of growth is a critical first step if there is to be a comprehensive approach to these sites.

## The infrastructure plan's visualisations of growth scenarios



All figures from GLA, 2014: *The London Infrastructure Plan 2050: Presentation*.

# Conclusion

Compared to infill, it's easy to see why major projects grab attention. "There's always a temptation to focus on the largest opportunities," said one practitioner. "We're drawn to [them] as professionals by the scale of opportunity, the drama, the interplay." Given the significant dent that a single large scheme can make in housing targets, it's an understandable position – and worth practitioner time.

But infill development also warrants the attention of London's practitioners and policymakers. This paper has put forward that there is clear potential for infill development to supply homes at a substantial scale. Delivering these

homes isn't without its challenges: identifying and freeing up sites, financing the schemes, tying infill homes into wider programmes and working with the existing community are all part of the landscape.

Public sector organisations are already navigating these obstacles to deliver infill homes. Getting planning right was identified by practitioners as a critical first step; local plans guide this at the borough level, but they must be in general conformity with the London Plan. It's at this city level where there is the most potential to drive forward infill development at scale.

The fact is that the macro perspective of the London Infrastructure Plan 2050 is an unnatural fit for the fine grain of infill. The plan sets out the totality of the Capital's infrastructure needs over the next 35 years and what resource is needed to deliver it, leaving detail to the likes of the London Plan and boroughs local plans. Still, its approach to varying growth scenarios will be significant.

These scenarios are a precursor to some of the big questions facing the next London Plan, which will be developed following the 2016 mayoral election. To accommodate growth past 2025, the intensification of successful places must feature in this plan. Practitioners also see potential in other mayoral tools, including further editions of the mayor's housing covenants to advocate for infill development and relatedly, SME builders.

Embracing infill development is also about confronting cultural and social attitudes towards density and space. London's legacy of development contrasts with the higher density of many global cities; one participant illustrated this with an extreme: "the average density of Metroland was around 25 dwellings per hectare; the density of residential parts of Hong Kong is 2,500 dwellings per hectare... a difference of a hundredfold." London isn't Hong Kong, and shouldn't be, they stipulated, but practitioners can challenge conventions by delivering density not just through height, but also through efficient land-use planning.

Taking a comprehensive approach to infill development could expedite housing delivery, boost building firms and improve existing places. The final draft of the London Infrastructure Plan 2050, expected in March 2015, will be the first in a series of pan-London milestones that can shape infill as a housing typology. Future of London will watch how policy sets the stage for delivering infill development, and will follow how infill intersects with other housing and regeneration programmes.

## Residential density in London: changing with time?



Early 20th century Metroland  
Density: 12-15 dwellings per net hectare (dph)



Traditional street homes at Thornhill Square  
Density when built (1848): 32 dph  
Density when restored/converted (1947): 96 dph



Lefevre Walk, a post-war estate  
Density when built (1970): 110 dph  
Density when restored/converted (2003): 90 dph



Chillingworth Road - getting taller and denser, with mixed tenure  
Density when built (1998-2001): 150 dph

All figures from or via Pollard Thomas Edwards, 2014.



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