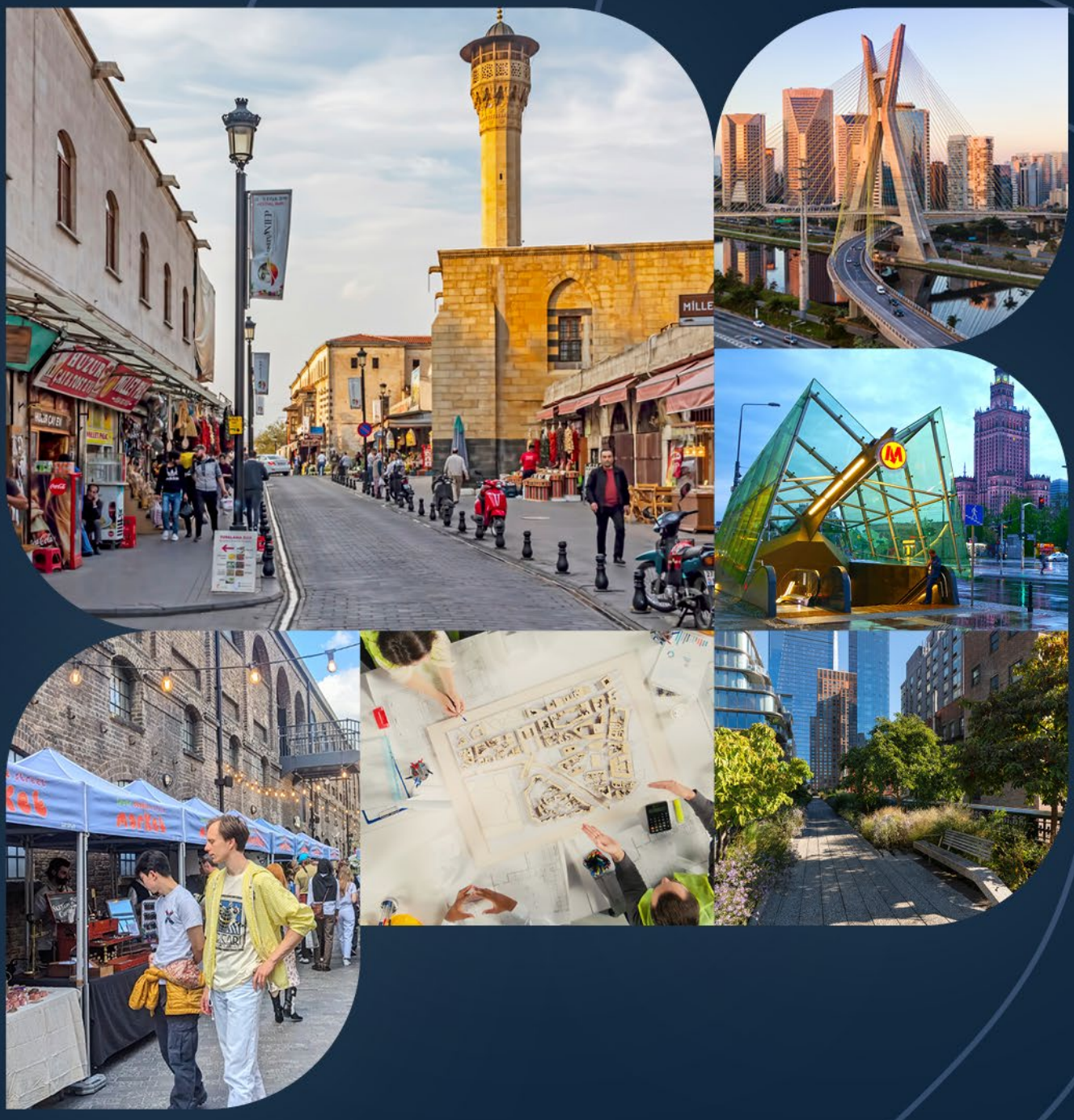
Shaping cities: a guide to urban regeneration

European Bank
for Reconstruction and Development



Prepared in partnership with:

Acknowledgements

This policy paper has been prepared by the urban regeneration working group of the European Bank for Reconstruction and Development (EBRD), comprising Ian Jennings, Hiro Ito, Mayu Suzuki, Erisa Nesimi (Sustainable Infrastructure Group), Lyza Rossi (Climate Strategy and Delivery), Vasilije Jaukovic, George Maltezos (Real Estate), and Pawel Krasny and Alejandra Cordero (Gender and Economic Inclusion).

The EBRD gratefully acknowledges the comprehensive support and contributions of its co-publishing partner, the Lincoln Institute of Land Policy (Enrique Silva, David Amborski, Luis Quintanilla, Patrick Welch) as well as technical advice of AtkinsRealis (David Lennox, Catalina Gallego Lopez, Richard Bailey) and of HR&A (Shuprotim Bhaumik, Erman Eruz).

This policy paper also contributes to the MobiliseYourCity partnership for sustainable urban mobility, to which the EBRD is a contributing partner.

Contents

Foreword

Urban areas are dynamic spaces that seek to meet the needs of their inhabitants through exchange and interaction – be it economic, social, cultural or educational. Public authorities are at the heart of this exchange by providing the essential infrastructure, services and facilities to enable it, while maintaining a balance with broader ecological needs and impacts. They are central to making sure that urban areas are well adapted to current use and responsive to future needs, and thus "fit for purpose" for inhabitants.

Land is invariably a city's greatest asset and source of wealth. How a city chooses to allocate land use through planning and permitting, as well as develop its public realm and transport accessibility, has a huge impact on wealth creation, and represents some of its most fundamental decisions in shaping future urban development and opportunities for its citizens.

To ensure that towns and cities remain vibrant and attractive places to live and work, they must continually improve, expand and regenerate. Public authorities should make sure that the benefits created from urban development – especially increases in land value – are shared equitably through land management policies and funding mechanisms. The regeneration of urban spaces can then deliver in both the public interest (in terms of infrastructure and the public realm) and the private sector (through dynamic real estate markets and suitable investor returns).

Moreover, improvements to urban rail systems, such as metros, can transform opportunities for urban regeneration and lead to better connectivity and accessibility, and significantly boost land value. Likewise, industrial and waterfront redevelopment can act as a catalyst for many cities. Yet the potential to anticipate and adapt urban development to such opportunities is often overlooked, and the land value generated is insufficiently captured by public authorities – a lost opportunity, especially for constrained public budgets.

Urban regeneration can take many forms, from smaller-scale "place-making" schemes that revive and repurpose roads and public spaces, to the wholesale transformation of underused and derelict land into new development areas providing a range of uses from housing, transport, parks and green spaces to sites for education, industry, culture and business.

Done correctly, urban regeneration can be economically transformative and drive future investment into a region. It can also help to rebalance regional inequalities, boost social outcomes and help deliver on climate and nature objectives – effects that can be seen far beyond the site of regeneration itself.

For larger schemes, urban regeneration often requires strong, upfront, public-sector intervention and "patient capital" (that is, investments with long payback periods, and planning and regulatory uncertainty) to plan and build the essential infrastructure and social facilities. This enhances the value of the private-led real estate investments that follow, and provides financial return for the public authorities.

Public intervention is most needed where there are major public investments in urban rail and transport projects with significant land value gains. It is also needed to enhance green, public or social facilities in the project design; to support land assembly with complex or multiple land ownership; or to prepare sites with high costs of initial land remediation or infrastructure, which can discourage private-sector interest.

Urban regeneration is what enables cities to adapt to new opportunities, unlock hidden assets and rethink and repurpose the urban space. To achieve this requires a healthy and constructive dynamic between public authorities, private developers and communities – to shape a vision and to deliver it.

Purpose of this policy paper

This paper provides practical guidance on how to identify, prepare and deliver urban regeneration projects that meet urban development needs and ambitions, while both responding and adapting to urban planning and regulatory frameworks, and attracting and mobilising suitable public and private investments.

In particular, this paper explores the role that public authorities play in delivering urban regeneration projects – from deploying coherent and informed policies to improving the management of public land and assets, mobilising staff and funding resources. It encourages public authorities to adopt a more proactive and leading role in the management and revitalisation of the urban space.

While mainly focused on public authorities, whether from local and city government, subnational, national government or rail and transport organisations, this paper could also serve as a reference for a broader audience of public, private and civil society organisations (CSOs) through the lifecycle of urban regeneration projects.

Neither prescriptive nor comprehensive, the paper is intended rather to illustrate the opportunity for urban regeneration. It also demonstrates the public sector's essential role as steward of the urban space by explaining the range of issues public authorities need to consider when developing policies and approaches within their own geographical, political, social and cultural context.

In short, this guide seeks to provide insight to:

- what urban regeneration is
- why urban regeneration is needed
- how to organise the public sector and ensure the public interest
- who needs to be involved
- when action is required, that is, the phasing of the project life cycle
- which policies and actions are needed to deliver projects.

It also introduces principal terms and concepts, such as transit-oriented development (TOD), land-based financing (LBF), land value capture (LVC) and land management, with suitable links and references for further information, where relevant.

The paper comprises two main sections:

- the first, "Understanding urban regeneration", describes the key drivers, principles and practices to bring urban regeneration sites from ideas to outcomes
- the second, "Delivering urban regeneration", explains the four main phases as well as the resources to be mobilised.

Shaping cities: a guide to urban regeneration

Understanding urban regeneration

Understanding urban regeneration

Urban regeneration can apply to a single site or area, or to a multitude of sites or areas. This paper is focused on urban regeneration projects or programmes for whichever sites are being developed collectively by the same governance entity.

This first section explores the influences, principles and methods used to develop and deliver urban regeneration. It covers the range of factors involved, the complexity of which will depend on the nature of the original site and proposed regeneration, the site history, size of the development and capacity of public and private entities.

What is urban regeneration?

Urban regeneration is a **place-based, comprehensive and multi-stakeholder urban development and land use process** targeting degraded and/or underused sites. It aims to revitalise urban areas and unlock lasting, local socio-economic and physical improvements and opportunities, both within the site and across the wider urban fabric.

Urban regeneration usually consists of **repurposing land use**, as well as **enhancing urban space, buildings and infrastructure** through integrated planning, community participation, and public and private investments. Urban regeneration is a component of the public planning, management and regulation of land, which are determined by broader social, economic and environmental objectives.

What drives urban regeneration?

The need for urban regeneration arises from a number of economic, social and environmental reasons, often rooted in pressing urban challenges, with complex and interconnected influences. These may be broadly defined as push and pull factors, where:

- **push factors** (Figure 1) relate to broad, structural forces, generally acting at national or international level and often **outside the influence of city authorities**
- **pull factors** (Figure 2) relate to the specific local environment that the **city can either determine directly**, through policy and planning, or **influence**, often in liaison with national government.

Identifying and assessing how these factors apply to a city is critical when defining relevant actions and steps for urban regeneration.

Figure 1: Push factors: creating the need

Economic decline and restructuring	Demographic changes	Social development	Disaster/conflict reconstruction	Biodiversity loss and climate change
• **Industrial collapse:** job losses from factory/mine closures creating blight (for example, Detroit's auto industry). • **Shifting economies:** transition to knowledge/service sectors demands new urban spaces. • **Poverty cycles:** high unemployment, poor housing and crime necessitate intervention (Glasgow's Gorbals revival).	• **Population growth:** pressure for housing/services (Tokyo's transit-oriented densification and Ankara rapid urbanisation). • **Ageing/declining populations:** revitalisation to retain residents (Leipzig's shrinking-city strategies).	• **Demand for quality urban spaces, with walkability and commercial vitality:** pedestrian-friendly and accessible mixed-use areas (Amsterdam's car-free centres). • **Creative/cultural economies:** artists and startups as regeneration pioneers (Berlin's Kreuzberg).	• **Reconnecting a divided city** (Berlin's Potsdamer Platz or reconstruction of Mostar Old Bridge in Bosnia and Herzegovina). • **Recovery from natural disasters** (earthquakes in Türkiye). • **Post-conflict reconstruction,** including refugee return and demographic resettlement.	• **Rising seas/floods forcing adaptive reuse,** such as Rotterdam's water plazas.

Figure 2: Pull factors: offering the opportunity

Land and property market	Economic regeneration and boosting investment	Policy incentives and funding
• **Unlocking public wealth:** revitalising underused assets, vacant lots, derelict buildings or obsolete infrastructure. • **Value gaps:** low land values in deprived areas incentivise redevelopment.	• **Strategic economic planning:** regeneration can be carried out to attract businesses and create jobs. • **Return on investment:** developers target areas with growth potential. • **Meeting the demand of growing/changing population:** providing additional or improved residential and commercial spaces.	• **Realise a city's vision and goal** through improving the public realm and reinforcing sustainable development. • **Tax breaks/grants:** governments lure investors to deprived areas (such as United Kingdom (UK) enterprise zones). • **Generating revenue and supporting financial performance,** for example, LVC redirects property value gains to fund infrastructure (Northumberland Line's Section 106 agreements).

Connectivity and mass transit	Social inclusion	Art, culture and history	Environmental sustainability
• **TOD:** high-density, mixed-use zones around hubs. • **Multi-modal integration:** bus-rail links, bike lanes and pedestrian zones. • **Rail/transit expansions:** redevelopment of transit	• **Community empowerment:** shared spaces (libraries, parks) combat social fragmentation. • **Community wellbeing**: through provision of social infrastructure and	• Enhances **culture, art and leisure** activities in the local community. • **Preserves historic buildings** and monuments while adopting them for modern use.	• **Protection and enhancement of nature and biodiversity:** green spaces improve a city's resilience and liveability. • **Mixed-use neighbourhood:** contributes to resource

stations and reconnecting fragmented areas.	services (education, care, healthcare, social housing). • **Improved public spaces and utility services**, such as streets, parks, water, electricity provision and so on.	efficiency, a lower carbon footprint and increased adaptation to climate change, while improving access to jobs and services.

Challenges of urban regeneration

Depending on the scale of the project or initiative, urban regeneration can **require significant commitment from public authorities to initiate, prepare and deliver** them. Such commitment will notably be needed to face the challenges and risks, which can include:

- high upfront costs and the need for patient capital
- long timeframes for implementation that are often well beyond the terms in office of political leaders or city officials, with the potential for shifting political or regulatory priorities
- uncertain market conditions for long-term developments
- community-sensitive planning
- diverse stakeholder interests and conflicting priorities between public objectives and private, profit-driven motives.

These challenges can be mitigated through the following:

- **Strong political leadership** to articulate a long-term vision, foster transparent processes, build broad coalitions and maintain momentum across political cycles. In assessing these, public authorities should consider the scale of the opportunities, and the risks and benefits to the public and private sectors, to determine the best approach for effective public intervention (see the section "Governance models of urban regeneration"). Confidence in stable governance, consistent decision-making and predictable regulatory frameworks are favourable conditions for attracting experienced private investors.
- Assembling a **dedicated team/task force.** This will ensure coordination across various actors (both internally and externally) and long-term continuity across political cycles. It will also streamline decision-making processes and guide the level of required staffing and resources through the different phases of the project.
- **Strong coordination** across government agencies, with developers, rail or transit authorities and the various stakeholders (see section "Stakeholders involved"). For private-sector-led urban regeneration projects in particular, setting up governance structures and working groups comprising government officials and private investors is essential for sharing relevant information and resolving issues, as both parties are ultimately partners.
- A clear understanding on the part of public authorities about the **financial implications of introducing regulations and incentives** to avoid conflict between public and private interests (for example, suboptimal building density, obligatory minimum investments, imposed zoning mix, excessive mandatory social infrastructure, environmental remediation requirements, high taxes and fees). These regulations need to be considered in light of how they affect land values and how LVC tools could be used to help finance infrastructure or broader social benefits. Public authorities can achieve this by

consulting financial experts and making developers' requirements publicly available as early as possible to allow additional costs or opportunities to be estimated in the development.

- Strong market engagement and consultation, notably with private developers, businesses and resident organisations, to plan land use opportunities and assess real estate and commercial opportunities. Note that by following suitable real-estate expertise by way of business plans and market sounding, market and financial risks will be clearly assessed and appropriately assigned and managed.
- A clear plan of infrastructure provision (for example, transport, utilities and public spaces) over the next few decades, including locations and capacities. This entails having both an infrastructure plan and a long-term financial plan to fund the infrastructure, with use of multi-year capital budgeting where possible. This will help to define the scale of urban regeneration as well as the amount and methods of contributions from private developers. In the absence of well-defined infrastructure commitments, reputable private investors and external lenders may be hesitant to engage. Where agreements require private investors to deliver essential site infrastructure upfront, they are generally expected to commit a significant portion of their own equity capital, often well before project revenues begin to flow. This requirement may restrict participation to those investors with considerable financial capacity, thereby increasing their leverage during negotiations with government entities.
- Public consultation. The public may not consistently have access to complete information, which can result in the spread of inaccurate data and subsequently affect decision-making processes.

Types of urban regeneration

Urban regeneration can take one or a combination of the different types below, depending on the context and objectives.

- General regeneration.
  - Social and affordable housing development.
  - Cultural/heritage conservation.
  - Economic hub creation.
  - Environmental enhancement/restoration.
  - Neighbourhood/zonal regeneration.
  - Industrial site regeneration.
  - Waterfront regeneration.
- Rail-based regeneration.
  - Transit-oriented development (TOD).
  - Corridor-based regeneration.
  - Station area renewal.

General regeneration typically applies to individual sites or regeneration areas, while rail-based regeneration often applies across wider or multiple development areas and is principally driven by improvements to urban or inter-urban rail services.

TOD typically involves rezoning and reallocating land use and development rights. It aims to cluster housing, jobs and services around sustainable transport modes and encourage urban densification and infill, thus

reducing the need for broader urban expansion. Such regeneration is closely associated with station area renewal to enhance accessibility to sustainable mobility, provide green spaces and social and economic amenities.

Table 1 lists the types of urban regeneration and gives international examples for the principal type of urban regeneration, although there may also be other types within the same project. Further details of the examples can be found by following the link and in Annex 1. Case studies are listed in bold.

Table 1: Types of urban regeneration

	Type	Objective	Examples
General regeneration			
1	Social and affordable housing development	Combining urban redevelopment with inclusive housing policies.	• Clichy-Batignolles, Paris (France) • Nordbahnhof redevelopment area, Vienna (Austria) • Vauban ecodistrict, Freiburg (Germany) • Rheingold brewery redevelopment, Brooklyn (United States) • Regent Park revitalisation, Toronto (Canada)
2	Cultural/heritage conservation	Safeguarding and integrating historical, architectural and cultural assets to maintain a city's identity, promote social cohesion and balance modernisation with tradition.	• Battersea Power Station, London (UK) • The ROCK project (Regeneration and Optimisation of Cultural heritage in creative and Knowledge cities), Bologna, Lisbon and Skopje • Venaria Reale palace, Piedmont (Italy)
3	Economic hub creation	Promoting economic activities in the redevelopment area. Positioning rail stations as anchors for business districts, innovation zones or tourism.	• Canary Wharf, London (UK) • Werkspoorkwartier, Utrecht (the Netherlands)
4	Environmental enhancement/restoration	Restoring and enhancing the natural environment within cities as part of redevelopment.	• Underground highway and overground Río Park, Madrid (Spain) • Green and blue transformation, Ostrów, (Poland) • Hammarby Sjöstad, Stockholm (Sweden)
5	Neighbourhood/zonal regeneration	Revitalising and improving the physical, social and economic conditions of a specific urban area to enhance quality and accessibility of the public spaces and built infrastructure.	• Superblocks projects, Barcelona (Spain) • Social urbanism projects, Medellin (Colombia) • Urban redevelopment zones using Certificado de Potencial Adicional de Construção (CEPACs), Sao Paulo (Brazil) • Nordbahnviertel redevelopment, Vienna (Austria)
6	Industrial sites regeneration	Redeveloping former industrial and brownfield sites in and/or around cities.	• Hudson Yards, New York (USA) • Carbochim Factory, Cluj-Napoca (Romania) • Urban revival, Manchester (UK) • King's Cross, London, (UK) • Confluence, Lyon (France) • Västra Hamnen, Malmo (Sweden) • DumBO District, Bologna (Italy) • Piraeus Port Plaza (Greece) • The Ellinikon (Greece)

	Type	Objective	Examples
7	Waterfront regeneration	Redeveloping port and waterside areas towards new urban uses including tourism, green space, residential, retail and waterfront access.	• Nordhavn, Copenhagen (Denmark) • Port Maravilha, Rio de Janeiro (Brazil) • Hafen City, Hamburg (Germany) • Waterfront Toronto, Toronto (Canada) • Gdańsk Imperial Shipyard, Gdańsk (Poland) • Old City Harbour, Tallinn (Estonia) • Porto Montenegro marina development, Tivat (Montenegro) • Puerto Madero, Buenos Aires (Argentina)
Rail-based regeneration			
8	Transit-oriented development (TOD)	Creating compact, walkable, mixed-use neighbourhoods around transit stations. Encouraging high-density residential, commercial and office spaces within a 5 to 10-minute walk of transit.	• Taiwan High-speed rail (Taipei China) • Mass rapid transit (MRT)-linked development (Singapore) • Stratford Olympic Park, London (UK) • Transit-oriented urban renewal, Lille (France)
9	Corridor-based regeneration	Extending redevelopment along entire rail corridors rather than just around stations. Supporting linear urban growth with consistent density and connectivity.	• Railway "Rail + Property" model, (Hong Kong) • Northumberland Rail Line (UK) • Old Oak Common & Park Royal Development Corporation (OPDC), London (UK) • Jubilee Line extension, London (UK) • Crossrail (Elizabeth Line), London (UK)
10	Station area renewal	Upgrading ageing rail stations and surrounding areas to become multimodal hubs. Often includes retail, public plazas and improved pedestrian access.	• Grand Paris Express, Paris (France) • Station-city complexes, Tokyo (Japan) • Nova Gorica & Gorizia (Slovenia, Italy) • Amsterdam Zuid, Amsterdam (the Netherlands)

Land management and planning policy

One of the main functions of a public authority is to ensure long-term management of spatial development in the public interest, whether the land is in the public or private domain. This is achieved mainly through its functions in urban planning, land management and policy development.

Land management and land-based financing (LBF)

Land management policy is a key component of spatial development. Through these tools and policies, governments shape how land is used, developed and valued. Combining regulatory, fiscal and institutional instruments, governments allocate land uses, control development rights, influence the timing and location of growth, and manage how the benefits of urbanisation are distributed. This goes beyond zoning and planning controls to include economic instruments that affect incentives in land and property markets. It typically refers to public actions that:

- allocate land uses (zoning, plans, development control) – by rezoning an area, for example, the government can drive development
- regulate development rights (densities, building rights, timing)
- create (or enhance), capture, redistribute and/or protect land value
- shape spatial outcomes (where, when and how development happens).

When planning and regulating land use, governments must also think about how the planning process is organised, who is involved, how decisions are coordinated and how permits are approved to ensure that the final development reflects the goals and needs of the regeneration area. Having clear, well-coordinated urban planning and permitting processes is essential for local authorities to secure suitable revenue returns, especially where public investments, transport and rezoning create significant public value.

When used strategically, land management instruments link decisions on land use, infrastructure and development rights to systems for capturing or redistributing land value. For instance, combined with urban planning policy (discussed below), these tools not only raise revenue but also shape development patterns, curb speculation and guide how land value gains are shared. Every choice a city makes about its land – how it is planned, protected or developed – determines whether its future will be resilient or vulnerable.

Effective land management strategies also shape how cities allocate and sustain their resources. Cities' fiscal health frequently hinges on land-based financing (LBF) tools, which constitute a significant share of their revenue. LBF tools are a set of mechanisms that public authorities use to generate revenue, fund infrastructure and support urban development by leveraging land and property values. The following are considered LBF tools:

- property tax (on land and/or improvements)
- stamp duty/real-estate transfer taxes on property transactions (one-off; land-based but not uplift-targeted)
- asset management: leasing or selling public land
- development impact fees (cost recovery charges at permit/subdivision).

LBF includes **LVC tools that specifically aim to recover some of the increase in land value that results from public initiatives,** such as planning or new infrastructure. More detailed information is provided in the next section “Value creation, capture and distribution".

To fund infrastructure projects, governments may use budgetary mechanisms that allocate defined revenue streams within a specific area, often the urban regeneration area itself. This is called **ringfencing, which allocates revenue from a particular tax or fee, like council tax, business rates or property tax, to a designated purpose for a particular project.** Depending on legislation, this ringfencing may also be for the additional revenue resulting from the project, with the underlying revenue amount (without the project) being allocated as before, outside of the ringfencing mechanism.

Examples that apply LVC instruments within a ringfenced area include:

- a business rate supplement (BRS): extra rates paid by businesses for new transport lines,[1] ensuring dedicated revenue streams to help service debt
- special assessment districts (SADs): property owners in a designated area pay additional taxes or fees to fund public improvements, such as parks or road repaving
- charges for additional builds allocated to a specific urban regeneration fund[2]
- density bonuses to support public benefits that are sometimes related to the increased density.

Furthermore, financial strategies may be available to support the financing of upfront infrastructure and improvements, such as tax increment financing (TIF), which raises loan or bond financing by the allocation of future increases in tax revenue within a new development area to a special account.[3]

Planning policy

Urban planning legislation and policies are key to ensuring that urban regeneration projects optimise economic, social and environmental outcomes and maximise public benefits. They play a critical role in determining project structures and governance models for urban regeneration. Urban regeneration projects should ideally be recognised in urban plans[4] and aligned with the city’s policy goals.

When preparing an urban regeneration project, the following plans and policies should be considered to determine the extent to which the envisaged urban regeneration project can be initiated within the existing urban planning legislation, or if any amendments are needed to enhance opportunity and benefits, such as to planning requirements (see Table 2).

Table 2: Types of plans and regulatory instruments

Urban planning legislation and policies	Purpose/role
General territorial plans, master plans, strategic plans	Set out the long-term strategic vision for land use, infrastructure and environmental goals, identifying areas suitable for regeneration and specifying the policy framework for urban regeneration.

1 As used in the Crossrail (UK) project. See Mayor of London, London Assembly (n.d.).
2 For example, CEPACs for additional building rights in Sao Paulo (Brazil). See P. Sandroni (2010).
3 However, opinions on TIF vary, and some argue it can be complex to implement. See B. Fischer and F. Leiter (2020), D. Merriman (2018), W. Jason (2018) and J.M. Youngman (2011).
4 It should be recognised that there might be a mismatch in timelines between the identification of regeneration opportunities and the timeframe of general urban plans, which often span over 20 years.

Urban planning legislation and policies	Purpose/role
Local development plans, zoning, land-use regulations, development controls	Translate the strategic vision into detailed zoning, land-use regulations, infrastructure layouts and development controls for specific districts or sites, mechanisms for granting additional development rights (for example density bonuses, transfer of development rights).
Construction and planning permits and standards	Ensure that all developments comply with the approved plans, building codes and technical standards, providing a final check on transparency and alignment with public goals.

LBF mechanisms, including LVC tools, should also be assessed to determine if they could be used for the urban regeneration project under current planning legislation.

Overall, the inclusion of requirements for urban regeneration, LBF and LVC in planning and regulation ensures the following:

- Transparency and accountability: land market dynamics and rules governing land use, development rights and value capture are made clear and accessible to stakeholders. This reduces the risk of ad hoc decision-making and fosters public trust.
- Stakeholder consultation: including projects in formal planning processes – such as general local territorial plans, local development plans and urban development regulations – ensures that stakeholder engagement is systematic and inclusive. Public consultations, advisory groups and participatory design sessions become integral to project development, allowing community voices to shape outcomes.
- Legal certainty and implementation: urban regeneration, LBF and LVC tools are best supported by robust legal frameworks, including zoning regulations, building codes and mechanisms for granting additional development rights. This provides clarity for developers, investors and public authorities, enabling predictable and enforceable project delivery.[5]

Adapting regulation to the urban regeneration site

Depending on the scale of the urban regeneration, the project may need to have specific financial, legal and administrative mechanisms to ensure the balance of interests and benefits across various stakeholders, including governance and funding tools and LBF, where relevant.

Public policy should encourage good urban regeneration, and good projects should themselves stimulate policy development, whether at local, regional or national level. Urban policy development should thus be one of regular iteration and refinement over time to constantly adapt to changing priorities and opportunities and ensure that urban regeneration gives back the greatest benefits to cities and communities and meets its development objectives.

5 São Paulo's CEPACs are an example of this. They are auctioned publicly, granting developers extra building rights in designated zones. Governed by the city statute and detailed in local plans, this system makes value capture predictable and transparent, while financing infrastructure and public amenities with strong public oversight and stakeholder engagement (see case studies in Annex 2).

Value creation, capture and distribution

The action that public authorities take can significantly increase the value created through urban regeneration. Public officials, professional staff and politicians need to be aware of the potential impact on land values so that the public benefits. Furthermore, this should be supported by an understanding of various value capture tools that are available to apply. The value chain of urban regeneration, from creation, capture to distribution, is illustrated in Figure 3.

Figure 3: Value chain of urban regeneration

Value creation

As well as land values increasing due to broader market conditions, specific value is also created by public authorities from two main sources:

- Physical improvements to infrastructure, notably transport connectivity and mass transit, as well as improvements to public spaces, public facilities and the environment, including reducing risks from natural hazards. In such cases, the value gain is generally observed throughout the project cycle.
- Regulatory or planning changes that enable a change in land use, such as rural to urban, industrial to residential, or allow more densely built forms (for example, multi-apartment and mixed-use buildings) through amending zoning and planning policies.

These public actions are likely to push up the value of land significantly owing to the area's increased use and attractiveness, which is then ultimately reflected in the higher economic value of developed properties.

Value capture

Land value gains are typically captured by various actors, but most notably by private property owners and developers. However, public authorities can use LBF instruments to capture a suitable proportion of the value created for public benefit.

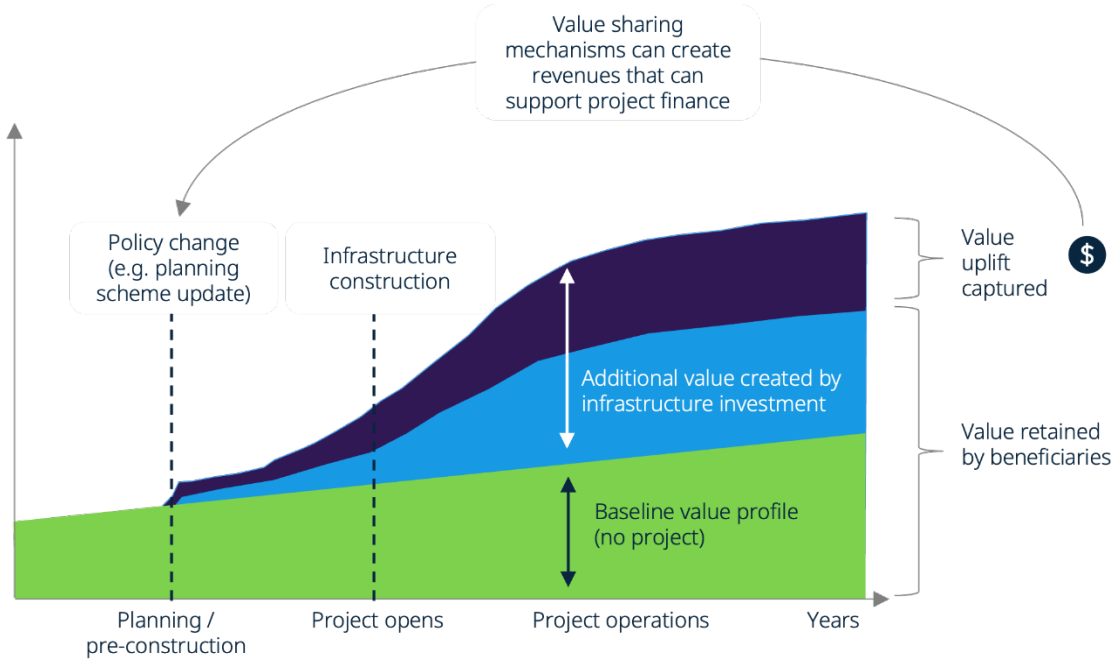
Land value capture (LVC) is a set of financing and regulatory tools for the public authority to create and capture all or part of the increase in land value that arises from public infrastructure investments, urban planning policy changes or approvals (such as urban regeneration schemes). LVC acts as both a source of revenue to mitigate the impact of infrastructure investments on the budget and as a redistributive instrument.

These instruments enable the public sector to capture values via cash or "in-kind" benefits from the private sector (such as developers and landowners) and/or via fees and taxes, which redistribute the land value increases back to the public body. Through such policies, landowners who benefit financially from public actions thus suitably contribute to the costs of public investments.

LVC enables local authorities to diversify and expand their use of local-based funding sources. It reduces their recourse to general taxation sources, especially property tax, and reduces reliance on transfers from higher levels of government and associated sovereign or sub-sovereign loans. LVC is further detailed in the section "Phase 3: funding and financing".

Although the focus is often on capturing value from privately owned land, it is important to recognise that value can be both created and captured from publicly owned land. The capture may be achieved by either selling, perhaps by using a request for proposals, or leasing public land within regeneration areas. Figure 4 illustrates how the value-sharing mechanisms work in LVC.

Figure 4. LVC over the project lifetime for infrastructure investments[6]



For LVC to be effective, the following elements should be considered:

- **Strong local urban planning and permitting practices,** including methods for selecting and valuing land plots for sale (considering future value gains and phasing); land strategy for leasing versus land sale, inter-departmental coordination for land sales, permits and developer costs, including additional building rights.
- **Clear policy and legal frameworks** establishing how land value gains are calculated, captured and allocated.
- **Stakeholder collaboration:** coordination between public authorities, developers and local communities to encourage alignment on development and infrastructure investment priorities.

6 See ITF (2024).

- **Transparency:** open processes to identify land value trends and track and manage LVC instruments to foster trust and ensure equitable distribution of funds.
- **Commercial viability:** the project must show sufficient ability to (i) raise the requested LVC funding from land value uplift and (ii) fund property investments made by developers or investors while assuming the commercial offtake risk.
- **Integration with planning tools:** LVC instruments must be aligned with planning permissions and zoning regulations, alongside broader urban development goals.

Value distribution

Captured value may then be distributed, either to fund some of the upfront costs or public investments, or to provide other public and social facilities, such as public spaces, public transport infrastructure, utilities, affordable/social housing and other social infrastructure.

Timeline for value creation and capture

Land value is typically created over an extended period, from early project initiation through to project opening and beyond (see Figure 4).

However, there are specific points in time when there may be significant increases or bumps in land value owing to expectations of a certain government expenditure or action. This is generally referred to as an **"announcement effect"**.[7] For example, this would occur when a new transit line or station is announced; or when a city announces that it will change land uses or increase density in some area of the city. In addition to the increase/bump at announcement, one may also occur once the infrastructure project is completed, or when the planning policy or approval is passed.

Public communication will play an important role in managing information and expectations throughout the project. Understanding when and how the land value increases will occur is important when assessing which LVC policy to use if the aim is to maximise the LVC for the public benefit.

Examples of LVC tools

A non-exhaustive list of LVC tools is outlined in Table 3, listed by type of tool.

- **Land-management-based** tools involve leveraging publicly owned land through partnerships or leasing arrangements.
- **Development rights** mechanisms grant additional building entitlements in exchange for public benefits.
- **Tax-based** tools rely on levies tied to property or land value.
- **Fee-based** tools impose charges on developers to offset infrastructure costs.

When grouped by timing, LVC instruments can be distinguished by whether they generate revenue upfront, typically at the point of development approval, or over time, through ongoing payments linked to property or

7 To address the announcement effect, Colombian legislation – the Ley del Anuncio del Proyecto – requires that any land-value increases triggered by the public announcement of a project be excluded from acquisition or expropriation appraisals, ensuring owners are compensated based on pre-announcement values and preventing speculation or windfall gains. See more at https://www.lincolninst.edu/app/uploads/legacy-files/pubfiles/pinilla-wp14jp1sp-full_0.pdf.

land value. These instruments can also be combined with the appropriate choice depending on contextual factors.[8]

Table 3: LVC instruments

Tool	Description
Land-management based	**Land readjustment:** land parcels are pooled, with a portion of new parcel and value dedicated to public use. **Profit-share/lease:** profit-share or lease revenues from joint developments that reflect and capture the land value increases resulting from public investment or regulatory decisions.
Development rights	**Sale of additional development or air-right:** by selling developers the right to build more floor area than zoning normally allows, the government captures the publicly created increase in land value, generated by upzoning or public investments, by charging for the extra buildable area. **Density bonuses:** granting developers additional density in exchange for specific public benefits such as affordable housing, transit upgrades or green space, allows the government to capture part of the land value created by the higher allowable density by requiring contributions equivalent to the value of the bonus.[9] **Transfer of development rights (TDR):** this allows landowners to transfer development potential from protected areas to places where more building is permitted. **Lease of development rights (where applicable):** a legal agreement where the government leases development rights on publicly owned land for a limited period, allowing construction without selling the land, thereby monetising public land value for public benefit. **Performance-based incentives,** such as phased density bonuses, reward developers with additional development rights as they meet specific project milestones or quality standards.
Tax-based	**Property tax:** while property tax is not universally regarded as an LVC mechanism, it can function as one when assessed mainly on land value rather than buildings or improvements. In such cases, it effectively collects revenue from increases in land value resulting from public investments such as infrastructure, transit or parks. In most cases, property tax includes both building and land, and so property tax is a partial LVC instrument. This also presumes that assessments are accurate and up to date. **Business rates:** public investment schemes, such as better transport links, business districts or public amenities, often increase the rental value of commercial properties. Business rates capture part of this uplift through the tax that businesses pay on the rental value of commercial properties. It is used to fund local services and infrastructure.
Fee-based	**Development charges/impact fees:** standardised per-unit fees for new construction to fund infrastructure. **Negotiated exactions (cash or in-kind):** case-by-case agreements requiring developers to provide public benefits in exchange for development approvals or added rights, capturing part of the land value created by those approvals. **Betterment levy (value uplift charge):** a one-off charge on land value uplift triggered by rezoning or infrastructure provision. **Special assessment district (SAD):** ongoing levy on all benefited properties within a district, set to repay specified improvements. **Business improvement district (BID):** property owners pay an additional rate to fund operations, maintenance and small capital works.

8 For another useful framework to categorise LVC tools, see OECD/Lincoln Institute of Land Policy, PKU-Lincoln Institute Center (2022).

9 For additional resources on density bonuses, with examples from Toronto and Vancouver, see A.A. Moore (2013) and World Bank Group (n.d.).

Governance models of urban regeneration

Depending on the need, resources, site opportunity and appetite of the public and private sectors, urban regeneration may take one of two arrangements. It can comprise:

- a multitude of components delivered separately by several public and private entities on individual public reserves and land plots
- complete delivery of a comprehensive urban regeneration scheme, with numerous inter-related and coordinated public and private components.

The former can generally be considered as "business as usual" for both public and private players acting within their own land boundaries under existing legislative and regulatory procedures, while the latter could represent a significant change in how public authorities manage urban regeneration opportunities. The delivery of such complete delivery models is the focus of this governance section.

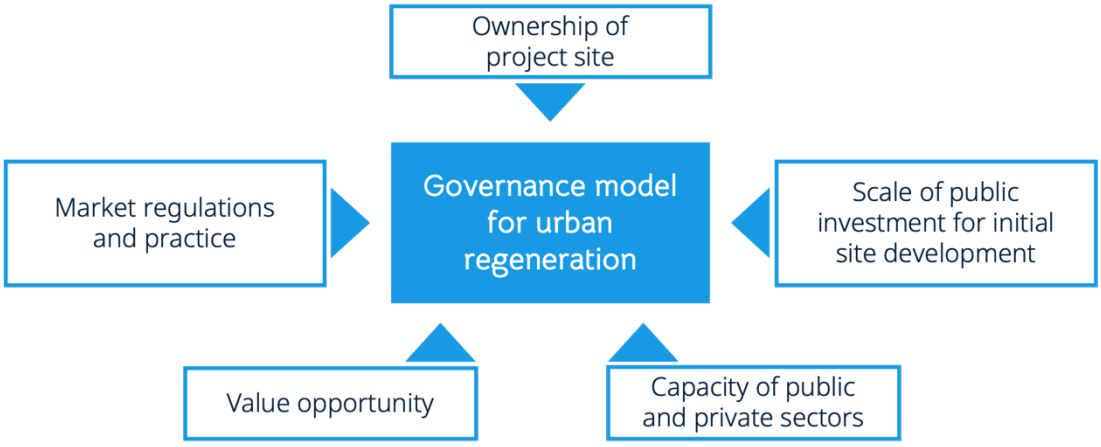
For larger or more comprehensive urban regeneration schemes, the choice of governance model is key to success. It should reflect the nature of the urban regeneration in its balance between public infrastructure, for example public realm, public facilities and social housing, and commercial development, such as residential, office and retail, as represented notably by the share of capital investment needs. The public sector plays a key role in shaping the form and outcomes of urban regeneration, while the private sector delivers for all governance models, under differing mandates.

The choice of governance model is largely shaped by five factors (see also Figure 5):

- Ownership of the project site: the viability of integrated site development largely depends on the ability to constitute a predominant landholding through assembling public land, acquiring privately owned land by compulsory purchase or land sale, and/or assembling privately owned land through land pooling, land readjustment or other mechanisms. Temporary construction yards for large infrastructure projects that are acquired through compulsory land purchase may offer an opportunity for land assembly and later repurposing for urban regeneration.
- In all governance models, public authorities can invest in associated or enabling infrastructure or public amenities – such as transport connectivity, utilities, and site clearance and remediation works (for example, derelict areas and former chemical and industrial sites) – to improve project viability and unlock additional development land (including through LVC). However, the scale of initial site development in larger urban regeneration projects requires significant upfront public investment and longer-term planning, and therefore likely favours public-led governance models.
- Value opportunity, through public actions at both site and city-wide levels – regulatory, rezoning, new transport infrastructure and so on – which may create significant value increase, outside of overall property market trends, notably for TOD areas. Along with LVC policies, this requires managing a timeline of value creation through measures such as phased site development or shared profit schemes with private developers.
- Capacity of the public and private sectors: it is important that the appetite for development matches the parties' ability to take on a larger role in integrated site development. This is particularly relevant under special purpose vehicle (SPV) and master developer models, and is related notably to the scale and timeline for funding and the risk appetite of the parties. When the development opportunity is matched to market ability, urban regeneration projects are more likely to be delivered on time, to budget and to a good standard.

- Market regulation and practice: regulatory compliance and familiarity will determine how easy the governance model is to implement, while larger urban regeneration projects may justify governance models beyond current practice and experience and stimulate new approaches to urban regeneration.

Figure 5: Selecting a governance model



Based on such factors and related legal and institutional practices, the public authority may therefore choose an appropriate level of involvement for each urban regeneration scheme or opportunity, notably through the following roles and structures (refer also to Annex 1. Case studies for specific cases of each model).

- Public-sector-led urban regeneration. This can be done through existing public departments (for example, the urban planning department of a city or municipality, or other national departments/agencies) or through a dedicated public entity such as a development cooperation, urban regeneration agency or public-public partnership (PUP). The leading public authority would constitute the sole or principal party in the project entity, possibly in partnership with other local or national-level public entities (such as the redevelopment of national rail-owned lands and facilities) and ensure overall site development with land assembly, planning and permitting powers, assuring project funding, site build-out and delivery, and community and social engagement. The build-out of public infrastructure (pedestrian roads, cycle paths, parks, street lighting, transport and so on) are typically managed by the public entity through engaging works contractors for infrastructure delivery and property developers for commercial developments such as residential, office and retail, with related offtake risk for market sales.
- Joint entity. The public authority initiates a regeneration project jointly with private developers through mechanisms such as mixed-economy companies, joint ventures and public-private partnerships (PPPs). It is a collaborative model that shares risks and rewards. There are also models of collaboration with local community and non-governmental organisations (NGOs) under community-led urban regeneration.
- Private-sector-led urban regeneration. Private companies or consortia take the lead in revitalising urban areas, typically by redeveloping large privately owned former industrial assets/sites or clusters of assets. This is generally performed by master developers who ensure site development through planning and site assembly, site preparation, build out and commercialisation, as a long-term venture and often with significant upfront development costs and risks. Master developers and investors would include public infrastructure delivery, potentially for entire site development, and thus play a crucial role in shaping the built environment and driving economic activity.

Figure 6: Governance models of urban regeneration

The public sector plays a key role in shaping urban regeneration, while the private sector delivers for all models, in some form.

1. Public-sector led	2. Joint entity	3. Private-sector led
• Public sector **leads site development** under local or national authority, assuming site assembly, planning and permitting rights. • Most applicable for sites with **large public investments** in public realm, public facilities and social housing, and **rail-enhanced regeneration sites** with high LVC opportunities, such as new rail stations and transport hubs. • Requires strong political support, long-term public loans as **patient capital** and capacity building. • Can package and phase subsequent commercial build-outs by single or multiple developers (residential, office, retail and so on).	• Private entities may form part of urban regeneration companies or development companies, typically under **SPV structures**. • **Combines interests** for public and commercial development, with all parties having "skin in the game". • Increases **access to skills capacity and financing**, combining both the public and private side (public participation may be provided in kind by land contribution). • Best supported by **transparent procurement process**, to ensure political and social acceptance of such an embedded and long-term public-private partnership. • Includes **community-led urban regeneration** (with local community, NGOs).	• **The master developer** manages all stages of the urban regeneration scheme, from land assembly all the way to property sales and management. • Scheme may include public infrastructure and facilities, as in-kind contributions, alongside permitting fees, developers' contributions and **LVC** instruments. • Public sector may need to separately fund and deliver **associated or enabling works**, such as site remediation or transport facilities (notably rail infrastructure and transport hubs). • **Public-sector role** typically includes zoning, planning permission, fees and charges, and policy incentives.

Increasingly private-sector led

Choosing a special purpose vehicle

In planning urban regeneration projects, the public authority can manage the design, scale, layout, use and amenities of the regeneration in planning laws, zoning controls, permits and consultations, and provide incentives such as density bonuses, transfer of development rights or tax abatements. Moreover, to safeguard social outcomes, public authorities often require developers to improve social engagement and public consultations, as well as provide a minimum share of social and affordable housing units and other community spaces/facilities.

Project sponsors, whether under a public, partnership or private governance model, may consider setting up an SPV to deliver the urban regeneration project. The SPV, subject to suitable legal and regulatory authority, creates a dedicated structure for managing the project's costs and revenues, and offers an opportunity to capture specific tax and LVC revenues linked to the site development.

Given the complexities and risks of larger urban regeneration projects, only the most experienced, creditworthy and reputable developers have the capacity and capital to manage such projects. Therefore, potential investors should undergo a robust screening and selection process. Public authorities should aim to:

- provide long-term commitment and regulatory stability by endorsing a long-term development plan or strategy, supported by elected officials as well as the local communities

- minimise risks for the private developers by helping to assemble land and facilitate community engagement
- explore public-private collaboration to reduce risks and complexities for private developers while strengthening the inclusion of social and environmental components in the regeneration.

The scale of the urban regeneration project, as well as the governance model selected, will determine both the allocation of roles and responsibilities between parties and the level of integration of such roles within a single entity.

Expanding to an urban regeneration entity

Dedicated urban regeneration entities can deliver public-led development, under governance from local authorities, national agencies, transport bodies and community and business.[10]

The role of such entities is to plan, coordinate and deliver large-scale regeneration over long timeframes. They are typically organised with the following key functional teams to support across the project lifecycle:

- planning and urban design: spatial strategy, local plans, development management and permitting to provide long-term coherence
- land and development: land assembly, asset management and development agreements, increasing in importance with site scale and public landholdings
- infrastructure coordination: sequencing and enabling transport, utilities and social infrastructure to unlock private investment
- inclusive growth and communities: engagement, local benefits and social infrastructure alignment, particularly for large residential developments
- corporate and governance functions: finance, legal, assurance and programme management, proportionally important in high-value programmes.

For more details, please see the section “Building skills: setting up a team for urban regeneration”.

10 In the UK, urban development corporations are statutory, place-based organisations that typically operate across 100-650 hectares, manage multi-billion-pound investment programmes, and remain in place for 20-40 years.

Table 4: Governance models of urban regeneration

	Description/best for	Pros	Cons	Example
1. Public-sector led				
Public-authority led	• Managed by the local government's planning/housing department. • Smaller, policy-aligned projects (such as park upgrades, single-site redevelopments).	• Full public control; aligns with local policies. • Low bureaucratic overheads.	• Limited capacity for complex projects. • Risk of slow execution due to low skills and capacity, low funding availability, delays with public procedures. • Political vulnerability: priorities can shift with elections.	• Urban revival, Manchester (UK) • Superblocks, Barcelona (Spain) • Social urbanism projects, Medellin (Colombia) • Vauban eco-district, Freiburg (Germany) • The ROCK project (Regeneration and Optimisation of Cultural heritage in creative and Knowledge cities), Bologna, Lisbon and Skopje • Venaria Reale palace, Piedmont (Italy) • Underground highway and overground Río Park, Madrid (Spain) • Green and blue transformation, Ostrów, (Poland) • Confluence, Lyon (France) • Västra Hamnen, Malmo (Sweden) • Northumberland Rail Line (UK) • Jubilee Line extension, London (UK) • Crossrail (Elizabeth Line), London (UK) • Nova Gorica & Gorizia (Slovenia-Italy) • Old City Harbour, Tallinn (Estonia)
Urban regeneration agency	• Public or quasi-public entities often with specialised mandates (such as housing, brownfields) created to lead large-scale regeneration of strategic sites needing long-term oversight (waterfronts, rail and transit hubs). • Cross-jurisdictional projects (collaboration between city and regional/national authorities).	• Scalability: manage portfolio including mega-projects, and city-wide property assets. • Flexibility: blend public goals with market tools. • Effectiveness: coordinates public entities, pools and develops methods and skills for planning, stakeholder	• Budget: needs stable portfolio to develop skills base. • Political vulnerability: priorities can shift with elections.	• CreateTO, Toronto • UK Homes England • Toronto Community Housing Corporation for Regent Park Revitalisation, Toronto (Canada) • Urban redevelopment zones using CEPACs, Sao Paulo (Brazil) • Grand Paris Express, Paris (France) • Puerto Madero, Buenos Aires (Argentina)

	Description/best for	Pros	Cons	Example
		management and market engagement.		
Development corporation	• Arm's-length public entity for large-scale or complex projects. • Often state- or city-owned bodies based on cooperation model. • One of the main urban regeneration models adopted globally.	• Combines public oversight with operational flexibility. • Focused expertise; faster decision-making. • Can borrow own funds or partner with private actors. • Can attract private finance. • Can be established as a PPP.	• Require regulation, political stability and commitment to devolution. • Fixed costs of dedicated organisational structure. • May lack community accountability.	• Port Authority of New York and New Jersey • Établissements publics d'aménagement • London Legacy Development Corporation (LLDC) for Stratford Olympic Park, London (UK) • Old Oak Common and Park Royal Development Corporation (OPDC), London (UK) • Hafen City, Hamburg (Germany)
Public-public partnerships (PUPs)	• Intergovernmental synergy between different tiers of government (city, and regional/national agencies).	• Pools resources (funding, land, expertise). • Avoids private-sector profit motives.	• Intergovernmental conflicts can stall progress. • Possible lack of knowledge of property markets and practices ("commercial mindsets").	• Sociétés publiques locales (SPL) for Clichy-Batignolles, Paris (France) • Nordhavn, Copenhagen (Denmark) • Amsterdam Zuid, Amsterdam (the Netherlands) • Waterfront Toronto (Canada)
Joint entities				
Public-private partnerships (PPPs)	• Contract-based collaboration. • Common for large-scale capital-intensive projects.	• Shifts financial risk to private sector. • Allows de-risking through phased delivery by different entities and different financial sources. • Accelerates delivery.	• High, long-term costs. • Cost for contract preparation and management.	• Transit-oriented urban renewal, Lille (France) • Hudson Yards, New York (USA) • Rheingold brewery redevelopment, Brooklyn (USA) • Werkspoorkwartier, Utrecht (the Netherlands) • Hammarby Sjöstad, Stockholm (Sweden) • High-Speed Rail (Taipei China) • Port Maravilha, Rio de Janeiro (Brazil) • DumBO District, Bologna (Italy)
Joint venture	• Public authorities to use land assets while private partners provide funding and development skills.	• Shares risks, pools resources, and leverages expertise for projects.	• Disagreements may lead to slow project delivery.	• Croydon Council Urban Regeneration Vehicle (CCURV), UK • London & Continental Railways (LCR) Property for King's Cross, London, (UK)

	Description/best for	Pros	Cons	Example
				• Nordbahnviertel redevelopment, Vienna (Austria)
Mixed economy companies	• Public-private hybrid (for example, 51% public-owned, 49% private). • Balances public goals with private efficiency.	• Access to private capital and innovation. • Retains public interest (for example, social and affordable housing quotas).	• Risk of private partners dominating agendas.	• SEMAPA (Paris): Redeveloped the 13th district's docks • Railway "Rail + Property" model, (Hong Kong)
Private-sector led				
Purely privately led	• Site already acquired by private real estate developers. • Note private sector-led urban regeneration projects still have some degree of public sector involvement.	• Development risk carried by private developer. • Possibility to charge tax or contributions for infrastructure. • "In-kind" LVC through provision of public spaces, schools, social facilities and social housing.	• Need for strong local policy, legal framework and capacity at local authority to deliver social, environmental and economic benefits through urban regeneration. • Upfront costs and planning/development risks may dissuade market interest from master developers and reduce value gain for public authority.	• Battersea Power Station, London (UK) • Carbochim Factory, Cluj-Napoca (Romania) • Gdańsk Imperial Shipyard, Gdańsk (Poland) • Mass rapid transit (MRT)-linked development (Singapore) • Docklands Development Corporation for Canary Wharf, London (UK) • Station-city complexes, Tokyo (Japan) • Porto Montenegro marina development, Tivat (Montenegro) • Piraeus Port Plaza (Greece) • The Ellinikon (Greece)

For projects that create significant value, it is also worth considering how the governance models can support the application of LVC instruments:

- Public-sector led: some of the best LVC applications occur in this model when the area to be redeveloped has large land components that are owned by the public sector. This provides clear opportunities for creating, enhancing and capturing land value. The public land can be leased for development opportunities; this way, value can be captured over time in increasing lease rates, resulting in a continuous revenue stream.[11] Alternatively, if the public agency plans to sell, rather than lease, land parcels to developers, the value of this land can be enhanced by investing in the public realm, parks and open space, as well as having planning permits or approvals in place to speed up development opportunities.[12]
- Joint entity: this model may lead to LVC mechanisms being integrated into the terms of the agreement defining the entity, rather than to the use of any specific tools. Developers may obtain opportunities either to build and own property, or to develop and gain a revenue stream from leasehold of the assets. In turn, public authorities may require developers to provide (and perhaps finance and build) infrastructure to support hard or soft services. This is the typical model adopted when the public sector has land to contribute to the joint entity (for example, in the form of equity) and the value has been increasing due to local market conditions or public-sector actions.
- Private-sector led: where the private sector is the leader, it generally means that it already has ownership of all, or most, of the land needed for the project. In these cases, fiscal or regulatory LVC tools may be most effective. Examples include using exactions like development charges and parkland exactions. Also, rather than simply allowing developers to be granted any changes in land uses or increases in density, planning authorities should use LVC tools such as density bonuses or inclusionary zoning. If there are concerns around potential speculation, LVC tools such as betterment or speculation taxes could be used.

Stakeholders

Urban regeneration schemes can have significant social, economic and environmental impacts and should therefore go beyond the legislative requirements for stakeholder engagement, such as mandatory public consultations. Early, continuous and meaningful engagement throughout project initiation, planning, design and implementation is critical to ensure that public and social facilities respond and are adapted to community and welfare needs, that they improve environmental and social sustainability, and build broad public support. The strength of public and community participation is indeed critical to project success in the long term. In urban regeneration, structured stakeholder engagement sustains community, political and institutional consensus, ultimately leading to long-term stewardship. Systematic involvement of communities, the private-sector and public institutions helps to align priorities, reinforces legitimacy and reduces implementation risks. Clear accountability frameworks, transparent decision-making and ongoing consultation strengthen public trust and improve the effectiveness and resilience of regeneration outcomes.

The local authority and/or the development company (depending on the selected governance model), should establish a structured and intentional approach to identify stakeholders potentially affected by and/or interested in the project, and to engage with them in proportion to the project's potential risks, impacts and

11 Massport (state agency) in Boston used the revenue stream to repay bonds that were used to fund development infrastructure. It also used linkage fees on commercial property to fund affordable housing.

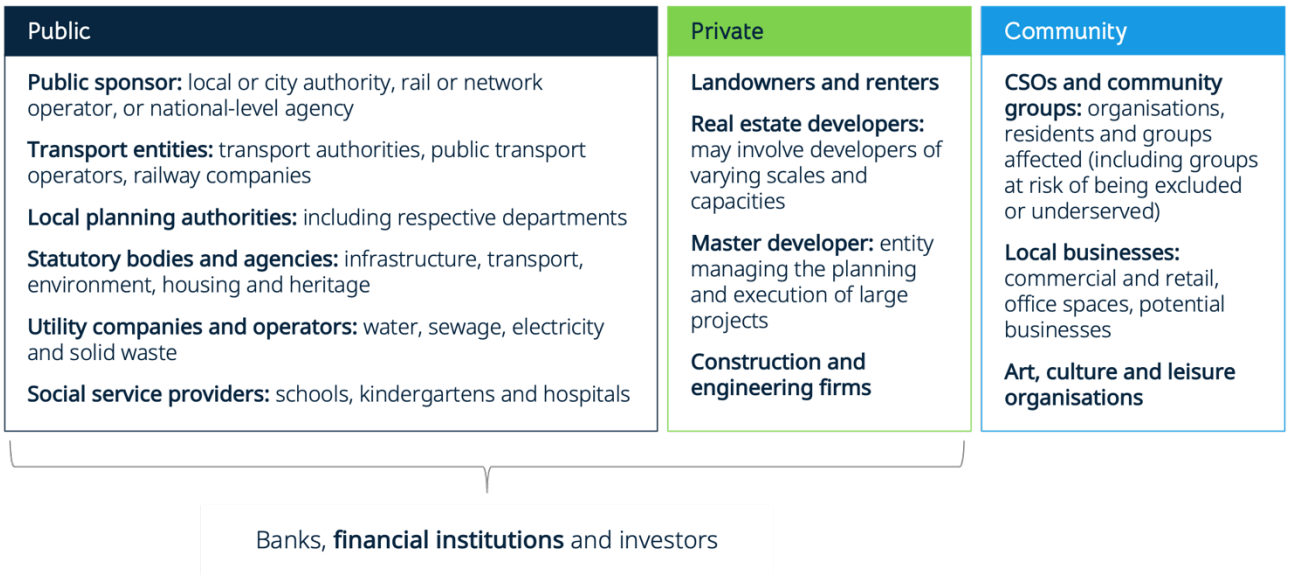
12 Waterfront Toronto uses this approach before putting development parcels; they invest in local parks and open walkways along the waterfront and have planning permission in place to increase the value that they obtain on sale of the land.

level of stakeholder interest. This process should: respect the rights of access to information, participation and justice in environmental and social matters; include timely disclosure of information on risks and impacts; and involve meaningful, culturally appropriate consultation using accessible formats that address different physical, sensory and cognitive needs. Stakeholder engagement should be guided by gender equality principles. Attention should be paid to identifying stakeholders at risk of being excluded or underserved and to addressing barriers to their participation.

In addition to information-sharing tools (such as setting up publicly accessible information booths about the urban regeneration projects or project models), projects could establish community advisory group workshops, town meetings and other participatory formats that enable ongoing feedback and help identify concerns from local communities. Grievance mechanisms, including appeals processes, should be developed and implemented to allow stakeholders to raise concerns, seek clarification and provide feedback throughout the project lifecycle. This will support long-term implementation and overall qualities of the urban regeneration project.[13]

Some of the key stakeholders are shown in Figure 7.

Figure 7: Key stakeholders



13 For more information, see EBRD (2024).

Shaping cities: a guide to urban regeneration

Delivering urban regeneration

Delivering urban regeneration

Urban regeneration projects generally consist of four phases:

- initiating and visioning
- preparation and design
- financing and funding
- delivery and implementation.

As no urban regeneration project exists in isolation, the relevant preconditions and planning frameworks should be considered at the beginning. Table 5 shows the key elements and outcomes of each phase with indicative timelines, typically applicable for larger urban regeneration projects. For smaller projects, the process may be simplified and phases may be combined. Moreover, the nature and extent of the actions required in each phase, as well as the entities responsible for them, will depend on the governance model adopted.

The development process should consider the **opportunities from the land** (choice of land use, economic and social functions[14] and the value opportunity), the **interests of the community** (residents, business and activities) and the **needs of the environment** (including nature and climate).

14 The social function of land recognises that land ownership and land use create social, economic and environmental impacts that extend beyond individual owners, and therefore carry social obligations.

Table 5: Phases of an urban regeneration project

	Indicative timeline (Years)	Key stakeholders	Main components	Main outcome	Main risks/challenges
Initiating and visioning	1-5	• Project sponsor • Local communities • Landowners • Local government departments • Central/regional government	• Project structure • Identify and assess site(s) • Outline land use, business plan and initial roadmap	• Initial political buy-in • Establish initial project team and broadly identify stakeholders • Develop an early concept • Assess opportunities and challenges	• Low interest from politicians • Poor, inaccurate cadastral information or regulation • Landownership disputes • Limited market interest • Resistance from stakeholders
Preparation and design	1-5	• Project sponsor • Developers • Statutory bodies • Local communities and businesses	• Zoning plan (revisions) • Land assembly • Infrastructure plan, including site remediation (if any) • Urban regeneration plan • Stakeholder management	• Detailed land allocations • Sufficient confirmed land for project viability and infrastructure investments • Establish project structure with seed funding	• Private landowners unwilling to sell • Government objections • Regulatory obstacles
Funding and financing	1-5	• Project sponsor • Public-sector funding sources • Private investors • Operators	• Strategic business case, funding plan • Market consultations (developers, implementation partners) • Financial structure and fundraising	• Confirm funding mechanisms, sources • Initial partnerships for first phase implementation	• Insufficient capacity or appetite for patient capital (public or private) • Inadequate assets, funding securities for debt lending to an SPV such as an urban development agency
Implementation	2-25	• Project sponsor • Central and local government • Operator and contractor • Utility and service providers	• Project management • Permitting • Updating of business, funding plan, site development plan, and so on, as project develops	• Completed project (potentially in phases)	• Changes in policy mandate • Economic downturns - loss in commercial, property value • Loss of funding or interest from property developers

For land which is predominantly owned by the public sector or where there is notable public interest or value from its development, the public entity should play a leading role in initiating and setting up the project, including the governance model. This may be combined with strong market engagement, notably in cases where there is a proactive and keen private player who signals to local authorities that it is interested in a site for development, potentially subject to site remediation, provision of infrastructure, and so on, and who may be interested in acting as lead developer.

Rail-based regeneration, notably TOD, is predominantly a planning tool to rezone areas around mass transit stations and an incentive for private-led redevelopment based on additional building rights. Such urban regeneration would likely comprise public-led regeneration for those sites with majority public ownership, including any land previously acquired through compulsory purchase for temporary construction yards (for example, tunnelling, metros and so on), while private-led regeneration would apply principally to privately owned land plots, for which the public authority should consider appropriate LVC tools to support public investments in public realm and station improvement areas.

This section will focus on public-led urban regeneration, indicating the main actions for the public authority in each phase.

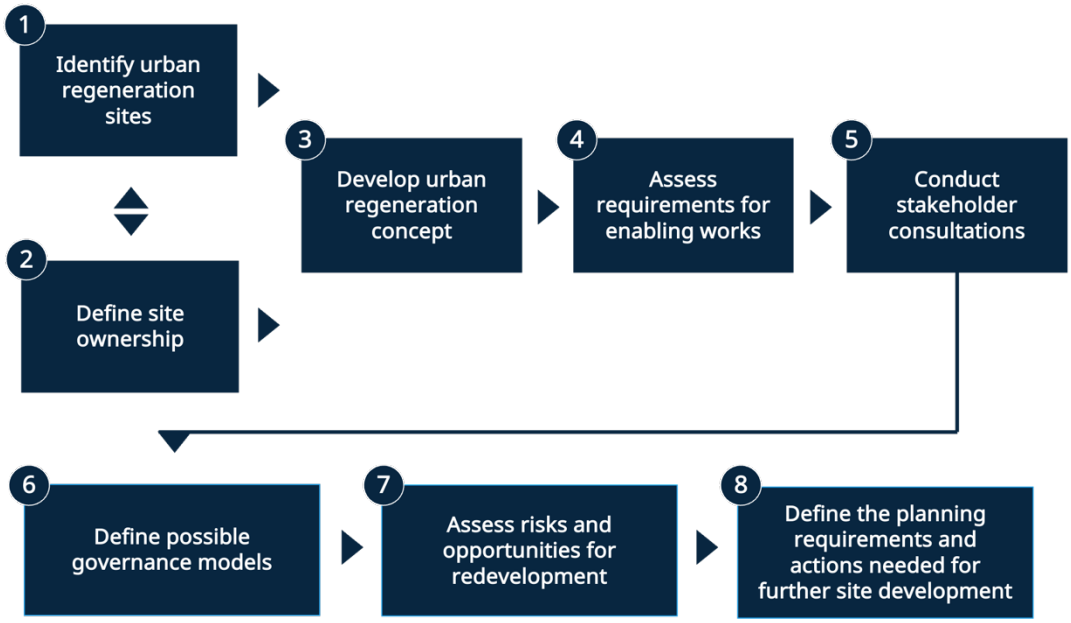
Note that the public authority shall need to regularly assess its need for staffing and resources throughout project delivery, notably from phase 2 when more significant resources would be required, in line with the chosen governance model and funding opportunities, with suitable funding from local budget, commercial banks or international financial institutions (IFIs). Please refer to the section "Building skills: setting up a team for urban regeneration" for some guidance on this issue.

Phase 1: initiating and visioning

This phase shapes the urban regeneration project in terms of its characteristics and opportunities and taking account of the planning, regulation and land management. It assesses the key costs and opportunities from the urban regeneration, the risks involved and the viability of the site for development, based on land-use scenarios. Throughout, the public authority should be conscious of its overarching role to provide for the public interest and the long-term stewardship of the urban space. The overall steps are outlined in Figure 8.

Phase 1 should start with steps 1 and 2 to establish the viable sites for further assessment.

Figure 8: Steps for project initiation and visioning



1. Identify urban regeneration site(s)

- Review areas/sites that are experiencing decline, decay or social deprivation and that are in need of renovation.
- Review transport and land use plans and policies, urban regulations and so on.
- Assess needs and opportunities. For example, areas with existing public transport access, areas with planned public transport improvements, underused areas that are close to services, employment and amenities, are all good opportunities for urban regeneration.

2. Define site ownership

When identifying urban regeneration areas/sites, publicly owned land and property may be considered first. Surrounding lands should also be considered where they would improve access to roads, public transport, cycle lanes, footpaths, and green spaces, or where they would allow a more integrated site development.

Cadastral information and property registration are essential to determine requirements for land acquisition and assembly. This is critical to determine site viability, development opportunities, governance models and mechanisms to fund public infrastructure and capture land value increase. The following ownership structures are often proposed, while larger urban regeneration sites are likely to have multiple lots with a different ownership mix and will need significant land assembly efforts over time.

- Publicly owned: the local authority can manage the site directly or transfer the site to dedicated public agencies or private developers leading the urban regeneration development through direct sales, transfer, concession/lease of public assets, as well as a combination of sales and lease.

- Mixed ownership by multiple private and/or public owners: the local authorities may deploy voluntary tools, such as land purchase or land readjustment, alongside compulsory tools, if possible, such as expropriation and right of pre-emption, to acquire and assemble land for urban regeneration.[15]
- Privately owned by real estate developers: outside of compulsory purchase, such projects would generally be private-led, with the local authority regulating and assessing development proposals while considering planning adjustments (for example, zoning requirements or density bonuses), policy incentives (such as tax reductions or expedited permitting), and negotiating public benefit contributions (for example, social and affordable housing quotas and public space improvements). Where public infrastructure or social facilities are required, the authority may also structure PPP agreements to ensure integrated delivery.

3. Develop the urban regeneration concept

Urban regeneration on brownfield or infill sites breathes new life into urban areas, promoting a more compact urban form with social and environmental benefits, and reducing urban expansion. This would notably apply to underused or derelict areas, while larger projects may connect several fragmented and poorly connected sites into a comprehensive regeneration project.

The concept should consider urban planning regulations and zonal plans, along with other urban planning concepts, such as 15-minute cities,[16] with the degree of ambition dependent on the site profile and scale of area being developed. Three major site profiles are:

- brownfield redevelopment: revitalising abandoned or underused sites, which may be polluted; often includes old railyards and factories
- urban infill development: using vacant or underdeveloped land within cities for new transit-linked projects
- greenfield expansion: where urban development objectives cannot be met within the boundaries of a currently developed urban area.

The urban regeneration concept should define the potential use for and purpose of the new site(s), with various options for both public and social facilities and commercial developments, taking into account current urban regulations, policies and market opportunities. The concept plan should also identify the land use scenarios, nature of the cost and revenue opportunities for each scenario, along with the economic and financial benefits from public, social and commercial facilities.

4. Assess the requirements for enabling works

The enabling works refer to those works which need to be completed to allow further site development, including:

- land remediation (where relevant, notably for industrial brownfield sites), including treatment of soil, pollutants and groundwater to ensure pollution is reduced to levels compatible with the type of land use

15 Compulsory purchase powers enable a designated public authority (such as a local council or highways agency) to acquire land and/or other assets compulsorily, with the purpose of delivering projects in the public interest. They are therefore usually confined to public infrastructure projects, rather than developments of commercial nature. Sites identified for urban regeneration may include portions of land with different types of infrastructure and asset development; thus, various methods of land acquisition may be applied.

16 A 15-minute city is an urban planning model where residents can access essential services such as work, shopping, education, healthcare and leisure within a 15-minute walk or bike ride.

proposed and in accordance with environmental regulations and standards. This often includes preparation of an initial conceptual site model to indicate contaminants, receptors, pathways and treatment methods

- site access: provision of connector and access roads, including provision for public transport and active mobility (cycle lanes and footpaths), street lighting and road furniture
- utility connections: provision of networks including water and sewerage, electricity, information and communications technology (ICT) and district energy, if relevant.

These works largely depend on future land use scenarios and concept layout for the site, and may require some iteration to determine the optimal use.

5. Conduct stakeholder consultations with key stakeholders, notably public agencies and authorities, residents of the area, landowners, local businesses and potential developers. Engage in discussions to clarify the concept and obtain a comprehensive overview of stakeholder expectations and requirements.
6. Define possible governance models. The site ownership structure, scale of upfront investments in public infrastructure and potential for land value uplift (through transport access and public investments, and planning and regulatory adjustments), should strongly influence the appropriate governance structure. The institutional and legal frameworks should be assessed at this stage to determine which structures are feasible, what they would require and how they align with the public authority's wider urban regeneration ambitions.
7. Assess the risks and opportunities for redevelopment. These can include: climate and natural disaster risks such as flood, landslide, wildfire and tsunami, along with risk reduction measures; risk of soil contamination from previous land use on the site; potential environmental impact of the redevelopment on the site, as well as adjoining and nearby areas, including an analysis of the existence of endangered fauna and flora, the impact on native and migratory species and ecosystems, spillover of light and noise pollution, changes to wind patterns, sunlight and shadowing; and social impact such as gentrification, displacement and loss of community identity.
8. Define the planning requirements and actions needed for further site development. This should include a broad range of urban planning requirements based on the composition of the selected land use (public versus private land allocation, proportions for residential, commercial, cultural, open/green spaces, ranges for density and floor area ratio (FAR), minimum percentage of units or floor area for social and affordable housing, tenure mix, social facilities, mobility and accessibility, energy performance standards, and so on) and possible governance models.

The next steps involve identifying the policy, financial and resource requirements to proceed. This may include running an architectural competition to promote suitable concepts for site development and/or consultations and market sounding to solicit interest from developers and stakeholders.

The check list in Table 6 can be used as a starting point to assess the readiness of potential projects. This list also introduces some cross-cutting themes that are further developed in phase 2. The list is not exhaustive and is for guidance only.

Table 6: Check list for early preparation of urban regeneration projects

✓/X	Question	Note
Planning		
	Is the site for urban regeneration identified?	Consider needs and opportunities: are there underutilised sites with good access to transport connection, public services, employment and amenities? Alternatively, are there derelict or underused sites in suitable development areas?
	Is there a city master plan or district plan? Has the site for redevelopment been designated or identified as a regeneration site?	
	Have cadastral information and property registration been obtained?	
	Is land title clear and uncontested?	
	Is the site ownership understood?	
	Is the site covered by a master plan or a long-term local development framework?	
	Is the project timeline considered?	
	…	
Site characteristics, enabling works		
	What is the site profile (for example, brownfield, urban infill)?	
	Are utilities (water, electricity, ICT) available or easily extendable?	
	Are there structures that need to be demolished?	
	Are there listed buildings or cultural assets requiring preservation?	Consider adaptive reuse or any other regeneration that ensures heritage/cultural preservation.
	What was the previous use of the site? If the site was previously for industrial use, is there potential contamination?	Secure all available information on the company, activities performed, levels of contamination and any surveys and records (see also “Environmental and climate” below)
	…	
Legal		
	Is the land use regulation and zoning appropriate to accommodate urban regeneration?	

✓/X	Question	Note
	Is it clear who would bear the construction, demand and political risk?	
	Is there a law to enable a PPP project?	
	Is it clear which LVC mechanisms are legally and practically deliverable?	
	Is the project implementation structure considered?	
	Are conceptual urban planning requirements defined (for example, public versus private land allocation, proportions for residential, commercial, cultural, open/green spaces, ranges for density and FAR, minimum percentage of units or floor area for social and affordable housing, tenure mix, social facilities, mobility and accessibility, energy performance standards)?	
	...	
Market		
	Is the general trend of the real estate market in the city well understood?	
	Is there a market demand for the type of urban regeneration project?	
	What is the scale and appetite of developers?	Developers may not have capacity or appetite for the role of master developer for larger urban regeneration sites, or to assume land remediation works on polluted sites.
	...	
Financial		
	Are there capital expenditure (CAPEX) and operational expenditure (OPEX) estimates?	
	Have potential revenue streams been considered?	
	What is the funding mechanism for the urban regeneration?	
	What risks and liabilities have been identified?	
	...	
Environmental and climate		
	Is the site a former industrial or polluted area?	Assess, through surveys and inspections, that the soil and water quality is in line with regulatory controls.

✓/X	Question	Note
	Are there potential negative impacts on the environment (such as contamination, habitat loss)?	Conduct a preliminary assessment to identify the key risks and determine whether a full Environmental Impact Assessment is required, subject to local/national regulations.
	Is the site in an area exposed to natural and/or climate-related hazards (such as flooding, extreme heat or earthquakes)?	Conduct a risk and vulnerability analysis, including consideration of climate projections.
	Is there potential for renewable and/or district energy integration?	
	…	
Social		
	Is there risk of displacement?	Ensure there are means to mitigate displacement.
	Are there policies in place to address affordability and gentrification?	
	…	
Others		
	Is there political and institutional support?	
	Have the key stakeholders identified and consulted (including individuals and groups at risk of being excluded or underserved)?	Key stakeholders at this stage are notably public agencies and authorities, landowners and potential developers.
	Does the local authority have experience of managing large-scale regeneration schemes?	See section Building skills: setting up a team for urban regeneration.
	Is a likely governance model considered?	
	…	

Phase 2: preparation and design

This phase details the project to reflect the needs of the city and its inhabitants and the commercial opportunities for developers and investors.

1. Set up the preparation and design phase

- Review the outcomes of the initiation and visioning phase, including regeneration concept, risks and opportunities, governance models and the planned actions.
- Set up project organisation, including management structure, framework for stakeholder consultation, staffing and budget resources.
- Engage the required consultants, including urban planning, technical and design, strategic, financial and legal advisers.
- If relevant, launch an architectural competition.

2. Select the urban regeneration approach

- The local authority or public agency explores the urban regeneration site.
- Identify the method for land assembly, namely:
    - land purchase: compulsory purchase through the regulatory authority or commercial purchase for additional land parcels to constitute the required land regeneration area, or
    - land readjustment: landowners work with the government or public agency to reorganise and improve the urban regeneration site by pooling together fragmented plots of land, contributing portions of that pooled land for public use (infrastructure), and getting back smaller but more valuable plots of serviced land or real estate
- Prepare an urban design framework (or a site-specific urban planning and development regulation and condition) for the public authority and issuer of development permits for the regeneration site.

3. Carry out stakeholder consultations, including market sounding

Consultation is essential in urban regeneration projects. It ensures they are fit for purpose for future users of the space and utilities, and prevents potential opposition to the project. Stakeholder consultations should be iterative, adaptive and inclusive throughout all phases. An indicative list of steps is provided below.

- Begin by mapping all relevant stakeholders, along with their interests and influence.
- Develop a clear engagement plan that outlines objectives, timelines and communication channels, ensuring representation for diverse groups.
- Document all feedback systematically and demonstrate how it influences design decisions to maintain credibility and community ownership.

Methods used may include, but not be limited to:

- public workshops and town halls: open forums for residents and businesses to share views and concerns
- focus groups: targeted discussions with specific stakeholder segments (for example, women, young people, the elderly, business owners)
- surveys and questionnaires, both online and offline tools to gather broad feedback efficiently

- digital engagement platforms: interactive websites or apps for sharing plans, collecting comments and visualising proposals
- one-on-one interviews: in-depth conversations with key stakeholders or community leaders
- participatory design sessions: collaborative co-creation workshops where stakeholders contribute to design concepts
- site walks and visual mapping: on-site tours to identify potential challenges and opportunities directly with participants.

Attention should be paid to the market sounding of future developers and financiers, who would be candidates for purchasing development plots on the urban regeneration site. This mainly involves testing the interest of future investors, and if they have the capacity and appetite to develop the site, bearing in mind the intended land use, regulations, site plan, business plan and financial expectations. This may have a significant impact on the scale, ambition and phasing of the urban regeneration site, choice of governance model for the project and level of initial public investment for site enabling works, including land remediation, if any.

4. Prepare an urban regeneration plan and requirements

When preparing the full technical definition of the site, including all enabling works, initial site infrastructure and public facilities, as well as anticipated commercial developments, the following should be considered:

- The design of enabling works, including surveys and investigations, land remediation with updated conceptual site model, access roads and utility networks.
- The plan for the urban regeneration site, with architectural and functional design, including public roads and spaces, social and community facilities, landscaping and green areas.
- Land use and zoning controls of the urban regeneration site, including the required changes to meet the stated objectives of the project. This comprises land use (for example, industrial to mixed commercial/residential) and permitted building floor space (height, site coverage, volume, density).
- Review of permitting and approval processes for site development to allow suitable adaptation as required. An urban regeneration scheme usually includes a range of planned projects within the project boundary – that is, residential development, station upgrade, public realm improvement, commercial development, and so on. This means that different types of planning permissions may be required for each component (for example, planning applications for commercial developments differ from residential developments).[17] The details of the scheme are determined later as it progresses, and subsequently reserved matters applications or other planning consent will secure the permit for the additional details.

5. Prepare a business model, with implementation and financial plans

Prepare a business model, including a financial plan that sets out capital investment requirements for initial public works and any site remediation, as well as the commercial value of property development.

17 Urban regeneration schemes in England, as well as many other countries, are typically delivered through outline or hybrid planning applications, which provide for adjustment in planning regulations (maximum building heights, maximum floorspace, amount of parking spaces, minimum share of affordable housing units) for the development.

The financial plan should include any financial contributions from the developer, and any necessary adjustments regarding property tax, development charges and any LVC instruments to reflect the land use, building regulations and expected public investments planned in and around the site.

The implementation plan should consider the sequencing and timing of site development, including phasing, to optimise development outcomes, financing costs and revenues and value opportunity for the urban regeneration entity.

The business model is a key tool for obtaining initial public funding and for engaging private investors and developers.

6. Establish the governance structure

The governance structure is critical for the success of the urban regeneration project, as it ensures that the expected benefits for the public in terms of social, economic and financial outcomes are delivered. The initial proposed model can be refined based on further site development, the business model and consultations.

The governance structure and requirements are at this stage defined, including legal and institutional needs, budget set-up, the establishment of a task force and office space to engage consultants, secure advisory support and provide capacity building.

The governance structure should be established at the end of this phase with initial key positions appointed, while the build-up of its staffing and resources may continue through phase 3 funding and financing.

7. Site assembly

Site assembly is a key task on larger regeneration sites, or when land ownership is fragmented. It enables local authorities to constitute coherent sites for development, taking into account access needs (notably around railway stations), required enabling works and the scale of regeneration opportunity. It can enable the consolidation of land parcels and constitution of integrated areas for large-scale redevelopment.

Table 7 outlines key instruments available to local authorities for assembling land, highlighting their suitability, advantages and limitations.

Site assembly may comprise a complex and lengthy process of site acquisitions which may spill over into implementation phases. The preparation and design phase should include a site assembly plan, with budget and resources, and conclude with a significant, or preferably a majority, proportion of the regeneration site under ownership of the public authority or regeneration entity.

Table 7: Site assembly instruments for local authorities

Instruments	Description/best for	Pros	Cons	Example
Commercial acquisition of land	Purchase of land through agreement-based market transaction.	No requirement to resort to compulsory purchase powers.	Can be expensive, especially in high-demand areas. Cannot overcome refusal to sell without statutory backing.	Frequently used in land assembly to constitute coherent land area.
Right to pre-emption	Contractual or statutory right that gives a party the first opportunity to buy an asset,	Ensures land acquisition without paying	Requires long-term land-use planning and strategy.	Public acquisition overlay in

	such as land or company shares, before it is offered to anyone else.	compensation to landowners or occupiers.	Timing and value of acquisition of land cannot be determined.	Victoria, Australia.
Expropriation	The act of a government taking private property, either through direct seizure or indirectly by substantially depriving the owner of its value, for public use.	Efficient mechanism to acquire strategic sites when needed.	Need to demonstrate strong public interest. Potential objections from landowners and occupiers. Cost for relocation or compensation.	London Old Oak Common.
Land readjustment	Reorganising fragmented, underutilised, or informally developed land into a more efficient and planned urban layout, for urban redevelopment projects. Through this process, land parcels are pooled together, reconfigured and then redistributed, often with improved infrastructure, public spaces and access roads. Land rights of participating owners are replotted into a designated urban regeneration area and/or converted to a part of building rights.	Regenerating existing urban areas without consolidated development sites. Enables the creation of more cohesive, accessible and sustainable urban environments without the need for large-scale expropriation. The plan makes space for public facilities such as roads and parks and distributes the remaining land proportionally to original landowners. The returned land will have a smaller size yet higher land value than the original, thanks to the added public infrastructure.	Time consuming, requiring acceptance and consensus of landowners and occupiers.	Tokyo station-city complexes.

Cross-cutting policies and requirements

The cross-cutting themes indicated below are an integral part of project development. While we introduce them under phase 2, they should be considered throughout all phases.

Socio-economic considerations

Gentrification and displacement: urban regeneration can transform neighbourhoods and cities by revitalising economic, cultural and social life, creating new jobs, improving quality of life and enhancing public spaces and access to services. However, these changes can also impact housing affordability, exacerbate existing inequalities and alter community dynamics if not carefully managed. Planning processes and design should adequately reflect the needs of all population groups. This can be achieved through:

- **inclusive stakeholder engagement**, ensuring that diverse voices, particularly those at risk of exclusion, are involved meaningfully in planning and decision-making
- **inclusive and universal design**, integrating features that address barriers to accessing and using public spaces and infrastructure, particularly for underserved groups (for example, people with disabilities).

To ensure inclusive growth, it is important to also address the potential risks of gentrification and displacement, which can occur in different ways:

- direct displacement through physical changes such as demolitions or relocations
- indirect displacement from rising living costs, cultural or economic exclusion, or reduced access to affordable amenities (often linked to gentrification)
- policy-driven exclusion when new developments primarily serve higher-income groups.

Cities should implement proactive measures at both neighbourhood and individual level, such as guaranteeing social and affordable housing through inclusionary policies, engaging communities early and continuously in planning, and designing projects that preserve cultural heritage and public amenities. Anti-displacement strategies such as relocation assistance and right-to-return programmes, combined with monitoring impacts on housing costs and social ties, help to ensure that regeneration strengthens local identity and delivers benefits equitably for all residents.

Some preventative and mitigating policies and initiatives include:

- community land trusts:[18] collective ownership of land to keep housing permanently affordable; require high local engagement, reliance on subsidies (for example, access to land at low to no cost)
- inclusionary zoning: requiring a percentage of social infrastructure, public/green space, as well as social and affordable housing units in new developments[19]
- density bonus: allowing developers to build more floor area, height or units than normally permitted, in exchange for providing specified public benefits such as affordable housing, open space, community facilities or environmental improvements
- participatory planning: involving residents in regeneration plans
- protective status: legally protecting buildings of architectural/historical importance
- advisory services and training programmes should be offered to local residents to help them adapt to new opportunities, build skills and fully benefit from the economic and social changes brought by regeneration.

With the right guidance, local businesses can adapt to changing conditions and thrive in regenerated areas. Urban renewal can also create new economic activities that generate job opportunities for residents, helping to offset potential increases in living costs. By combining business support programmes, workforce training and inclusive planning, regeneration can strengthen local economies while ensuring that communities share in the benefits of growth.

Social infrastructure: urban regeneration provides a great opportunity to provide social infrastructure such as schools, kindergartens, preschools, elderly care, libraries, community centres, sporting facilities, playgrounds and parks for the benefit of the wider community. The public sector, usually a municipal government, needs to play a proactive role to prevent overcrowding at the existing facilities, and to ensure that new facilities can be provided through the urban regeneration project by considering following measures:

- Adopting planning regulations or developer contributions to make sure that social infrastructure is provided in urban regeneration. Social infrastructure can also be provided through donating floor spaces or making financial contributions to the municipality.

18 For community land trusts, see J. Davis and K. King-Ries (2024) and R. Jacobus (2015).

19 See Development Action Group (n.d.).

- Making an "in-kind exchange" arrangement, for example, the private developer provides social infrastructure in exchange for the public sector providing land or improving infrastructure around the site.

Culture and heritage: preserving and repurposing old and underutilised buildings can provide a unique sense of identity and attraction to the area. Embracing art by promoting street art (both temporary and permanent) or hosting cultural events such as exhibitions can render the site more attractive. Funding for preserving historic buildings and monuments, as well as art projects, can be generated by integrating them with new real estate development.

Economic revitalisation: mixed-use areas with appropriate population density that promote walking, cycling and public transport are ideal for developing a successful neighbourhood and commercial area. Access to and from the urban regeneration site can be improved by providing accessible footpaths or pedestrian bridges to overcome physical barriers such as railways. It is also essential to consider safety – particularly for women, young people and children who often experience higher levels of insecurity – by improving street lighting and carrying out safety audits to make public spaces more appealing and accessible. Shops and cafes on ground-floor spaces can help create sense of vibrancy, facilitate social interactions and improve safety by having more eyes on the street.

Sustainability considerations

Urban planning determines where and what to build, and good urban planning is now widely recognised as a city's first action against climate change. If not managed properly, as with all infrastructure and urban development projects, urban regeneration schemes can impact negatively on the environment and climate, for example habitat loss on a brownfield site, soil sealing and high levels of embodied and operational carbon emissions.

However, well-designed urban regeneration projects have inherent sustainability traits stemming from urban compactness and mixed-use development; by preventing urban sprawl you are reducing energy and resource consumption. This is strongly backed by the Intergovernmental Panel on Climate Change (IPCC) which, in its Sixth Assessment Report, affirmed that "[i]ntegrated spatial planning to achieve compact and resource efficient urban growth through co-location of higher residential and job densities, mixed land use, and TOD could reduce greenhouse gas (GHG) emissions between 23% and 26% by 2050 compared to the business-as-usual scenario." [20]

Green urban regeneration goes even further, stemming from a deliberate emphasis on climate, environmental and nature goals as a **value creation mechanism**. Such projects demonstrate:

- alignment with net-zero pathways thanks to low carbon emissions over the full project lifecycle, achievable, for instance, by: integrating renewable and district energy systems; adopting high energy efficiency standards and using low-carbon materials in buildings; and integrating land use and transport planning to ensure good accessibility to sustainable, public and active mobility modes
- improved climate resilience and urban nature by incorporating green and blue infrastructure and nature, such as urban parks and forests, sustainable urban drainage systems or green roofs and walls. For instance, portions of the site could be designated for vegetation and permeable surfaces to mitigate flood and extreme heat. Focusing on climate resilience can make regeneration projects more attractive

20 See S. Lwasa et al (2022).

by reducing climate risks, increasing the development potential and creating added benefits from nature-based solutions and green infrastructure (realised in increased land values)[21]

- environmental sustainability through water efficiency and reuse; reduction and prevention of air, water and soil pollution; and promotion of circular economy principles by repurposing (and remediating when needed) existing land, buildings and infrastructure.

While not a prerequisite, achieving a certification under voluntary certification schemes can support project promoters in setting clear sustainability targets at the urban/district level. Third party certifications can also provide comfort to financiers about the reliability of the project's climate and environmental goals, as well as the process followed for the development of the scheme.

Particular attention should be paid to ensuring that delivering on sustainability goals does not result in low-income residents being excluded or displaced. Refer to the above sections on stakeholder consultation and social impacts.

Phase 3: funding and financing

This phase is aimed at securing the financial resources needed to develop and implement the project. The responsibilities for financing and funding depend greatly on the financial needs, value proposition and intended governance structure for the urban regeneration project.

Financing and funding are distinct but complementary:

- Financing is about how money is mobilised for investment, often through instruments such as public borrowing, loans and bonds or private capital.
- Funding refers to the sources of revenues that ultimately pay and support the financing of investments, such as public revenues, user fees, taxes or LVC instruments.

In other words, financing answers "how to pay now and recover later", while funding answers "who pays". While financing mechanisms such as loans or bonds enable upfront delivery, they must be backed by reliable funding sources such as commercial or tax revenues to ensure long-term repayment and project sustainability.

Successful urban regeneration projects therefore require both strong financing mechanisms that bridge timing gaps and enable investment, along with reliable funding streams that enable their longer-term viability. Moreover, the risk profile of financial instruments, and the cost of capital, will strongly depend on the reliability of funding sources: predictable and diversified revenue streams are considered financial risk mitigants, and contribute to lowering the cost of financing.[22]

When putting together the project's financing and funding, a structured and proactive market sounding strategy should be followed in cooperation with real estate developers and investment partners to determine market conditions, appetite and funding opportunities. This will be a key part of developing and refining the business plan and financing model, and would include market engagement workshops and roadshows.

21 See the Lincoln Institute of Land Policy (2024) for the Buenos Aires experience and P. Welch et al (2024) for the case of Cali, Colombia. A general overview is available here.

22 Sovereign debt (central government lending, termed the base rate) generally provides the lowest cost of finance, as it is supported by sovereign government taxes and revenues.

Funding

Funding sources, including LVC, are presented in the section "Value creation, capture and distribution".

Table 8 summarises common public funding sources that are used to raise revenues for project investment costs or provide revenue streams through operations, to pay capital costs through debt service, or pay ongoing investment, maintenance or operating costs.

Table 8: Types of funding sources

Type of funding	Description
General tax revenues	Allocation from the general public budget, or from property tax, income tax, or sales tax collected by government.
User fees and charges	Fees for services or infrastructure (for example, business/residential charges, parking fees).
Sale or lease of public land or assets	Converting public land holdings into financial resources via sale or lease agreements.
LVC tools	Instruments such as betterment levies, development impact fees, BID, special assessments, or tax on value uplift.

When assessing the opportunity for generating revenues, it is important to consider that:

- it is crucial to analyse the long-term market demand for residential and commercial offtake, especially if the funding of the urban regeneration project will depend largely on sales or leases of real estate developments
- there is generally higher potential for value creation and value capture when there is lack of land for development, and the real estate market is experiencing strong growth
- market demand studies should rely on reputable market expertise and adapted to the local or international nature of the development partners.

LVC tools can allow revenues generated from public investment and/or policy to be directed towards financing of a specific urban regeneration project. Governments can also ringfence local revenues from LVC, business, commercial and residential activities to reinvest in regeneration efforts (see Annex 2 for case studies).

In addition to being sources of funding, predictable LVC revenues can be formally included in financing models, for instance in the form of legally binding pledges to repay a loan, a bond or other form of financing through the captured value. In this case, it is even more essential to test the sensitivity to market appetite, ensuring that the application of LVC does not deter private actors from engaging in a project.

Financing

Financing for urban regeneration projects should be structured to address the scale, inherent risk, upfront costs and long-term nature of development. Its structure may include both private and public sources.

- Public-sector sources may be derived from supranational entities (multilateral development banks, bilateral/multi-lateral donor funding), national authorities and/or local authorities. Public-sector contributions can take any or mix of the following:
    - monetary (typically drawn from public budget allocation)

    - non-monetary (land/asset as an equity contribution, or in-kind contributions of publicly owned land, facilities or access provisions), assigned or seconded staff to work on the project.
- Private investors include developers, commercial banks and institutional investors. The appetite and risk profile for private investors will largely depend on the following critical factors:
    - clarity of vision for the overall scheme and level of project preparation
    - the central risk profile and risk-sharing between private and public sectors
    - public-sector support (for example guarantees, grants) for private-sector involvement
    - quantum of investment and return based on risk and reward profiles
    - a governance and structure supporting the portfolio and investment strategy.

See Table 9 for a list of common financing sources.

The financial model should consolidate the financial structure, planning and revenue streams of the urban regeneration project. The lead entity develops the main financial model, further detailed and refined from phases 1 and 2, which may now include various project investment scenarios under different financing structures and revenue sources. The financial model is central for the development of the project's financing and funding strategies, and it is a key tool for negotiation between the potential parties and contributors (for instance the municipality, national government, private market) – shaping the roles and responsibilities of both the public and private partners.

In the event of public contributions (monetary, in-kind or other) to a private-led urban regeneration scheme, the public sector should develop its own financial model to justify the level and type of public support proposed, based on expected development revenues and value opportunity, and should lead the discussion and negotiation of related planning permissions. Determining the most effective financial structure should consider:

- the financial needs of the urban regeneration project, from construction (CAPEX) to operations (OPEX)
- the nature of revenue streams raised by the urban regeneration project, and underpinning financial viability; these may originate from both public sources (taxes, duties and levies, including LVC instruments) and commercial sources from use of the new facilities and buildings (for example, residential sale or rent, commercial lease)
- the cost of capital versus the risk appetite: different financing sources have different costs, based principally on the risk profile
- external financing: aligning risk-sharing with regeneration objectives may enable external financing or investment partners, including through models like PPPs
- blended finance: blending financial products or combining financial sources such as private capital, concessional public capital, philanthropic capital and public grants (including matching grants), may increase the financial viability of the project and support wider social, environmental and economic outcomes
- credit enhancement: facilities that reduce the risk and thus the cost of credit to the project entity (for instance sovereign guarantees, first-loss guarantees)
- property pledges: one of the most effective ways to secure financing, notably for private investment, is through the ability to mortgage or pledge property, assets and/or concession rights associated with the urban regeneration project

- regulatory and governance frameworks: regulatory and governance frameworks must provide clarity and predictability around property rights, asset transferability, step-in concession rights and legal standing of mortgages or pledges within regeneration sites. This requires clear title and land registration processes, along with provisions for lenders in case of project setbacks or changes in political priorities. When such frameworks are robust, external financiers are more confident in underwriting projects, and private investors are more incentivised to participate and innovate.
- using property development rights: given the scale and prolonged timelines, urban regeneration projects often require substantial upfront investment. However, if investors are allowed to use property, development rights or future project assets as collateral without administrative hurdles, they can more easily access loans or credit lines from external financiers. This way they reduce equity contributions, accelerate the pace of urban regeneration and achieve intended outcomes sooner.

Table 9. Common financing sources for urban regeneration projects

Financing type	Source	Risk profile	Return expectations	Typical role in projects	Advantages	Challenges
Public entities' own resources	National or local governments	Low	N/A	Project preparation and initial site infrastructure works	Readily available to project sponsor	Limited availability, tied to policy priorities
Debt (senior secured/ unsecured)	Banks, IFIs, bondholders	Low	Fixed interest	Construction, infrastructure CAPEX	For the borrower: lower cost of capital, scalable	For the borrower: requires strong cash flow to repay the debt obligation and (for secured debt) collateral
Debt (mezzanine)	Specialised funds, private equity firms	Moderate to high	Higher interest than other debt	Bridge financing, gap funding	For the borrower: flexible structuring For the lender: enhanced returns	For the borrower: expensive For the lender: riskier than senior debt
Institutional equity	Pension funds, insurance companies	Moderate	Stable, long-term	Core funding for stabilised assets	Large capital base, long-term view	Conservative, risk-averse
Developer equity	Real estate developers	Moderate to high	Project-specific	Land acquisition, construction, operations	Deep market knowledge, operational control	Limited capital, exposure to market cycles
Private equity	Private equity firms, family offices	High	High	Early-stage investment, value creation	Flexible, strategic, fast decision-making	Shorter investment horizon
Capital markets	Real estate investment trusts (REITs), municipal bonds, green bonds	Varies	Market-driven	Monetisation of assets, infrastructure funding	Liquidity, transparency, broad investor base	Regulatory complexity, market volatility, requires a relatively developed capital market

Phase 4: delivery and implementation

Before implementation can begin:

- governance and delivery models must be set up
- financing and funding packages need to be secured for the initial investment funding
- essential land assembly and statutory approvals need to be completed for the initial phase development
- clear project boundaries and phasing need to be defined.

Once these prerequisites are in place, the project can proceed through the delivery and implementation phase.

These steps require strong institutional readiness – ensuring that the responsible entities have the capacity, leadership and mandates to manage a complex, multi-year urban regeneration programme. The project is achieved through the delivery entity, whether public or private. In all cases, public authorities must provide continuous oversight and stewardship in order to drive all related regulatory, planning, implementation and funding requirements.

Note that these phases are often iterative and do not always follow a strictly linear sequence. Given the long implementation timeframe, plans must be regularly revised and updated to adapt to evolving conditions – for example, early offtake challenges or market fluctuations that can affect financial projections and demand assumptions.

Urban regeneration projects are also highly sensitive to shifting political priorities which may result from shifting political leadership/parties over time. This may result in changes to regulatory frameworks or adjustments in funding commitments during implementation.

Implementation planning

A robust implementation plan translates the project vision into a sequenced, actionable pathway. It outlines construction phasing, procurement strategy, cashflow scheduling and a clear risk management framework. This step ensures that timelines, responsibilities and resource requirements are defined before works begin.

Construction and delivery of physical works

This component encompasses the full implementation of on-site activities, including site preparation (and any remaining land remediation), infrastructure construction and upgrades, building works and public-realm enhancements. Strong supervision, rigorous quality control and adherence to environmental and social safeguards are required to ensure construction is carried out safely, efficiently and in accordance with approved designs and standards.

In dense urban areas, managing any disruption effectively is critical to success. In this respect, the development may be released in phases to enable better coordination and minimise impacts. Such phases should also align with the rollout of new infrastructure, such as public transport, utilities and social facilities to ensure that each stage of development is fully supported.

Managing processes, stakeholders and communications

As illustrated earlier, urban regeneration requires continuous coordination among diverse stakeholders, such as residents, businesses, developers, utilities and public agencies. Clear communication and participatory

processes are essential to maintain transparency and manage expectations throughout implementation. Strong engagement and grievance-handling mechanisms help sustain public support and minimise the risks of delay or conflict. Effective community engagement, in particular, is crucial for building trust and securing long-term buy-in.

Financial management during implementation

Once implementation starts, disciplined financial management ensures that funds flow efficiently and transparently. This includes monitoring disbursements, managing related revenue streams, ringfencing dedicated income sources and keeping financing structures aligned with project cashflow needs. Oversight, auditing and anticorruption measures are essential to maintaining credibility and investor confidence.

Adaptive management and problem solving

Urban regeneration projects inevitably face uncertainties, market shifts, cost escalations, political changes or technical challenges. The project can adapt through scenario planning, re-phasing, re-scoping, or adjusting financing approaches. Clear escalation pathways and transparent decision-making processes ensure that issues are resolved quickly with minimal impact on timelines and outcomes.

Monitoring and evaluation

Monitoring takes place when an initiative is evolving or being implemented. It guides adjustments and fine-tuning to ensure that the initiative meets its objectives. In contrast, evaluation is typically undertaken as part of a broad policy process, typically ex post, after a policy or initiative has been fully implemented.

Monitoring is an important part of the implementation process. Owing to the complexity and multi-year timeframe of urban regeneration projects, the financial and political landscape around them can change and influence how the project is delivered (a change of government may affect motivation and financing, for example). And if the way the project is implemented changes, then the tools and applications that are necessary to achieve the project's vision and objectives may also need to change.

Monitoring should be based on evaluation criteria developed from the stated objectives, and on key performance indicators (KPIs)that show whether implementation is on track. The KPIs may relate to key milestones regarding delivery or timing, or the sequencing of key components in the implementation stage. Effective monitoring supports later evaluation by creating a clear framework for assessing performance and by collecting necessary data.

Handover, activation and early operations

As construction concludes, the focus shifts to commissioning, safety certifications and handing over to operational entities. Rolling out some services early, such as utilities, public transport, and public spaces, helps to deliver visible benefits quickly and build public confidence. Establishing maintenance responsibilities and operational budgets at this stage is key to protecting the long-term value of the project.

Long-term management and post-implementation governance

Urban regeneration does not end when construction is complete. Long-term success depends on robust governance arrangements for ongoing district management, including maintenance, service delivery, managing programmes, and the continuous monitoring of socioeconomic outcomes.

Building skills: setting up a team for urban regeneration

Relevant disciplines and skills

Urban regeneration projects are complex, multi-disciplinary undertakings that require a broad range of expertise to plan, prepare, deliver and manage successfully. These capabilities span technical, financial, social and governance dimensions, and often exceed the capacity of a single public authority. Below is a structured framework of the common disciplines needed.

- **Urban planning and economics:** strategic land-use planning, land markets, economic analysis and spatial development.
- **Infrastructure and building engineering:** designing and delivering transport, utilities and building systems.
- **Urban and landscape design:** creating liveable, attractive public spaces and integrating green infrastructure.
- **Culture and community development:** preserving heritage, fostering identity and promoting inclusive regeneration.
- **Sustainability and well-being:** embedding climate resilience, environmental performance and social health.
- **Marketing and communications:** promoting the vision, attracting investment and maintaining public confidence.
- **Legal, financial and taxation expertise:** including public finance, LVC instruments, fiscal incentives and compliance.
- **Operations coordination:** managing day-to-day delivery and ensuring alignment across stakeholders.

An **urban regeneration team** will take on several roles, the prevalence of which will depend on the type, scale and stage of the project, and the level of engagement with private developers and with stakeholders. The different roles are listed below.

- **Property development knowledge**: understanding commercial drivers and developer perspectives.
- **External financing expertise**: structuring predictable frameworks for property rights, asset transferability, concession agreements and mortgage security.
- **Institutional alignment**: coordinating planning documents and regulatory processes across governance levels.
- **Market value assessment**: estimating land and property values, density allowances and costs of social infrastructure.
- **Policy knowledge**: applying land use planning tools and governance mechanisms effectively.
- **Regulatory capability**: enforcing zoning and building codes while maintaining flexibility for expedited changes.
- **Technical assessment:** accurately evaluating site remediation, infrastructure needs and sustainability compliance.

- Risk management: identifying financial, environmental and social risks and developing mitigation strategies.
- Stakeholder engagement and negotiation: building trust and securing agreements with developers, investors and communities.
- Monitoring and evaluation: measuring progress, social impact and economic outcomes.
- Digital and data analytics: using a geographic information system (GIS), building information modelling, and using smart city tools for evidence-based planning and monitoring.

Such a diverse range of disciplines and roles is often scattered across departments – planning, finance, legal, social and technical – which requires strong coordination and institutional capacity to deliver successful results.

Urban regeneration entities – what staffing levels are needed?

Urban regeneration entities are most effective when designed as small, strategically capable organisations aligned to the scale, complexity and duration of the development they oversee. Governance, staffing and skills should prioritise the core roles of integration, long-term stewardship and investment coordination, while additional teams and outsourced expertise are most likely for operational delivery and project management due to their temporal and specialist nature. Such teams should be closely connected to the city's central planning and economic development institutions to ensure that they align with planning vision and accountability. They also need to be endowed with the appropriate level of authority to execute the plan.

Overall, the size of the workforce does not scale linearly with the size of the development area or investment value, although larger and more complex sites certainly require greater in-house strategic expertise, particularly where land ownership is fragmented, infrastructure is constrained or development is heavily phased.

Generally, larger projects may require around 100 staff with senior, skilled professionals supported by secondees and external advisers, with staffing needs evolving over the life of the programme. The early phases will focus on planning, land and infrastructure, and later phases will shift towards estate management and long-term stewardship.

Smaller urban regeneration entities can be effective for defined town centre or corridor-scale regeneration areas with the following features, and may require fewer than 10 staff, alongside consultants and framework advisers. These may feature:

- small land areas (town centre scale rather than new town scale)
- incremental regeneration rather than transformational infrastructure
- shared staffing models with the host authority.

“Annex 1. Public-sector-led development” includes a case study of UK mayoral development corporations (MDCs), showing the range and scale of urban regeneration projects covered alongside staffing levels.

Building a team

Public authorities need to be suitably resourced to manage the urban regeneration from phase 1, while the size and complexity of the team will depend on the scale and stage of the project development.

In practice, it can be exceptionally difficult, or even potentially unrealistic, for most public authorities to source all the necessary expertise from within their own organisations, given the long-term nature of such projects. Smaller entities in particular often need staff to attend additional training or be replaced as and when people leave.

In light of the complexity and long-term nature of these initiatives, public authorities should consider establishing a **dedicated task force** to bridge these gaps. Such a task force would operate as a flexible, project-focused unit, combining internal staff with external experts through short-term contracts, partnerships with universities, and secondments from other agencies and/or the private sector.

To ensure effectiveness, the authority should start by defining a clear mandate and scope for the task force. Recruitment should be strategic, targeting core competencies while maintaining diversity of expertise. Governance structures must be established, including a project lead with authority to act and with clear reporting lines to senior leadership. A dedicated budget should be allocated for staffing, consultancy fees and training, supplemented where possible by grants or PPPs. Lastly, the task force should incorporate knowledge transfer mechanisms and capacity-building programmes to strengthen the authority's long-term ability to manage future projects independently.

The following strategies should be explored in setting up the task force, to enable at least a core group of staff to further develop their skills:

- Training courses, notably in urban and economic planning, real estate markets and property management, negotiation, PPP management and local government finance.
- Professional events and study tours to urban regeneration projects, and agencies developing urban regeneration projects.
- Partnerships or secondments by staff from other public organisations, such as national ministries (housing, finance, planning or PPP unit), to provide complementary skills.
- Outsourcing of specialist roles for project preparation and delivery. It often becomes essential to support the relevant public entity by providing specialists with experience in public policy, infrastructure and real estate development and could be structured as technical advisory assignments for project planning, preparation and/or implementation.

Knowledge sharing, capacity building and training courses

Continuous learning and knowledge exchange are vital for developing understanding and practice in urban planning, land management, funding and LVC, and real estate development. The following professional organisations, events or programmes could be explored as a source of training and knowledge-sharing platforms.[23]

23 The list represents a selection of organisations and events at the time of writing. It is indicative and is not intended to be exhaustive.

Organisations

- Urban Land Institute (ULI)
- Lincoln Institute of Land Policy

Events

- Urban Land Institute conferences: real-estate-focused conferences, training and study tours running across Europe.
- International Conference on Urban Regeneration and Sustainability: annual conference to exchange research results, experiences, trends and innovations on urban regeneration and sustainability.
- World Urban Forum: biennial event organised by UN-Habitat.
- EBRD Housing Forum: annual event organised by the EBRD with a focus on topical issues and funding within EBRD regions.

Capacity building programmes

Capacity building programmes require a knowledge and/or funding partner and are best implemented alongside urban regeneration programmes and investments, to ensure they are tailored to investment need and provide an active environment for learning, good practice and policy development.

National Land Value Capture Programme, South Africa

South Africa's National LVC Programme is a partnership between South Africa's Treasury, the Development Action Group and the Lincoln Institute of Land Policy.

It was launched in March 2020 to equip national, provincial and local authorities with the skills and tools needed to implement LVC for inclusive urban development and fiscal resilience. It enables governments to apply innovative LVC strategies through targeted **training, technical support, peer-to-peer learning and capacity-building workshops** for officials and built-environment practitioners.

The initiative began with a series of **stakeholder dialogues** that established a shared language and framework for understanding what LVC is and why it is relevant in the South African urban context. Over its six years, the programme has generated **new policy frameworks, innovative land-use plans and peer-to-peer municipal exchanges** that did not previously exist.

To learn more, visit https://landvaluecapture.org.za/.

Training courses

Table 10 lists short training courses in urban regeneration, land management and urban policy that may complement established academic programmes and degrees in areas such as land and economic policy, real estate development and project management.

Table 10: Training courses in urban regeneration, land management and urban policy

Training	Host organisation	Ideal for	Description
Foundations of Local Government Finance	Lincoln Institute of Land Policy	Urban planners and other local government staff, real estate professionals, employees of non-profit organisations, and anyone interested in how local governments pay for public goods.	A free, online, self-paced course that provides an overview of how local governments raise and spend money.
Fundamentals of Municipal Finance Credential	University of Chicago, Harris School of Public Policy/Lincoln Institute of Land Policy	Professionals who have an intermediate knowledge of public finance, seeking to improve their understanding of the field.	A four-day programme that offers a thorough foundation in municipal finance with a focus on urban planning and economic development.
Own Source Revenue for Local Governments	UN-Habitat	Local officials seeking to reform their existing own source revenue systems at the local level.	A free, online, self-paced course about own source revenues. Module 4 focuses on property taxes.
Taking sustainable urban mobility to the next level (Part 2)	UN-Habitat		A free, online, self-paced course about best practices in sustainable urban mobility. Module 1 focuses on TOD.

Moreover, professional development courses may be designed and created with a training institute, such as short courses (1-2 weeks), executive education or modular professional training programmes on LVC.[24]

24 Lincoln Institute has a range of courses in land management – https://www.lincolninst.edu/courses/ – and has developed tailor-made courses, for example, Land Value Capture and Urban Finance for public-sector officials in Latin America (1-2 week course).

What does the EBRD offer in urban regeneration?

The EBRD provides development finance throughout our countries of operation.

For urban regeneration projects, we offer a broad and comprehensive programme to a wide range of potential clients and funding partners. We:

- support both public and private clients through appropriate loans and equity finance (including blended finance), as well as technical assistance for project preparation and implementation[25]
- can access complementary funding sources, notably donor funding programmes and through the Green Cities programme
- adapt financial products to each project's needs – our banking and technical experts in municipal infrastructure and services, private real estate development, PPP advisory, environment, social inclusion and climate change policies, all work closely together to tailor the right products
- work alongside clients through all stages of project identification, preparation and implementation to guide various approaches to urban regeneration, ensuring the best possible economic, social and environmental outcomes.

The EBRD is a one-stop shop that can engage the relevant experts for the preparation and delivery of green and inclusive urban regeneration projects. By leveraging our access to a broad network of professionals across various disciplines, local authorities are able to source the necessary skills to develop and implement their regeneration initiatives.

Depending on the scale and opportunity of the urban regeneration project or programme, we can support investments through technical cooperation assignments. These may include preparing investment projects through feasibility and market studies, including planning and governance, technical preparation and procurement and implementation support. Moreover, in complement to such investments, the Bank may also support relevant policy development, notably with the support of donor funding partners. These have included integrated urban mobility plans, Green City Action Plans, LVC assessments, social and affordable housing studies and capacity building/knowledge-sharing initiatives.

For all investment projects, the EBRD provides suitable due diligence and procurement support to ensure the quality and performance of our investments, and compliance with our environmental and safeguarding policies.

25 For further details, go to www.ebrd.com/home/what-we-do/products-and-services.html.

Annex 1. Case studies relating to governance model

Public-sector-led development

Paris & Métropole aménagement (joint public development company)

Paris & Métropole aménagement is a local public company **(société publique locale (SPL))**, jointly owned by the City of Paris and the Greater Paris Region. Initially created to deliver the **Clichy-Batignolles regeneration project**, its mandate now covers urban regeneration in both central Paris and the suburbs. Paris & Métropole aménagement operates under concession contracts with Paris and holds planning authority over designated sites. Its responsibilities include land acquisition, site preparation and construction, environmental assessments, financial and administrative management, public consultation and implementation of the city's climate plan.

The flagship Clichy-Batignolles eco-district transforms 54 hectares of former railyard into a sustainable neighbourhood with 3,400 housing units, offices, retail units, public facilities and green infrastructure. It integrates renewable energy (geothermal and solar), energy-efficient buildings and a 10-hectare park to mitigate heat and manage stormwater. The area prioritises public transport and active mobility and achieved Stage 4 ÉcoQuartier certification in 2020.

Institutional partnerships include public housing agencies (Paris Habitat, RIVP[26]), private and public financiers (such as Caisse des Dépôts), and EU funding for the district heating network through the CoRDEES project.[27]

Copenhagen Nordhavn (North Harbour)

Nordhavn (North Harbour) is a mixed-use waterfront neighbourhood situated 2.5 km north of Copenhagen's historic centre and occupying about 300 hectares of post-industrial land. The delivery of this large-scale regeneration project is managed by Copenhagen City & Port Development, a public-public partnership established in the mid-2000s between the City of Copenhagen and the Danish state to develop public land, primarily in harbour areas. City & Port operates as an independent delivery authority, able to continue operating in the long term and across political cycles.

Building on the previous experience of the Ørestad development, public land release in North Harbour is strategically linked to funding of the new City Circle metro line, which forms part of a cohesive metro, suburban and regional rail network. Access to financing relied on City & Port's ability to take on a large loan of approximately €2 billion with backing from the state, which was then a 45 per cent shareholder of City &

26 Régie Immobilière de la Ville de Paris, or housing agency in Paris.

27 For more information on Clichy-Batignolles https://www.parisetmetropole-amenagement.fr/en/clichy-batignolles-paris-17th.

Port. Funds were then transferred to the newly established Metro Company to deliver the metro line, while City & Port kept the responsibility of the loan repayment.

City & Port serves multiple roles: from landowner to planning authority and project manager for its land and assets. The company also markets its own land plots to developers.

In 2015, City & Port entered a joint venture with Nordic Real Estate Partners (part of Urban Partners), for the management of the neighbourhood's high street. The land plots sales agreements allow City & Port to purchase back the ground floors from property developers, to take on the management of retail and commercial spaces through the joint venture, allowing a cohesive street-level development under an overarching place-making strategy.

Currently, around 4,000 residents live in North Harbour. The population is projected to reach 35,000 residents and 28,000 workers when the area is fully developed by 2050. North Harbour represents a blueprint for sustainable urban regeneration, ensuring optimum use of resources and energy, promoting sustainable mobility thanks to its dense network of pedestrian and cycling paths and public transport access (effectively achieving a "five-minute city"), and attracting local and international businesses. From a housing perspective, the area is projected to deliver 20 to 25 per cent of all new homes as affordable units (compared to the 30 per cent requirement across Copenhagen).[28]

Manchester – urban revival of the world's first industrial city

Manchester, celebrated as the world's first industrial city, rose to prominence in the 19th century as a global manufacturing hub. However, by the 1980s, deindustrialisation had left deep scars on the city. Abandoned warehouses and factories lined its canals and rail routes, unemployment soared and inner-city neighbourhoods fell into decline.

Regeneration began in the late 20th century, driven by major transport upgrades such as the Metrolink tram system and extensive rebuilding following the 1996 Manchester bombing. Landmark projects reshaped the urban landscape. Spinningfields emerged as a financial district attracting global firms, while Salford Quays and MediaCityUK transformed derelict docks into a thriving media and technology hub. The £800 million NOMA redevelopment revitalised north Manchester, and historic districts such as Ancoats and Castlefield were converted into vibrant residential and cultural quarters. These efforts, combined with population growth and inward investment, positioned Manchester as the UK's leading regional economy.

Looking ahead, the city's development strategy will be guided by a new local plan covering 2027 to 2042. It sets ambitious goals, including the delivery of 36,000 new homes, 10,000 of which will be affordable, alongside a commitment to achieve net-zero by 2038 and expand green spaces. Integrated land-use planning will align housing, jobs and transport to create a more sustainable urban environment.

28 For more information, see B. Katz and L. Noring (2017); North Harbour at https://nrep.com/project/north-harbour/; and S. Rose (2024).

Central to this vision is an integrated pipeline approach that coordinates planning and funding for major projects. This framework ensures transparent prioritisation of investment and secures support from both government and the private sector. Manchester's evolution reflects a remarkable transformation from industrial decline to a dynamic, sustainable city that balances economic growth with liveability and climate goals.[29]

Old Oak Common and Park Royal Development Corporation (OPDC), west London

Old Oak Common is a transformative mayoral-led redevelopment initiative established in 2015 under Mayor of London and Secretary of State approval, covering between 650 and 950 hectares across the London boroughs of Hammersmith and Fulham, Brent and Ealing. Its objective is to deliver about 24,000 to 25,500 homes (including affordable units), create up to 65,000 jobs, and provide a transport hub linking the Elizabeth Line and High Speed 2 (HS2) by 2028-33.

OPDC operates as a planning authority and developer with statutory powers (planning, land acquisition, compulsory purchase orders (CPOs)). As a mayoral development corporation, OPDC collaborates closely with central government, London boroughs, HS2 Ltd, Network Rail, private developers and community stakeholders.

Funding combines public land transfers (from the government and Network Rail), central government infrastructure grants, support from the boroughs, HS2 construction budgets (of about £50 billion), along with value capture mechanisms such as business rate retention, the community infrastructure levy/Section 106, apprenticeship levy and private-sector investment. Consultants including PRD, AECOM and Earth Regeneration have supported strategic funding frameworks and masterplans.

Old Oak Common station, developed by HS2 Ltd and Network Rail with 14 platforms, has a Building Research Establishment Environmental Assessment Methodology (BREEAM) sustainability rating of "Outstanding". The station is expected to open between 2029 and 2033 and will serve approximately 250,000 passengers daily, fully integrating high-speed, regional, Elizabeth Line and Great Western services.

Delivery challenges include fragmented land ownership (although it is now around 90 per cent under OPDC), significant engineering complexity due to level differences, infrastructure interfaces and industrial relocations. Community input and joint venture models are being developed; a memorandum of understanding in 2016 secured land transfers. Real estate forecasts predict around 18 per cent regional house price growth by 2028, and the projected economic uplift is estimated at between £7billion and £15 billion gross value added.

LCR property: an urban regeneration agency driving rail-based developments

In April 2023, London and Continental Railways (LCR) merged with Network Rail Property to form LCR Property, a new public-sector agency of the Department for Transport in the UK, focused on rail-integrated development and LVC. This merger combines LCR's regeneration expertise with Network Rail's extensive land holdings to accelerate transit-oriented growth.

LCR, originally created to deliver the Channel Tunnel rail link (HS1), has evolved into a regeneration specialist behind projects such as King's Cross Central and Ebbsfleet Garden City, with a strong record in PPPs and LVC.

29 For further reading go to https://www.greatermanchester-ca.gov.uk/news/greater-manchester-sets-out-trailblazing-plan-to-kickstart-a-new-decade-of-growth/.

LCR Property manages a portfolio of railway land valued at over £1.8 billion, including stations and vacant plots, that is previously underused due to fragmented management. It employs up to 200 staff.

The new entity adopted a master developer model, blending public control with private investment. It will use LVC tools such as developer contributions, land leasing and joint ventures to fund infrastructure. With thousands of acres near transport hubs under unified control, LCR Property offers faster delivery, greater efficiency and a balance between commercial returns and public benefits, such as affordable housing and station upgrades.

Future projects include station-area developments in Birmingham and Manchester, expansion of new towns, and regeneration around HS2 stations – positioning LCR Property as a key driver of rail-based urban transformation in the UK.

UK mayoral development corporations (MDCs)

Development corporations are statutory bodies created under the Localism Act 2011, enabling metropolitan mayors (and, more recently, government with local consent) to establish place-focused delivery organisations with planning, land assembly and development powers.

There are currently more than 10 development corporations operating in England, established to accelerate large-scale regeneration, housing delivery and infrastructure investment in defined areas where long-term coordination and market intervention are required.

Table 11 indicates the range of size of MDCs depending on scale, complexity and maturity of the urban regeneration project, managing sites of 60 to 2,500 hectares, generating between £1 billion and more than £12 billion of investment, and employing from fewer than 10 members of staff to up to 250.

Table 11: List of MDCs with their indicative land, investment and staffing

Development corporation	Year established	Approx. land area	Indicative total investment	Indicative core permanent staffing	Official reference
Stockport Mayoral Development Corporation	2022	130 hectares	£1 billion to £2 billion	6-8 staff	https://www.stockportmdc.co.uk
Rochdale Mayoral Development Corporation	2024	60-80 hectares	£1 billion	10-20 staff	https://www.greatermanchester-ca.gov.uk/what-we-do/planning-and-housing/rochdale-mayoral-development-corporation/
Oldham Mayoral Development Corporation	2023	100 hectares	£1 billion to £1.5 billion	15-25 staff	https://www.greatermanchester-ca.gov.uk/what-we-do/planning-and-housing/oldham-mayoral-development-corporation/
Tees Valley Mayoral Development Corporations	2019	500+ hectares	£3 billion to £5 billion+	20-40 staff	https://teesvalley-ca.gov.uk/about/mayoral-development-corporation/
Ebbsfleet Development Corporation	2015	2,500 hectares	£6 billion to £8 billion	50-70 staff	https://ebbsfleetdc.org.uk

Old Oak and Park Royal Development Corporation (OPDC)	2015	650 hectares	£10 billion to £12 billion	90-120 staff	https://www.london.gov.uk/opdc
London Legacy Development Corporation (LLDC)	2012	560 hectares	£7 billion to £9 billion	200-250+ staff	https://www.queenelizabetholympicpark.co.uk

Key observations on MDCs

- Staffing does not scale in proportion to land or investment: for example, Stockport MDC oversees up to £2 billion of development with single-digit staffing.
- Smaller MDCs are viable where geography is compact, risk is controlled and local authority capacity can be shared.
- Larger MDCs require deeper in-house capability in planning, land assembly, commercial structuring and infrastructure coordination, but remain small relative to the systems they manage.
- Across all MDCs, statutory powers, senior expertise and institutional clarity matter more than headcount.

Joint entities

Hudson Yards, New York (USA)

Following the rezoning of the 60-block district on the Far West Side of Manhattan, the City of New York planned and redeveloped the former industrial area into a high-density, mixed-use neighbourhood, now called Hudson Yards.

Beginning in 2012, the US$ 2.2 billion investment in the number 7 train line extension to Hudson Yards acted as a catalyst for more than 8 million square feet of private development, the creation of new open space and amenities, and significant new economic activity.

The cost of the investment, land acquisition and public space improvement were financed by bonds issued by the new Hudson Yards Investment Corporation, backed by revenue generated through new development within a 130-acre financial district.

Taiwan High-Speed Rail (THSR)

The Taiwan High-Speed Rail (THSR) project promoted development at five stations: Taoyuan, Hsinchu, Taichung, Chiayi and Tainan.

The Railway Bureau (Ministry of Transportation and Communications, MOTC), Ministry of Interior, and city and county governments worked together to expropriate land from existing landowners. The Railway Bureau was responsible for the financial aspects of the project, including management of the Railway Development Fund. The Ministry of Interior was tasked with land acquisition and strategic planning. City and county governments performed property assessment/demolition and communicated with the landowners.

After the rail infrastructure was built, 40 per cent of the acquired land was returned to the original owner in “blocks” of land, 45 per cent was retained for public spaces and facilities, 5 per cent was kept as the station area, and 10 per cent was kept as additional development to cover investment costs.

The public infrastructure investments in the five areas attracted private business development. While the rate of development varied, Hsinchu and Taoyuan observed the highest increase in land value, with revenue comfortably exceeding the initial cost of development. Creation of business and industrial zones further attracted private-sector investment.

Nordbahnviertel redevelopment, Vienna (Austria)

The Nordbahnviertel redevelopment, launched on an 85-hectare former rail-freight site, is one of the largest inner-city urban renewal projects in central Europe, forecast to host about 20,000 residents and workers by 2025-26. The 32-hectare "Freie Mitte" alone will deliver 5,000 homes and 2,500 jobs, while the adjacent Wohnallee includes 770 flats, a school and offices.

Financing combined public investment from the City of Vienna and ÖBB (Austrian Railways) with private capital from major developers such as STRABAG Real Estate, UBM and HABAU Group, alongside European Investment Bank loans channelled through ÖVW (Erste Bank's housing subsidiary) to support affordable rental housing, as well as long-term municipal support.

Construction began in the early 2010s, with the initial phases completed by 2024 and final build-out expected by 2026. The project's success depended on citizen participation, overseen by a dedicated neighbourhood management team, and an urban contract governance model that balanced multilevel public-sector leadership with major private stakeholders, ensuring objectives such as sustainability, affordability and mobility integration were met.

DumBO District, Bologna (Italy)

DumBO (Distretto urbano multifunzionale di Bologna) is a temporary urban regeneration project that repurposes former railway yards near Bologna's central station into a 40,000 m^2 creative and cultural hub. Launched in 2019, it operates under a PPP involving FS Sistemi Urbani, the Municipality of Bologna and local cooperatives.

The district hosts cultural associations, social enterprises and creative businesses, offering spaces for events, co-working, art and circular economy initiatives. Designed as a flexible, experimental model, DumBO promotes community engagement, sustainability and adaptive reuse of industrial heritage. It serves as a testing ground for innovative urban practices aligned with European green and inclusive development goals, demonstrating how temporary use can unlock underutilised assets while fostering social and economic vitality.

Private-sector-led development

Battersea Park development, London (UK)

The Battersea Power Station project is a mixed-use regeneration project costing between £9 billion and £11.5 billion and covering 42 acres. It was led by the Battersea Power Station Development Company, a private consortium of Malaysian investors including PNB, Sime Darby, SP Setia and the Employees' Provident Fund. With statutory planning support and CPO powers from London local authorities, along with endorsement from the Greater London Authority, Battersea Power Station Development Company assembled around 90 per cent of the land.

The eight-phase masterplan, designed by Rafael Viñoly, WilkinsonEyre, Foster + Partners, Gehry Partners and others, used value capture via high-value residential, retail and office space and leveraged public funding for transport infrastructure, including the Northern Line extension to the site. Phase 1 (Circus West Village) delivered 753 homes from 2013; phase 2 (power station restoration) opened in October 2022 with housing, the Apple campus, dining, a cinema and "zero-carbon" building systems.

The project also includes commercial services such as combined cooling, heat and power (CCHP) technology and extensive public realm improvements. It is projected to deliver around 4,000 homes (including affordable units), approximately 20,000 to 25,000 jobs, and 19 acres of public space. The development underscores how large-scale urban regeneration can be driven through private-led investment, statutory public powers, value capture and multi-stakeholder coordination with the Greater London Authority and boroughs.

Porto Montenegro, Tivat (Montenegro)

Porto Montenegro is a comprehensive urban regeneration initiative comprising a yachting marina and premium residential and hospitality facilities in Tivat, Montenegro, within the UNESCO World Heritage Site of Kotor Bay. The site has been transformed from a derelict, polluting naval shipyard into one of the Mediterranean's top nautical destinations. Its maritime history stretches back to 1889 when it was established as the Austro-Hungarian naval base, later serving as a key Yugoslav military shipyard for repairing ships and submarines through the 20th century.

After Montenegro regained independence in 2006, the idea emerged to capture economic opportunities arising from the tourism sector. Following a government tender, Canadian entrepreneur Peter Munk, founder of Barrick Gold, led a group of high-profile investors to acquire concession rights over the Tivat shipyard, envisioning the development of a high-end waterfront destination.

Today, the marina features 450 berths, with plans to expand to 850 – the largest in the Mediterranean. The village currently offers upmarket apartments and hotel facilities, more than 80 retail units, a naval museum and an international school. To date, overall investment in the area has surpassed €1 billion. Multiple phased subprojects are currently being planned for parts of the site that have not yet been developed.

Today, Porto Montenegro is an essential contributor to the country's economy and a key player in the Mediterranean yachting and hospitality community. The project is widely regarded as the blueprint for large-scale waterfront, hospitality-led urban regeneration schemes in Montenegro.

Piraeus Port Plaza, Piraeus (Greece)

The Piraeus Port Plaza project, led by Dimand, the largest Greek real estate developer, represents one of Greece's most prominent urban regeneration initiatives, transforming the former Papastratos tobacco industrial complex in the Agios Dionysios district into a modern, bioclimatic, mixed-use hub.

Spanning over 82,000 m^2 across three redeveloped city blocks, Piraeus Port Plaza integrates sustainable office spaces, retail and publicly accessible areas, earning multiple Leadership in Energy and Environmental Design (LEED) gold and platinum certifications. The project repurposed historic industrial buildings and introduced contemporary structures with enhanced environmental performance, while improving the district's urban fabric through new green areas and public realm upgrades. Completed in stages between 2018 and 2023, Piraeus Port Plaza redefined Agios Dionysios as a strategic business destination within the wider Piraeus regeneration.

As one of the first large-scale real estate redevelopments completed after Greece's economic crisis, Piraeus Port Plaza acted as a catalyst for investment, helping to reposition Piraeus from a declining industrial zone into a growing commercial and innovation corridor. With its high-quality workspaces and sustainable design credentials, the project attracted significant business activity and reinforced Piraeus's broader transformation alongside complementary developments such as the Piraeus Tower renovation and improved transport infrastructure. By introducing modern employment spaces for up to 10,000 people and delivering landmark environmental upgrades, Piraeus Port Plaza accelerated the district's shift towards a diversified, service-oriented economy, providing a model for sustainable adaptive reuse and regeneration in port-adjacent urban areas.

The Ellinikon (Greece)

The Ellinikon project is Greece's largest urban regeneration initiative and one of Europe's most ambitious redevelopment programmes, transforming the former 6.2 million m^2 Hellinikon International Airport and Agios Kosmas coastal front into a new metropolitan district. The €8 billion, multiphase development integrates residential, commercial, cultural, educational and tourism infrastructure, anchored by Europe's largest planned coastal park and a comprehensive framework of sustainable mobility, green infrastructure and climate-responsive design. The project envisions 9,000 new homes, next-generation office clusters, mixed-use commercial hubs, extensive sports facilities and major public realm improvements designed to reconnect Athens with its coastline and enhance long-term environmental and social resilience.

To date, implementation has been progressing at scale, with more than 40 active construction sites, major milestones in residential and commercial development, and strategic partnerships positioning the area as a hub for innovation and digitalisation. These include the establishment of a 250,000 m^2 Global Research and Development and Innovation Campus by ION Group and the creation of an AI-enabled university campus by the University of Nicosia, alongside landmark real estate projects such as the Riviera Tower – Greece's first skyscraper. The project is expected to generate significant economic benefits, including up to 75,000 jobs and substantial contributions to gross domestic product (GDP) and state revenues, while serving as a benchmark for balancing economic returns with inclusive urban planning, environmental sustainability and integrated coastal revitalisation.

Annex 2. Case studies on LVC instruments

São Paulo certificates of additional construction potential (CEPACs)[30]

CEPACs are financial instruments issued by São Paulo's city government and traded through electronic auctions on the São Paulo stock exchange (Bovespa). Each CEPAC grants its holder – typically developers or landowners – extra building rights, such as a higher floor area ratio (FAR), a larger building footprint or permission to change land use.

From a financial perspective, CEPACs represent the compensation paid by developers to the public administration in exchange for these enhanced development rights. The mechanism was first introduced in 1995 for the Faria Lima urban operation but only became operational in 2004, following the 2001 approval of the City Statute (Estatuto da Cidade), which authorised CEPACs to be used as a planning instrument applicable throughout Brazil.

Rail plus property in Hong Kong

Hong Kong's Mass Transit Railway Corporation (MTRC) uses a distinctive "rail plus property" model to fund metro development through direct LVC. By integrating transport and land-use planning, MTRC covers both capital and operational costs using profits from property development as part of a long-term investment strategy.

Before new rail lines are built, the Hong Kong SAR government grants MTRC development rights over land along proposed routes, leveraging its extensive land ownership. MTRC then auctions these rights to private developers, who lease the land and build properties. Rising property values, driven by proximity to the metro, are captured by MTRC through profit-sharing agreements, in-kind assets or upfront payments. Developers assume construction costs and risk but benefit from strong returns in Hong Kong's thriving real estate market.

Several factors underpin the model's success: government land ownership, MTRC's ability to integrate land-use and transit planning, high urban density and ridership, and robust property demand. This approach not only funds metro expansion without public subsidies but also generates annual dividends.

While replicating the model elsewhere has proven difficult (successful only in Shenzhen despite attempts in London, Melbourne and Stockholm) it offers valuable lessons. Development-based LVC can provide sustainable funding where property taxes are weak, and strong institutional capacity enables transit agencies to leverage land development alongside transport delivery.

30 A multimedia case study on São Paulo's experience with LVC mechanisms is available at https://www.lincolninst.edu/case-studies/financing-citys-vision/.

London Olympic Park, Stratford UK

Through mechanisms such as Section 106 agreements and the community infrastructure levy, developers contributed financial resources to support social infrastructure, including schools, health centres, parks and community facilities. These contributions also helped fund affordable housing within the development, ensuring that regeneration benefits extended to local communities.

The original target for affordable housing in the Olympic Park regeneration project was set at 50 per cent across the five new neighbourhoods. However, due to economic challenges following the 2008 financial crisis and changes in viability assessments, the final proportion of affordable housing was revised to around 30-35 per cent of total housing units. This included a mix of social rent, affordable rent and shared ownership homes, catering to diverse income levels and fostering a more inclusive community within the regenerated area. By leveraging LVC tools effectively, the project ensured that public value was recaptured to fund critical social and housing infrastructure, aligning with its broader legacy goals.

Northern Line extension and Battersea redevelopment, London

After several failed attempts, the redevelopment of Battersea Power Station gained momentum, largely due to the extension of the Northern Line to the Battersea area. This transport investment was crucial in unlocking the site's potential and driving regeneration across the wider Vauxhall, Nine Elms and Battersea Opportunity Area.

To fund the Northern Line extension, the Greater London Authority borrowed £1 billion and implemented a bespoke financing package that would contribute to investment costs and mobilise revenue sources to cover debt service. This included incremental business rates generated by new commercial development within a designated enterprise zone along the metro line, with an additional developer contribution from the Battersea Power Station Development Company for the main development site.

This integrated approach shows how transport infrastructure can be combined with major urban regeneration to mobilise additional revenue sources and support private investment.

Grand Paris Express: institutional structure and LVC

The Grand Paris Express is one of Europe's largest urban transport projects, adding over 200 km of new metro lines and 68 stations across the Paris region by 2030. Its delivery is overseen by the Société du Grand Paris (SGP), a state-owned entity created for this purpose. SGP operates under national legislation and coordinates with regional and municipal authorities through territorial development contracts which set targets for housing, economic development and public facilities around new stations. This governance model ensures that transport investment and urban development objectives are aligned, while maintaining strong state leadership in planning and financing.

Financing such a mega-project in a context of fiscal constraints required innovative mechanisms. Beyond traditional public funding and loans, the Grand Paris Express relies on LVC instruments to recover part of the value uplift generated by new infrastructure. These include special taxes on office space near stations, development contributions negotiated through planning agreements, and the strategic use of public land. SGP and local authorities leverage their land holdings by rezoning and releasing sites for mixed-use development, capturing gains through sales or long-term leases.

This approach reflects a broader shift towards development-based LVC, where public actors integrate transport and land-use planning. By monetising land appreciation and channelling private investment into

station-area projects, the Grand Paris Express creates a virtuous cycle: infrastructure drives land value, which in turn helps to fund infrastructure. While replicating this model elsewhere depends on institutional capacity and land ownership patterns, it shows how LVC can mitigate austerity pressures and deliver large-scale urban transformation without overburdening public budgets.

The Northumberland Rail Line, UK

The Northumberland Line, formerly known as the Ashington-Blyth-Tyne Line, reopened in 2024 as a passenger service on a former freight route. This project exemplifies rail-based regeneration, integrating transport improvements with LVC mechanisms to deliver economic and social benefits.

The line introduces six new stations designed around TOD principles, supporting new housing and employment opportunities. The regeneration aims to reconnect deprived former mining towns such as Ashington and Blyth with Newcastle, substantially reducing travel times. This improved connectivity is expected to boost job access, stimulate local economies and reduce car dependency.

Delivery relied on a mix of LVC funding instruments. Northumberland County Council strategically acquired land before the project was announced, enabling value gains after reopening to fund future initiatives. Developer contributions from housing schemes near stations helped finance infrastructure improvements, including step-free access. Also, retained business rates from new employment hubs, such as Northumberland Energy Park, are being used to repay public investment.

Despite its success, the project faced challenges, including developer resistance to high LVC obligations and concerns about displacement without stronger affordability safeguards. Nevertheless, the Northumberland Line represents a scalable model for rural-urban rail revival, blending transport, housing and value capture to ensure public benefit from private land value uplift while supporting repayment of council investments.

London Crossrail (Elizabeth Line)

Crossrail, commonly known as the Elizabeth Line, was one of Europe's largest infrastructure projects, spanning 118 km at a cost of £18 billion. It was delivered by Crossrail Ltd, a company wholly owned by Transport for London (TfL). The project was developed and funded in partnership with the Department for Transport of the UK government.

The line opened in 2022, increasing London's overall rail capacity by 10 per cent and significantly reducing travel times across Greater London. Its economic impact is substantial: a 2016 study by Savills and KPMG estimated an uplift in land value of between £55 billion and £87 billion, alongside an expected £42 billion boost to the UK economy. Funding combined central government contributions with LVC instruments, including the Crossrail community infrastructure levy (CIL), Section 106 agreements, and a BRS on large commercial properties.

London's local plans and LVC

London's 32 boroughs and MDCs publish local plans that align with the London plan while setting borough-specific policies. These frameworks often embed LVC tools such as the CIL, Section 106 agreements and, in some cases, development rights auction models.

Many boroughs complement city-wide standards with infrastructure funding statements, affordable housing targets, including 40 per cent social rent thresholds, and fast-track planning routes for compliant schemes. For example, Harrow's 2021-41 local plan is under independent examination with site-specific CIL and Section 106 contributions to support housing delivery. Wandsworth and Westminster are refining area-based guidance through Regulation 19 consultations, while Central London Forward (a network of 12 boroughs) advocates reforms to strengthen land assembly powers, adjust permitted development rights and resource planning teams.

At city level, London City Hall has introduced toolkits such as the 2017 Development Rights Auction Model and recent TfL documents assessing CIL and Section 106 reforms. King's Cross Central illustrates LVC in practice, where public-private partners reinvest captured value into civic improvements.

Despite progress, CIL adoption remains uneven, with only half of boroughs currently applying it. Ongoing reforms led by Homes England, the Planning Advisory Service and the Housing, Communities & Local Government Select Committee aim to standardise Section 106 clauses, improve viability guidance and enhance transparency across London.

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Abbreviations

BID	business improvement district
BREEAM	Building Research Establishment Environmental Assessment Methodology
BRS	business rate supplement
CAPEX	capital expenditure
CEPAC	Certificado de Potencial Adicional de Construção (Brazil) [in English: Certificate of Additional Construction Potential]
CIL	community infrastructure levy
CSO	civil society organisation
CPO	compulsory purchase order
EBRD	European Bank for Reconstruction and Development
FAR	floor area ratio
GHG	greenhouse gas
GIS	geographic information system
HS2	High Speed 2
ICT	information and communications technology
IPCC	Intergovernmental Panel on Climate Change
LBF	land-based finance/land-based financing
LCR	London & Continental Railways
LEED	Leadership in Energy and Environmental Design
LLDC	London Legacy Development Corporation
LVC	land value capture
MDC	mayoral development corporation (UK)
MRT	mass rapid transit
MTRC	Mass Transit Railway Corporation (Hong Kong)
NGO	non-governmental organisation
OPDC	Old Oak Common & Park Royal Development Corporation
OPEX	operational expenditure
PPP	public-private partnership
PUP	public-public partnership
SAD	special assessment district
SGP	Société du Grand Paris
SPL	société publique locale [in English: local public company]
SPV	special purpose vehicle
TfL	Transport for London
TIF	tax increment financing

TOD	transit-oriented development
TDR	transfer of development rights
UK	United Kingdom
ULI	Urban Land Institute
USA	United States of America

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Five Bank Street
London E14 4BG
United Kingdom
www.ebrd.com

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EBRD contacts

European Bank for Reconstruction and Development
Five Bank Street, London
E14 4BG
United Kingdom

Switchboard/central contact
Tel: +44 20 7338 6000

www.ebrd.com