



SCOTTISH LAND COMMISSION
COIMISEAN FEARAINN NA H-ALBA

HOUSING LAND ALLOCATION, ASSEMBLY AND DELIVERY: LESSONS FROM EUROPE



Summary

Housing land allocation, assembly and delivery: Lessons from Europe

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Background

The Universities of Glasgow and Liverpool were commissioned to assess experience from other European countries in the role of housing land allocation and assembly in enabling the delivery of high-quality affordable housing and placemaking. Its particular objectives were to:

- assess the extent to which other European countries succeed in delivering better housing and placemaking objectives than Scotland
- identify key differences in how these countries approach land allocation and assembly that enable these outcomes to be delivered
- set out what changes would be required to the Scottish housing delivery system to achieve similar outcomes
- make clear recommendations on the type of policy, legislative and cultural change that would be required to deliver such change.

The research team's work was organised into three phases: a survey of European countries, detailed case studies, and engagement with key stakeholders.

Main findings

- There is an important role for planning in delivering affordable housing and place-making. The public sector can play a crucial role in unlocking sites by assembling land for development and by exercising some degree of control over development. Ensuring that a sufficient proportion of the financial margin accrued during the development process is allocated to affordable housing and placemaking is an important element of any planning system.
 - There is widespread dissatisfaction with the nature of much new housing being developed in Scotland, as well as with prevalent standards of placemaking that accompany new housing developments. Simultaneously, it is commonly perceived that the number of new homes delivered in Scotland is insufficient to meet measures of need and demand.
 - A survey of countries in North West Europe served to identify best practices in terms of the delivery of affordable housing and placemaking. European countries have followed very different housing trajectories, but there are many ways a balanced housing market can be achieved. Some countries have engaged much more strongly in delivering compact cities, green infrastructure and sustainable transport than others.
 - Three countries were selected because they showed evidence of successful practices in delivering affordable housing and placemaking: Germany, Switzerland and the Netherlands. We have identified key elements in how these countries approach land allocation and assembly that enable these outcomes.
 - In each country land allocation is organised via a two-tier system of regional plans providing a binding framework for the development of local land use plans. In contrast to common perception of continental planning systems, land allocation is often responsive to market signals. Switzerland has embarked effectively on a zero land uptake policy, meaning a paradigm shift towards urban densification. It also shows strong integration of land-use planning and transport planning.
 - In all three countries, municipalities are actively involved in *land assembly*, either via an active land policy or land readjustment. The Netherlands is best known for its active land policy in which municipalities acquire land, service it before selling it off to developers, though German and Swiss municipalities are engaging in public land banking to deliver public policy goals and accrue land value uplift. Pre-emption rights support land assembly. Land readjustment is practiced in Germany and Switzerland and allows municipalities to assemble and re-parcel land without actually acquiring the land.
 - Land value capture is intricately interwoven with land assembly and planning regulations provide clear rules. Apart from municipal land ownership, where the planning gain is internalised, only Switzerland has a general levy on the land value uplift. In Germany and the Netherlands clear rules exist which allow full cost recovery of public investment in infrastructure on the site and planning costs related to development.
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- A key difference between the Scottish and European planning systems is the degree of control over development by municipalities in Germany, the Netherlands and Switzerland. Whilst in theory, Scottish municipalities can exercise a high degree of discretion dealing with a planning application in contrast to a regulatory system, this overlooks that in most regulatory systems, land use plans are often only prepared in response to development, putting municipalities in a powerful position to implement public policy.
- Looking at how comparator countries have achieved successful housing and place-making outcomes suggests that Scottish policy and practice could consider different land allocation and assembly mechanisms. The mechanisms that seem most valuable to consider are
 - o Mandatory land readjustment: private property rights from a set of individually small land holdings are temporarily transferred to a public development agency. That agency then proceeds to assemble and re-parcel the site before installing infrastructure. Property rights are subsequently returned to the original landowner. It allows for land assembly without the need for public land acquisition.
 - o An active land policy: public bodies acquire land to be held over the long term until there is a need for new development. The public body can make a land use plan for the land, service it with basic infrastructure and sell plots, with planning permission and infrastructure already accounted for, to housebuilders.
 - o Pre-emption rights: the municipality is offered land or property before other buyers, should it be put up for sale. It is an essential instrument to grant municipalities preferred access to the land market to pursue an active land policy.
 - o Land value capture: a clear framework for public cost recovery helps to adjust mutual expectations about planning obligations that developers agree to provide as part of their development.

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1. Introduction

This report presents the results of research into how Scotland might learn from the experience of other countries in North West Europe and the systems and processes underlying the allocation and assembly of land for housing and development. This chapter sets out the research objectives and how the research team undertook the work before providing signposts to the remainder of the report.

1.1 Research objectives

The research team was commissioned in January 2020 to assess experience from other European countries in the role of housing land allocation and assembly in enabling the delivery of high-quality affordable housing and placemaking. Its objectives were to:

- assess the extent to which other European countries succeed in delivering better housing and placemaking objectives than Scotland
- identify key differences in how these countries approach land allocation and assembly that enable these outcomes to be delivered
- set out what changes would be required to the Scottish housing delivery system to achieve similar outcomes
- make clear recommendations on the type of policy, legislative and cultural change that would be required to deliver such change.

1.2 Research approach

The research team's work was organised into three phases, a survey of European countries, detailed case studies, and engagement with key stakeholders. These are outlined below.

1.2.1 Survey of European Countries

The first element was a quantitative analysis of housing and placemaking indicators for advanced European economies. After discussion with the Commission, the review was restricted to North and West European countries. Information was sourced from international databases, as in these, data are collected according to agreed standards and on a comparable basis. We recognise that data are commonly more limited and also less recent than those published separately for individual states. We sought information on housing and placemaking.

With respect to housing, our aim was to provide a longitudinal overview of key housing market criteria, where possible disaggregated for tenure, in terms of:

- Housing stock and construction and how this relates to demand
- House price index to measure volatility
- Housing affordability
- Overcrowding.

We drew on the OECD Affordable Housing Database and Eurostat Living Conditions in Europe.

Placemaking in contrast, is difficult to define. It is one of two principal Scottish planning policies, the other being sustainability (Scottish Government, 2014). The definition of placemaking by the Scottish Government provides some direction, but does not offer a clear set of indicators:

“Placemaking is a creative, collaborative process that includes design, development, renewal or regeneration of our urban or rural built environments. The outcome should be sustainable, well-designed places and homes which meet people’s needs.” (The Scottish Government, 2014, p. 12.)

From these and other policy statements, we identified key indicators, recognising that these identified some, though not all, important dimensions of placemaking:

- Urban sprawl
- Access to green space where comparable metrics are available
- Share of active and public modes of transport.

We undertook a broader review of the literature to identify any useful approaches to measuring placemaking.

1.2.2 Detailed case studies

The second phase consisted of in-depth case studies of three countries identified as having a good track record in terms of housing indicators and placemaking practices. We also sought to enhance the potential for learning by looking at:

- countries that share similar geographical features with Scotland (a few highly urbanised areas in an otherwise sparsely populated country with often rugged terrain), such as Scandinavian or Alpine countries
- countries with different approaches to land assembly (e.g. active land policy in the Netherlands or land readjustment in Germany)
- countries with a strong track record of infrastructure funding and/or land value capture (e.g. Netherlands, Switzerland.)

In discussion with the Scottish Land Commission, we selected the Netherlands, Germany and Switzerland as comparator countries. We held it important to not only look at the outcomes and individual instruments, but also how these operate in concrete practices, including day-to-day practices. Each case study involved the following elements:

1. An overview of urban development in terms of housing and placemaking at different scales.
2. An introduction to the planning system and associated legislative framework, with a specific focus on housing and placemaking. This involves the system of plans and instruments with a particular focus on land assembly and land value capture.

3. The steps in the housing development process and the roles of the public and private sector, including location decision, land assembly, planning permission (including land value capture), servicing, and delivery. This allows for the introduction of the role of the public sector in deciding on the location and quality of development as well as the instruments at hand for value capture.
4. Analysis of the process in a concrete project to illustrate how the process of housing and placemaking works from inception to delivery. We were concerned with key attributes of planning instruments and how planners act.
5. A reflection on the underlying values of planners and developers to better understand the planning culture in the respective country.

The case studies were based on a review of the academic literature on each country, the study of legal texts and policy documents as well as expert interviews in each country, including planning academics, government representatives and developers. Interviews were undertaken face to face for the Netherlands in March 2020 and, due to Covid-19 restrictions, via phone or video conference for Germany and Switzerland in April and May. As a consequence, site visits of a concrete project could not take place and we therefore rely on online documentation and interviews.

1.2.3 Stakeholder engagement

We liaised with key stakeholders to discuss emergent findings and possible recommendations with the aim of building support for the research and therefore creating a pathway to the research having impact. In discussion with the Scottish Land Commission, we identified stakeholders in housing development practice and representatives of key agents: housebuilders and developers, landowners, the Scottish Government, the RTPi (Scotland) and the RICS, Architecture and Design Scotland and Scottish Environment Link. A list of stakeholders participating is given in Annex One.

1.3 Report structure

The remainder of this report is structured as follows:

- Chapter Two provides our analytical framework, based on our own previous research and the academic literature
- Chapter Three is a statement of the research context: the research problem that we tackle and an overview of the Scottish approach to housing land allocation, assembly and delivery
- Chapter Four summarises findings from the survey of European countries (with the survey provided in full as a separate report)
- Chapter Five provides summaries from the three detailed case studies (the studies themselves are provided as separate reports)
- Chapter Six provides the conclusions to the research and our recommendations for Scottish policy and practice that follow from these.

2. Delivering high-quality affordable developments – concepts and practice

House price inflation is now a hallmark of urban life in many cities the world over. Describing the universality of this public policy problem Wetzstein (2017) refers to the 'global urban housing affordability crisis'. As a result, many national governments have sought to address this public policy issue by encouraging the development of different types of affordable housing in a variety of ways (see, for indicative examples, Acolin and Green, 2017; Baker et al., 2020; Bangura and Lee, 2019; Bentley et al., 2015; Dokko, 2018; Li et al., 2020; Zhang, Jia and Yang, 2016).

However, formulating a policy response that successfully combines both the delivery of affordable housing and 'placemaking' – the development of distinctive settlements that combine characterful urban design and high-quality environments – has seemingly proven difficult.

2.1 The economics of real estate development

The root of the issue is the economics of real estate development. For the commercial development industry, the provision of affordable housing and high-quality places is often in tension with the profit motive. This is a logical corollary of the fact that the value of both placemaking and affordable housing is in the form of external benefits over which property rights cannot be drawn such that these can be traded in the marketplace (Webster and Lai, 2003). Placemaking can be considered a *public good*, to the extent that no-one can be excluded from accessing its benefits and that it is not depleted by consumption. Affordable housing, on the other hand, can be regarded as a *merit good*, in that it is provided publicly on the basis that it is allocated according to need rather than market demand. Given that the private development industry is not incentivised to provide either good via the market, they must be either directly supplied by the public sector or their provision must be regulated for, so that the private sector provides them under obligation. While in either case funding may come out of general public and private budgets, in practice funding for placemaking and affordable housing tends to be associated with the development event, being siphoned from value uplift that is generated in the process by which land is converted into buildings.

There are various means by which this siphoning of value uplift can take place, each depending upon the ability – enshrined in law and directed by policy and practice – of the local planning authority to exercise some degree of control over the proportion of affordable housing within, and the urban design of, the development; and to ensure that a sufficient proportion of the financial margin that accrues during the development process is allocated to placemaking and to the provision of affordable housing. In a discretionary planning system, development proposals may be subject to planning obligations that impose a requirement upon developers to provide public and merit goods attendant to their proposal. In contexts that use this form of planning control (such as Scotland) this is the principal mechanism through which affordable housing and the features that comprise placemaking (services, green space, transport infrastructure) are secured on private developments. Without planning obligations there would be no compulsion on commercial developers to provide anything other than housing traded at market rates.

In this section of the report, we seek to present international evidence on the various ways in which other planning systems seek to manage the development process in order to maintain the prima facie business case for development and the exaction of developer contributions to finance public goods and affordable housing.

To achieve this objective, we begin by looking at the variety of instruments that are available to planning authorities in other international contexts and considering some of their potential effects. We then go on to look in more detail at the specific international settings that we consider in greater detail in this study – Germany, the Netherlands and Switzerland. Finally, we go on to focus on the Scottish context. In so doing, we ask what lessons can be learnt from international and domestic experience with regard to the delivery of high-quality affordable places.

2.2 The context for development: understanding outcomes as system outcomes

The idea that the state should seek to recover some (or all) of the uplift in land values resulting from the right to develop in order to finance public goods is a common feature of diverse socio-political contexts the world over (Muñoz Gielen and Van der Krabben, 2019). Although the terminology varies – developer contributions, planning gain, land value capture, betterment – the underlying principle is the same: in order for new development to be considered acceptable there may be a requirement for complementary investment in affordable housing, infrastructure and services.

Beyond the principle itself, governments seek to recover and reinvest this uplift in land values in various ways. Whitehead (2016) identifies three main approaches: taxation following the completion of a development; statutory acquisition of land at existing use value prior to planning consent as a precursor to sale on the open market; and the imposition of a planning obligation, such as a levy or negotiated settlement, at the point of planning consent.

This is significant as there is often a correspondence between the character, nature and goals of a given planning system and the method of exacting developer contributions that are employed within that system. Stated alternatively, some approaches to the question align better with some planning systems than others.

In the following sections we set out to describe the main ways in which governments in international context seek to encourage the delivery of affordable housing and public goods through their respective planning systems. We start with those that are most familiar in Scotland/the UK.

2.2.1 Planning Agreements

Combining the delivery of affordable housing and the provision of other public goods is achieved in the discretionary planning systems of the constituent nations of the UK through planning agreements. These contractual arrangements between consenting authorities and developers have formed an important part of domestic planning practice for many years having first been introduced by the separate national Town and Country Planning Acts of 1971. Since this time, planning agreements have placed obligations on

developers in order to make what would otherwise be unacceptable development permissible in planning terms. With respect to Scotland, powers are invested in all Scottish local authorities under S75 of the Town and Country Planning (Scotland) Act 1997, S69 of the Local Government (Scotland) Act 1973 and S48 of the Roads (Scotland) Act.

Planning agreements are the result of negotiation between local authorities and the development industry. It is this feature that represents their most significant advantage and disadvantage.

The negotiation of s75/s106 means that the range of public goods that are attendant to a development are bespoke. This should ideally result in the combining of the twin goals of providing affordable housing and placemaking in a manner that fits the specific requirements of the site. However, as a method of exacting the uplift in land values associated with the award of planning consent, negotiation may result in variable outcomes. In some local authority contexts, a strong market and a skilled negotiator may combine to recover a significant proportion of the uplift in land values; in other contexts where these features do not apply, negotiation may result in less of the available development value being returned to the site in the shape of affordable housing and other public goods.

However, this raises further issues. For example, it may be the case that this manner of exacting developer contributions reinforces existing patterns of economic development (Lord et al., 2019). If the process does favour those places where development viability is strongest this may become manifest as contrasting development cycles. In high demand locations, a virtuous cycle might be said to exist whereby local authorities are able to exact public goods and affordable housing in combination in such a way that this reinforces the business case for development, which in turn results in further developer contributions exacted through s75/s106. By contrast, in low demand areas, a vicious cycle of low demand and underinvestment is consonant with the seeming intractability of stimulating urban regeneration in the most deprived neighbourhoods.

By the 2000s, s75/s106 was being used to compensate third parties for externalities and act as a *de facto* betterment tax. This led to calls to separate the two functions of direct mitigation and affordable housing, and a supplement to charge to meet wider infrastructure needs (Barker, 2004; Crook et al., 2006). This ultimately underpinned the case for the introduction of the Community Infrastructure Levy in England alongside planning agreements.

2.2.2 Levies

The introduction of the Community Infrastructure Levy (CIL) by the Planning Act (2008), gave local authorities in England the option to adopt this fee on development. CIL is locally set and subject to public consultation and independent examination prior to adoption. In adopting authorities in England, it is chargeable on most new development which creates net additional floor space of 100m² or more, or creates a new dwelling, although exceptions and potential exemptions apply.

As a levy, CIL results in cash receipts to local authorities that can then be used at that authority's discretion to finance infrastructure. In its (almost) ten-year history in England it has been a source of significant funding for some large-scale projects such as Crossrail in London.

However, the degree to which a levy such as CIL represents a comprehensive response to the issue of providing infrastructure *and* affordable housing is highly debatable. Research would suggest that the introduction of CIL may have geographically variable impacts in crowding out affordable housing contributions secured through S106 (Ferm and Raco, 2020). This point is made clearly by Wyatt (2017: 165):

“CIL is a fixed levy and s106 is negotiable. This has led to concerns that, where scheme viability is an issue, there will be a reduction in planning obligations sought and, notably, a reduction in affordable housing provided.”

2.2.3 Land re-adjustment

The issue of consolidating land holdings is a fundamental one in settings where ownership patterns are fragmented. Piecing together sites to allow for the kind of wholesale (re)development necessitated by placemaking is, therefore, a central issue in, for example, most European nations. In these settings experiments with land readjustment have been used to institute cooperation between state and market in site assembly and the delivery of large-scale new development.

In a typical model of urban land readjustment, private property rights from a set of individually small land holdings are temporarily transferred to a public development agency. That agency then proceeds to assemble and re-parcel the site before installing infrastructure and thus raising the value of each individual plot. Property rights are subsequently returned to the original landowners. The costs incurred by the state are designed to be recovered through the subsequent sale of the site at the increased value resulting from the twin effects of site assembly and infrastructure provision. Compensation to the original landowners, whose initial cooperation is essential to the process as a whole, comes through their returned share in a fully serviced site complete with planning consent (Van der Krabben and Needham, 2008).

Land readjustment, in various forms, has been used in Australia (where it is known as land pooling), Japan, Germany, France, the Netherlands, Norway and Sweden (Turk, 2008). The World Bank has advocated its use in developing countries to encourage large scale re-development of informal settlements (Doebele, 2007).

In the UK there are some parallels between land readjustment and the use of development corporations where compulsory purchase powers have been used to secure a site of sufficient scale to deliver a specific project or large-scale regeneration, such as the London Docklands Development Corporation or the 2012 Olympics London Legacy Development Corporation. More generally, Adams et al. (2001) draw inspiration from urban land readjustment in proposing the 'urban partnership zone' as a way of tackling the barrier sometimes posed to redevelopment by one or more landowners 'holding out'.

For advocates, land readjustment has been valued for its potential to incorporate the recovery of essential placemaking costs borne by the state (land assembly, infrastructure installation, planning consent) through market values, thus removing the need to deal with these issues retrospectively through, for example, a development levy. From this perspective, land readjustment is a policy tool that may be used to address situations where, “the boundaries of the rights to land ownership or land use may impede the desired use of the area as a whole” (Needham, 2007: 115).

There are two main issues with land readjustment. Firstly, it requires landowners to behave in a cooperative manner. This may be achievable where a large site is held by a small number of separate owners but in many urban contexts land ownership is a great deal more fragmented. As a concomitant point the pooling and redistribution process requires a high degree of trust on the part of landowners to cooperate with the state (re)development agency. Secondly, land readjustment displaces risk from the private development industry to the state. In taking on the role of first mover the state effectively bears all the initial risks that have been more commonly understood to be at the core of the risk-reward calculus used by developers to determine development viability. Consequently, it is the state that is susceptible to changes in market conditions (see O’Brien et al., 2020).

2.2.4 Tax Increment Finance

Tax Increment Finance (TIF) is a mechanism for using anticipated future increases in local tax revenues to fund new or improved infrastructure in the present. TIF works on the principle that investment in the physical environment often has a positive effect on real estate prices and in turn stimulates new development as the case for viability becomes more readily apparent. These increases in real estate values are reflected in some societies through corresponding increases in the receipt of property taxation. Within a designated TIF district, the stream of income resulting from this anticipated increase in property tax revenues (the ‘tax increment’) is captured and used to recover the initial costs of the infrastructure, which was initially funded by the relevant local authority, often through the issue of a bond. Financing debt issued to pay for such a project through TIF can take up to 20-25 years, but in some cases the timeframe can be much shorter (BPF, 2008).

TIF was first used in California in the 1950s but has become a cornerstone of the US approach to urban renewal, having subsequently been adopted by most states. In most US cases it is an instrument that is intended to be reserved to address ‘blight’ by encouraging a form of property-led urban regeneration that is designed to encourage growth in real estate values. In the UK TIF was at one time considered favourably by the UK government to “fund key infrastructure and other capital projects, which will support locally driven economic development and growth” (HM Treasury, 2010).

However, there are some impediments to translating a policy such as TIF to the UK (Squires and Lord, 2012). Firstly, the role of property taxation is fundamental to the successful implementation of TIF. For a tax ‘increment’ to follow from the appreciation in property values that results in a corresponding increase in tax revenues it would be necessary to re-classify properties at regular intervals with regard to the rate of property tax applicable. Without this necessary step the stream of (growing) income recovered by

the state through property taxes that is necessary to substantiate the business model as a whole is absent. Secondly, TIF only deals with the delivery of infrastructure. It is, therefore, an important aspect of how investment in placemaking is secured in many US cities, but it does not represent a response to the issue of housing affordability. Indeed, the purpose of the policy is to stimulate growth in real estate values. It is, therefore, more likely that TIF would exacerbate the affordability issue.

2.2.5 Auctions

This method of exacting developer contributions is the dominant approach to handling the question in China (Dua et al., 2011; Wang and Hui, 2017). Following the designation of a site for development the state most frequently institutes an auction for the right to develop, although the nature of this process can vary somewhat from province to province.

Perhaps the most significant advantage of this method is that the competition it elicits amongst the development industry often captures a very significant proportion of the uplift in land values conferred by the right to develop. In crystallising the land value capture question at this moment in the development process the mechanism effectively reflects the 'hope value' that motivates developer behaviour.

However, there are several problems with auctions. Firstly, one of the consequences of exacting the uplift in land value as a cash payment at the beginning of the process is that the development industry may come to favour a lower cost approach to the subsequent delivery of the development itself. Indeed, it has been argued that the often homogenous nature of Chinese residential development is a result of developers competing primarily on for the acquisition of the initial right to develop and not on the quality of the development itself or accompanying infrastructure. The goal of 'placemaking' may not be well-served by auctioning development rights.

Secondly, the cash receipts that result from auctions may only be an effective way of financing public goods where the state has an existing capacity to deliver these aspects of placemaking directly. In those nations where auctions are most common, the state often maintains full responsibility for the delivery of infrastructure. Consequently, the cash proceeds of auctioned development rights may be used to support a statutory function as direct provider of, for example, transport infrastructure. In contexts where the state is less active and interventionist, alternative ways of coupling land value capture and placemaking may exist. For example, in many contexts the delivery of affordable housing may be better delivered *in situ* as part of a development rather than reflected in a cash payment to a local authority – particularly if that local authority has limited capacity to deliver affordable housing itself directly.

Auctions are, therefore, really best suited to situations where the goal is to capture the majority of the uplift in land values resulting from the granting of planning consent in situations, such as China, where the state has complete control over land ownership. Where the objective is to provide a mix of public goods directly as part of a development and where land ownership is more fragmented, alternative mechanisms would be required.

2.2.6 Land value capture and the delivery of housing and placemaking outcomes

Extending our argument from the opening of the section to the Scottish case, for the provision of affordable housing and high-quality places to be prioritised in Scottish planning, local planning authorities must be able to exercise control over the final form of new development, including in its urban design and provision of affordable housing, and to direct a proportion of the financial margin that accrues during the development process towards the realisation of these priorities. In Section 6 we conceptualise placemaking and affordable housing provision as housing delivery aims and outline the modes of land allocation and land assembly that are used in our case study areas, as well as in Scotland, that contribute towards the achievement of these aims.

The financial margin that accrues during the development process is, in general, an increase in land value that is a windfall gain. That is to say, it is an unexpected increase in value that is a consequence of either or both a change in land use designation or nearby infrastructure investment, which together are referred to as 'betterment'. As such, the first landowner is usually able to accumulate the great majority of the financial margin that is generated in the development process. It is for this reason that there is generally held to be a moral case for the exaction of land value increase associated with betterment from the landowner (for a fuller discussion see Alterman, 2012). There is also an efficiency case for land value capture, based on the premise that land value increase results partly from public investment and could therefore be redirected to become a source of funding for this investment. Where development does not add sufficient value increase to land, funding for public and merit goods must come from other means, such as grants and other investments drawn from general taxation.

The means by which land value is captured to fund planning policy aims in Scotland is by planning obligations that developers agree to provide as part of their development. Planning obligations are therefore directly paid for by the developer, even though the betterment has accrued to the landowner. The residual land valuation method, which is used by residential developers in all three cases explored in the report, can be used to explain the developer's rationale and actions regarding land valuation and land value capture as follows. The developer who acquires the land from the first landowner must pay a price that reflects the market value of the land in its most valuable use within the anticipated land use regime. This is calculated using a residual land valuation, set out in Figure 1, in which the land value is calculated by subtracting the developer's desired profit and costs from the projected value of the completed development. The developer's profit margin is adjusted to account for the level of risk associated with the development process, while the costs incorporate planning obligations, including placemaking and affordable housing. The developer is in this way able to shift costs imposed by the local planning authority onto the first landowner, providing that these costs can be accurately calculated in advance. But the developer must compete against other developers for the land and must therefore seek to maximise the land value in their bid by maximising the value of the completed development and minimising the development costs, including those relating to planning obligations.



Figure 1: The residual land valuation equation

The maximisation of the land value necessary to acquire the land is therefore in direct conflict with the funding and delivery of affordable housing and place quality. Given that the size of the developer's profit reflects the scale of the attendant risk in the development process, the achievement of planning goals is also in conflict with the level of risk assigned to the developer in the development process. It follows that if it were possible to reduce the land value paid by the developer and/or to reduce the level of risk assumed by the developer, the local planning authority would be better able to redirect value increase accrued during the development process towards aims such as placemaking and affordable housing provision.

In order to resolve the tension between the developer's need to maintain its profits at a level that accounts for its risks, while acquiring sufficient land to develop and the need to achieve housing and placemaking outcomes, the local planning authority must have the means to ensure that these outcomes are paid for by the financial margin created in the course of the development process. In order to ensure that sufficient levels of place quality and affordable housing are provided in new development, the local planning authority must have the means to control for these. The two issues of land value capture and the delivery of housing and placemaking outcomes are thus inextricably related. If we draw these issues back to the residual valuation, we would need to lower the land value and reduce the developer's risk (reflected in a reduced profit margin), in order to raise investment in housing and placemaking outcomes that are stipulated by the local planning authority. But by what means can the mechanism by which new housing is delivered in Scotland be reformed such that relevant public sector bodies are able to exercise control over the form of new development and fund public and merit goods delivered as part of it using land value uplift generated during the development process?

2.2.6 What can we learn from overseas?

From the foregoing discussion it is clear that there are a very wide range of different approaches to harnessing the uplift in land values that result from planning consent to deliver a range of public goods, from affordable housing and transport infrastructure to healthcare and education facilities.

Some of these approaches are better aligned to the structure and form of the prevailing planning system. For example, auctions fit well with the Chinese planning system, TIF is a natural counterpart to the character of US real estate markets and zoning, negotiated planning agreements accord with the discretionary approach in the UK. However, this is not to say that lessons cannot be learnt from other contexts and that some policies,

attuned to local circumstances, might not be successfully incorporated. To illustrate points of continuity and contrast we look how practice in Scotland relates to those of the near continental comparators in Sections 5 and 6.

2.3 Where next? The debate in Scotland

In Scotland, there has been significant debate in recent years on the best way to deliver new development that is high quality, sustainable and affordable. This debate has been framed by important interventions such as the *Ryden Review of Infrastructure Delivery in Scotland* (Ryden, 2015) and Crook's (2018) work on the role of developer contributions in Scotland. More recently, a submission made by the Scottish Land Commission to the Scottish Government in May 2019 (Scottish Land Commission, 2019) includes advocacy of a full national review of policy and practice with respect to what is secured through developer contributions and how this might be extended. This may include taking a cue from the English experience of CIL or wider international examples of how investment in placemaking and affordable housing could be secured.

However, it will be essential that any modifications to policy are sensitively adapted to the Scottish context. This would mean considering the specific tenure structure in Scotland and the significant work has already been undertaken to address housing affordability. Indeed, the Scottish Government responded to research in 2015 that showed a sizeable increase in national housing need (Powell et al., 2015) with a significant investment in housing. The Affordable Housing Supply Programme was created to provide 35,000 new affordable homes between 2016 and 2021. The Scottish Government has increased funding for each of the years to date through this programme. The number of housing units delivered each year was increasing but was unlikely to meet the full 35,000 units prior to the introduction of COVID-19 in Scotland, which has evidently slowed the delivery of new affordable housing.

The Scottish Government has increased funding, most of which has been allocated to the Affordable Housing Supply Programme as direct subsidy to either social landlords for social housing or mid-market rent or first-time buyers (e.g. shared equity or shared ownership schemes through low-costs initiatives for first time buyers).

This level of funding has increased both the number of affordable housing units delivered annually and the overall stock (Scottish Government, 2018). However, there remains significant need for further affordable housing provision. In 2020, Dunning et al. reported that 10,600 new affordable dwellings are required in Scotland each year between 2021 and 2026. This represents a small decrease in the annual requirement from 2016–2020 but remains a significant challenge for delivery.

3. The Scottish context: spatial planning and housing

This chapter sets out the background to the commissioning of the research by identifying key features of the Scottish system of housing land allocation, assembly and delivery. In doing so, we set out the problem that has been identified in Scotland appearing to consistently produce fewer houses than needed and to fare relatively poorly in the quality of new houses and new residential neighbourhoods.

3.1 The Scottish planning system

Since the 1947 Town and Country Planning (Scotland) Act, Scotland has been under an ostensibly plan-led system. This means that all land is developed in accordance with an overarching indicative development plan set out by Local Authorities. The 1947 Act (and consolidated in subsequent legislation) defined a development plan as “a plan indicating the manner in which a local planning authority propose that land in their area should be used” (<https://www.legislation.gov.uk/ukpga/1971/78/schedule/5/part/I/enacted>). Decisions on development proposals are made on a discretionary case-by-case basis, in which the plan is one among a range of ‘material considerations’. As we see below, an applicant has the right of appeal should their development proposal be rejected, meaning that the planning system is better characterised as discretionary than mandatory. Although this system has not changed at a fundamental level, Scottish Devolution in 1999 led to the devolution of the Scottish planning system. Since 1999, there has been a raft of national and local housing and planning policies which arguably make the Scottish system increasingly distinct in its aims and objectives from the rest of the UK. For example, Scotland has a National Spatial Plan outlined in its National Planning Framework (NPF), and its policies integrate with a wider set of national policies in other departments such as health and transport. This is distinct from England, which currently lacks a national spatial plan. However, despite the policy architecture being different, the planning process itself remains very similar to the rest of the UK.

Beyond the planning system, geography and social history also mean that Scotland has a unique set of socio-spatial issues in relation to the rest of the UK. This includes a significant amount of once inhabited land now seen as wild, unique urban characteristics and forms, and health, wellbeing and housing indicators onto which devolved policies have been focused. The majority of the Scottish population lives in urban areas, which are primarily concentrated in the dense central belt corridor including Edinburgh, Glasgow, Stirling and the many towns in between. It variably includes Fife, Dundee, and Perth. This area has relatively good transport infrastructure. Out with the central belt, the Aberdeen and Inverness conurbations feature with large rural hinterlands. Most of the country’s land – in the areas of the Highlands and Islands, Ayrshire, the Borders and Dumfries and Galloway – is rural with quite different social, economic and planning contexts and challenges, including housing delivery. This geography makes Scotland similar to some Scandinavian and Alpine countries.

Scottish urban areas are distinct from cities in other British nations and share more commonalities with European settlements in their urban morphology. This includes high-density tenement living in the pre-1914 areas of the city often in perimeter blocks and rational urban plans developed in the 18th and 19th centuries. The post-war areas of these

cities contain large social housing estates on the edges of cities and towns as is common in European contexts, as well as sprawling private suburbs in the larger settlements more akin to English cities. The census and population projections show that population growth (and thus housing demand) is highly uneven across the country.

The highest level of planning policy in Scotland is set out in the National Planning Framework (NPF) which is updated every four years. NPF 4 is currently out for consultation and will incorporate reforms made by the Planning (Scotland) Act 2019 (see below). Underneath the NPF, Scottish Planning Policy (SPP) (2014) is a statement of Scottish Government policy on how nationally important land use planning matters should be addressed across the country. In relation to housing, SPP states that the planning system should:

1. Identify a generous supply of land for each housing market area within the plan area to support the achievement of the housing land requirement across all tenures, maintaining at least a five-year supply of effective housing land at all times
2. Enable provision of a range of attractive, well-designed, energy efficient, good quality housing, contributing to the creation of successful and sustainable places
3. Have a sharp focus on the delivery of allocated sites embedded in action programmes, informed by strong engagement with stakeholders.

There are, however, reasons to doubt whether these objectives are met consistently. First, there is widespread dissatisfaction with the nature of much new housing being developed in Scotland, as well as with prevalent standards of placemaking that accompany new housing developments (Macfarlane, 2017; Tolson and Rintoul, 2018). This is consistent with the broader view across the four constituent nations of the UK and their planning systems. There has been much to commend in the quality of homes and places in the UK during the 20th century, as evidenced in the garden cities and garden suburbs of the first half of the 20th century and the immediate post-war years. Yet recent decades have witnessed a mode of housing delivery in which placemaking is relegated low among the list of priorities. The role played by the built environment and its design in our quality of life is surely self-evident, yet new housing in the UK is among the smallest in Europe (Shelter, 2013) and is too often built in the shape of vehicle-dominated housing estates insufficiently connected to local facilities and businesses (URBED, 2014). Added to these concerns is a more recent focus on the effect of places on our physical and mental health (Baker et al., 2017; Town and Country Planning Association, 2019).

These critiques run alongside a perception that the number of new homes delivered in Scotland is insufficient to meet measures of need and demand (Commission on Housing and Wellbeing, 2015). Figure 2 illustrates how, from a post-war high of just over 43,000 new homes built in 1970, housebuilding had by 1982 slumped to around 16,500. While the rate of annual delivery between then and the Global Financial Crisis of 2008 increased to an average of 22,284, post-crisis levels of housing delivery are only now beginning to return to this level (Scottish Government, 2019). Yet the Scottish Government in 2007 proposed that 35,000 new homes per year were needed to address affordability issues (Scottish Government, 2007).

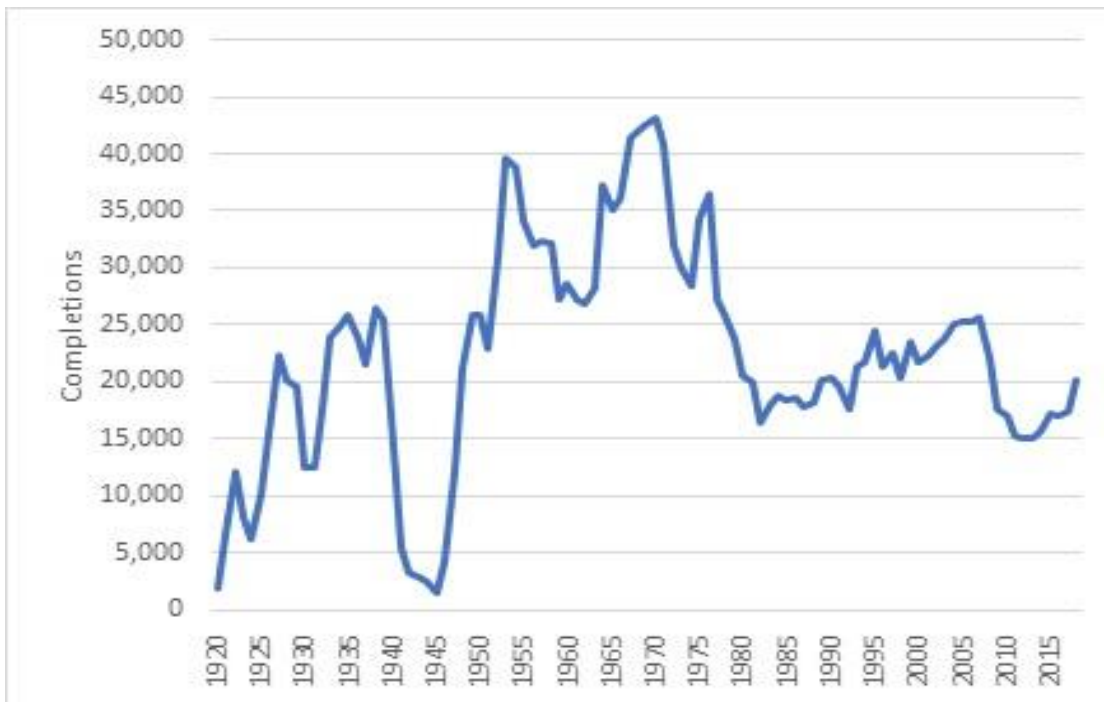


Figure 2: New dwellings completed in Scotland, 1920-2018
(Source: Scottish Government, 2020)

3.1.1 Development plans

The planning process in Scotland has three components: development planning, development management and enforcement (not discussed here). 32 unitary local authorities across Scotland are responsible for development planning in their areas. In addition, there are two national park authorities that overlap a number of rural local authorities: The Cairngorms and Loch Lomond and the Trossachs. There are also four Strategic Development Planning Authorities (SDPAs) covering the four urban local authority areas and their hinterlands. Finally, there are Scottish Agencies who have a legal duty to engage with development plans. These are Scottish Water, Scottish Environment Protection Agency (SEPA), NatureScot (formerly Scottish Natural Heritage), Transport Scotland and Historic Environment Scotland.

Development Plans set out the long-term development and vision of an area and determine the allocation of development. The development plans have to be produced by all 32 local authorities, four SDPAs and the two national parks. Thus, the four major urban areas have a two-tier development plan system, although historically the whole country had both structure and local plans. All Development Plans need to accord with the NPF and are agreed with Scottish Ministers.

The Local Development Plan (LDP) is required for all council areas, and shows allocated sites for housing, economic, retail and leisure development, areas for conservation, etc. Its purpose is to guide development and set the basis for making decisions about planning applications. LDPs must be adopted every five years. Those within SDP areas must be adopted within two years of the adoption of an SDP. The two Park authorities also produce development plans for their territories. The Strategic Development Plan (SDP) sets out

broad spatial plans for their territories on issues including provision for housing and transport. SDPs are submitted every four years to Scottish Ministers.

Following the introduction of the new Planning Act the statutory duty to prepare a Strategic Development Plan has been replaced with a duty to prepare a Regional Spatial Strategy. This will apply to all local planning authorities in Scotland effective from the approval of NPF 4 (expected late 2021; section 3.1.3 below considers changes being implemented at the time of writing in 2020).

Development management is the process of granting and denying planning approval. Most land in Scotland requires permission to develop land or change the use of that land from the planning authority. Decisions are the responsibility of elected members (with some delegation), who are guided by planning officers as to whether the proposed development is in keeping with the LDP and whether it raises any concerns. Elected members are not bound to follow officers' recommendations, meaning that a proposal contrary to the LDP can be approved. An applicant whose proposal is declined by the planning authority also has the right of appeal, which may result in approval. Again, that provision allows for the LDP to be non-binding.

3.1.2 Housing land

Housing land requirements follow from the amount of housing needed to cope with population changes at local level. Historically, two systems have operated with strategic planning calculating the number of houses needed from forecasts of net additional households less forecast housing stock (net of demolitions), whilst the number of social rental houses needed was measured by looking at the waiting list for (council) housing. Both techniques have been heavily criticised and the Scottish Government (and other UK administrations for elsewhere) have attempted, in successive refinements, to increase the sophistication of housing need and demand projections. The current set of techniques is *Housing Need and Demand Assessment*, designed to help estimate local housing requirements across tenures. It tasks local/National Park authorities (and strategic partners) with analysing:

- Key housing market drivers, past, present and future
- Existing housing stock profile and pressures
- An estimate of additional housing units required over the period of the HNDA by tenure
- The current and future requirement for Specialist Provision, including sites for Travellers.

The fact that there have been successive refinements reflects ongoing critique of methodologies and improvements in data availability (notably through the range of data from Scottish Neighbourhood Statistics). While HNDAs are the required methodology in LDPs (and for Local Housing Strategies which plan for social housing provision), the Scottish Government and other national administrations in the UK also consider estimates that pay closer attention to, particularly, housing affordability, poverty and homelessness (e.g. Bramley, 2019; Powell et al., 2015).

Each planning authority (including the National Parks) must maintain a five-year supply of effective land for housing. Each does this through identifying land in the Major Issues Report of the LDP and an annual housing land audit. Identification needs a survey of available land, an assessment of whether each parcel is fully effective and an assessment of how many houses that parcel is capable of supporting. To be fully effective, the parcel needs to be free of specified constraints, set out in Scottish Government guidance (Scottish Government, Affordable Housing & Housing Land Audits Planning Advice Note 2/2010):

- Ownership: within the control of a party which can be expected to release it for development
- Physical nature: free from constraints, or where constraints can be overcome and remedial works funded
- Contamination: free from, or has commitments to remediate to a standard for marketable housing
- Deficit funding: has been committed if required
- Marketability: site or relevant parts can be developed during the identified period
- Infrastructure: free from constraints, or can be provided realistically by a developer or another party
- Land use: housing is the sole preferred planning use, or a realistic option.

Further advice (Circular 6/2013, Development Planning) focused on the deliverability of sites, noting that the financial viability of development should be considered. It also noted that the practice of some local authorities to issue calls for sites was useful in identifying sufficient effective, deliverable land. In coming forward with potential sites, owners/promoters need to provide sufficient information so that its effectiveness and housing deliverability can be assessed. Recent research for the Scottish Government shows that there are major gaps between the information needed by the planning authority and that typically provided (Robertson and Collar, 2020). The process has also been questioned by Homes for Scotland (2018) with concerns about variability in how effectiveness and deliverability are assessed and the lack of a consistent methodology. These two concerns form important parts of an answer to the question of why Scotland might fail to deliver sufficient effective and deliverable land for housing.

Research (reviewed by Payne et al., 2019) shows that across the UK, major housebuilders work to land acquisition strategies, developed to allow for flexibility in negotiation with landowners and local planning authorities. Open market bidding competitions do not prevail, rather land is acquired without planning permission through either options or conditional contracts in order to spread risk and uncertainty, enabling gradual purchase of land in multiple ownership, and reducing initial capital outlay. Developers do not seek to tie up land indiscriminately through options and conditional contracts. Instead, they participate in the process of planning policy formulation, utilising the land use planning process to their advantage and targeting their options and conditional contracts on land likely to be released. Research also suggests the significance of purchasing agents, who maintain their knowledge through external development networks and partnerships. Whilst taking out an

option incurs a cost to the developer, it is less than purchasing the site outright and holding the land on the developer's books until planning consent is granted.

Developers' strategic behaviour is also important in maintaining a pipeline of developable sites and the evidence tends to suggest that holding land for longer is associated with enabling time for involvement in good design practice (Morgan et al., 2008; Smith et al., 2011). There is, however, longstanding critique of the practice, arguing that banking land is designed simply to allow building out and sale at peaks in the housing price cycle, maximising speculative returns (Barlow, 1999). The most recent review did not find any evidence of housebuilders working in this way (Letwin, 2018a). It might be countered, however, that a developer holding an option on land effectively restricts supply for other potential developers such as small and medium sized enterprise, affordable housing providers, self-builders and co-housing providers.

3.1.3 Reform

In attempting to explain the reasons underlying deficits in quality and quantity, much recent research has identified the planning system as the chief factor inhibiting the supply of land for housebuilding, investigating the costs of planning on the development of new housing (Mayo and Sheppard, 2001; Ball, 2011) and the effect of planning on house price inflation (Cheshire, 2014; Hilber and Vermeulen, 2016). The common conclusion of this work is that a liberalisation of planning regulation would lead to more new housing.

Competing explanations have pointed to issues relating to the land market and the structure of the UK housebuilding industry. Land differs from other factors of production in being immobile, non-substitutable and finite. This has the effect of rendering its supply extremely inelastic, before any planning considerations are taken into account. Furthermore, the residential land market is a dysfunctional one, in which land is frequently obtained through professional networks rather than purchased on the open market (Adams and Watkins, 2014). The UK is heavily reliant upon the private sector to deliver new homes, with the public sector and housing associations delivering 25% of new homes in 2018, compared to an average of 78% between 1945 and 1981 (Scottish Government, 2019), at which point a severe decline in non-market housebuilding set in. Real estate development is inherently predisposed to substantial risks, it being a long-term, capital-intensive process, but the private sector is arguably less disposed than is the public to manage these risks. The UK housebuilding industry model is structured around ways to minimise uncertainty, strategically acquiring land long in advance of beginning development, using options in land acquisition, financing schemes individually, attempting to dominate local markets in order to minimise competition, and releasing homes onto the market gradually so as to maintain price levels (Bentley, 2017; Macfarlane, 2017; Payne et al., 2019).

The implication common to these arguments is that allocating more land for development without adjusting any other aspects of the planning and development process will not succeed in sufficiently raising the quantity of new homes or the quality of new homes and places. This conclusion has led to a focusing of attention on two related questions. First, if a market-dominated housing sector and a liberal planning regime could not achieve housing quantity and quality aims, what sort of alternative combinations of public and private activity might do so? Second, if these aims are achieved in relatively similar countries elsewhere, by what means is this feat carried out? Cross-comparative research investigating the delivery of

new homes and places in neighbouring European countries has sought to answer these questions simultaneously by identifying examples of new housing and new places of high quality and where homes are delivered in sufficient numbers and exploring how this has been achieved. While there are dangers in adopting an approach of policy tourism, whereby policy makers are inclined to search for tried-and-tested policies without paying due regard to their legal, cultural, social and economic context (Temenos and McCann, 2012), valuable insights have been drawn from this area of research. High standards of place quality, including public space, environmental standards, and sustainable transport, have been identified in developments in a range of countries in north-west Europe (PRP, URBED and Design for Homes, 2009; Hall, 2014) and have been associated with alternative arrangements for land assembly and development (Lord et al., 2015; National Economic and Social Council of Ireland, 2018).

A similar focus on comparative modes of land allocation, assembly and delivery can be found in the academic literature. Here, research has inclined towards investigating combinations of public and private activity in land markets and proposing heterodox economic theory, rather than the neoclassical position adopted by work cited above that has used econometric methods to measure supply constraints, to explain this. Buitelaar (2004) uses transaction cost economics to investigate the institutional arrangements underlying the Dutch land development process by reconstructing the sequence of activities within the process and identifying transaction costs associated with these, with the aim of contributing to an improved institutional design with lower transaction costs. O'Brien et al. (2020) similarly use a transaction cost approach, comparing the transaction costs attributable to three alternative models of land development as they are practiced in the Netherlands – public land development, land development by public-private partnership, and land readjustment – in order to compare their relative effects on public sector risk. Lord and O'Brien (2017) conceptualise the role of planning in the development process as that of a 'market maker', a catalysing intermediary that facilitates the functioning of the development process. From this perspective, public land assembly can be understood as a market supportive function that corrects for market failures. This suggestion is consonant with the notion of planners as being market actors, rather than regulators that sit apart from private land and housing markets (Adams and Tiesdell, 2010).

Scotland's present debates regarding reforms to planning and land management have focused on the potential gains to be made from adopting a more interventionist approach, including a revised policy on land value capture. The benefits of a more effective means of land value capture, alongside other more publicly active land policies, are readily apparent, but must be critically examined. Crook (2018) points to the fact that introducing reforms that would allow local authorities or other public development bodies to purchase land at existing use value would create a two-tier system of land supply, in which open market values far exceed those available through public purchase. Tolson and Rintoul (2018) are similarly sceptical as to the likelihood of such a change in law. There is therefore a pressing need to identify policies able to deliver land for housing in sufficient quantities and at a sufficient speed as to match Scotland's housing aspirations that adopt a realist stance towards the roles played by private landowners and housebuilders in the development process.

3.1.4 The Planning (Scotland) Act, 2019

At a policy level, dissatisfaction with the speed of delivery of the Scottish housebuilding system and with the quality of its products (including deficiencies in aspects of placemaking such as the amount and quality of green space, provision of public transport and enabling active travel) was a significant impetus for the Beveridge review (Beveridge et al., 2016). Among the recommendations from this review were that:

1. The National Planning Framework should define regional housing targets as the basis for setting housing land requirements in local development plans
2. There is an urgent need to establish a clearer definition of effective housing land so that local development plans can move on from this to take a positive and flexible approach to addressing the housing land requirement for their area
3. The SPZ concept should be rebranded and evolved into a more flexible and widely applicable zoning mechanism which identifies and prepares areas to make them 'investment ready'
4. Mechanisms for planning authorities to take action to assemble land and provide infrastructure upfront should be established as soon as possible
5. A programme of innovative housing delivery should be progressed in a way which is fully aligned with local development plans.

The legislation that followed the report (the Planning (Scotland) Act, 2019) and the programme of work being undertaken at the time of writing¹ has sought to respond to the Beveridge report recommendations. The programme includes action on:

- Preparing NPF4, intended to set the spatial strategy for development up to 2050. NPF4 will have increased status in development planning and will incorporate SPP. It will include two yearly measurement of progress on providing housing for older and disabled people. It will also include targets for the use of land for housing in different areas of Scotland. A technical paper (finalised following consultation)² sets out an approach to doing this: it outlines targets will be for all local development plan areas, and this could include regional collaborations. Targets will be derived using steps 1 and 2 of the HNDA methodology (see above).
- Regional Spatial Strategies, which will replace SDPs for the four largest city regions, will be required for all Local Authorities with appropriate inter-authority work.
- LDPs, so that they have a stronger orientation to delivery rather than process. LDPs will move to a 10-year cycle, with greater community involvement. LDP preparation

¹ <https://www.transformingplanning.scot/planning-reform/>, <https://www.gov.scot/publications/transforming-planning-practice-post-bill-work-programme/> and <https://www.transformingplanning.scot/media/1297/transforming-planning-in-practice-development-planning-and-housing-policy-work-programme-overview.pdf>, although the programme timescale has had to be adjusted due to the Covid-19 pandemic.

² <https://www.transformingplanning.scot/media/1296/national-planning-framework-4-housing-land-targets-technical-discussion-paper-2-march-2020.pdf>

will require evidence reports, new requirements for participation and engagement of communities and particular groups. The main issues reports and statutory supplementary guidance of the present system will be removed. It is recognised that while Development Planning can become more collaborative, this does not mean that all parties will necessarily agree. The aim will be to seek consensus, acknowledging that ultimately a decision has to be made that not all will concur with.

- LDPs will include targets for meeting the housing needs of people living in the part of the district to which it relates, and for the spatial strategy to take into account housing needs including the needs of students, older people and disabled people, and the availability of land in the district for housing, including for older people and disabled people³.
- Community engagement – linking work on Local Place Plans, effective community engagement in LDPs, promotion and use of mediation in planning and changes to pre-application consultation with local communities in relation to major developments. The Place Standard is a mechanism that can help structure community engagement (see below).
- Masterplan Consent Areas – to promote and incentivise investment in development, including new housing, by providing consent in advance for specified types of development. The aim is a simplified process that adds certainty and removes risk for potential investors. The specification of Masterplan Consent Areas will draw on evidence from a number of pilots that have used already existing Simplified Planning Zone specification.
- Land value uplift capture – this includes taking account of SLC-commissioned work (Crook, 2018) and evaluating the effectiveness of existing mechanisms such as s75 planning obligations before exploring new approaches such as an infrastructure levy or changes to compulsory purchase rules⁴. Research on the value and impact of planning obligations in Scotland has been commissioned by the Scottish Government (due to report in early 2021). Government is also engaging with councils, the SLC, the Scottish Futures Trust and developers.

The current research can be seen as complementing Scottish Government action on the fourth recommendation. It also complements calls for greater leadership in development from the public sector that have come from industry bodies and academic commentators (see for example, Adams, 2015; Adams et al., 2016; Homes for Scotland, 2018; Letwin, 2018b; RTPI, 2016).

3.1.5 The Place Standard

The Place Standard is designed to promote place-based working, with an emphasis on people – the need to engage community and to enable community to engage in the design

³ <https://www.transformingplanning.scot/media/1297/transforming-planning-in-practice-development-planning-and-housing-policy-work-programme-overview.pdf>.

⁴ There is a recognition that there are examples of public bodies in Scotland and the rest of the UK using compulsory purchase proactively to deliver positive change. However, compulsory purchase orders can be resource intensive and require the relevant skills and experience to be used effectively.

and implementations of their built environment⁵. It is very much a ground up approach, enabling grassroots influence as opposed to a top-down approach. The tool is designed to support holistic, good quality placemaking, and support health and wellbeing through the consideration of its 14 themes that cover the overarching urban design dimensions of movement, spaces, resources, civic and stewardship.

Since its launch in 2015, the success of the Place Standard tool locally in Scotland and internationally is significant. Many European countries have trialled the use of the tool and adaptations of the tool are already available in more than 14 European countries, including the Netherlands, Germany, Denmark, Lithuania, North Macedonia, Greece, and Spain. Currently, the European Network for WHO Healthy Cities is in the process of accrediting the tool as part of its current programme, and actively promotes the tool to its members. In 2017, the Place Standard was awarded the RTPI Award for Excellence in Planning for Well-being. At the time of writing, it was anticipated that particular specifications of the Place Standard, a Design Version and a Children and Young People version would be launched later in 2020.

⁵ For case studies on the Place Standard and how the tool has been used to-date in engaging community and actors in the built environment, see <https://www.ads.org.uk/?s=place+standard>. In the summer of 2019, as part of ministers' engagement on Housing to 2040 consultation, Architecture and Design Scotland facilitated a number of workshops with key actors in the delivery of housing development, using the Place Standard as the basis for conversations, sharing their experiences in the individual delivery stories. The voices of those people involved are captured in reports and interviews: <https://www.ads.org.uk/?s=Housing+to+2040>

4. Evidence Review

4.1 Introduction

This chapter summarises evidence from our desk-based review of housing delivery and placemaking quality in Northwest Europe since 2000. The review concentrates on Northwest Europe, because these countries include the economically most advanced countries and are therefore comparable to Scotland and the UK. The full review is included as a companion report to this report.

The system of allocation of land for housing and the processes of assembly and delivery in Scotland occur within a context of practice comparison between neighbouring nations in the UK and within North West Europe. It is commonplace to compare practice with the hope of extracting policy ideas between countries, but comparison also offers the possibility of enhancing reflection as we grapple with details of other countries, and the hope of shedding light on our planning and housing delivery culture (Booth, 2011; Othengrafen & Reimer, 2013). Planning and housebuilding system similarities with Scotland are found in many nations across the globe and countries that are most similar in the convergence in planning policy and practice may not be those that are closest geographically, not the least because the UK's discretionary planning system in Europe is the exception rather than the norm (Newman & Thornley, 1997, European Commission, 1997; Farinós Dasí, 2006). There are, however, several advantages in comparing Scotland with European countries, not least because there are accessible data compilations which consider European countries and for those within the European Union commonality of approach to some planning and housebuilding issues.

Our analysis sits within a tradition of comparative research that seeks to provide statistically robust and appropriately comparable statistics to highlight trends, and then permit in depth case study analysis to query the underlying causes of these trends within countries and in particular to understand the systems of housing delivery prior to recommending policy transfer (Stephens, 2011). The reader therefore is commended for reserving judgement on the mechanisms for making great places across Europe and the delivery of high-quality housing until the case study evidence is presented.

4.2 Review of Housing Indicators

4.2.1 *Population and household development*

Population change is a major driver of urban development and housing need. The population of Scotland has been growing steadily over the last two decades, with over 7% increase in the population since 2000. However, this growth has been slower than much of the rest of Europe and slower than the UK overall (+13%). It is similar to the Netherlands (+8%), but much larger than Germany (+1%) and much smaller than Switzerland (19%). Within Northwest Europe, a significant part of the population growth is concentrated in urban areas (Dembski et al., 2019). As demographic models are strongly influenced by past trends, current growth rates are broadly speaking pointing in the same direction but slowing down in most countries. The old age dependency ratio, i.e. the share of people aged 65 and over divided by the working age population (15–64), is increasing rapidly in all countries, and is predicted to reach over 40% in Finland, France and Germany by 2030, while household size

is declining. Many countries have recognised the need for housing delivery to take into account the needs of an ageing society combined with smaller households, albeit that some are more advanced than others.

Scotland's population is projected to grow relatively steadily between now and 2041, with a growth of around 13,000 households per annum, reaching 2.76 million households by 2041 (National Records of Scotland, 2018). The growth in households is projected to increase at a faster rate than the number of people over this period, due to an increase in the number of single person households. By around 2025 single person households are likely to become the single largest household type in Scotland, due in part to the ageing population (National Records of Scotland, 2018). Thus, there is an increasing need for housing and placemaking that explicitly meets the needs of smaller and older households in Scotland.

The provision of housing and placemaking needs to reflect the composition of society, including providing adequate size and types for different household types. Around 30% of households in the UK have children in them, 30% are couples without children, 30% are single persons without children and 10% are other types of household. This is different from most other countries in Europe, which either tend to have much smaller proportions of households with children (e.g. Finland and Germany) or larger proportions of single person households (e.g. Sweden). One of the closest comparators is the Netherlands. By 2041, Scotland's household type distribution is likely to be much closer to Germany's contemporary composition (estimate based on NRS projections to 2041).

4.2.2 Housing tenure and type

In 2017 in Scotland there were approximately 2.6 million dwellings (2.5 million occupied), of which there were an estimated 22% detached, 20% semi-detached, 22% terraced, 24% tenement and 13% other flats (Scottish Government, 2018). Whilst the proportion of flats and tenements combined in Scotland is similar to the European average of flats (42%), the proportion of semi-detached housing is different to most European countries outside of the UK and the Netherlands. Flats are the most common type in the Germanic countries, accounting for more than 45% of the total stock.

There is considerable variation in housing tenure shares across North-West Europe. There are some broad similarities between the UK's distribution and those of France and Belgium. Elsewhere, Denmark and Switzerland, and to a lesser extent Germany, are marked by large market rental sectors and Ireland and Luxembourg by high rates of outright ownership. It has been claimed for some time that Scotland is "different" to the rest of the UK in tenure patterns, with lower rates of homeownership making it more 'European'. Data on the proportion of households residing in different tenures in 2017 suggest that that generalisation no longer holds true: in 2017/18, 29% of households in Scotland were buying their house with a loan (the same as the UK as a whole) and 35% of households owned their home outright (UK: 34%). Where we do see differences is in the relative share of market and below market renting: Scotland had 15% of households in market rental (UK: 19%) and 22% in below market rental (UK: 19%; all data from Stephens et al., 2019).

4.2.3 Housing costs and production

House and rent price indices provide information about the volatility of housing markets. In general, house prices are more volatile than rent prices. The Global Financial Crisis had

significant impact on housing markets in many countries, with Ireland, Denmark and the UK housing markets depreciating. Since 2015, house prices have been growing rapidly and reached pre-crisis levels in most countries in 2018. They increased more strongly than incomes in most countries. Rental prices tend to be more stable than house prices and with increasing house prices remain the only option for many households. Rents in Germany and Switzerland have been noticeably stable over the last two decades. The Irish housing market is the most volatile in Northwest Europe.

Across Europe affordability of housing is a major issue for many households. In 2017 the 'average household' in Europe spent one fifth of their disposable income on housing (Housing Europe, 2019). However, the principal concern is for market renter households that are 'overburdened', that is, where rent takes 40% or more of disposable income. Here, the UK has the highest rate in NW Europe, with nearly 40% of tenants considered to be overburdened by housing costs. This is particularly concerning as the share of the private rented sector has been increasing continuously since at least 2005 (Stephens et al., 2019). The UK rate is over double that of France (14.9%) and nearly double that of Sweden (19.3%) and Switzerland (19.6%).

Overcrowding is a complex issue for the design of high-quality housing and placemaking as it is a relative measure between the dwelling and the household that occupies it. This is normally defined as the number of rooms compared to the number of people. The data suggest little concern where houses are owner occupied (particularly when mortgages/ loans have been repaid). However, for renting households, overcrowding is much more common, even where the houses have some form of capital subsidy attached. The UK and Ireland emerge relatively favourably on this comparison.

Reliable comparative data on housing stock, including construction, are scarce. The OECD Affordable Housing database covers two points in time between 2010 and 2018, which suggest that all countries have expanded their housing stock. With some exceptions, notably England, the growth in housing exceeded population growth. However, this does not account for the decreasing household size and increase in second homes. For Scotland, housing construction has not yet reached pre-crisis levels.

4.3 Placemaking

Throughout the last 70 years, many landmark publications have contributed to understanding what makes a successful place. These have been based on a range of quantitative and qualitative indicators (Jacobs, 1961; Whyte, 1980 Gehl, 2010). However, many of these indicators are slippery and not clearly defined. What makes a 'good place' has been a notoriously difficult task due to the blurring boundaries between qualitative descriptors and quantitative measurements which underpin them (Marshall, 2012). Carmona (2019) completed an international evidence review of placemaking indicators noting that often they are not robust enough in proving the value of urban design. In this discussion, we compare three of Carmona's key placemaking indicators: sprawl (compact form), green spaces and sustainable transport. Features of placemaking that we use are consistent with various calls from the EU for consistent regional spatial strategies. Cortinovis et al. (2019) identify six components seen as desirable in guidance, and looked at data for 175 cities,

including 84 in Northwest Europe. They found that adherence to the principles was more common in southern and western cities than in eastern cities and more common with growing populations than where these were falling.

4.3.2 *Urban Sprawl*

Reducing urban sprawl is a major concern for most European governments and can function as a proxy for urban compactness. Brueckner (2000) defines sprawl as excessive spatial growth of cities, i.e. it grows faster than is necessary to accommodate population growth.

How successful were the various countries' efforts in actually reducing sprawl based on comparative evidence? The CORINE Land Cover inventory allows for a detailed analysis of land use change, in particular the change in artificial surfaces. A study by Siedentop and Fina (2012) found that Belgium, France and Scandinavian countries had an above average land consumption, with the exception of Belgium reflecting low population density. Land uptake in the 1990s and early 2000s was particularly high in Ireland, and despite its rhetoric of the compact city, the Netherlands. More recent analysis of CORINE data points at some success in containing sprawl in Switzerland and Belgium, though the latter is beset with data problems (ESPON, 2019, p. 10). Most areas, however, have increased land uptake, both under conditions of growth and decline. Another study using high resolution layers of imperviousness degree (HRL IMD) identified the Netherlands as Belgium as the most sprawling countries, but to some extent the measures are influenced by the high population density (EEA & FOEN, 2016).

4.3.3 *Green Spaces*

It has long been recognised that access to green spaces is important for people's physical and mental health and wellbeing (WHO, 2016). Furthermore, attention has been placed in urban design and leisure and recreation policy on attempting to equalise access to green spaces. Although there is a considerable literature in many countries on these issues (e.g. Kabisch & Haase, 2014; Sugiyama et al., 2009; Ward Thompson et al., 2014), comparative data on green space availability and accessibility are rather scarce.

Looking at 202 European cities, Kabisch and Haase (2013) found an increase in urban green space between 2000 and 2006, although this had followed no overall change from 1990 to 2000.⁶ They reported that urban green space increases had occurred in western Europe (broadly equating to our study region) and southern Europe, but not in eastern Europe. Green space area did not appear to relate to changes in the size of the urban population, nor in population density.

Research across 299 European cities (Kabisch et al., 2016) showed that in Northwest Europe, more than two thirds of the urban population had access to urban green space within 500m of their home. They note that this is partly explained by Northern cities' closeness to rich forested areas. They also note, however, other research evidence that compact cities with high population densities have relatively low per-capita green space, suggesting that the amount of green space tends only to correlate with the total urban area

⁶ Defined as "vegetated areas >25 ha which are either situated within or...in contact with urban fabrics" (Kabisch & Haase, 2013, p. 114).

(Fuller & Gaston, 2009). Data across the 28 EU states suggest that city dwellers are less satisfied with recreational and green areas than residents of towns and suburbs or rural areas (Eurostat, 2016). Self-reported experience of pollution, grime and other environmental problems provides some insights in environmental qualities, but the indicator is beset with methodological problems as it lacks a clear description of what constitutes a problem (Figure 11).

Many NW European cities and city-regions, therefore, now show the outcomes of development strategies to deliver new high-quality green spaces as well as protecting and enhancing those from previous eras. Germany's IBA Emscher Park is an 800 sq km area of a former heavy industrial area (the Ruhr). Ecological renewal, the creation of a landscape park and seven green corridors feature alongside strategic objectives to create new employment and high-quality residential areas (Landry, 1999). The European Commission (2020) has recognised the combined efforts of municipalities and private and public sector partners in urban green space intervention in awarding cities as European Green Capitals. Recent holders of the title include Essen (2017), Nijmegen (2018) and Oslo (2019). Since 1947, Copenhagen has attempted to plan spatial development on five fingers, to protect green space areas between densely developed corridors (Bruel, 2012).

4.3.4 Transport

Placemaking cannot be understood without understanding how sustainable transport planning intersects with the other indicators in this section. Sustainable transport involves reducing the modal share of private vehicle use and simultaneously implementing spatial policies, transport policies, land-use plans, physical infrastructure and cultural changes to enable an increase in non-private vehicle use (Bertolini & Le Clercq, 2003; Bertolini et al., 2005; Jones, 2014; LSE Cities, 2019; Rogers, 1999; Thomas et al., 2018).

Modal share at the national level could be used as a benchmark. However, since cities are where the greatest gains can be made in sustainable transport owing to their dominance of populations and in some cases devolved sustainable transport policy (LSE Cities, 2019), we must look at city level data. Some cities across Northwest Europe, notably Zurich, Frankfurt, Oslo and Copenhagen, show high levels of sustainable transport modes. Glasgow also emerges favourably.

Data also exist for cycling alone, which can be seen as a qualitative benchmark of sustainability. Cycling represents the most sustainable mode of transport. It is the cheapest, has least impact on carbon emissions, is highly integrated with other modes of transport and has big impacts on health, well-being and air quality (Pucher & Buehler, 2008). The study analysed the number of 'bike cities' per European country. Langeland defines a 'bike city' as one in which the modal share for bike use exceeds 12%. They then count each available city within each nation that is a 'bike city.' The findings from this paper reveal Netherlands and Germany to have a significantly greater number of 'bike cities' than other European countries while the United Kingdom and southern Europe have hardly any between them. Again however, we need to remember that these countries vary in size and population. Switzerland, with only two bike cities, has far fewer cities overall than the United Kingdom with one bike city.

4.4 Conclusions

We aimed to provide a brief overview of housing and placemaking in European countries reviewing the literature and databases allowing for some comparison. Availability of high quality and comparable data proved a major obstacle, with the additional problem of the lack of a clear definition of placemaking and the fact that most available indicators allow only limited reflection of the placemaking qualities of planning schemes. Equally, the numerous exemplar projects whose pen portraits figure in endless policy documents are not necessarily reflective of the general approach to placemaking of the country they happen to be located in. We can draw inspiration from flagship projects and other individual case studies, but they are unsuited to draw wider conclusions on the functioning of the planning system in promoting affordable housing and placemaking. Finally, time is also an important factor, in particular with respect to housing indicators.

Notwithstanding these caveats, some European countries have shown elements of housing and placemaking which the authors suggest warrant deeper inspection for Scotland to learn from:

- Germany has one of the most balanced housing markets with stable house and rent prices, and a dwelling stock characterised by a mix of types and tenures. In terms of placemaking, the country has been moderately successful in producing compact cities and fostering sustainable mobility.
- The Netherlands are renowned for their comprehensive planning system and high-quality urban development. Their mature housing market is testimony to the ability to deliver a mix of dwelling types and tenures. In spite of its general standing (and self-promotion) as one of the most well-planned countries in the world, it has also one of the highest land uptakes in Europe.
- Switzerland is a little explored country in the planning literature, partly because of its highly decentralised political system, but offers potential for lessons to be learned as it has experienced significant population growth while at the same time keeping housing affordable and reducing land uptake. This seems to indicate that the planning system is able to deliver under challenging conditions.

5. Case studies

This chapter presents summaries of our work and findings in the Netherlands, Germany and Switzerland. Full case study reports are presented as companion reports, and the final section of the chapter summarises comparisons with Scotland.

5.1 The Netherlands

The Netherlands is a small and densely populated country in north west Europe, characterised by its use of land reclaimed from the North Sea and the flat topography that results from this (Figure 3). Around half of the Dutch population is concentrated in the Randstad, the cluster of cities in the west of the country that can be seen on the map as including Amsterdam (the national capital), Hilversum, Utrecht, Rotterdam and Den Haag. The Netherlands' population is 17.28 million, after steady population growth over past two decades (a population of around 16m in 2000). Economic growth was strong in the years leading up to the Global Financial Crisis, and recovered well following it, with the Dutch economy experiencing an expansionary phase prior to the Covid-19 pandemic (OECD, 2018).



Sebastian Dembski. Source: BRT, CC-BY-4.0 Kadaster

Figure 3: Spatial structure of the Netherlands with main cities and exemplar case study

The Netherlands is regularly cited as an exemplary planning system within Europe and has received a tremendous degree of interest from policymakers and researchers with regard to the widely lauded ability of the Dutch to deliver high quality integrated new residential

development (Lord et al, 2015). A core academic interest in Dutch planning has focused on the national government's ability to closely control the spatial pattern of new development through the use of planning concepts such as the 'green heart' of open space at the centre of the Randstad. But our interest is primarily in the capacity of Dutch planning to integrate placemaking into the delivery of new housing, a feat largely achieved without a reduction in the quantity of units produced.

The priority of Dutch planning was for several decades leading up to the 2000s the need to build sufficient new housing to satisfy the needs of an expanding population within large-scale integrated mostly greenfield developments, with an active public sector development programme at the heart of this. Since then, there has been a shift away from both greenfield sites and public sector development, towards smaller scale brownfield development undertaken by a mix of public and private activity.

5.1.1 The Dutch Planning System

There are in the Netherlands two tiers of elected government in addition to the national government: provinces, of which there are 12, at an average population of 1.5m; and municipalities, of which there are 355 in 2020, at an average population of nearly 50,000.

Planning in the Netherlands as it is practiced today is shaped by the Spatial Planning Act 1965, to which multiple amendments were made before a new Spatial Planning Act came into force in 2008. While the 2008 Act is seen by some as a radical departure (Needham, 2014), it nevertheless fundamentally works with the same administrative and plan-making structure as existed under the 1965 Act.

Indicative structure plans are produced at national, provincial and municipal levels. While legally binding land use plans can also be produced by all three levels, in practice they are almost always produced by municipalities. Land use plans must adhere to structure plans produced by higher tiers of government.

National, provincial and municipal governments produce non-binding structure plans that guide development indicatively by visual and written means. Structure plans can also be produced for sectoral policy areas such as transport and energy. The purpose of the structure plan is to set out the intended spatial pattern of development for the area covered, which acts as a framework to guide public investments and sectoral policies (Needham, 2014).

The land use plan is a legally binding document that functions as a zoning plan for a municipal area or part thereof and can be regarded as the most important document in Dutch planning. Land use plans must cover uses and activities that can take place within the plan area, as well as setting out rules that underpin these. Detailed street layouts and building forms, including height and massing, can be (though do not have to be) covered, enabling local planning authorities to closely control the shape of new development in terms of how this contributes to place quality.

Public land development involves the public sector (in fact almost always municipalities) actively acquiring land (typically at market values, though compulsory purchase is sometimes used), making a development plan and subsequently a land use plan to formalise

this, servicing the land with infrastructure, and selling plots to housebuilders at prices inclusive of servicing costs (Van der Krabben and Jacobs, 2013).

Compulsory purchase is permissible where the landowner cannot demonstrate that they are able to develop according to the land-use plan in all aspects, rather than simply in terms of land use. There is also a proviso that the landowner has sufficient land to realise the plan's intentions, thereby warding against infill development.

Pre-emption gives the municipality the right to be offered land or property before other buyers, should it be put up for sale. Between 2000 and 2006 use of pre-emption increased markedly, with the quantity of land covered by the policy almost doubling over this period (Segeren, 2007).

5.1.2 Housing land allocation, assembly and delivery in the Netherlands

The formal planning process by which land is allocated for development, assembled and on which housing is constructed has changed little since the introduction of the Spatial Planning Act 1965, though a change in the roles played by public and private actors in the development process has altered the way that housing is delivered.

Identification of locations for housing development can be made by national, provincial and municipal tiers of government by means of indicative structure plans prepared at these levels. Ultimately, it is the binding land use plan that dictates where housing is built, though provinces can use structure plans to exert power over municipal land use plans.

Multiple modes of land assembly coexist in the Netherlands, with variations between and within local authority areas, as well as over time. The traditional active land policy practice of public land development involved clandestine assembly of land by municipalities, who were typically able to buy sites discretely at market value before servicing them and selling plots to housebuilders. Private developers began to enter the market as land prices, and therefore returns on house sales, increased during the 1990s and following the VINEX programme's *ex ante* identification of sites, which disrupted municipalities' strategy of assembling land without advertisement. The dominant role played by the land use plan and the municipality's monopoly power over the award of planning permission, though, has meant that private land assembly and development is always closely controlled by planners, and frequently involves some degree of municipal ownership in combination with private ownership. There is now no single, or indeed dominant, model through which land is assembled. Rather, there are various different approaches taken between and within municipalities. Common to all approaches is that municipalities continue to ensure that new development conforms to their own wishes, over those of developers.

The Netherlands operates a zonal, rather than a discretionary, planning system, therefore the award of planning permission is implicit in the adherence of a development proposal to the stipulations in the land use plan. However, it is only rarely the case that land use plans are prepared prior to the formation of concrete intentions to develop by either public or private actors. Typically, a developer will approach a municipality with a development proposal, which will be assessed against the wishes of the municipality. If these wishes are broadly met by the proposal, negotiations will take place between the municipality and the developer regarding the precise contents of the development proposal, which will be codified

in a legally binding land-use plan or project plan, which itself will ultimately be translated into a land-use plan.

Cost recovery and value capture are both possible in the Netherlands, though land value capture via planning law is strictly restricted to cost recovery. Public land development allows municipalities to recover costs and, where available, capture land value increase, by including these in the price of plots sold to housebuilders. For plan-led private development, costs can be recovered under a public law instrument that charges costs listed in the land-use plan to developers. For development-led private development, servicing can be undertaken by either or both of the developer and the municipality. Cost recovery and value capture are both possible where the municipality has incurred costs using private contracts, with value capture being dependent upon the share of the value increase that can be negotiated between the municipality and the developer (Tennekes, 2018).

5.1.3 Exemplar Project: Anna's Hoeve, Hilversum

Anna's Hoeve is an urban development project in the fringe of the town of Hilversum, which is located between the cities of Amsterdam and Utrecht. With an area of 13 hectares and approx. 550 dwellings, it is one of the largest residential development areas in Hilversum. The site became available when the Water Board replaced a wastewater works with a modern installation which required less space.

Hilversum is surrounded by protected nature areas, so there are no opportunities for large-scale urban expansions so typical for other Dutch medium-sized towns. When the site became available it was identified as an opportunity of residential development within the built-up area in the *Structure Plan 2015* from which was approved in 1999. However, the site was not actually developed until after the approval of the 2013 Structure Vision.

The municipality wanted to develop a new residential area that would withstand the test of time and therefore decided to commission a tender for a masterplan, providing a framework for the development of a number of large building plots to be developed independently. It formulates desirable and essential criteria, including carbon neutral buildings and a diversity of tenure with one third affordable or social housing and 40% single-family dwellings (Gemeente Hilversum, 2011).

The winning plan by De Zwarte Hond provided an open and flexible framework for the development of the area with a strong focus on public and green spaces (Figures 4 and 5). Because the building programme was explicitly left open, the development of public spaces, in particular green infrastructure proved even more important. The public space was developed by the municipality to a specification based on the masterplan.

The land use plan was explicitly kept relatively broad to allow for a flexible planning process. Because all land was owned by the municipality, all requirements of the masterplan could be secured via private contracts related to land transactions. The land use plan mainly established the main land uses and the rules, in particular establishing maximum building heights per plot and a minimum of one third affordable housing.



Figure 4: Masterplan Anna's Hoeve providing a framework for the development of building plots (Source: DeZwarteHond, 2012)



Figure 5: 15 flats and eight homes developed by a collective with communal garden (top left); 38 social-rental single-family homes (top right); six single family homes developed on individual plots (second row left); 33 owner-occupied single-family homes (second row right) (Photos: Sebastian Dembski)

5.1.4 Conclusions and lessons for Scotland

The Netherlands has long been lauded by planners and researchers across Europe for its ordered, integrated and mostly attractive new development, as well as its ability to implement nationally devised spatial strategies and planning concepts effectively across its national space. Much of this range of achievements was accomplished through the public sector actively shaping real estate development, either directly, in the case of new housing developments, or indirectly, as national spatial goals were achieved via a direct link between national spatial planning and local housing development. The past 25 years have seen the public development model recede from its former primacy, however, to be replaced by what has been termed 'organic development', which in the Netherlands is seen to embody urban change that is essentially private sector led. The external observer must interpret this interpretation with a grain of salt, however, noting that the shift from public to private activity is very much a relative one, and that new housing development is very much shaped by public and private actors in collaboration.

That standards of housing and placemaking in the Netherlands have not suffered from the transition to this more collaborative model is heartening for those seeking achievable reforms to Scottish housing delivery. While an entirely public sector-led model of land assembly and housing delivery might seem unachievable in a nation that has long been

reliant upon the private sector in its housing provision, the combination of public and private input presently practiced in the Netherlands offers a more attainable possibility. For this to work requires public control over the ultimate form taken by development, however, including its urban form and placemaking qualities. This means local planning authorities being able to make decisions over the content of development proposals and plans without developer's having a right to appeal to a higher decision-making body. It also means local planning authorities having the capacity to prepare development plans, although this work is often contracted out to urban design practices in the Netherlands.

5.2 Germany

Germany is characterised by a decentralised urban spatial structure with a number of large urban centres (Fig. 6). This is partly the result of the political structure, which aimed to deconcentrate power after World War II. More than 30 years after Reunification, divisions between East and West Germany persist, with states in the former East economically still lagging behind. To a lesser extent, this also applies to small and medium towns and rural areas in the periphery (BBSR, 2017).

Germany has a comprehensive planning system and is frequently mentioned as exemplar country, albeit perhaps not to the same degree as the Netherlands. It has a remarkably stable planning system (Schmidt, 2009). The International Building Exhibition Emscher Park serves as a shining example for the regeneration of old-industrial regions and Freiburg is frequently cited in textbooks on eco-urbanism for its continued efforts, producing neighbourhoods such as the celebrated Vauban development (Falk, 2011). More recently, Hafen City in Hamburg has featured in international studies as inspiration for planners (Lord et al., 2015). Others have highlighted the strength of the planning system in realising mixed-use neighbourhoods (Hirt, 2007).

The German planning debate has changed significantly over the past decade. In the 2000s Germany was still debating urban regeneration and shrinking cities, in particular how to deal with depopulated cities in the former East Germany (Bernt, 2019). Within a few years, discourse shifted radically, driven by re-urbanisation and the increasing pressure on urban housing markets (Brake & Herfert, 2012). This has since led to a vivid debate on affordable housing, land policy and inward urban development (Die Unterzeichnenden 'Für eine wirklich soziale Wohnungspolitik', 2018; Difu & VHW, 2017; Voigtländer, 2017; Reiß-Schmidt, 2019).

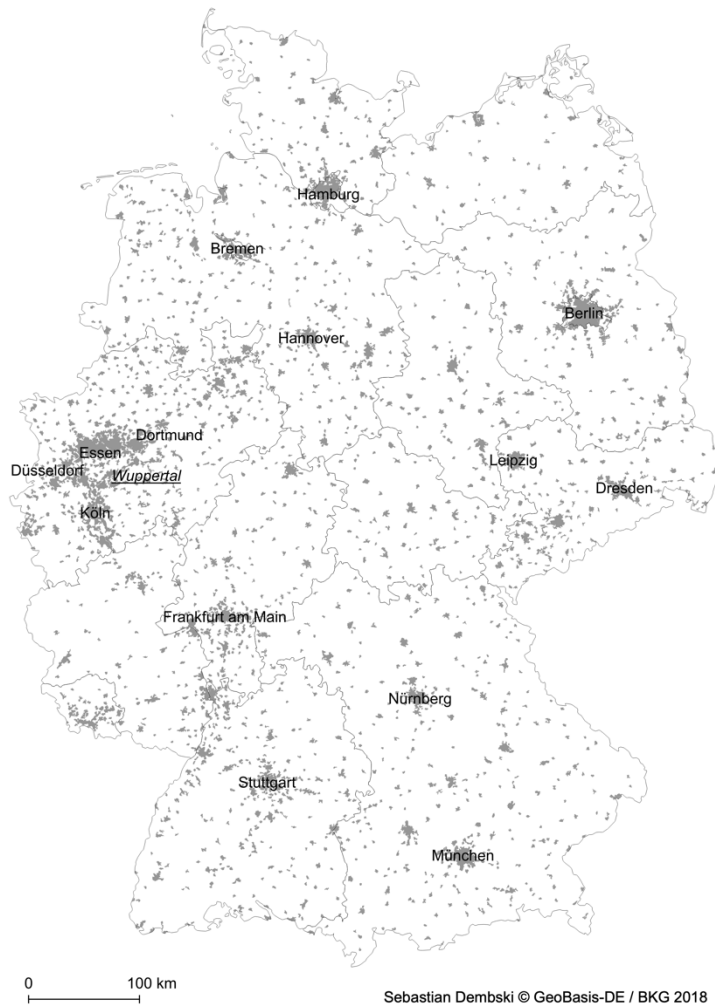


Figure 6: Spatial Structure of Germany with main cities and exemplar case study

5.2.1 The German Planning System

Germany is a federal country consisting of 16 states (*Bundesländer*), including three cities (Berlin, Bremen and Hamburg) with the status of a *Land*. Most *Länder* have a regional tier, which is usually not directly elected. Germany has a two-tier local government consisting of 294 counties (*Landkreise*) and nearly 10,000 communities (*Gemeinden*), while 107 large cities are unitary authorities (*kreisfreie Städte*). The median population size is around 1,700 but varies greatly between the *Länder*, ranging from less than 600 in Rhineland-Palatine to more than 20,000 in North Rhine-Westphalia. The municipal right to self-government is an important feature of the German constitution (Art. 28 Basic Law) and is particularly important to planning.

Planning law (Table 1) is part of competing legislation (*konkurrierende Gesetzgebung*), that is areas where the *Länder* are responsible until the federal level makes laws. This was the case with the Federal Building Act in 1960 and the Spatial Planning Act in 1965 (Pahl-Weber & Henckel, 2008). Planning is known as *Raumordnung* (regional planning) at the federal and state level, and *Bauleitplanung* (urban land use planning) at the municipal level. This division is also reflected in the laws that guide planning in Germany: the Federal Regional Planning Act (*Raumordnungsgesetz – ROG*) deals with the general aims and objectives of planning, and provides some basic rules for state and regional plans (supra-local planning), while the

Federal Building Code (*Baugesetzbuch – BauGB*) is responsible for planning at the local level. Housing land allocation, assembly and delivery is mainly regulated through urban land use planning, which is why the focus is on the Federal Building Code and related legislation. Despite numerous reforms since its inception, the core of the legislative framework has been remarkably stable.

Similar to the legislative framework, the planning system clearly distinguishes between supra-local and local plans. Planning in Germany is characterised by vertical coordination rather than a strictly hierarchical decision making; this is referred to as the counter-current principle (*Gegenstromprinzip*) in which the lower-level influences decision making. In all larger *Länder* the planning system consists of four tiers. Planning remains largely a decentralised affair and there are no national comprehensive spatial plans, though the Federal Government and the *Länder* have formulated abstract Guidelines for Spatial Development, the latest dating from 2016 (BMVI, 2016).

Most *Länder* have a two-tier system of a state-wide plan (*Raumordnungsplan*) and regional plans for the subregions (*Regionalplan*), with slightly different names in each *Land*. The state-wide plan defines the aims and objectives of spatial planning and often includes provisions on spatial categories, central places and corridors. Regional planning is usually delegated to regional planning associations (*Regionale Planungsverbände*) or state administrative authorities (*Regierungsbezirke*). Most regional plans have in common that they define the spatial structure in terms of built-up area, open space and infrastructure (Pahl-Weber and Henckel, 2008; Wickel, 2018).

Local planning is referred to as *Bauleitplanung* and also consist of a two-tier system of plans: the preparatory land use plan (*Flächennutzungsplan*) and the binding land use plan (*Bebauungsplan*). The preparatory land use plan outlines the future spatial development of the entire city for the next 15–20 years. It provides a framework for the legally binding land use plans, which are drawn up for areas where it is considered necessary for urban development. Many areas in German cities are not covered by a binding land use plan and are therefore directly regulated by §34 BauGB, which gives building rights if the scheme blends in with their surroundings (Hirt, 2007).

The local planning authority has great freedom of how much it wishes to regulate in a land use plan, depending on the purpose of the plan. Only a qualified land use plan directly provides building rights. It needs as a minimum to include rules on the “type and extent of use for building, the land on which built development may take place and spaces dedicated as public thoroughfares” (§30 BauGB). In some cases, the process of land use planning can be accelerated through a simplified procedure. The Project and Infrastructure Plan (*Vorhaben- und Erschließungsplan – §12 BauGB*) is proposed and implemented by the developer, usually within a given timeframe. Since 2007, simplified procedures also apply to land use plans within the existing built-up area for projects up to 7ha. This has recently been extended to small-scale urban extensions (1ha) (Jehling et al., 2019). All type of binding land use plans can be combined with an Urban Development Contract (§12 BauGB). This covers a range of contracts under public law which safeguard public policy objectives that cannot be regulated via a binding land use plan, including cost recovery.

Table 1: Overview of the German planning system

(Source: adapted from Pahl-Weber & Henckel, 2008, p. 41)

Level	Instrument	Legal basis	Policy maker
Federal Planning (<i>Bundesraumordnung</i>)	Concepts and Strategies for Spatial Development	Federal Regional Planning Act (<i>Raumordnungsgesetz</i>)	Standing Conference of Ministers of Spatial Planning (MKRO)
State Planning (<i>Landesplanung</i>)	State Development Plan (<i>Landesentwicklungsplanung</i>)	Federal Regional Planning Act and State Planning Acts	State Government
Regional Planning (<i>Regionalplanung</i>)	Regional Plan (<i>Regionalplan</i>)	Federal Regional Planning Act and State Planning Acts (<i>Landesplanungsgesetze</i>)	Regional Planning Authority*
Local Planning (<i>Bauleitplanung</i>)	Preparatory Land-Use Plan (<i>Flächennutzungsplan</i>) Binding Land-Use Plan (<i>Bebauungsplan</i>)	Federal Building Code (<i>Baugesetzbuch</i>)	Municipal Council (<i>Gemeinderat</i>) Municipal Council

* In Lower Saxony, the counties are responsible for regional planning, which means that no regional plan exists in cities with a unitary local government. In the city states the local preparatory land use plan is also a regional plan.

In terms of land assembly, planning law provides a range of instruments to support the public sector in providing building land, including pre-emption rights, land readjustment and compulsory purchase.

Germany is well known for mandatory land readjustment (Crook, 2018), which is a key instrument in creating land parcels that are suitable for development in terms of location, shape and size (§45 BauGB). Landowners will own a different and often smaller plot of land than before, but their land is at least as valuable as before (Davy, 2007). Once Land is pooled virtually (*Umlegungsmasse*), land required for local public infrastructure, including land for environmental compensation, is removed. In so doing, it captures the land costs for servicing the land. The remaining land (*Verteilungsmasse*) will be redistributed based on the standard of relative price or relative size. This also involves land value capture, as the local authority keeps the readjustment gain, but not the planning gain (Davy, 2007; Schmidt-Eichstaedt et al., 2019). The process for mandatory land readjustment is a well-established but also complex procedure (Davy, 2007; Crook, 2018; Kötter, 2018; Schmidt-Eichstaedt et al., 2019).

The urban development measure (*städtebauliche Entwicklungsmaßnahme*) is a heavy-handed instrument for the development of unused or underutilised land in which the municipality designates an urban development zone, acquires the land at use value, services the land, before the land is sold off to future residents. Similar to mandatory land readjustment, the municipality recoups all planning and public local infrastructure costs. One of the main differences with land readjustment is the focus on implementation, which is a

legal requirement. Furthermore, other instruments have to be exhausted to achieve public policy goals (Friebeck and Weitkamp 2019).

In general, private property is highly protected. Land value capture beyond local public infrastructure is not an explicit goal of planning law. The default position is that the public sector pays for the costs of planning and the landowner enjoys the increased value of the land (planning gain). This also means that powerful instrument such as the Building Order (*Baugebot* – §176 BauGB) or even expropriation need to meet a series of legal test and are therefore restricted to individual cases and other options need to be exhausted (Albrecht, 2018).

5.2.2 Housing land allocation, assembly and delivery in Germany

With the increasing pressure particularly on metropolitan housing markets, German planning has seen significant movements towards a more proactive approach. It has resulted in a debate about the process of land allocation and land assembly and whether the current planning instruments are fit for purpose and equitable (Difu & VHW, 2018). Notwithstanding these debates, it has certainly resulted in new strategies applying the current instruments offered by planning law and other land policy strategies.

Building land is officially identified in a two-tier process. The regional planning authority outlines the spatial structure and designates the general settlement areas (ASB) where residential development is permitted. The regional level designations are very coarse and will be further specified in the local preparatory land-use plan, which provides a framework for the development of binding land-use plans. The regional planning authority can designate land for development, but it cannot enforce housing land allocation in local land use plans (Schmidt, 2009). While the German planning system is by definition comprehensive and plan-led, the availability of sites is crucial in housing land allocation. During its lifespan the preparatory land-use plan will be amended numerous times, but usually in response to development proposals. Binding land use plans, which provide building rights, will usually be adopted as a result of a planning application.

Land assembly strategies vary greatly between local planning authorities, depending on size, market context and planning traditions. Effectively, most land assembly strategies also involve an element of land value capture (Figure). Traditionally, planning has been heavily supply-driven by allocating land for development and providing building rights (Schmidt, 2009). This has become the exception rather than the rule, and most municipalities have adopted a more development-led strategy (Krautzberger, 2010). Public landownership provides more options to realise public policy goals, but the instruments of the BauGB put municipalities in a relatively strong position even under private landownership. In particular municipalities with a more buoyant real estate market are in a better position to pursue and active land policy.

Municipal landownership is the most powerful strategy to implement public policy goals and an increasing number of municipalities pursues an active land policy, although that clearly depends on the financial reserves. Municipalities can acquire land directly or make use of pre-emption rights allowing them to purchase land at the standardised market value. The Urban Development Measure is a particularly powerful instrument to develop larger neighbourhoods. Some municipalities also use their urban development corporations to

acquire and development land. This gives the municipalities the opportunity to organise tenders for specific concepts, direct commissioning and competitive bidding to achieve certain policy objectives, including affordable housing and placemaking.

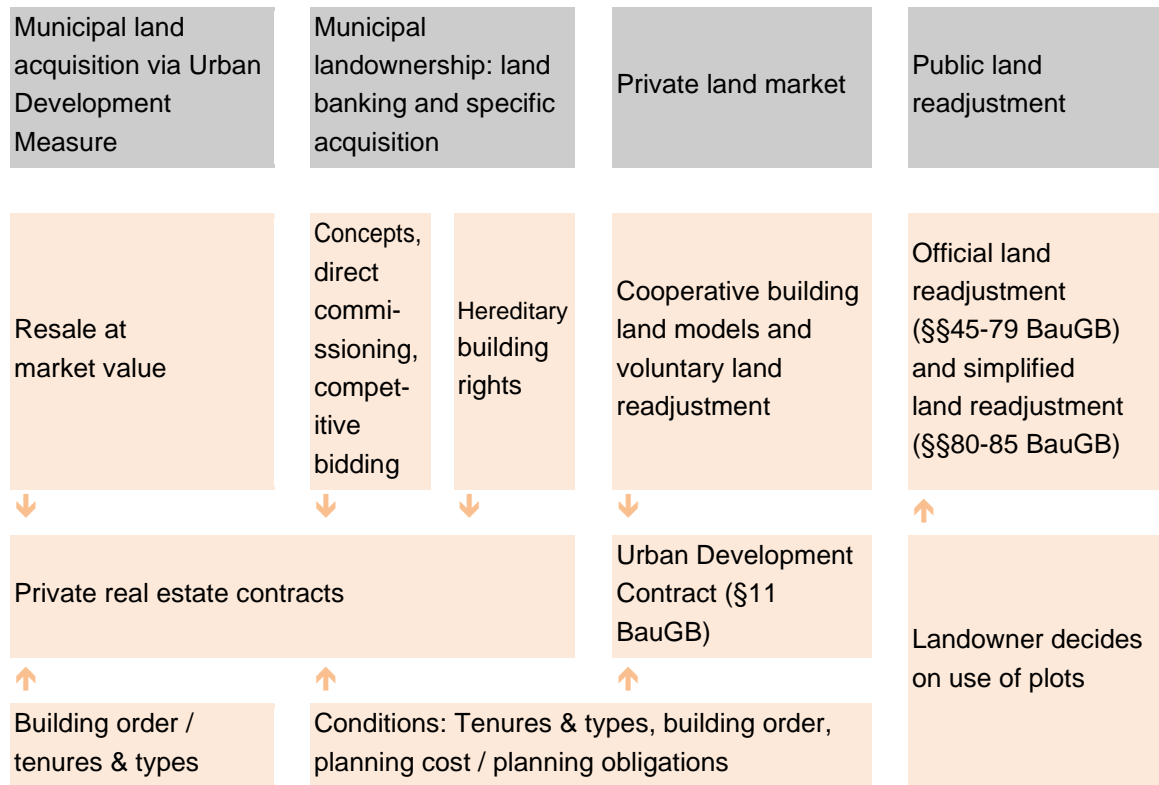


Figure 7: Main land assembly strategies for German municipalities (Source: adapted from Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung, 2016, p. 13)

Where land is privately owned, the municipality it is free to negotiate with the landowner the conditions for development via a Project and Development Plan (§11 BauGB) or Urban Development Contract (§12 BauGB). It is nowadays common practice that the developer covers all planning costs and delivers or pays for local public infrastructure, which will be transferred into municipal ownership after completion of the project. Unwilling landowners can also be forced to develop through a building order (*Baugebot* – §176 BauGB), with expropriation as last resort. However, it is a heavy-handed instrument which is neither efficient nor effective to release building land at the scale currently required due to complex procedures (Kolocek, 2018). Mandatory land readjustment is an important instrument to deal with fragmented ownership structure. It allows the municipality to capture some of the land value increase and recover servicing costs, but it is a lengthy process and implementation is not secured (Crook, 2017; Davy, 2007; Hartmann & Spit, 2015; Kötter, 2018).

The local planning authority decides whether to prepare a land use plan or not, which puts it in a very strong position to demand affordable housing and placemaking. The extent to which municipalities use their discretion to push for high-quality developments and affordable housing varies with size and prosperity. It is good practice to demand urban

design competitions for larger schemes or important sites. The making of a binding land use plan is generally a collaborative process between the developer and the municipality. Municipalities will rarely draft new land use plans if there is no investor lined up (Krautzberger, 2010). The land-use plan is only the final piece in the jigsaw.

5.2.3 Exemplar Project: *Bahnhof Heubruch, Wuppertal*

The Bahnhof Heubruch is a mixed residential development involving over 300 dwellings on 5.5ha in the city of Wuppertal in the German state of North Rhine-Westphalia. It will be developed on either side of the Nordbahntrasse, a former railway that closed in the early 1990s and has since been converted into a popular cycle path. The actual site is the former Heubruch station, situated a 10-minute walk from the centre of Barmen, which is the secondary centre of Wuppertal. This project illustrates how planning helps a German city develop a high-quality residential project with affordable housing in a less prosperous economic context.

The Bahnhof Heubruch was jointly identified for residential development in the early 2010s in talks between the municipality and the current landowner Aurelis in relation to another successful development. After the closure of the railway in 1992, the site was underutilised for more than two decades. When the housing market the local authority and the developer organised a workshop in 2013 with housing market actors to explore the potential for development but it took a further two years until all parties were convinced that the site could be developed.

Up to now, the site has not been officially allocated in the land use plan. When the preparatory land use plan was adopted in 2005, the site was still designated for railways and therefore not part of the built-up area. While the site has since been formally released (*entwidmet*) by the Federal Railway Authority, the changes to the preparatory land use plan will be carried in parallel with the preparation of the binding land use plan. Without signals of the landowner wanting to develop, the local planning authority is unlikely to amend the land use plan and provide building rights.

As the land was effectively in single ownership, land assembly posed no major problem; the interesting question is rather what the developer contributed to the delivery. As is common practice in German cities, the developer covered the lion's share of the costs, which included planning costs (e.g. urban design competition, drafting of land use plan, background studies) and provision of local public infrastructure. These will be settled in an Urban Development Contract as part of the binding land use plan. This also includes the requirement to develop 20% in the subsidised rental sector.

The local planning authority insisted on an urban design competition by invitation to ensure a high-quality development. The conditions for the competition were developed in partnership between the private and the public sector, reflecting the need for a certain volume by the developer and the requirements regarding public spaces by the municipality. The winning design by HGMB Architekten in cooperation with KLA was agreed unanimously and proposed a neighbourhood with up to 350 dwellings in three-to-four storey buildings which embrace a series of public spaces and semi-private courtyards (Figure 8). All buildings will be built with green roofs. Motor traffic has been kept outside, creating a safe environment for

children. The playground integrates a natural rock formation in the design. The plan convinced both from an economic and a design perspective.



Figure 8: Left: Masterplan Bahnhof Heubrich and Artist impressions of Bahnhof Heubrich. Top right: view from the Nordbahntrasse towards the Konsum building. Bottom right: view along Nordbahntrasse. (Source: HGMB Architekten)

The case of Bahnhof Heubrich demonstrates the approach of securing affordable housing and design quality in a city in a less prosperous market context. It demonstrates the close collaboration between the private and the public sector in the planning process, which is partly due to strong interdependence. Although final conclusions are not possible as the land use plan has not been approved and construction is not to begin before 2021, the project shows how it is possible to secure the implementation of public policy.

5.2.4 Conclusion and Lessons for Scotland

Similar to Scotland, Germany currently experiences a housing affordability crisis, which is starkest in metropolitan areas. However, the increasing housing market pressures have led municipalities to actively use the powerful planning instruments to deliver affordable housing and placemaking, including an active land policy and mandatory land readjustment. The powerful position of municipalities in the planning system enables them to request affordable housing and high-quality urbanism. In terms of land value capture the German system provides very clear rules that ensure developer contributions to public infrastructure on the one hand while also protecting developers from excessive demands – planning is not considered an income-generating activity.

5.3 Switzerland

Switzerland is one of the wealthiest countries on the globe and a highly urbanised country, but with relatively small cities. Most of the country is uninhabitable due to the Alps and the Jura (**Error! Reference source not found.**9). The majority of the population lives in the Swiss Plateau (*Mittelland*), referring to a corridor stretching from Lake Geneva to Lake Constance, including the three metropolitan regions of Zürich, Geneva and Basel. All Swiss metropolitan areas extend into neighbouring countries (France and/or Germany), or in the case of Milan into Switzerland.

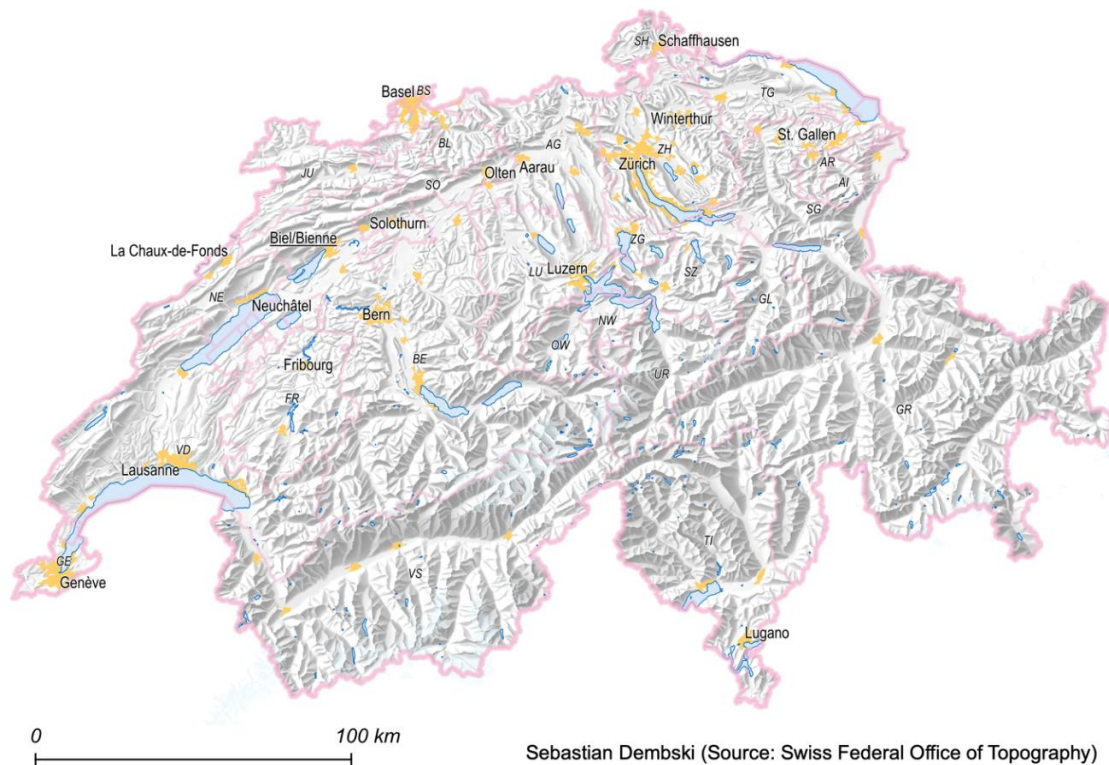


Figure 9: Spatial structure of Switzerland with main cities and exemplar case study

In terms of planning, Switzerland is an interesting case because of the radical steps it has taken to combat sprawl. The recent revision of its Spatial Planning Act means a paradigm change for Swiss planning. In a referendum in 2013, the Swiss voters approved a radical reform of the Swiss Planning Act, which forces communal and cantonal governments to revise their land use plans if the land zoned for urban development exceeds objectively assessed need. As a consequence, planners have become highly innovative in mobilising building land within the designated building zones.

Nevertheless, Switzerland is able to accommodate a continuously growing population. Housing construction has been stable and increasing over the past decade and house prices have remained relatively stable. One reason why it manages inward development so successfully is its affinity to multi-family dwellings. Switzerland, together with Germany, is a nation of tenants living in the private rented sector. It has (one of) the lowest homeownership rates of any developed country (Hilber & Schöni, 2016). The reasons are both in the costs of

owning a property, with a tax on imputed rents, and the attractiveness of renting with effective rent control (Hilber & Schöni, 2016; Werczberger, 1997). Housing cooperatives continue to play a pivotal role in the provision of affordable housing (Lawson, 2009).

5.3.1 *The Swiss Planning System*

Switzerland is a federal country comprising of 26 cantons, emerging from a loose alliance despite structural and cultural heterogeneity. Switzerland has four official languages, though German (62%) and French (23%) are the languages spoken most frequently. Swiss Federalism is characterised by subsidiarity as leading principle in the organisation of the state which actively fosters competition between cantons and between municipalities (Ladner, 2019).

Cantons and communes are very different in size but have the same competencies and are equal (Ladner, 2019). The same applies to the large number of communes (municipalities), which form the heart of Swiss administration. However, that means that a large number of communities have less than 1,000 inhabitants. Given the small size, this requires intensive cross-boundary working.

Switzerland is well-known for its direct democracy, with direct democracy at all levels. This a defining feature of Swiss planning as it poses high demands for transparent processes and the arguments brought forward. Planning is widely accepted and part of the public debate (Lendi, 2008). While it is a highly politicised country, governments are usually formed by the most important parties, which is often referred to as concordance system. As a result, policy making is integrative, which means that there is broad consultation of interest groups and integration of opposing arguments (Ladner, 2019).

Swiss planning law is a relative latecomer, with the first Planning Act dating only from 1980. The Spatial Planning Act (*Raumplanungsgesetz – RPG*) provides a very basic framework and defines the aims and principles of spatial planning, which have to be implemented by the cantons. It also sets out a basic system of plans and related procedures, coordination rules for spatial interventions of the public sector and a limited number of rules, but the detailed implementation is left to the cantons (ARL, VLP-ASPAN, 2008). A core feature of Swiss planning is the distinction between building zones and non-building zones.

The 2014 revision of the Spatial Planning Act means a paradigm change for Swiss planning. The new act introduced a much stricter regime on the designation of new building zones, effectively preventing any net addition to designated building zones as these still provide sufficient building land reserves for 15–20 years (Nebel et al., 2017). It also provided the planning instruments to implement land use plans, which means a change from negative towards positive planning. The cantons had to adapt their Spatial Planning and Building Code and their plans within a relatively short time as otherwise they would lose their rights to make any changes to building zones.

The planning system consists of three tiers, of which the cantons are the central actor to ensure the appropriate and economic use of the land and its properly ordered settlement (Art. 75 Constitution). There is strong vertical coordination in Swiss planning, with strong input from lower levels of government, in an ultimately hierarchical planning system. The *Raumkonzept Schweiz* is the non-binding spatial vision for Switzerland, which has been

jointly prepared by the federal government, the cantons and the communes (Schweizerischer Bundesrat et al., 2012). The cantons prepare a Structure Plan (*Richtplan*) which outlines the planned spatial development of the canton and is approved by the Federal Council. It identifies housing need for the next 15 years and defines the building zones accordingly. The Land Use Plan (*Nutzungsplan*, also *Zonenplan*) outlines the spatial development in a municipality. It is legally binding to landowners and confers building rights. Although technically the responsibility of the cantons too, in most cases land use planning is delegated to the communes.

5.3.2 The Process of Housing Land allocation, Assembly and Delivery

With the new Spatial Planning Act and its preference for inward development the allocation of new building land has virtually come to a standstill. Although building land supply is not equal across Switzerland, even municipalities with high development pressures will be reluctant to designate new building land because of the procedural steps to demonstrate that all other options have been exhausted. The debate is thus fundamentally different from most other European countries in that the population gives priority to open space preservation and urban densification.

Building land allocation in municipal land use plans therefore predominantly relates to changes of use classes (*Umzonung*) and increase of permitted development volumes (*Aufzonung*) within existing building zones. The Spatial Planning Act prioritises infill development, brownfield development and transformation of underutilised land. Increasingly the latter also involves replacement building at higher densities. Municipalities often take the lead by preparing special land use plans (*Sondernutzungspläne*), which allow higher densities than would normally be allowed under the land use plan and its use class definitions. Some cantons also require minimum densities for developments in new and existing building zones (Kissling & Bühlmann, 2019).

Another outstanding feature of Swiss planning is the integration of land use and transport at the level of agglomerations, which are statistically defined 'areas with an urban character' based on urban morphology and commuting patterns (BFS, 2014). Since 2009, federal investments in local transport infrastructure are bundled in the Programme Agglomeration Transport (*Programm Agglomerationsverkehr*), which directly links funding to the integration of land use and transport. The establishment of a regional association and the development of a clear strategy is a precondition for funding. This is a significant source of funding for local transport infrastructure which contributes to inward development and an efficient transport system (ARE, 2020).

The main challenge for Swiss municipalities is the mobilisation of sites within the existing building zones. There are still significant building land reserves, but implementation of land use plans proved difficult as it is the decision of landowners whether they wish to build or not. The legislator has responded to this problem with the revision of the Spatial Planning Act by restricting the designation of new building zones and require the reduction of excessively large building zones (*Rückzonung*), while at the same time encouraging the cantons to apply instruments to ensure that the existing sites are brought forward.

There are a number of strategies available to municipalities in Switzerland (Kissling & Bühlmann, 2019). Municipalities provide incentives for landowners to develop by increasing

the permitted development volume in residential areas, allowing higher densities in exchange for design quality and the preparation of special land use plans. In all cases there will be a significant uplift in land values. If the ownership structure is preventing development, municipalities can start land readjustment procedures. Some municipalities actively engage on the land market and use land strategically for affordable housing, sometime using long-term ground leases (Gerber et al., 2017). Swiss municipalities can set a time limit for landowners to develop, with pre-emption or expropriation as consequence for non-compliance.

It is widely accepted that the public sector invests heavily in planning, but the recent revision of the Spatial Planning Act has brought the issue of land value capture to the fore. National regulations on land value capture require landowners “to compensate for the added value attributable to permanently assigning land to a building zone” at a rate of at least 20% (Art. 5 RPG). However, most cantons have also included changes of use class (*Umzonungen*) and some even increases in development volume (*Aufzonungen*) or have given powers to municipalities to adopt further rules. Developers will contribute to the local public infrastructure, but all other infrastructure will be paid via the municipal budget. Planning costs for test planning or urban design competitions are usually paid for by the party taking the initiative for development. As a rule of thumb, developer contributions rarely cover the cost of urban development for the public sector.

The problem in terms of delivering affordable housing and placement is rather lack of awareness and qualifications, in particular small and medium-sized municipalities, than a lack of instruments. Planning processes in Switzerland are extremely transparent as a result of direct democracy and citizens can influence planning policy and decisions directly. Results of popular initiatives on planning topics include realisation of affordable housing or a ban on privatising publicly owned land.

Design competitions are common for large or important sites. These sites are indicated in the land use plan as requiring further planning. In a special land use plan, the municipality can regulate the details of development which can differ from the general local planning provisions. Design competition and public scrutiny are part and parcel of the process. Increasingly, municipalities use test planning as an explorative method for complex sites (Scholl, 2017). Interdisciplinary teams are commissioned to develop ideas for a site over a limited period with a relatively open brief.

5.3.3 Exemplar Project: Gurzelen Quarter, Biel

Biel or Bienne is a bilingual medium-sized town with a population of 55,000 in the Canton Bern. The Gurzelen Quarter is one of four strategic development priorities and is situated about half a mile to the east of the city centre (Stadt Biel, 2019). It involves the redevelopment of a large brownfield site, as well as the football and parking grounds into the new headquarters of Swatch, 650 dwellings and a new public park. The project shows the strong potential of an active land policy in delivering affordable housing and realising high-quality public space.

In the late 1990s, the Gurzelen Quarter was designated as three special land use zones (*Zonen mit Planungspflicht*) in the land use plan, which gave the municipality full control over development (Figure 10a). But it was only in the mid-2000s that the development gained

momentum due to a confluence of events. In 2007, the relocation of the stadium was approved in a popular vote. At the same time the Swatch group was looking to build its new headquarters in Biel preferable near its existing Omega site (Omega is part of the Swatch Group). Finally, an investor had bought the western part of the Gygax site for residential development. The municipality initiated a test planning process opening up a new avenue for the Gurzelen Quarter. In 2008, the municipality approved a partial revision of the land use plan (*baurechtliche Grundordnung*) in response to these developments (Figure 10b). Because of the distinct character of each area, the planning process was split into three areas (Figure 10c).

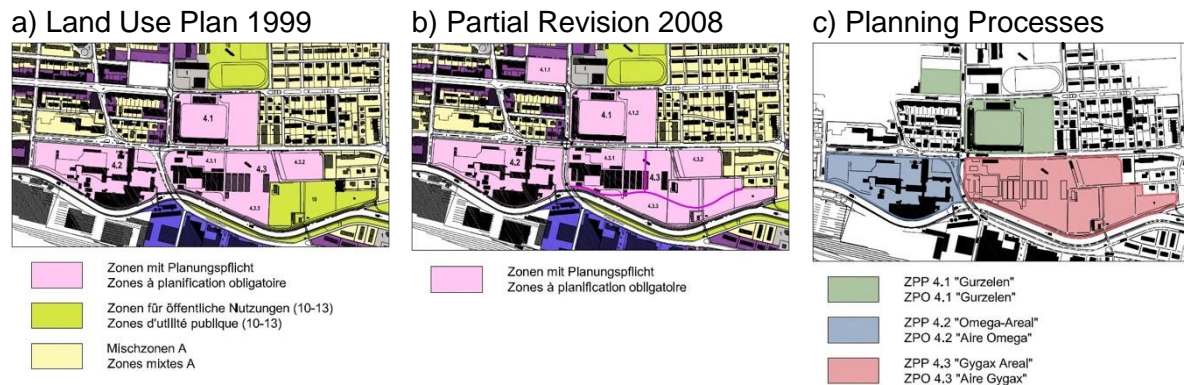


Figure 10: Land Use Plan changes and planning processes (Source: Stadt Biel, 2008)

At the heart of the process were two land transactions on the Gygax site in 2008 with the involvement of and facilitated by the municipality (Figure 11). Biel has been pursuing an active land policy for a long time, allowing it to strategically use its real estate for urban development (*Hochparterre*, 2010; Gerber et al., 2017; Stadt Biel, 2019). In a first step, the municipality exchanged land with Previs, who had acquired Gygax West, less the Schüss Island which was to become a public park. In exchange for a smaller plot, Previs was allowed to build at much higher density, for which it still had to pay an additional sum to the municipality. In a second step, the municipality sold the Gygax West site to Swatch also allowing for the diversion of a road. This land transaction produced only winners: it enabled the Swatch Group to expand adjacent to its current site, Previs to realise housing, and the municipality to change the road layout and realise a public park (Staubmann, 2016).



Figure 11: Landownership structure before, during and after the land transactions in 2008 (Source: Hochparterre, 2010, p. 25)

The Gygax site and the Gurzelen square and stadium have since progressed at a different pace from the pace that had been anticipated. Construction on the Gygax site began in 2015 and has since been completed, including the Swatch headquarters, the Jardin du Paradis development with 279 flats and the Schüss Island Park. The relocation of the stadium did not happen until 2015, so that the development of the Gurzelen sites was delayed. A civic initiative demanded to wait with demolition until new plans have formed and open up the stadium for temporary uses in the meantime.

The design for the residential element of the Gygax site (Figure 12) has not changed significantly since the test planning phase. In a separate process, Swatch had organised an international architectural competition for its headquarters, resulting in a spectacular building by Shigeru Ban. Jardin du Paradis consists of 279 dwellings in the private rented sector and four commercial units along the main road in 14 free-standing buildings with underground parking for 260 places. A series of courtyards between the buildings serve as meeting spaces for residents. Footpaths connect with the Schüss River and a footbridge with the new Schüss Island Park. Access for cars is exclusively at the edges, with visitors' parking and the entrance to underground parking, making the development essentially car free.

The land of the Gurzelen Square and Stadium is in the hand of the municipality and was primarily intended for new affordable housing. As a result of a popular initiative the municipality has adopted policy to increase share of not-for-profit housing sector by one third to 20% until 2035. The municipality had commissioned an urban design study in 2014, which necessitated a change of the land use plan. In 2019, the first tender was published which was won by Gurzelen plus, a group primarily consisting of local housing cooperatives.

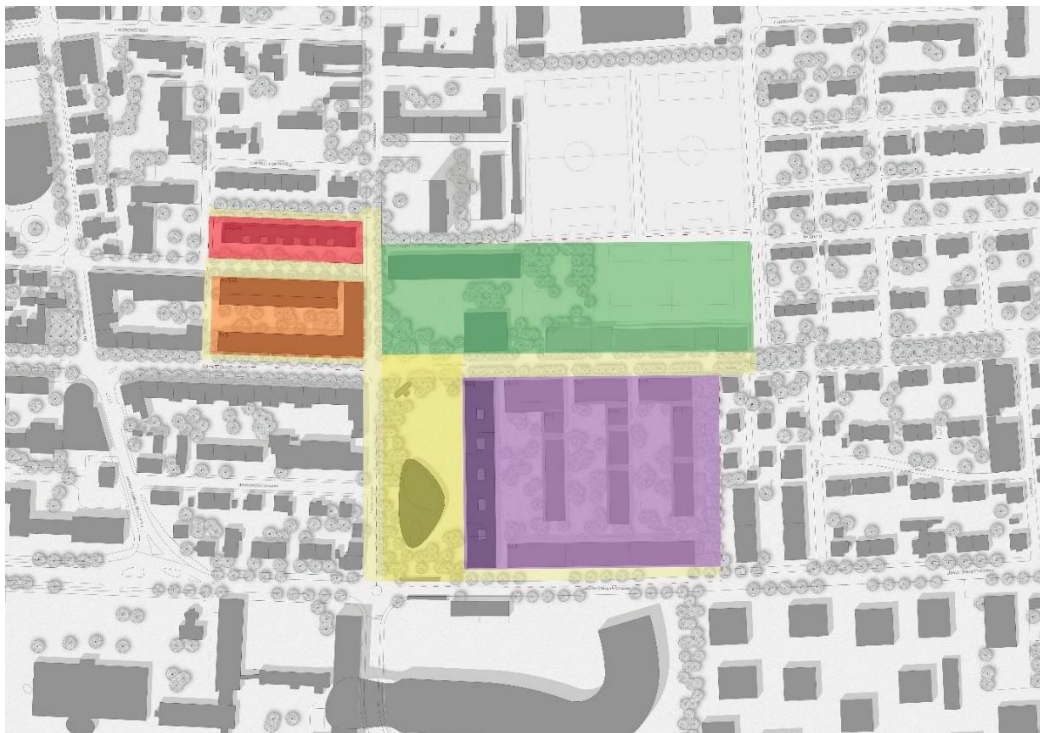


Figure 12: Urban design for the Gurzelen Square and Stadium (Source: Stadt Biel, 2019)

5.3.4 Lessons for Scotland

The Swiss planning system has undergone a remarkable evolution, significantly strengthening the role of planning. Backed by a popular vote, it is perhaps the only planning system in the world that has embarked effectively on a zero land uptake policy by restricting the designation of new building zones, while at the same time providing the instruments required to mobilise existing building land. More importantly, however, this has resulted in a paradigm shift in planning towards urban densification. This is seconded by the innovative federal funding programmes such as the exemplary integration of land use and transport at the level of the agglomerations in the Programme Agglomeration Transport. Municipalities proactively plan urban development and use an active land policy to implement public policy goals such as affordable housing.

5.4 Learning from the case studies

Annex 2 below sets out key features of the land allocation, assembly and delivery systems of Scotland, the Netherlands, Germany and Switzerland. There are some similarities and differences in context: for example, both the Netherlands and Scotland have housing output dominated by a few major housebuilders, Scotland has a more concentrated pattern of private land ownership than the North-West European comparator countries.

Looking at land allocation, strategic plans are commonly indicative across the four countries. Scotland is unique in the extent to which its development management system is discretionary, but it is important to note that there is an extensive process in place in each comparator country that leads to a binding development plan. This is usually responsive to development initiated by a developer or the public sector.

Turning to land assembly, the comparator countries have greater scope and provision for active land policies at the municipal level than Scotland. Thus, public leadership in shaping housing outputs, neighbourhood design and place quality is a more consistent feature than seen in Scotland. This partly results from the differing degrees in the autonomy of local authorities in each country, with rather more local political control in Germany, Switzerland and the Netherlands than in Scotland. A particular form of land assembly – land readjustment – helps to overcome the fragmentation of land ownership. Its use in Germany and the Switzerland allows for a public authority to securely assemble a coherent site for development, compensating individual owners with land parcels of equal or higher value. The advantage of land readjustment is that it can be done without significant public investment – the initial costs for public infrastructure will be recovered from the landowners.

Finally, with respect to delivery, we can see that allocating land specifically for affordable housing is feasible in the Netherlands and Germany though not in Scotland. The greater scope for public leadership in land assembly and site development discussed previously follows through in leadership in design quality in the comparator countries.

6. Stakeholder engagement

This chapter reports on stakeholders' observations on the research and initial conclusions. It draws on an online seminar, in which a group of stakeholders participated, and follow-up one-to-one interviews with some participants (see Annex 1 for a full list of participants). Stakeholders commonly made extensive comments based on their experience. We do not repeat the examples and experiences recounted, but summarise the ways in which they relate to the questions posed by the research team:

- What are the current problems in housing land allocation, assembly and delivery in Scotland in terms of outcomes and available planning and land policy instruments?
- Which planning and land policy instruments from comparator countries might help address the problems of Scottish housing land allocation and delivery?
- Which barriers prevent applying new instruments in Scotland?

6.1 Housing land allocation and delivery problems

Stakeholders concurred that the quality of new housing delivered in Scotland commonly reaches acceptable rather than high standards. They attributed this to different causes: a model favoured by some developers to minimise unit development costs above land costs on which they had no control; too little readily developable land being released meaning development costs are pushed up; house buyers having relatively low aspirations or readily sacrificing quality for price considerations. It was also suggested by some stakeholders that placemaking and design considerations commanded a relatively low position in gaining planning consent, particularly if a case went to appeal. There is thus general agreement that the quality of development needs to improve.

Some stakeholders commented that developers seemed to have more power than communities in the planning process and that the concentration of housebuilding in a relatively small number of developers limited competition and innovation. There were different perspectives on the amount of community participation and engagement in planning: some suggested that the amount was insufficient with others attesting the opposite. The timing of engagements was not felt to be the most helpful: frequently sites that are already allocated for housing in the development plan become subject to fundamental debates at the application stage. It was also pointed out that the lack of certainty in allocations and in developments securing permission both added to development risk and resulted in lengthy planning processes. Communities felt that concerns about public services are insufficiently taken into account. Members of the housebuilding industry suggested that there is a tendency in some parts of Scotland of allocations failing to take into account the marketability of land, leading to either a lack of development interest or a tendency for developers to reduce placemaking standards to reflect a lower gross development value.

A recent report for the Scottish Land Commission on the benefits of early community engagement found that there were strong benefits to early and in-depth community

engagement on development proposals, including better developments, reduced friction in the planning process and an increased sense of community (Wright and Tolson, 2020).

There was also the view that there were issues beyond the planning system that had major impacts on the volume of housing developed, affordability and quality. These related to the tax treatment of housing and the absence of a development land tax or land value taxation that tend to encourage housing as an investment: it was commented that broadly the same planning and housing delivery system attended both the most recent peak and trough in housing output in Scotland. Some stakeholders also suggested that landowners held significant power: particularly where development pressure, and hence land value, was high. It was recognised that this was not the case across Scotland, with there being many marginal development areas. Land value was seen to negatively affect place quality in scheme design from either perspective. Where high land values are prevalent, housebuilders are incentivised to reduce public space and other placemaking aspects in order to raise the affordability of the site. Where land values are low, concomitantly low gross development value causes housebuilders to reduce placemaking standards in response. Public land development was therefore highly welcomed by stakeholders, including representatives of the development industry. Land value capture through planning obligations, where these are set at relatively high levels, was regarded by housebuilding industry representatives as incentivising the reduction of costs elsewhere in the scheme, for instance giving cause to increase density or reduce building costs.

6.2 Candidates for policy and practice transfer

All stakeholders immediately recognised and valued the strong partnership working between the public and the private sector. The strong leadership of the public sector was considered important in delivering high quality developments. Policy and service integration in comparator countries was recognised as being important in co-ordinating development and delivery and was contrasted with the fragmented delivery of housing and infrastructure in Scotland. Land assembly has been identified as a major bottleneck and therefore all stakeholders were very supportive of public land assembly. The ways in which comparator countries delivered public leadership in development and land assembly, including land readjustment and clarity on land value capture, were commonly agreed to be positive features. These instruments reduce the risks for developers associated with the huge uncertainty about planning permission in the current planning system, while at the same time providing a higher degree of public accountability in terms of placemaking. Stakeholders also saw significant benefits – in terms of clarity to all parties and the reduction of uncertainty and risk – in the development plan being binding rather than having discretionary status. The ability of the local planning authorities in each of the case studies to plan and deliver infrastructure and to integrate new development into public transport networks was admired. Some stakeholders also recognised that the ways in which communities were engaged in, for example, Switzerland, were impressive, and that Scotland might learn from how comparator countries structured compulsory purchase powers.

6.3 Practical barriers to applying new instruments in Scotland

It was recognised that amending Scotland's housing land allocation and delivery systems, including spatial planning, could not mean simply borrowing instruments from comparator countries. This is because the effectiveness of land assembly and land value capture mechanisms relies in part upon a legal and institutional context that evolves over time. Thus, seeking to increase public leadership in land assembly and housing delivery might rely on a gradual process of shifting the culture of planning, rather than anticipating rapid change from one particular mechanism. Cultural shift should also include, it was suggested, articulating a clearer set of objectives for housing and spatial planning policies which recognised public goals and the appropriate roles of different participants: Major developers, for example, are properly accountable to their shareholders and reach public goals as a product of maximising their value.

7. Conclusions

This chapter concludes the report by firstly, summarising our main findings from the survey of European countries. We then bring together discussion of how the case study countries approach land allocation and assembly to enable high quality outcomes to be delivered with a consideration of the changes that would be required to the Scottish housing delivery system – policy, legislative and cultural – to enable similar outcomes.

The key mechanisms we believe it would be helpful to consider further are:

- *mandatory* land readjustment: private property rights from a set of individually small land holdings are temporarily transferred to a public development agency. That agency then proceeds to assemble and re-parcel the site before installing infrastructure. Property rights are subsequently returned to the original landowner.
- pre-emption: the municipality is offered land or property before other buyers, should it be put up for sale.
- an active land policy: public bodies acquire land to be held over the long term until there is a need for new development. The public body can make a land use plan for the land, service it with basic infrastructure and sell plots, with planning permission and infrastructure already accounted for, to housebuilders.
- land value capture: planning obligations that developers agree to provide as part of their development.

Our first objective was to assess the extent to which other European countries succeed in delivering better housing and placemaking objectives than Scotland. With respect to *housing*, countries have followed very different trajectories, but it also shows that there are many ways a balanced housing market can be achieved. The challenges differ in terms of demand: high population growth combined with smaller household sizes and an ageing population result in pressure on the housing market in some countries, while the challenges in others are more moderate. There is also big variation in housing stock: flats form an important part of the housing stock in Scotland, which it shares with the Germanic countries. With the exception of Switzerland and Germany, homeownership is the most important tenure. The data also demonstrate that flats and homeownership are not mutually exclusive categories. House prices have increased absolutely and relative to income in the 2000s in all countries, with the exception of Germany. It is notable that this does not necessarily have to result in overburdened households as long as the rental market is regulated (e.g. through a form rent control) and housing production keeps pace.

In terms of *placemaking*, the national data allow only for limited conclusions. Urban compactness, green cities and sustainable transport have been identified as key indicators for which data is available. Comparative studies in placemaking are still few and far between. The efforts in limiting urban sprawl are well-documented and show that the ambitious policies of most governments have not fully come to fruition, with the exception of Switzerland. Green spaces form an important part of most European cities, but apart from listing iconic projects, do

not allow for general conclusions. Finally, there is more than incidental literature and data highlighting the successes of some countries in promoting sustainable travel, notably Switzerland for public transport and the Netherlands, Germany and Denmark for cycling.

We have noted that housing and placemaking outcomes are public goals that the private development industry is not incentivised to deliver. We suggested two possible sources of value created through the development process that could be directed towards the achievement of these goals. First, we noted that a substantial portion of the value created by the development process accumulates in land, and that there is both a moral and an efficiency case (i.e. to maximise the benefits of public investment) for this land value uplift to be used to fund housing and placemaking outcomes. Second, we pointed out that the developer's profit margin reflects the degree of risk taken on throughout the development process. Indeed, the developer could build more houses at a lower margin to reach the same profit. By reducing the number of units sold, housebuilders are able to contain their risk within a development process that is inherently risky – not least because of the lengthy duration of the process and the inelasticity of supply that follows landowner behaviour and planning restrictions – but must raise their profit margin to compensate for this. This equation could be balanced by housebuilders delivering more units at a lower margin in exchange for public action to lower their level of risk.

We identified the need for the public sector to exercise *control* over the final form of the development, in order to ensure that planning policy objectives, including placemaking and affordable housing, are met. Ultimately, a choice must be made between favouring property rights on the one hand and favouring development initiative and place quality on the other. Developers and society profit from raising the value of the end product, therefore it can be in everyone's interests to raise place quality. In the remainder of the section, we draw on planning and land policy in our case study areas to make recommendations for the reform of Scottish policy for planning, land and housing that we believe to be both effective and appropriate, relative to systems already in operation in Scotland. Our recommendations are structured around the stages in the planning and development process that we use to structure our case studies and that are also present in the cross-comparison of case study data.

The major differences between the way *regional planning* is practiced in Scotland versus the cases we have explored are the specificity with which regional plans set out policies to be included in land use plans – for instance policies for minimum densities in Germany and the allocation of new development between settlements in the Netherlands – and the extent to which regional plans provide a spatial framework for local land use plans and thus exercise some form of development control. In the Netherlands, national spatial planning policy has been a powerful tool for the establishment of strategic orientations for planning over time, as for example through policies guiding land allocation to existing urban locations or underpinning a large-scale public land development programme (the so-called 'VINEX programme'). In Switzerland, there is currently an especially close correspondence between national policy and land allocation, as exemplified by the present national level preference for inward development, which has been effective in preventing the further allocation of greenfield land for development by local authorities. A further Swiss example is the Programme Agglomeration Transport, in which funding for public transport schemes is directly linked to the allocation of land according to spatial concepts that facilitate such schemes. National policy regarding spatial development

patterns in Scotland are largely absent, though the nation's concentrated urban settlement pattern could benefit from a greater steer from above.

Land allocation at the local scale in all three cases differs considerably from the common perception of plan-led development, in which local planning authorities are seen to make binding land use plans that developers follow. Instead, in each case, land is allocated following an indicatively written or even an unwritten local planning authority strategy, which is enacted by a mixture of instruments and strategies. Depending on the local authority, a combination of active land policy, developer-led proposals, and public-private negotiations often based on indicative 'vision' plans and private approaches is used. This pragmatic and varied approach would offer Scottish local authorities much greater control than they presently have, without binding them to either the financial costs of a blanket active land policy or the time and skills constraints of a truly plan-led system. We explore this matter further below under the heading of 'delivery'.

We regard *land assembly* as a stage in the development process encompassing land acquisition, potentially from multiple owners, in the name of forming a site that is suitable for development. Various tools and instruments can be used by planners to the end of assembling land into an ownership format suitable for development, whether public acquisition is undertaken, or development is steered while private ownership is maintained.

Where development is constrained because its scale and location are such that a suitable site would need to be assembled from multiple landowners, mandatory *land readjustment* is a useful tool that is considerably less invasive than compulsory purchase, as would be the only option presently available in Scotland under such circumstances. Land readjustment is thus a planning instrument that can be regarded as enabling private development where public land assembly is deemed to be unfeasible for cost reasons or where compulsory purchase would be inappropriate. The municipality keeps part of the land value uplift to recover the costs for public infrastructure. While not appropriate as a tool for use across all development scenarios as land values need to be positive, land readjustment could be an effective way to realise development in Scotland, especially in urban areas where potentially socially beneficial development is inhibited by there being insufficient financial incentive to develop smaller sites where larger sites are not available.

Compulsory purchase exists in all three case study areas, though only in Germany is this possible at current use value exclusive of 'hope value', while even in that case it is regarded as an instrument of last resort due to its procedural difficulty and the narrow range of circumstances in which it can be applied. Crook (2018) has offered cogent reasons why compulsory purchase is unlikely to be reformed for wider use in Scotland. *Pre-emption*, however, is a useful alternative to compulsory purchase, used successfully across our case study areas, that facilitates municipal land banking by enabling public authorities to assume the right to be offered land before other buyers, were that land to enter the market. Given the fact that pre-emption does not compel the landowner to put their land up for sale, this is very much an instrument that supports an active land policy in the long-term rather than one that can facilitate public development to meet present needs.

As we have noted, key reasons why value created in the development process is not reinvested in housing and placemaking outcomes are that value uplift accrues to land and remains with the landowner, and that residential developers are tasked with a high degree of responsibility, and therefore must take on a substantial level of risk, regarding their role in the development process. *Active land policy* is selectively pursued across Germany, the Netherlands and Switzerland as a means to achieve planning goals directly through public land banking and development. This entails public bodies acquiring land within the urban boundary, to be held over the long term until there is a need for new development. Once that need arises, the public body can make a land use plan for the land, service it with basic infrastructure and sell plots, with planning permission and infrastructure already accounted for, to housebuilders. Where the landowner is a public body, land value uplift accrues to it and can be reinvested in planning goals, while residential developers can be employed to deliver housing, without having to take on the risks of land holding and seeking planning permission.

A similar development strategy is selectively used in Scotland and across the UK, most often in the context of urban regeneration, though public land banking is rarely undertaken. While an active land policy is effective where private developers perceive the costs and risks of development to be too high to encourage investment, as in urban regeneration, it has also proven to be useful in the case of new development on more advantageous urban sites or on greenfield sites. There remains potential to explore further the price at which land is acquired, i.e., between existing use value and hope value. A downside to active land policy is that local authorities amass considerable land banks that may rapidly lose value following the onset of an economic downturn, as occurred in the Netherlands during the Global Financial Crisis (Buitelaar, 2010). Nevertheless, used selectively and strategically, active land policy can provide a highly effective means to achieve planning goals in controlling the nature of new development while successfully funding public and merit goods through value generated in the course of the development process.

Land assembly and *land value capture* are functionally distinct but are often procedurally related. A substantial proportion of value generated in the development process accrues to land, therefore the means by which local authorities are able to capture land value are in part determined by their role in land assembly. As mentioned in our prior discussion of active land policy, local authorities can directly capture land value uplift where they are landowners, while pre-emption and compulsory purchase are instruments that facilitate land acquisition and assembly. Land readjustment allows local authorities to capture land value increase outside of land acquisition, by offering a means to land assembly that rearranges property rights as an alternative to acquiring property rights.

An aspect of land value capture that can be observed across Germany, the Netherlands and Switzerland is the *standardisation of cost recovery mechanisms* such that developers and local authorities are cognisant of the nature and size of costs associated with a particular development that must be paid by developers. In our case study areas, binding land use plans are generally only made once there is a development proposal and are prepared collaboratively by municipalities together with developers, with the formal planning application made afterwards. Hence the local planning authority's demands for public and merit goods are decided on a case-by-case basis, as with Section 75 agreements in Scotland, but form an integral part of the development rather than being added on simply in order to make the

proposal compliant with written planning policy. The fact that servicing costs can be recovered by local authorities opens up the possibility for direct public provision where services may lie outside of the scope of developer provision, such as for primary schools. Switzerland is the only country that directly captures the land value uplift, but in exchange is less demanding with regards to cost recovery.

Finally, we recognise an issue of *planning culture* that needs to be considered. All three case study countries have what has been termed a 'neo-performative' planning system (Knieling et al., 2016; Berisha et al., 2020). In this, a binding land use plan is produced that development must conform to, as in a zonal or 'conformative' planning system, but where the plan is generally prepared in collaboration with the private sector, and where the initiative may come from either municipality or developer. Where planning in Scotland is 'performative', in that development is guided by an indicative, non-binding land use plan, and planning permission is awarded on a discretionary basis that takes into account the plan as one among a range of considerations (Berisha et al., 2020), the local planning authority is able to indicate, but not to specify, the nature of new development. Expectations regarding urban design may be set out in the local development plan and associated supplementary guidance, but the detailed form of new development at the level of street layout and arrangement of buildings is a matter for the developer. Moreover, applicants have the right to appeal to the Scottish Government where planning applications are refused on the basis of the content of the proposed development.

In Germany, the Netherlands and Switzerland, local planning authorities are able to control the content of the development in masterplan form because the development must ultimately correspond to the binding land use plan. Yet in these countries, municipalities do not have the onerous task of preparing a land use plan for their entire territories that set out in precise detail the form that new development must take. Instead, urban change is generally development-led as in Scotland, rather than plan-led as in truly conformative planning systems, in that development proceeds from the submission of a development proposal to a local planning authority. But unlike in Scotland, the local planning authority is then able to negotiate with the developer over as to the content of the development, using the trump card of being the monopoly provider of planning permission to withhold approval unless the proposal meets its planning goals. Developers may still appeal against a planning refusal on the basis that the prescribed process has not been followed but can only negotiate where content is concerned. Making this a possibility in Scotland might require control over the urban environment to be given statutory powers similar to those enjoyed by the highway network, for example, and is thereby granted the incontestable influence over new developments enjoyed by the latter.

To reform Scottish planning along these lines would entail a shift away from the fully discretionary system currently practiced, though urban change would continue to be led by developers, as is the case now. Yet such a reform would enable Scottish local planning authorities to radically improve the form and function of new development. Moreover, while some better equipped municipalities may wish to employ staff to prepare masterplans to present to developers, most would simply contract out this function, and would if other reforms were followed be in a position to recover the costs associated with this through cost recovery mechanisms. However, it must be noted that the viability of development with a given set of public and merit goods attached is heavily dependent upon prevalent local land and housing markets, as is the case with planning obligations.

References

- Acolin, A. & Green, R.K. 2017 Measuring housing affordability in São Paulo metropolitan region: incorporating location. *Cities*, 62, 41-49.
- Adams, D., Disberry, A., Hutchison, N. & Munjoma, T. 2001. Managing urban land: the case for urban partnership zones. *Regional Studies*, 35, 153-162.
- Albrecht, J. 2018. Expropriation for urban development purposes in Germany: consider very carefully before using it. In: Gerber, J.-D., Hartmann, T. & Hengstermann, A. (eds) *Instruments of Land Policy: Dealing with Scarcity of Land*. Abingdon: Routledge, pp. 294-306.
- Alterman, R. 2012. Land use regulations and property values: the 'windfalls capture' idea revisited. In: Brooks, N., Donaghy, K. & Knapp, G.-J. (eds) *The Oxford Handbook on Urban Economics and Planning*. Oxford: Oxford University Press, pp. 755-786.
- ARE (Bundesamt für Raumentwicklung). 2020. *Richtlinien Programm Agglomerationsverkehr (RPAV)*. Bern: ARE.
- ARL (Akademie für Raumforschung und Landesplanung) & VLP-ASPAN (Schweizerische Vereinigung für Landesplanung). 2008. *Deutsch-Schweizerisches Handbuch der Planungsbegriffe*. Hanover: ARL.
- Baker, E., Pham, N.T.A., Daniel, L. & Bentley, R. 2020. New evidence on mental health and housing affordability in cities: a quantile regression approach. *Cities*, 96, 102455.
- Bangura, M. & Lee, C.L. 2019. The differential geography of housing affordability in Sydney: a disaggregated approach. *Australian Geographer*, 50, 295-313.
- Barker, K. 2004. *Review of housing supply. Delivering stability: securing our future housing needs*. London: HM Treasury.
- BBSR (Bundesinstitut für Bau-, Stadt- und Raumforschung). 2017. *Raumordnungsbericht 2017: Daseinsvorsorge sichern*. Bonn: BBR.
- Bentley, R.J., Pevalin, D., Baker, E., Mason, K., Reeves, A. & Beer, A. 2015. Housing affordability, tenure and mental health in Australia and the United Kingdom: a comparative panel analysis. *Housing Studies*, 31, 208-222.
- Berisha, E., Cotella, G., Janin Rivolin, U. & Solly, A. 2020. Spatial governance and planning systems and the public control of spatial development: a European typology. *European Planning Studies*, DOI: 10.1080/09654313.2020.1726295.
- BFS (Federal Statistical Office). 2014. *Switzerland's areas with urban character 2012: A new definition of agglomerations and other urban area categories*. Neuchâtel: BFS.

- BPF (British Property Federation). 2008. *Tax Increment Financing: A New Tool for Funding Regeneration in the UK?* London: British Property Federation.
- Buitelaar, E. 2010. Cracks in the myth: challenges to land policy in the Netherlands. *Tijdschrift voor Economische en Sociale Geografie*, 101, 349-356.
- BMVI (Federal Ministry of Transport and Digital Infrastructure) 2016. *Concepts and Strategies for Spatial Development in Germany*. Berlin: BMVI.
- Brake, K. & Herfert, G. (eds). 2012. *Reurbanisierung: Materialität und Diskurs*. Wiesbaden: Springer VS.
- Crook, T. 2018 *Local authority land acquisition in Germany and the Netherlands: are there lessons for Scotland?* Inverness: Scottish Land Commission.
- Crook, T., Henneberry, J., Rowley, S., Watkins, C. & Wells, J. 2006. *Valuing Planning Obligations in England*. London: Department for Communities and Local Government.
- Crook, T., Henneberry, J. & Whitehead, C. (eds) 2016. *Planning Gain: Providing Infrastructure and Affordable Housing*. Chichester: Wiley.
- Davy, B. 2007. Mandatory happiness? Land readjustment and property in Germany. In: Hong, Y.-H. & Needham, B. (eds) *Analyzing Land Readjustment: Economics, Law, and Collective Action*. Cambridge, MA: Lincoln Institute of Land Policy, pp. 37-56.
- Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung (2016) *Mehr Bauland für bezahlbaren Wohnungsbau: Gute Beispiele kommunaler Boden- und Liegenschaftspolitik*. Berlin: Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung.
- Die Unterzeichnenden 'Für eine wirklich soziale Wohnungspolitik'. 2018. Für eine wirklich soziale Wohnungspolitik: Wissenschaftler_innen fordern Schutz der Bestandsmieten, Gemeinnützigkeit und Demokratisierung. *sublurban*, 6, 205-222.
- Difu (Deutsches Institut für Urbanistik) & VHW (Bundesverband für Wohnen und Stadtentwicklung). 2017. *Bodenpolitische Agenda 2020-2030: Warum wir für eine nachhaltige und sozial gerechte Stadtentwicklungs- und Wohnungspolitik eine andere Bodenpolitik brauchen*. Berlin: Difu.
- Doebele, W.A. 2007. Foreword. In: Hong, Y.-H. & Needham, B. (eds) *Analyzing Land Readjustment: Economics, Law and Collective Action*. Cambridge, MA: Lincoln Institute of Land Policy, pp. vii-xiii.
- Dokko, J. 2018. Housing affordability: recommendations for new research to guide policy. *Economic Policy Review*, 24, 138-144.
- Dua, H., Maa, Y. & An, Y. 2011. The impact of land policy on the relation between housing and land prices: Evidence from China. *The Quarterly Review of Economics and Finance*, 51, 19-27.

Dunning, R.J., Ferrari, E., Hoolachan, J., Keskin, B., Moore, T., O'Brien, P. & Powell, R. (forthcoming) *Affordable Housing Need in Scotland post 2021*. Scottish Federation of Housing Associations, Shelter Scotland and CIH Scotland.

Elsinga, M. & Haffner, M. 2020. How the European Commission affected social rental housing in the Netherlands and Germany. In: Anacker, K.B., Nguyen, M.T. & Varady, D.P. (eds) *The Routledge Handbook of Housing Policy and Planning*. Abingdon: Routledge, pp. 219-227.

Eurostat. n.d. *Eurostat Living Conditions Database*. <https://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>

Ferm, J. & Raco, M. 2020. Viability planning, value capture and the geographies of market-led planning reform in England. *Planning Theory and Practice*, DOI: 10.1080/14649357.2020.1754446.

Friesecke, F. & Weitkamp, A. 2020. Daueraufgabe Stadterneuerung – zwischen Erhaltung und Revitalisierung. In: Kötter, T. (ed.) *Bodenordnung und Landmanagement: Handbuch der Geodäsie, herausgegeben von Willi Freeden und Reiner Rummel*. Berlin: Springer Spektrum.

Gerber, J.-D., Nahrath, S. & Hartmann, T. 2017. The strategic use of time-limited property rights in land-use planning: evidence from Switzerland. *Environment and Planning A*, 49, 1684-1703.

Muñoz Gielen, D. & Van der Krabben, E. (eds) 2019. *Public Infrastructure, Private Finance: Developer Obligations and Responsibilities*. Abingdon: Routledge.

Hartmann, T. & Spit, T. 2015. Dilemmas of involvement in land management – comparing an active (Dutch) and a passive (German) approach. *Land Use Policy*, 42, 729-737.

Hilber, C. & Schöni, O. 2016. Housing policies in Switzerland, the United Kingdom, and the United States. In: Yoshino, N. & Helble, M. (eds) *The Housing Challenge in Emerging Asia: Options and Solutions*. Tokyo: Asian Development Bank Institute, pp. 210-259.

Hirt, S. 2007. The devil is in the definitions: contrasting American and German approaches to zoning. *Journal of the American Planning Association*, 73, 436-450.

HM Treasury. 2010. *More Financial Freedom for Local Authorities*. Press Release, September 20, 2010. Available at <https://www.gov.uk/government/news/more-financial-freedom-for-local-authorities>

Hochparterre. 2010. Eine Stadt bricht auf: Wie Biel sich am eigenen Schopf aus dem Sumpf zieht/L'essor d'une ville: comment Bienne s'est sortie seule de la crise. Supplement 3/2010, 1-56.

Jehling, M., Albrecht, J. & Schaser, C. 2019. Je schneller, desto besser? – Chancen und Risiken beschleunigter Verfahren in der Bauleitplanung. In: Meinel, G., Schumacher, U., Behnisch, M. & Krüger, T. (eds) *Flächennutzungsmonitoring XI: Flächenmanagement – Bodenversiegelung – Stadtgrün* (IÖR Schriften 77). Berlin: Rhombos, pp. 5-16.

- Kissling, S. & Bühlmann, L. 2019. *Regelungen zur Förderung der Verdichtung und zur Beseitigung von Verdichtungshemmnissen*. Bern: EspaceSuisse.
- Knieling, J., Janin Rivolin, U., Seixas, J. & Vladova, G. 2016. Crisis and urban change: reflections, strategies, and approaches. In: Knieling J. & Othengrafen F. (eds) *Cities in Crisis: Socio-Spatial Impacts of the Economic Crisis in Southern European Cities*. Abingdon: Routledge, pp. 48-70.
- Kolocek, M. 2018. A German perspective on building obligations: planning professionals try to remember. In: Gerber, J.-D., Hartmann, T. & Hengstermann, A. (eds) *Instruments of Land Policy: Dealing with Scarcity of Land*. Abingdon: Routledge, pp. 189-192.
- Kötter, T. 2018. A German perspective on land readjustment: a proper instrument of modern urban governance for efficient land use. In: Gerber, J.-D., Hartmann, T. & Hengstermann, A. (eds) *Instruments of Land Policy: Dealing with Scarcity of Land*. Abingdon: Routledge, pp. 164-169.
- Krautzberger, M. 2010. Von der Angebotsplanung zur Projektplanung? Tendenzen der jüngeren Städtebaugesetzgebung. *RaumPlanung*, 152, 11-14.
- Ladner, A., Soguel, N., Emery, Y., Weerts, S. & Nahrath, S. (eds) 2019. *Swiss Public Administration: Making the State Work Successfully*. Cham: Palgrave Macmillan.
- Lawson, J. 2009. The transformation of social housing provision in Switzerland mediated by federalism, direct democracy and the urban/rural divide. *European Journal of Housing Policy*, 9, 45-67.
- Lendi, M. 2008. Raumplanung – ihr politischer Stellenwert in einer veränderten Welt: Angedacht am Beispiel der Schweiz, an einem Sonderfall? *Raumforschung und Raumordnung*, 66, 383-397.
- Li, K., Qin, Y. & Wu, J. 2020. Recent housing affordability in urban China: a comprehensive overview. *China Economic Review*, 59, 101362.
- Lord, A.D., Burgess, G., Gu, Y. & Dunning, R.J. 2019. Virtuous or vicious circles? Exploring the behavioural connections between developer contributions and path dependence: evidence from England. *Geoforum*, 106, 244-252.
- Lord, A., O'Brien, P., Sykes, O. & Sturzaker, J. 2015. *Planning as 'market maker': how planning is used to stimulate development in Germany, France and the Netherlands* (RTPI Research Report 11). London: RTPI.
- Nebel, R., Hollenstein, K., Di Carlo, G., Niedermaier, M. & Scholl, B. 2017. *Schweizweite Abschätzung der Nutzungsreserven 2017*. Zurich: vdf.
- Needham, B. 2007. The search for greater efficiency: land readjustment in the Netherlands. In: Hong, Y.-H. & Needham, B. (eds) *Analysing Land Readjustment: Economics, Law and Collective Action*. Cambridge, MA: Lincoln Institute of Land Policy, pp. 115-132.
- Needham, B. 2014. *Dutch Land-Use Planning: The Principles and the Practice*. Farnham: Ashgate.
-

- Nijskens, R. & Lohuis, M. 2019. The housing market in major Dutch cities. In: Nijskens, R., Lohuis, M., Hilbers, P. & Heeringa, W. (eds) *Hot Property: The Housing Market in Major Cities*. Cham: Springer, pp. 23-35.
- O'Brien, P., Lord, A.D. & Dembski, S. 2020. How do planners manage risk in alternative land development models? An institutional analysis of land development in the Netherlands. *Land Use Policy*, 91, 104409.
- Organization for Economic Co-operation and Development (OECD). (n.d.). *Affordable Housing Database*. <https://www.oecd.org/social/affordable-housing-database.htm>
- Organisation for Economic Cooperation and Development (OECD) 2018. OECD Economic Surveys: Netherlands, July 2018 Overview. Available at: <http://www.oecd.org/economy/netherlands-economic-snapshot/>. Accessed 04/05/2020.
- Pahl-Weber, E. & Henckel, D. (eds) 2008. *The Planning System and Planning Terms in Germany: A Glossary*. Hanover: ARL.
- Powell, R., Dunning, R., Ferrari, E. & McKee, K. 2015. Affordable Housing Need in Scotland, Report for SFHA, CIH Scotland and Shelter Scotland, accessed at: https://scotland.shelter.org.uk/_data/assets/pdf_file/0009/1190871/7909_Final_Housing_Needs_Research.pdf/_nocache
- Priemus, H. & Louw, E. 2003. Changes in Dutch land policy: from monopoly towards competition in the building market. *Environment and Planning B: Planning and Design*, 30, 369-378.
- Reiß-Schmidt, S. 2019. Bodenrecht auf dem Prüfstand. *Flächenmanagement und Bodenordnung*, 1/2019, 1-9.
- Ryden LLP. 2015. *Planning for Infrastructure Research Project: Final Report*. Available at: <https://www.webarchive.org.uk/wayback/archive/20170701175513/http://www.gov.scot/Publications/2015/08/9339/downloads>
- Schmidt, S. 2009. Land use planning tools and institutional change in Germany: recent developments in local and regional planning. *European Planning Studies*, 17, 1907-1921.
- Schmidt-Eichstaedt, G., Weyrauch, B. & Zemke, R. 2019. *Städtebaurecht: Einführung und Handbuch* (6th ed). Stuttgart: Kohlhammer.
- Scholl, B. 2017. Building actor relationships and alliances for complex problem solving in spatial planning: the test planning method. *disP – The Planning Review*, 53, 46-56.
- Schweizerischer Bundesrat, Konferenz der Kantonsregierungen, Schweizerische Bau-, Planungs- und Umweltdirektoren-Konferenz, Schweizerischer Städteverband, Schweizerischer Gemeindeverband. 2012. *Raumkonzept Schweiz*. Bern: The Federal Council.

Scottish Government. 2018. *Affordable Housing Supply Programme out-turn report 2017-18*. Edinburgh: Scottish Government.

Scottish Land Commission (2019) “*Options for Land Value Uplift Capture*”: Advice to Scottish Ministers. Available at: https://landcommission.gov.scot/downloads/5dd687d6d2d6f_initial-advice-from-the-SLC-to-the-Scottish-Government-on-land-value-uplift-capture.pdf

Segeren, A. 2007. *De Grondmarkt voor Woningbouwlocalities: Belangen en Strategieën van Grondeigenaren*. Rotterdam/The Hague: NAI Uitgevers/Ruimtelijk Planbureau.

Squires, G. & Lord, A. 2012. The transfer of tax increment finance (TIF) as an urban policy for spatially targeted economic development. *Land Use Policy*, 29, 817-826.

Stadt Biel. 2008. *Teiländerungen der baurechtlichen Grundordnung für die Bereiche Gurzelen, Omega-Areal, Gygax-Areal: Erläuterungsbericht*. Biel: Stadt Biel.

Stadt Biel. 2019. *Update! Stadtentwicklung Biel/Bienne: Rückblick und Ausblick – Stand Oktober 2019*. Biel: Stadt Biel.

Statistics Netherlands. 2014. *Woningvoorraad naar eigendom en bouwjaar, 2013 en 2014*. The Hague: CBS.

Statistics Netherlands (2020a) Price index of existing own homes. Available at: <https://opendata.cbs.nl/statline/#/CBS/en/dataset/83910ENG/table?ts=1588611220393>. Accessed 04/05/20.

Statistics Netherlands (2020b) Changes in the dwelling stock, 2012-2019. Available at: <https://opendata.cbs.nl/statline/#/CBS/en/dataset/81955ENG/table?ts=1588612428409>. Accessed 04/05/20.

Statistics Netherlands (2020c) Changes in the dwelling stock, 1995-2011. Available at: <https://opendata.cbs.nl/statline/#/CBS/en/dataset/37263eng/table?ts=1588612643647>. Accessed 04/05/20.

Statistics Netherlands (2020d) Dwelling stock by tenure, 2012-2019. Available at: <https://opendata.cbs.nl/#/CBS/nl/dataset/82900NED/table?ts=1589996106805>. Accessed 05/05/20.

Staumann, A. 2016. Gygax-Areal Biel, Landumlegung. *INFORAUM*, 3/2016, 25-29.

Tennekes, J. 2018. Negotiated land use plans in the Netherlands: a central instrument in Dutch ‘active’ and ‘passive’ land policy. In: Gerber, J.-D., Hartmann, T. & Hengstermann, A. (eds) *Instruments of Land Policy: Dealing with Scarcity of Land*. Abingdon: Routledge, pp. 101-113.

Turk, S.S. 2008. An examination for efficient applicability of the land readjustment method at the international context. *Journal of Planning Literature*, 22, 229-242.

- Van der Krabben, E. & Jacobs, H. 2013. Public land development as a strategic tool for redevelopment: reflections on the Dutch experience. *Land Use Policy*, 30, 774-783.
- Van der Krabben, E. & Needham, B. 2008. Land readjustment for value capturing: a new planning tool for urban redevelopment. *Town Planning Review*, 79, 651-672.
- Verhage, R. 2002. *Local Policy for Housing Development: European Experiences*. Aldershot: Ashgate.
- Voigtländer, M. 2017. *Luxusgut Wohnen: Warum unsere Städte immer teurer werden und was jetzt zu tun ist*. Wiesbaden: Springer.
- Wang, Y. & Hui, E.C.-M. 2017. Are local governments maximizing land revenue? Evidence from China. *China Economic Review*, 43, 196-215
- Webster, C. & Lai, L.W.-C. 2003 *Property Rights, Planning and Markets: Managing Spontaneous Cities*. Cheltenham: Edward Elgar.
- Werczberger, E. 1997. Home ownership and rent control in Switzerland. *Housing Studies*, 12, 337-353.
- Wetzstein, S. 2017. The global urban housing affordability crisis. *Urban Studies*, 54, 3159-3177.
- Whitehead, C. 2016. The economics of development value and planning gain. In: Crook, T., Henneberry, J. & Whitehead, C. (eds) *Planning Gain: Providing Infrastructure and Affordable Housing*. Chichester: Wiley, pp. 20-36.
- Wickel, M. 2018. A German perspective on urban growth boundaries: the answer of comprehensive regional planning. In: Gerber, J.-D., Hartmann, T. & Hengstermann, A. (eds) *Instruments of Land Policy: Dealing with Scarcity of Land*. Abingdon: Routledge, pp. 142-145.
- Wright, N. and Tolson S. 2020. *The Value of Early Engagement in Planning: Evidence of the benefits of early engagement in land use planning decisions*. Scottish Land Commission. Available at https://landcommission.gov.scot/downloads/5ee1fa960b190_20200611%20SLC%20REPORT%20Value%20of%20Early%20Engagement%20in%20Planning.pdf
- Wyatt, P. 2017. Experiences of running negotiable and non-negotiable developer contributions side-by-side. *Planning, Practice and Research*, 32, 152-170.
- Zhang, C., Jia, S. & Yang, R. 2016. Housing affordability and housing vacancy in China: the role of income inequality. *Journal of Housing Economics*, 33, 4-14.

Annex 1 – Stakeholder Engagement

We are grateful to stakeholders who participated in a seminar to discuss the research and to those who engaged in follow-up discussions.

Workshop

Tony Cain, Association of Local Authority Chief Housing Officers
Stacey Dingwall, Scottish Federation of Housing Associations
Diarmid Hearn, National Trust for Scotland
Kuan Loh, Scottish Government
Peter Marshall, Perth and Kinross Council
Gavin Mowat, Scottish Land and Estates
Clare Symonds, Planning Democracy
David Stewart, Scottish Land Commission
Michaela Sullivan, CALA Homes
Tammy Swift-Adams, Homes for Scotland

Discussions

Tony Cain, Association of Local Authority Chief Housing Officers
Kuan Loh, Scottish Government
Peter Marshall, Perth and Kinross Council
Fiona Simpson, Scottish Government
Michaela Sullivan, CALA Homes
Tammy Swift-Adams, Homes for Scotland
Clare Symonds, Planning Democracy
Carrie Thomson, Scottish Government
Tom Winter, Scottish Government

Annex 2 – Case study interviewees

We acknowledge the help of interviewees in the Netherlands, Germany and Switzerland. We appreciate their generous giving of their time and expertise.

Netherlands

Prof Edwin Buitelaar, senior researcher at PBL Netherlands Environmental Assessment Agency and professor of land and real estate development at Utrecht University

Prof Tejo Spit, professor of urban and regional planning; Bram Heijkers, co-founder I'M BINCK Foundation at Utrecht University

Annemarie Maarse, director asset management residential at Syntrus Achmea Real Estate and Finance

Dr Gert-Joost Peek, applied research professor of urban area development and transition management at Rotterdam University of Applied Sciences

Ine Tiebosch, project leader Anna's Hoeve at Gemeente Hilversum

Dr Joram Grünfeld, strategic advisor policy and development at Gemeente Hilversum

Hans Karssenbergh, partner, founder and public developer at Stipo

Germany

Prof. Dr.-Ing. Sabine Baumgart, President of the ARL – Academy for Territorial Development in the Leibniz Association, and Partner at BPW Stadtplanung, Bremen

Marcus Behnke, Aurelis Real Estate

Prof Torsten Bölting, EBZ Business School – University of Applied Sciences and Director InWIS

Christoph van Gemmeren, Regierungsbaudirektor Bezirksregierung Düsseldorf

Prof Johanna Schoppengerd, Osnabrück University of Applied Sciences

Thomas Seck, Stadt Wuppertal

Marc Walter, Stadt Wuppertal

Switzerland

Gabriele Debrunner, PhD student at the University of Bern

Prof Angelus Eisinger, Director of the Planning Association for Zürich and its Environs (RZU)

Damien Jerjen, Director of EspaceSuisse

Florence Schmoll, Head of Planning at Stadt Biel

Prof Bernd Scholl, emeritus professor of Spatial Planning and Development at ETH Zurich

Dr Regina Witter, Assistant Director of the Programme Agglomeration Transport at the Federal Office for Spatial Development

Annex 3 – Comparing national land allocation, assembly and delivery systems

	Scotland	Germany	Netherlands	Switzerland
<i>Context</i>				
Dominant policy issues	Difficulty in delivering sufficient new housing; housing quality	Affordable housing, inward development	Difficulty in delivering sufficient new housing with a reduced public role in delivery; increasing share of population growth in cities.	Urban sprawl, inward development, preservation of agricultural land
Housing market characteristics [price change, spatial differentiation]	In real terms, house prices have grown by 64% since 2000 (compared to 67% for UK as a whole). Scotland (and UK) show average price falls from 2010-2018. House prices stable 2016-2018 though stronger growth in 2 largest cities.	Strong house price and rent increases since 2010 mainly in metropolitan areas.	Marked house price growth since 2000, especially in major cities.	
Housing stock [dwelling type, tenure]	Large home ownership sector, though reduced as a % of all houses since GFC. Strong social rental sector. Many flats, particularly in cities.	Private rental market which is reflected in a housing stock that consist for more than half of dwelling stock in building with 3 or more dwellings.	Homeownership dominates, mainly with mortgage due to generous tax deductions; strong social rental sector and very small but growing private rental sector.	Private rental market

Real estate industry [landownership, development industry]	Housebuilding output dominated by a few large firms; concentrated pattern of private land ownership across much of the country, although some issues of fragmentation in cities.	Fragmented.	Housebuilding output dominated by a few large firms; increasing levels of land banking by developers but public land ownership remains important.	
<i>Land Allocation</i> Strategic regional planning	Strategic development plans are indicative.	Regional planning as strict development control but without positive powers towards implementation.	Provincial indicative structure plans must be taken account of by municipal land use plans but extent to which this influence is exercised varies by province.	Regional planning (canton) as development control.
Land use planning	While development is technically plan-led, land use planning is mainly responsive to development.	Two-tier system of preparatory land use plan and binding land use plan. While development is technically plan-led, land use planning is mainly responsive to development.	Indicative structure plans prepared at national, provincial and municipal levels. Binding land use plans can be prepared at all three levels but in practice are the domain of municipalities. While development is technically plan-led, land use planning is mainly responsive to development.	Land Use Plan provides building rights for the whole territory, but the municipality can require a special land use plan for designated areas. Land use planning is a collaborative process in which the public has the final say.

Planning permission	Planning permission discretionary: can be granted contrary to local development plan and developers who are refused permission can appeal.	Planning applications are non-discretionary where building rights are in place, but landowners cannot demand building rights.	Planning applications are non-discretionary where building rights are in place, but landowners cannot demand building rights. In practice, binding land use plans are rarely in place prior to development proposals.	Planning applications are non-discretionary where building rights are in place, but landowners cannot demand building rights.
<i>Land assembly</i> Active land policy (land banking and public land development)	Many local authorities have land banks, though scale reduced as much land used for affordable housing.	Some municipalities pursue an active land policy for urban development, including hereditary leases. Quite a few municipalities have urban development or housing corporations.	Most municipalities pursue an active land policy, holding often extensive land banks either alone or in partnership with private developers and housing associations.	
Land readjustment		Mandatory land readjustment is an established process	Legislation for voluntary land readjustment in urban areas is at draft stage.	
Building obligation		Project and Development Plans (§12 Bug) and Urban Development Measures (§...) include a building obligation. Outside these specific plans, building orders are a rare occurrence, although the instrument exists (§176 BauGB).		

Pre-emption			Pre-emption has been widely used for brownfield and greenfield land since legal reforms in the mid-2000s.	
Compulsory purchase	Compulsory purchase is possible but is rarely used, carrying high procedural and monetary costs.	Compulsory purchase is exceptional for residential purposes and legal hurdles are extremely high. Compensation at current use value.	Compulsory purchase is possible but is rarely used, carrying high procedural and monetary costs.	Rarely
<i>Land value capture</i>				
Servicing costs (direct/indirect)	Typically, servicing is paid for by private developers.	Municipalities can charge up to 90% of servicing costs but can recover all costs via public contracts as long as they can be directly attributable to the scheme.	Public law instrument allows for recovery of servicing and planning costs, but this almost always takes place via private contract.	Servicing costs within the scheme are usually paid for by the landowner [CHECK].
Planning costs	Developer pays cost of planning application. Costs such as land surveying are paid for by private developers.	Planning costs, if not paid for by the developer already, are usually recovered via public contracts in most municipalities as long as these are not a legal duty.		Planning cost
Land value capture	Land value uplift is usually for the landowner. Planning gain provisions may	Land value uplift is usually for the landowner. Only public landownership allows	Land value capture is possible where active land policy is used. Private cost recovery contracts can also include	Municipalities shall recoup at least 20% of the planning gain, which is earmarked for public

	capture some value uplift.	municipality to capture planning gain.	value capture where public land has been included alongside private land.	investments in planning, including land policy.
<i>Delivery</i> Affordable housing [requirements and delivery]	Requirements assessed at local authority level and significant increase in provision from 2016.	Municipalities can require a certain percentage to be affordable housing, which is more effective if it is local policy. Publicly subsidised housing can be delivered by any provider.	Municipalities are able to specify land to be used for social housing in a land use plan and also commonly either sell land at sub-market prices to, or develop in partnership with, housing associations.	
Urban Design	Many local authorities have design guidance but not binding on specification.	For larger schemes and important sites urban design competitions are common practice, otherwise the public sector will steer on design outcomes. Municipalities will either provide public infrastructure themselves or demand certain specifications.	Land use plans, which are either prepared by one municipality alone or negotiated with a developer, address urban design directly by including detailed street layouts, building heights and massing. Municipalities may also have a policy document containing rules over architectural and urban design and must set up an independent expert committee to rule on planning decisions in relation to this.	Test planning is an informal explorative instrument that gains importance in finding high-quality solutions for designated areas. Municipalities are prepared to invest in quality of public and green spaces. Public transport connectivity is a widely accepted planning goal.