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Delivering affordable housing at scale: Lessons from Europe

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About This Report

Title
Delivering affordable housing at scale: Lessons from Europe

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Abstract
This report reviews affordable housing supply across cities in Germany, the Netherlands, Sweden and United Kingdom (UK) to consider what lessons New Zealand can learn from how these cities / countries are addressing very similar challenges.

Reference

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1 Executive summary

This report reviews affordable housing supply across cities in Germany, the Netherlands, Sweden and United Kingdom (UK) to consider what lessons New Zealand can learn from how these cities are addressing very similar challenges.

The report is based on desktop research and a four week study tour visiting Berlin, Freiburg, Hamburg, Rotterdam, Malmo, London, and Belfast, and meetings with key city managers, developers and other stakeholders.

While there are strong parallels between Europe and New Zealand in terms of the housing challenges we face, there are marked differences in the responses. Most European city or state governments have federally imposed obligations to either plan for affordable/social housing provision, or provide suitable housing. In the UK, the National Planning Policy Framework lays out the role of local planning authorities in ensuring housing supply, delivering a wide choice of high quality homes, widening opportunities for home ownership and creating sustainable, inclusive and mixed communities. In the Netherlands, central government decentralised responsibility for adequate housing to local governments and housing associations; municipalities supervise housing associations which take on the actual provision and administration. In Germany, the federal government more recently (2006) devolved responsibility for housing supply to state and municipality governments; municipalities can own social housing, are responsible for zoning/making land available, and work with private developers and federal institutions to enable developments. And in Sweden, the Swedish Housing Supply Act makes each municipality responsible for housing provision at a local level. Northern Ireland is the exception, where affordable/social housing provision is driven by central government via a robust Housing Strategy and housing associations.

Of particular interest to New Zealand is the effectiveness of states and/or cities partnering with private developers to provide housing. State/city participation enables land to be freed up, infrastructure support, and alongside this, the mandating of the provision of affordable housing as part of developments. Generally, land is not sold to developers; rather, it is treated as patient capital, a type of long term investment.

Also notable were the many alternative pathways to delivering housing. Most European cities meet their statutory obligations to provide social housing through independent, not for profit organisations (housing associations or municipal housing companies/enterprises). These organisations do not necessarily get direct capital funding grants, although they benefit from housing support, and rental income covers building maintenance. Mechanisms also enable individuals to access housing in alternative ways: housing cooperatives are tenant-owned, providing rental accommodation for members; in baugruppen in Germany, residents lead design and development, saving 15-20% on developer fees. These alternative mechanisms could be explored in the New Zealand context.

These alternatives are actively supported by states and cities by underwriting contributions, favouring alternative mechanisms when allocating government owned land, and providing support services for communities developing their own housing.
One factor encouraging the ‘at scale’ development of housing in Europe is investment by global institutions that have not traditionally invested in the sector. For example, in the UK, insurer and pension fund manager Legal & General has become an active investor across the housing supply chain. How to bring this level of investment to New Zealand, from either local or global investors, is worth considering.

Off-site manufacturing is gaining scale, particularly in Sweden, Germany and the UK. Large investors in the UK are developing sophisticated and large scale off-site factories delivering a mix of traditional construction and pre-assembled components alongside modular housing solutions. New Zealand’s fledgling off-site manufacturing would benefit from greater investment but needs a high level of certainty for investors.

The final difference notable in Europe is the greater acceptability and provision of renting. While this is partly a cultural difference, rental accommodation (both social and affordable) is more widely provided, better quality, and tenants’ rights/rents more highly regulated.
2 Introduction

2.1 Why is delivery of affordable housing important for New Zealand?

New Zealand is facing a significant need for affordable and social housing, particularly in Auckland. Owning your own home is no longer first choice for young New Zealand families. In Auckland, the house to income ratio is a multiple of 10; Auckland Council’s economist suggests that, ideally, it should be a factor of three to one.1 The median house price in Auckland is now close to $1m – up from $447,000 in May 2008.2

Auckland’s population continues to grow: Auckland population grew by 8.5% between 2006 and 2013. Recent net migration is at record levels, with 52,900 migrants to Auckland in the last year. The result is a significant shortfall in housing, with Auckland needing around 12,000 – 15,000 houses per annum to meet forecast growth. Currently, building consents are around 9,500 per annum and, historically, around 20% of these aren’t built for a variety of reasons.3

A key challenge for Auckland (and the rest of New Zealand) is how to deliver affordable / social housing at scale while maintaining quality and delivering homes that meet the needs of the occupants. This needs to take into account that Auckland’s population is aging, with a 26.9% increase in the 65+ age group between 2006 and 2013. Different typologies to the traditional detached house that New Zealanders are familiar with are needed; these are likely to be two and three storey terraced housing, and apartments potentially up to six storeys.

Although a number of New Zealand organisations are delivering affordable housing, particularly in Auckland, the scale of these operations are in the hundreds whereas the need is in the thousands.

2.2 Affordable housing – a global challenge

In 2014, the McKinsey Global Institute reported that delivery of affordable housing is a global challenge.

“Providing decent housing for citizens is a perennial challenge for nations around the world. From slum residents in the developing world to middle-income households in expensive global capitals, hundreds of millions of people struggle to find decent housing that they can afford without severe financial stress. The economic and human toll of the housing affordability gap is enormous. We estimate that 330 million households are affected around the world and, under current trends, by 2025 the number of households that occupy unsafe and inadequate housing or are financially stretched by housing costs could reach 440 million—or 1.6 billion people.”4

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1 Parker C. (2015)
2 Silver, J. (2016)
3 Department of Building and Housing (2010)
The report identifies four levers which can help to narrow the affordability gap:
1) Unlocking land supply at the right location
2) Value engineering and industrial approaches to construction can deliver housing quickly, inexpensively, and on a large scale
3) Improved operations and maintenance measures reduce operating expenses and sustain asset values
4) Improve financing to reduce costs for home buyers and developer, while supporting a healthy rental market.

An assessment of the extent to which these levers are being addressed in Europe is made in Section 6.

2.3 Purpose of this report
Across European cities there are strong similarities to the challenge faced by New Zealand and Auckland in particular in the delivery of affordable and social housing; however, there are marked differences in the response. Cities and central governments in Europe and the UK have, for some period of time, been working in partnership (frequently with private enterprise) to address supply. These partnerships have delivered significant housing developments where the affordable housing component is a large mandated percentage of all housing delivered and the affordable housing is delivered within mixed developments, alongside market housing. Social housing is a key component of housing supply in many European countries where providers such as housing associations, municipalities and cooperatives play an important role.

Europe can offer New Zealand considerable insight into how New Zealand might resolve the affordable housing challenges faced by our cities, particularly Auckland.

This report reviews affordable housing supply across cities in Germany, the Netherlands, Sweden and United Kingdom, in order to:
- understand the affordable housing challenge across these cities
- discover how cities / states are actively seeking to address the challenge and their success
- ask what interventions / practices could New Zealand adopt to address our affordable housing challenge.
- understand if successes mirror McKinsey’s work.

2.4 Method
Desktop research of current literature on the European / UK markets was completed in May / June 2016.

This was then followed up with visits to, and meetings in, the following cities: Berlin, Freiburg, Hamburg, Rotterdam, Malmo, London, and Belfast.
3 Strong parallels between Europe and New Zealand

3.1 Impact of global financial crisis on housing supply

The residential construction sector across Europe has been hard hit by the 2008 Global Financial Crisis. As in New Zealand, a significant number of people in trades and small businesses exited the sector. Construction of affordable and social housing was hit hardest, and all of the cities / states have significant deficits in affordable housing.

In Auckland, dwelling consents declined significantly from a peak of over 12,000 in 2004 to less than a third of that in 2009, and have only been recovering slowly. In the year ended 31 March 2016, Auckland building consents reached 9,556 dwellings\(^5\), still 20% down on the 2003 / 2004 peak (Figure 1).

Construction levels are only now getting back to pre-2008 levels in the UK (Figure 2). The Conservative government has targeted one million new homes in their current five year term to address demand for housing. However, the sector is unable to meet demand and, in the last year, the sector produced only 140,000 new homes.

In Sweden, housing supply has failed to keep up with demand (Figure 3) - close to 300,000 young adults between 20 and 27 years of age are without property. Over half of Sweden's local authorities state that they have a housing shortage. The most acute housing shortages primarily affect the regions' bigger cities and Sweden's university towns.\(^6\)

\(^5\) Ministry of Business, Innovation and Employment (2016)
\(^6\) Kaplan, M. (2015)

*Figure 1: Auckland dwelling consents 1991 - 2014*
Figure 2: UK housing supply 1968 – 2016

Figure 3: Swedish housing supply 1975 - 2014

7 Alter, L. (2015)
8 Emanuelsson, R. (2015)
In Germany, since 2009, there has been a shortfall of approximately 770,000 new dwellings in a market of 41.3m dwellings\textsuperscript{10}. The situation is further exacerbated by the need to provide housing for recent refugees (Figure 4). Berlin has an estimated demand for 160,000 to 190,000 new dwellings by 2020\textsuperscript{11}. Freiburg, a city of 200,000 houses, is short 10,000 houses\textsuperscript{12} (Figure 5).

\textbf{Figure 4: Germany housing supply 1996 - 2014}\textsuperscript{9}

\textbf{Figure 5: Germany construction activity and annual demand for new construction}

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\textsuperscript{9} Barfield, T. (2015)

\textsuperscript{10} Federal Chamber of German Architects (2016)

\textsuperscript{11} Pers. comm. Kristoff Laser (Housing Policy Unit, Senate Department for Urban Development and Environment)

\textsuperscript{12} Pers. comm. Discussion with Guenter Berger, Director of Housing for Freiburg provided three reasons for housing shortage – housing demand from new technology industries, people retiring to Freiburg from other parts of Germany and refugee migrants.
3.2 Impact of global financial crisis on demand for housing

Demand for housing, particularly for investment, in New Zealand has seen recent Reserve Bank actions to increase Loan to Value Ratio restrictions seeking to curb speculative property investment. In Europe, the Global Financial Crisis has also resulted in significant new capital being injected into the housing market. Private investors, disillusioned with traditional investments in banks and equities, have purchased residential properties, and increased demand with constrained supply has driven house prices upward.

For every rented home built in Stockholm between 1991 and 2010, three disappeared as a result of conversions. Between 1991 and 2011, around 201,000 new rented homes were indeed built in Sweden but, at the same time, about 181,000 were converted to tenant-owned housing.

![Chart 8: Change in number of homes 1990-2012, different forms of housing](image)

Source: Statistics Sweden

**Figure 6: Change in housing tenure in Sweden**

In the Netherlands the number of rental properties is actually going down, as older buildings are demolished and investors buy up and sell on former rental homes to private owners.

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14 Major shortage of affordable housing looms (2016)
3.3 Current market supply is not meeting demand

Mirroring New Zealand’s experience, current market supply in all countries visited is significantly below demand. This has the effect of driving prices and rents up, and reducing affordability. This places limits on the volumes of housing that affordable / social housing providers can bring to the market.

Too few new flats and houses are being built in Germany’s largest cities even as oversupply looms in rural areas. Berlin alone will need 20,000 new homes every year from now until 2020 to keep up with demand, although just 8,744 were completed in 2014.15

There is such a shortage of affordable flats to rent in Amsterdam that families with just below average earnings are finding it impossible to live there.16

Too few homes are being built in Sweden; over half of Sweden’s local authorities state that they have a housing shortage and 80% of municipalities in Sweden report a lack of rented housing/social housing.17

The UK needs over 220,000 additional homes in England each year until 2031 if the projected growth in households is to be accommodated but is currently building only 54% of that number - putting pressure on prices and rents.18 The Housing the Nation report found that successive governments had failed to address lack of supply of social housing and consequently were having to meet increasingly larger bills for housing benefit payments.19

There is broad acknowledgement across European states that the market / developer / builder supply model will only deliver what the developer / builder can profitably sell. This is reflected in the considerably greater role of cities and states in partnering with market suppliers to drive affordable and social housing supply (see section 4.1)

3.4 Land supply a key constraint to housing supply

Unlocking land supply was identified as a critical first step in New Zealand by the Productivity Commission20 and land supply is also a key constraint to housing supply across European cities.

In Germany, while local governments in rural areas are trying to stimulate business and attract more people by selling off cut-price land for construction, the main cities are faced with growing populations and changing needs. Local authorities being called on to identify and

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16 Amsterdam housing unaffordable for people on lower incomes (2015)
17 Emanuelsson, R. (2015)
18 Town and Country Planning Association (2015)
19 ‘Councils call for UK government to do more’ (2016)
20 http://www.productivity.govt.nz/inquiry-content/2060?stage=4
mobilise existing land suitable for development and to reuse brownfield sites; however, there is recognition that greenfield development is unavoidable.\textsuperscript{21}

In the UK, 25% of the new homes that England needs by 2031 will need to be in London, and 55% in London and the East and South East regions.\textsuperscript{22} The problem of land supply is specifically addressed in the National Planning Policy Framework, with the onus on local planning authorities to identify sites to meet needs as far out as 15 years.\textsuperscript{23}

Spatial planning law in the Netherlands, aimed at preserving topography, environment and urban aesthetics, has “led to constraints on land supply in suburban areas in a period of growing housing demand and may have been a factor causing house prices to rise.”\textsuperscript{24}

### 3.5 Significant increases in building costs

Construction costs have been rising in New Zealand, increasing by 30% in the last nine years.\textsuperscript{25} European countries have been experiencing similar issues. The McKinsey Global Institute defines reducing construction costs as one of the most powerful levers to improving housing affordability globally.\textsuperscript{26} German architects note that Energy Saving Ordinances alone have increased construction costs by 6.5%.\textsuperscript{27}

In particular, construction and other housing costs have increased faster than incomes. For example, Swedish construction costs (that is, production costs excluding land) have increased much faster than the CPI since the beginning of the 1990s.\textsuperscript{28}

\begin{itemize}
\item Federal Chamber of German Architects (2015)
\item Estimates of new homes needed from Town and Country Planning Association
\item Department for Communities and Local Government (2012)
\item Vandevyvere, W. & Zenthöfer, A. (2012)
\item http://www.productivity.govt.nz/sites/default/files/Final%20Housing%20Affordability%20Report_0.pdf
\item Woetzel, J., Mischke, J. & Ram, S. (2014)
\item Federal Chamber of German Architects (2015)
\item Emanuelsson, R. (2015)
\end{itemize}
3.6 Construction sector productivity lags rest of economy

UK construction sector performance mirrors New Zealand, where construction sector productivity significantly lags the rest of the economy.

Figure 8: UK productivity trends - construction versus rest of economy

29 Trusler, S. (2016)
3.7 Challenges of migration and changing demographics

As with New Zealand, most European cities have aging populations with declining household size resulting in increasing demand for smaller houses.

Housing refugees is a major challenge, particularly in Germany, where between 60,000 and 125,000 additional dwellings will be needed to house refugees arriving who arrived in 2015.31 In 2015, the Netherlands had 27,000 refugees in asylum centres with 13,000 waiting to be housed.32 In the UK, lobby group Migrationwatch claimed the government had under-calculated immigration with a potential housing deficit of 1.1 million more than the Government predicts.

Policy responses to the recent refugee crisis were not clear; for example, in Berlin, current forecast requirements do not include refugees.33

3.8 Decline in social housing stock

While New Zealand’s government is targeting a decrease in Government-owned social housing (68,000 > 60,000 units due to stock transfers to social housing providers), across UK and Europe, the stock of social housing units is also declining.

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30 Building & Construction Sector Productivity Taskforce, Department of Building & Housing (2009)
31 Sagener, N. (2016)
33 Pers. comm. In discussions with representative of the Berlin Senate Housing unit, we were informed it is only when refugees are accepted as migrants that the City responds to the need – i.e. City is managing a response to need for migrant housing, not refugees in general.
In Germany, states and municipalities are jointly responsible by federal law for the construction and provision of social housing and are supported to do so with federal housing grants (approximately 500 million Euros per year). However, states/municipalities have been investing little in new housing, using federal grants to repay loans and are selling stock and demolishing empty prefabricated concrete apartment buildings. Over the last decade, such practices have led to a decline in the number of subsidised housing units in Germany, from about 2.6 to 1.6 million.\textsuperscript{34}

In the Netherlands, where 35% of the housing stock is social housing, social housing organisations have an active policy of selling stock to tenants - approximately 1% of social housing per annum.\textsuperscript{35}

In the UK, the Right to Buy scheme has been criticised for removing and failing to replace social housing stock. The National Housing Federation, which represents housing associations, says that since 2012 only 46% of properties sold under recent right-to-buy legislation have been replaced.\textsuperscript{36}

In Sweden, the decrease in the total number of public housing units has resulted from center-right municipal governments, such as Stockholm's, choosing to grant private ownership to tenants of public housing and not to build any more units.\textsuperscript{37}

### 3.9 Aging / poorly performing housing stock from post war building periods

Most states and cities have a significant proportion of their housing stock that was built in the post war period from 1950 to 1980. This stock – as with New Zealand’s 1.7 million existing homes - is now aging, uninsulated, requires large amounts of energy to heat, and typically has a significant amount of deferred maintenance (the BRANZ Home Condition Survey 2010 indicates that only 40% of New Zealand homes are well maintained).\textsuperscript{38}

Long term neglect of maintenance of the homes built in Sweden’s 1960s and 1970s Million Homes Programme has created areas of disadvantage and problems with social integration.\textsuperscript{39} 1970s East German prefabricated apartment buildings, which had fallen out of favour, are being refitted and repurposed for low cost housing.

In the UK, 4.7 million houses were built before 1919, with implications for the upkeep of the stock as homes tend to be less energy efficient, suffer from greater disrepair and are less likely to meet the minimum standard of housing.\textsuperscript{40}

\textsuperscript{34} Knaup, H., Neubacher, A. & Nezik, A. (2013)
\textsuperscript{35} AEDES (2013)
\textsuperscript{36} Collinson, P. (2015)
\textsuperscript{38} Jones M (2011)
\textsuperscript{39} Dahlberg, T. (2016)
\textsuperscript{40} Department for Communities and Local Government (2015)
4 Different responses in Europe which result in effective delivery of affordable and social housing

4.1 State / city partnering with private sector

Most European city or state governments have federally imposed obligations to either plan for affordable/social housing provision, or provide suitable housing. In the UK, the National Planning Policy Framework lays out the role of local planning authorities in ensuring housing supply, delivering a wide choice of high quality homes, widening opportunities for home ownership and creating sustainable, inclusive and mixed communities. In the Netherlands, central government decentralised responsibility for adequate housing to local governments and housing associations; municipalities supervise housing associations which take on the actual provision and administration. In Germany, the federal government more recently (2006) devolved responsibility for housing supply to state and municipality governments; municipalities can own social housing, are responsible for zoning/making land available, and work with private developers and federal institutions to enable developments. And in Sweden, the Swedish Housing Supply Act makes each municipality responsible for housing provision at a local level. Northern Ireland is the exception, where affordable/social housing provision is driven by central government via a robust Housing Strategy and housing associations.

Frequently, cities across Europe, in partnership with state or central government, have taken the lead in developing old port areas (Stockholm, Malmo, Rotterdam, Hamburg) and old industrial areas adjacent to central business districts (London, Manchester, Hamburg). These city/state partnerships are often the catalyst in solving housing supply, through either developing on city-/state-owned land, or purchasing significant tracts of land, developing key infrastructure, and partnering with developers to initiate housing projects.

Generally, land is not sold to developers; rather, it is treated as patient capital. The city, frequently, is responsible for infrastructure development, ranging from integrating transport / land use planning (e.g. London, Malmo, Rotterdam, Berlin, Freiberg) to significant infrastructure development (e.g. HafenCity in Hamburg where land has been raised three metres to prevent flooding).

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41 Thomas Friedman of the New York Times describes patient capital as having “all the discipline of venture capital — demanding a return, and therefore rigor in how it is deployed — but expecting a return that is more in the 5 to 10 percent range, rather than the 35 percent that venture capitalists look for.”
Infrastructure investment in HafenCity

The involvement of cities in these developments has enabled almost all of these cities to mandate a proportion of social / affordable housing (e.g. HafenCity, Hamburg, where the target is 1/3 market, 1/3 rental and 1/3 affordable rental). The previous London Mayor had targeted 30% affordable housing in all new developments; the incoming London Mayor is targeting 50%.

The old Olympic Village, now known as East Village contains a mix of social accommodation, “affordable” housing where residents are paying around 80-90% of the market rate to live there, and normally priced homes.

The development of Olympic Park via the mayoral London Legacy Development Corporation has been a mix of money committed by the Government, private businesses such as West Ham, developers and overseas investors. Office and commercial space is bringing a new workforce to the area to create a vibrant Stratford.
West Harbour, Malmo, Sweden

Malmo’s development was a partnership between City, port company and state.

New Islington, in Manchester, is one of several millennium village projects around seeking to regenerate inner-city areas. It was developed through a partnership between state, city and local borough.
4.2 Alternative pathways to deliver social and affordable housing

4.2.1 Housing associations and municipal companies / enterprises

Unlike New Zealand, most European states have sizeable, non-state providers of social housing.

Most cities meet their statutory obligations to provide social housing through independent, not for profit organisations (housing associations or municipal housing companies/enterprises). These organisations do not necessarily get direct capital funding grants, although they benefit from housing support, and rental income covers building maintenance. Housing Associations (in Netherlands and UK), Municipal Housing Companies (Sweden), and Municipal Enterprises (Germany) are private, non-profit organisations with a public purpose. They work alongside local and state government to provide social housing, a role that is often mandated by legislation. However, they are able to act independently. These organisations have continued to invest in additional housing / housing refurbishment since the Global Financial Crisis but their levels of investment are low relative to demand.

In the Netherlands, where there are three million rental homes, 75% of these homes are owned by Housing Associations42 (31% total housing stock and all homes are social rental). Dutch housing associations function without receiving any direct government subsidies. They do however benefit from the Social House-building guarantee fund, which guarantees the repayment of housing association loans, with interest rates significantly below market rates. Income from letting and selling covers investment in new affordable homes and Housing Associations also invest in neighbourhood regenerations, public purpose buildings and social programmes.

In Germany, municipal enterprises (an operating subsidiary of councils with a priority to provide housing for low income families) provide 2.4 million units (around 10% total rentals)

In Sweden, housing policy is implemented through the authority and activities of the Municipal Housing Companies. These not-for-profit, municipally-owned associations are responsible for finding houses of a reasonable standard for all residents and for their welfare. The association’s income comes solely from the rents it collects from tenants, which cover building maintenance costs.

Housing associations are the only providers of new social and shared ownership homes in Northern Ireland. There are 1700 Housing Associations in the UK with an annual spend of £13bn (2013)43

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43 Temple, N, (2013)
4.2.2 **Housing co-operatives**

Housing co-operatives are a middle course between rental and owner-occupied housing, particularly popular in Germany and Sweden. Members purchase a share in the co-operative, which gives them access to a home to rent, at a rate which is frequently below market rental rates. In general, the cooperatives do not sell their rental property and members enjoy security of tenure through a perpetual lease.

In Germany, 1,850 housing co-operatives own 2,180,000 dwellings, representing 5% of the total housing stock (4.6% of social housing) and 10% of the total rental housing stock (2010).

In Sweden, where co-operatives emerged in the 1920’s in response to extreme housing shortages and severe housing speculation, they now house 22% of the nation’s housing stock.

4.2.3 **Resident-led housing design and development**

*Baugruppen* (joint-venture buildings) in Germany, and *l’habitat participatif* (participatory housing) in France are seen as an alternative and affordable pathway to home ownership. For the most part, *baugruppen* are multi-storey, multi-family buildings. There is no requirement for community space or common facilities in *baugruppen*, though many incorporate them (e.g. gardens, community rooms, roof terraces). Most importantly, *baugruppen* incorporate a participatory planning process and are generally funded without developers (self-financed). Effectively, this delivers housing without a developer margin (estimated to be a saving of 15 – 20%). Another option in Germany is *Baugemeinschaft*, a form of cohousing led by an independent consultant-as-developer, often with an architectural background.

With encouragement from cities (see 4.3.1), *baugruppen* developments account for a significant amount of housing units. In Vauban, Freiburg, *baugruppen* make up 25% of stock.

*This Willemsburgh (Hamburg) baugruppen was designed as a do-it-yourself development called Smart Price Houses. The basic skeleton structure, staircase access and basic building connections were constructed for the co-owners. The design idea is Le Corbusier’s Domino House. Individual owners then designed and completed the interior fit-out of their own units.*

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44 [http://www.housinginternational.coop/co-ops/germany](http://www.housinginternational.coop/co-ops/germany)
45 [http://www.housinginternational.coop/co-ops/sweden](http://www.housinginternational.coop/co-ops/sweden)
In this Ritterstrasse baugruppen, 19 households came together to design / build this attractive development. They reputedly saved 20% of construction cost by adopting industrial construction methods (for example, electrical conduit runs surface on walls) and self-managing the contract to avoid developer margin.

4.3 State / cities facilitating alternative housing delivery

4.3.1 Cities facilitating baugruppen and cooperatives

In Germany, cities facilitate the delivery of baugruppen in a variety of ways.

Cities underwrite financial contributions and often discount the sale of land to community groups. For example, in Berlin, the usual minimum deposit required for housing developments is 20%; however, for approved baugruppen, the city will underwrite 10% of the investment, significantly reducing deposit requirements.

At HafenCity in Hamburg, Germany, the city’s development corporation negotiates land prices within this new brownfield redevelopment neighbourhood based on the design concepts being proposed by owner-occupier groups, or baugruppen. For plots in HafenCity, 70% of the land price a group pays depends on the demonstrated public benefit promised by their proposed concept. The City’s development corporation is now favouring the baugruppen model for the development of the upcoming phases of HafenCity.

Similarly, most large German cities fund the support of baugruppen initiatives through private design practices. This appears to be a successful intervention to support community groups to reach agreement on their agreed visions, to secure land and manage the design / construction process. In Berlin, the City-appointed facilitator, Stattbau, has facilitated 160 groups into co-housing over the last 8 years. In addition to their multi-disciplinary design practice, they employ a lawyer and a business entrepreneur to facilitate co-housing initiatives.

In Vauban (Freiburg) in the mid to late 1990’s, citizens lobbied against developer-led housing. In response the city took key steps to facilitate community led delivery of housing including smaller lots, internalising the cost of servicing smaller lots, controlled land prices and ensured availability for co-housing groups. As a result there are over 40 baugruppen developments in Vauban.
4.3.2 Incentivising self-build

Self-build in the UK\(^{46}\), which currently accounts for 10% of new homes, has been targeted by the UK government as an avenue to deliver additional homes. Initiatives to encourage / facilitate self-build include: councils identifying surplus land which will only be made available to self-build housing developments’ a revolving finance fund for multi-plot self-build developments; streamlining of regulations for self-build; and relief from infrastructure levies.\(^{47}\)

Similarly, in the Netherlands, self-build is a player in housing supply, although it declined from 20% of all housing starts in 1995 to approximately 10% in 2011. Recently, however, local authorities have started to provide plots for low income households in the self-build context.\(^{48}\)

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46 Self build in UK is equivalent of the owner builder (non developer) market here in New Zealand, where the owner actions land purchase./ manages build contract.
48 ibid
4.4 Growth of non-traditional institutional investors in residential development and ownership

Across Europe, there has been significant external investment from institutional investors from the US and Asia investing in existing providers of housing stock and in new housing developments.  

Global institutional investors are purchasing significant tracts of housing across Germany and the Netherlands. This is being encouraged by ‘right to buy’ schemes in the Netherlands and UK, where governments are encouraging housing associations to sell to their tenants. Alongside lack of market supply of new houses, this is exacerbating affordable housing shortages. In the Netherlands, Dutch Housing Associations are being restricted to the provision of low cost social housing only (owing to EU regulations prohibiting cross-subsidised social rentals funding affordable rental) and as government seeks to liberalise the social housing sector, significant volumes of housing association stock is being sold to German and US institutional investors.

For example, Round Hill Capitol (US- and European-based, and describing itself as a fully integrated real estate and asset management firm) owned a 40,000-home portfolio in Germany until it merged with the country’s biggest landlord Deutsche Annington in February, and now the merged company has similar aspirations in the Netherlands. It has €6 billion of property assets across Europe, of which two-thirds are residential. If the future of rental housing is

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49 Pers. comm. In meetings with housing officials in both Berlin and London, it was acknowledged that there was significant institutional investment buying into municipalities (Berlin) and new housing developments (London)
50 Allen, K. (2014)
passing from co-operatives to corporates, this may deliver additional competition / supply and bring a life cycle focus to design and material choice which reduces future maintenance costs.

Similarly, Legal & General (an insurer and pension fund manager in the UK, which was facing lower returns in their traditional areas of investment) has moved in the last three years to being an active investor across the housing supply chain: land, development, building and off site construction. In 2013 Legal & General purchased 45% of Cala Homes (one of UK’s top 10 builders) and in 2016 they signed a Joint Venture with PGGM (Netherlands Housing Company) to actively participate in urban renewal projects and housing developments at scale. Currently, Legal & General are involved in housing projects in Walthamstow, Bath, Bristol and Salford. The diagram below illustrates Legal & General’s investments across landbanking, modular construction, building to rent, and building for sale.

![Diagram](image)

*Figure 11: Legal & General investing across the supply chain*

### 4.5 Significant investment in off-site manufacturing

Off-site manufacturing has played a larger role in delivering housing supply in Europe than in New Zealand. It is apparent that investment in off-site manufacture is now gaining scale.

Sweden appears to take the lead in off-site manufacture of housing (largely due to a climate which limits traditional construction to six months of the year), with an estimated 84% of detached houses in Sweden using prefabricated timber elements. Solutions range from super insulated wall panels without services to 3D modules which are completely finished (including services and appliances).

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51 Stanworth, P. (2016)
52 Sweet, R. (2015)
This 8 storey apartment was manufactured off-site in Sweden

In Germany, off-site manufacture accounted for 19.9% of housing supply in 2015.53

In Sweden, Ikea and Skanska have formed a joint venture which delivers a range of off-site manufactured housing typologies, from single detached houses to terraces and blocks of flats54.

The Swedish A-Hus produces complete timber house construction kits and walls and systems for multi-storey buildings in wood.

54 http://www.boklok.com/about-the-BoKlok-concept/
In the UK, three examples illustrate the trend to off-site manufacture:

1) In 2016 Legal & General invested in large scale off-site manufacture setting up UK’s largest modular housing factory in Leeds – first product due out in July 2016. In the words of Legal & General’s MD they see themselves “as bringing the wall of capital which is currently returning little, to the housing sector.” Legal & General see their investment in off-site manufacture will enable early engagement in projects, ensuring design for manufacture with sophisticated cost modelling; reduce risk (providing cost certainty, speed and quality); and address the skills shortage.

2) Similarly, Laing O’Rourke (large UK constructor) is responding to the housing supply / skills shortage by investing significantly in digital platforms (sophisticated BIM processes) for on- and off-site construction which will deliver not only traditional construction and pre-assembled components (walls and sub-assemblies) alongside modular housing solutions.

3) UrbanSplash, the lead developers of the New Islington urban regeneration project in Manchester, have progressed from traditional construction methods to sophisticated off-site manufacture of modular terrace housing to meet demand and ensure consistent quality. Starting with terrace housing, UrbanSplash are developing suites of housing typologies for off-site manufacture, their next typology being “mansion”, which delivers housing at multi-storey, medium density with ground floor retail.

4.6 Rental housing is well supported

While UK and the Netherlands have similar levels of home ownership to New Zealand, much of Europe has much lower levels of home ownership, and rentals dominate in major urban areas. Berlin, for example, has 1.9 million houses, 85% of which are rental dwellings and 53.9% of these are one person households. While 70.6% of rental stock is privately owned, a further 17.7% is owned by municipalities, and the remaining rental stock (11.8%) is owned by

cooperatives. More than 3 of 9.5 million Swedes live in rental housing. Over half live in public housing, that is to say, municipally-owned rental housing.

Figure 12 illustrates the variance in rental stock across Europe.

Figure 12: Housing tenure across Europe

The higher rates of rental housing can be partly explained as a result of the post-war housing boom when few people could afford to buy, and it is certainly more culturally accepted than in New Zealand. However, tenants are much better supported and renting is both more secure and a higher quality experience as well.

Germany’s rental market is still robustly regulated, and the regulations are quite favorable to renters. For example, German law allows state governments to cap rent increases at no more than 15% over a three-year period. Tenants have considerable rights which allow them greater security of tenure. In addition, tax regimes and borrowing rules don’t favour home ownership over renting; deposits are 20 per cent and more; most loans are on long-term fixed-rate terms, with penalties for early repayment.

Sweden has rent regulation, where rents are set according to the dwelling’s condition, reflecting its size, quality, year of construction and standard. New rents are set in accordance with comparable rents in the neighbourhood, somewhat similar to the Mietspiegel in Germany.

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56 Pers. comm. Presentation from Kristoff Laser (Berlin Housing Policy Unit, Senate Department for Urban Development and Environment)
57 http://www.sabo.se/om_sabo/english/Sidor/Publichousing.aspx
58 CECODHAS Housing Europe (2012)
60 Phillips, M. (2014)
61 Wagstyl, S. (2014)
62 The Swedish model – up until now (2013)
5 What can New Zealand do to facilitate the supply of affordable housing?

Europe and the UK provide a wealth of examples of alternative models to deliver affordable housing. New Zealand’s reliance upon the market to deliver will always constrain supply to what the market can profitably deliver. International experience suggests that the free market, on its own, is unable to meet the required spectrum of housing, and, in particular, affordable housing. The following provides a number of potential approaches which have helped other countries to increase the supply of affordable housing in cities experiencing shortages, and may be suitable for New Zealand.

5.1 Central government and local government partnering to address the challenge

New Zealand could look to the successful state / city / borough partnerships evident in the Olympic Village and HafenCity, Hamburg, where state / city land is vested in the project as patient capital. Infrastructure is developed by state / city, who then are in a strong position to control development outcomes and mandate the mix of affordable housing.

5.2 Crown / city land invested as patient capital to catalyse new housing developments

Long term (100 year plus) leasehold, or land invested as patient capital in developments, is a common instrument in UK and Europe to facilitate the cost effective delivery of housing. It has been used in Auckland (though not for delivery of affordable housing) where in the Wynyard Quarter residential developments are leasehold and the leasehold payments for the first 160 years are included in the capital cost. In Europe / UK, this approach has enabled cities to facilitate development, open up land for development, and mandate mixed ownership.

5.3 Alternative models of development / ownership

New Zealand examples of community design and development of housing are few and examples like Earthsong in West Auckland and Co-Housing Dunedin have taken considerable time to develop. Cities have successful facilitated a significant volume of resident-led development in Berlin and Freiburg, through contracting independent design practices to support fledgling initiatives. Similarly, the discounting of state / city land and the underwriting of finances are initiatives worth exploring.
Few Housing Cooperatives exist in New Zealand, yet are a model in Europe which delivers large volumes of rental housing. It is recommended that government and cities explore this avenue for delivery of rental housing.

5.4 Government / cities facilitating institutional investment in housing developments

The rise of significant global institutional investment in housing developments, in partnership with cities and states, is enabling greater and quicker housing supply. In New Zealand, ACC and the Superannuation Fund are significant institutional investors in global equities. Investment by these Crown entities in long term rental housing in New Zealand would enable faster construction and extend provision of rental options, as well as providing them with a long term source of income. Alternatively New Zealand could consider how to attract global investors, like Legal and General, to invest in urban regeneration and at scale housing developments in New Zealand.

5.5 Off-site manufacture will assist in overcoming skills shortages

While prefabrication is driven in parts of Europe by the need to guarantee delivery, cost and quality in adverse weather, it also offers potential to address New Zealand’s challenges with skills shortages, uncertainty of delivery, and quality. Mike Greer Homes in partnership with Spanbild have developed off-site manufacturing in Christchurch and are planning a similar facility to the south of Auckland. Government is seeing “prefab” as a solution to deliver emergency and social housing. To expand and grow, off-site manufacturing needs considerable investment to be able to deliver at scale, and for this, the construction or investment sector needs greater long term certainty to justify the investment.
6 To what extent do UK / European successes mirror McKinsey’s work?

**Lever 1: Unlocking land supply at the right location**

There is considerable evidence of unlocking land supply at right location across major European / UK cities. Furthermore, retaining ownership of the land or investing land in developments as patient capital enables the city to mandate the level of affordable housing. The Olympic Village development is critical to opening up significant tracts of under-utilised commercial land, enabling London to expand to the East; the ownership structure enables the development corporation to define the level of affordable housing and public transport infrastructure effectively connects the development with the rest of the city. Similarly HafenCity provides significant new residential land adjacent to the CBD and ownership of that land has enabled the city to mandate the proportion of affordable housing.

**Lever 2: Value engineering and industrial approaches to construction can deliver housing quickly, inexpensively and on a large scale**

Uptake of value engineering and modern methods of manufacture appears greatest in Sweden, although the method of housing delivery in the UK is now changing to adopt both wall and modular house components (for example, Legal and General, Laing O’Rourke and UrbanSplash).

**Lever 3: Improved operations and maintenance measures reduce operating expenses and sustain asset values**

Improved operations / maintenance measures sustaining asset values was not broadly evident, although sophisticated construction modelling being employed by the likes of Laing O’Rourke has the potential to drive these outcomes, as will long term institutional ownership where the owner is planning to hold the stock for fifty plus years.

In the Netherlands, the Dutch government has facilitated an emerging retrofit business model delivering factory scale energy efficiency upgrades which will be managed / maintained by the construction company for a period of 50 years. This retrofit model is now being trialled in UK. In New Zealand where common typologies dominate housing prior to 1970’s (e.g. state houses, bungalows, villas), similar methodologies could possibly be applied to deliver at scale retrofit.

63 Van Renssen, S. (2014)
Lever 4: Improve financing to reduce costs for home buyers and developer, while supporting a healthy rental market.

Co-operative and community design/development initiatives provide alternative financial models for housing delivery. Rent to buy and shared equity models which have emerged in New Zealand (but are yet to be widely accepted by all New Zealand banks) do not appear to have significant scale across the UK and Europe.
7 References


Delivering affordable housing at scale: Lessons from Europe: NEW2016/1


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