

PIONEERED BY THE
ROCKEFELLER FOUNDATION

100 RESILIENT CITIES

Should resilience begin with the home?

How cities can finance and deliver
resilient social housing to deliver
better outcomes for residents



The better the question. The better the answer.
The better the world works.

EY

Building a better
working world

An aerial photograph of a city at sunset. A multi-lane highway runs vertically through the center of the frame, filled with cars. The city is densely packed with houses and buildings, extending to the horizon. The sky is a vibrant orange and yellow, with the sun low on the horizon. The text "Should resilience begin with the home?" is overlaid in white, bold font, with a yellow underline under the word "home?".

**Should resilience
begin with the
home?**

Understanding and building resilience remains both a complex challenge and an exciting opportunity for cities in the 21st century.

At 100 Resilient Cities (100RC) and EY, we're committed to supporting cities in this effort. That's why we released a report, *Getting real about resilience: how cities can build resilience thinking into their infrastructure projects*, in July 2017.

In it, we shared the results of a joint survey we carried out with public and private sector contacts from our global networks. Respondents expressed considerable interest in incorporating resilience thinking into projects, but also skepticism. Many thought that the right tools and support mechanisms aren't in place to maintain a resilience-based approach throughout the life cycle of an infrastructure project.

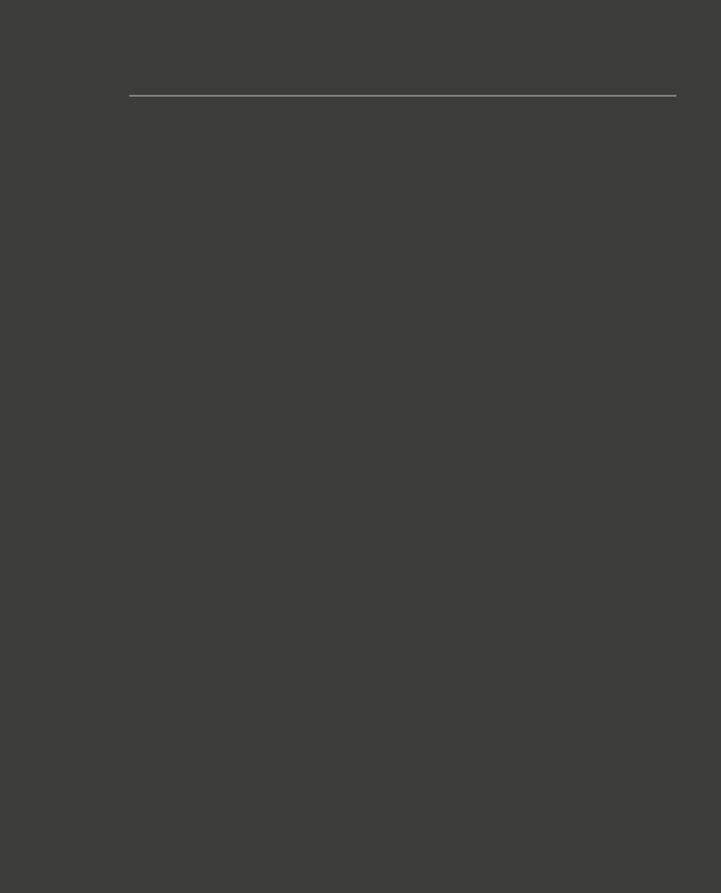
In this report, we take a closer look at how this issue plays out in a specific infrastructure sector that many cities in the 100RC Network have flagged as a vital challenge: social housing.¹

1. This report will focus largely on the Global North, as our review mostly comprises social housing structures in Europe and North America.

What is urban resilience?

Urban resilience is a city's ability to respond, grow and thrive in the face of shocks, such as floods and terrorist attacks, and stresses, such as unaffordable housing and lack of economic opportunity. By designing interventions that address both the shocks and the stresses simultaneously, leaders can make a city better in both bad times *and* good.





Social housing is an essential component of urban resilience. Safe and affordable housing is a requirement for city residents. But it also interconnects with other systems within the urban environment, compounding the shocks and stresses that affect the city and its residents.

We'll introduce a framework for what resilience means in the context of social housing. We'll then explore innovative ways to finance and deliver social housing projects so they do more than provide safe, secure and stable housing for people in need.

If you have any feedback on this report, we'd love to hear from you. You'll find our contact details at the back.

Spot the difference: social housing and affordable housing

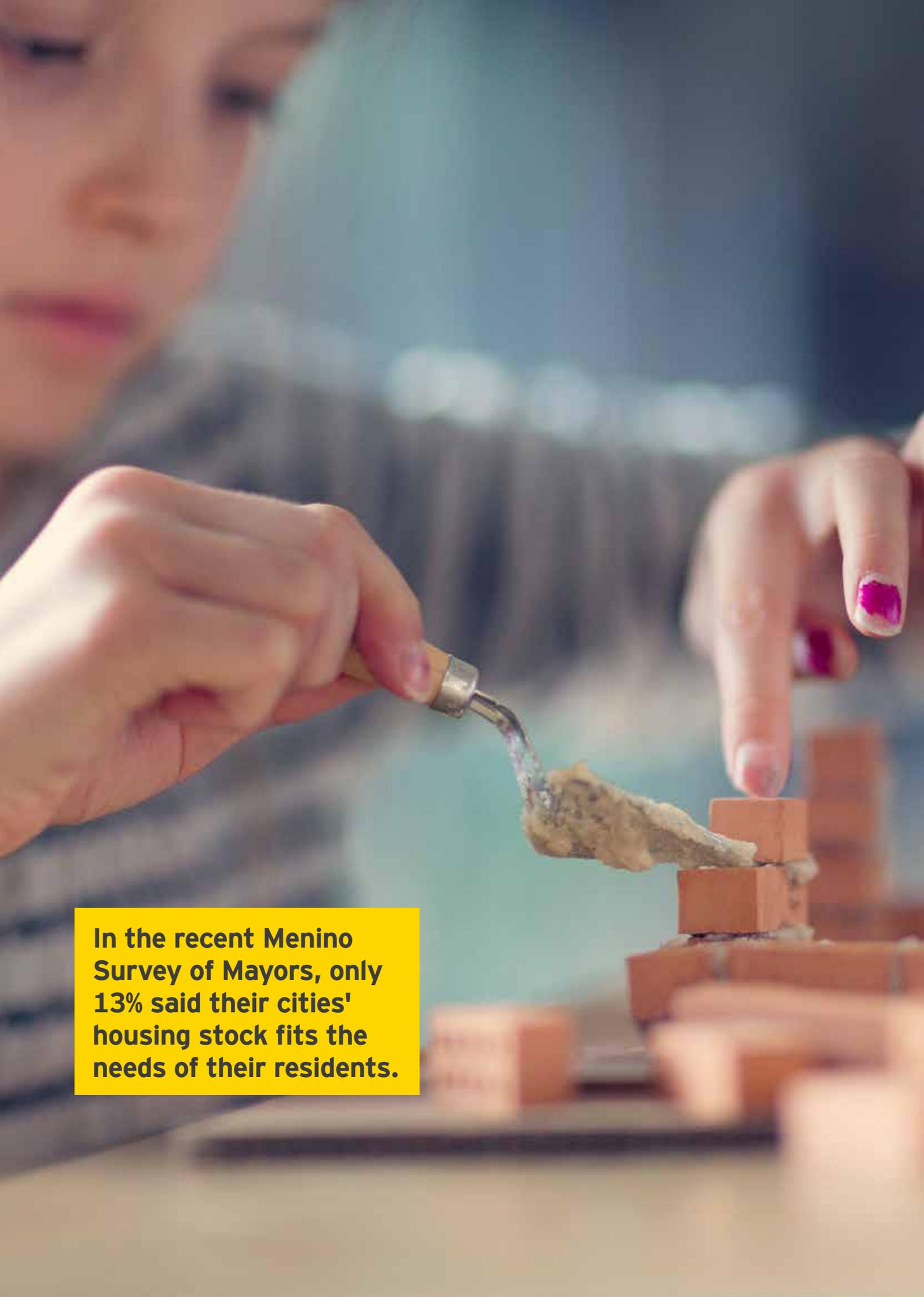
For the purposes of this report, we've defined social housing as subsidized rental housing for people of low incomes. The public sector either owns, sponsors or administers the housing. Typically, tenants also have access to other forms of social assistance, such as welfare and unemployment support.

Social housing is distinct from affordable housing, which aims to tackle a broader affordability issue for society. Affordable housing is typically aimed at low- to moderate-income households. It can include initiatives such as private sector housing developments that price a certain number of units at below the market rate.

Housing is a headache for cities across the globe

Of the cities in the 100RC Network, 39 cite a lack of social housing as a key stress, with 8 cities citing "homelessness" and 36 citing "economic inequality" as major challenges. What's more, in the recent Menino Survey of Mayors in the US, only 13% of 115 of respondents said their cities' housing stock fits the needs of their residents.²

2. "Menino Survey of Mayors," Boston University Initiative on Cities, 2018.

A close-up photograph of a woman's hands as she works with bricks. She is using a trowel to apply mortar to the top of a brick. Her left hand is positioned to hold the brick in place. She has bright pink nail polish on her fingers. The background is a blurred blue wall. The overall scene suggests a construction or renovation project.

In the recent Menino Survey of Mayors, only 13% said their cities' housing stock fits the needs of their residents.

Social housing and the role for resilience thinking

What is resilient social housing?

A resilient social housing project is one in which investments in both physical infrastructure and social programs support residents in withstanding the increasingly frequent shocks and stresses of the 21st century. By doing this, it also helps to strengthen the city as a whole.

A resilient social housing project therefore has design and operational features that protect and prepare the assets and people from the various shocks and stresses they'll face – that's both directly and through

interdependencies between the assets, the residents and other connected systems. It also makes the most of opportunities to support resilience in the broader community.

As a result, resilient social housing doesn't only provide a safe, flexible and robust physical shelter for its residents. By providing opportunity through access to education, transport, jobs and social services, it also supports their livelihoods and well-being.

How can you make sure social housing projects are resilient?

When planning resilient social housing projects, it's important to take the following three considerations into account:



1.
The safety and quality of the physical asset



2.
The quality of life for residents



3.
Other city systems that affect and are affected by the housing system



Resilient housing doesn't only provide safe, flexible and robust physical shelter for its residents. It also supports their livelihoods and well-being.

Using these considerations as a starting point, 100RC has carried out an exercise to evaluate how a series of shocks and stresses affect cities and their social housing stock. This exercise has resulted in 10 principles for designing resilient social housing.

This list isn't intended to be exhaustive, as local circumstances may vary. But it serves as a guide for integrating resilience thinking into social housing projects. For more details, as well as examples of literature and projects from leaders in this field, please visit ey.com.

10 principles for designing resilient social housing

1.	Understand the long-term physical hazards the buildings could face, and build them to remain operational and habitable under those threats.	2.	Minimize life cycle costs by considering long-term operations and maintenance requirements and integrating sustainability features.
Incorporate green infrastructure into the design to improve air quality, reduce heat island effects and make floods less severe.	3.	Build in diverse, flexible or mixed-use spaces that encourage community cohesion. These should also accommodate the needs of residents and the broader community.	4.
5.	Make it as easy as possible to access social services, such as financial literacy services, health services or childcare.	6.	Incorporate active design and create spaces that promote healthy behavior.
Through physical infrastructure and technologies, as well as social programs, make it easy for residents to communicate with one other and with management. And provide easy access to information, especially during emergency situations.	7.	Consider how the project connects to the larger community and urban systems, including transport, schools and jobs.	8.
9.	Provide programs to help households become economically stable.	10.	Make sure governance and management practices are transparent, equitable and clearly communicated.

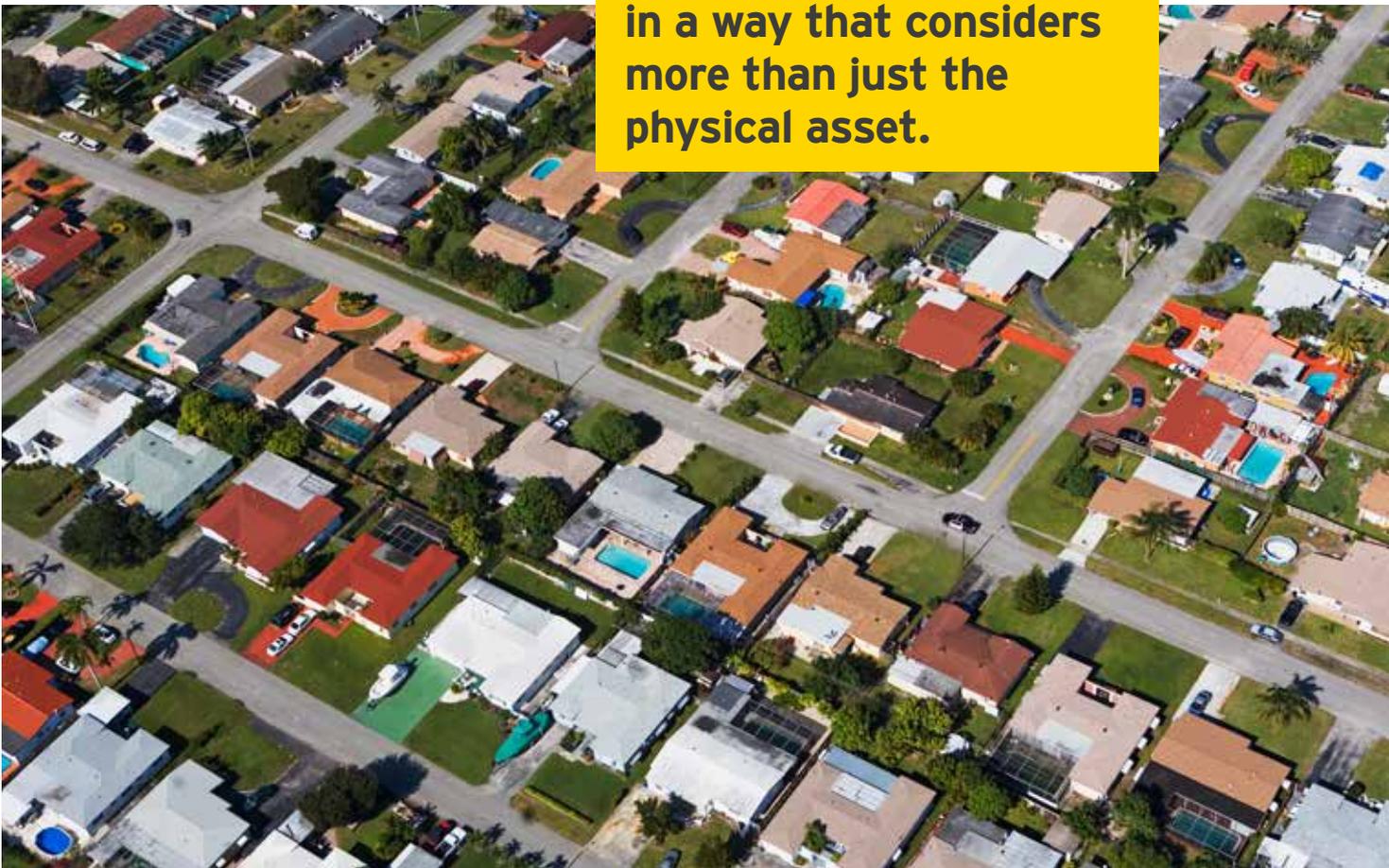
Traditional methods of designing and delivering social housing

Cities that have well-established social housing programs largely use asset-based models for those programs. As the name suggests, these put the emphasis on building or revitalizing physical housing stock.

As most social housing takes the form of rental properties, this approach centers on providing housing at below-market rents and allocating supply outside market mechanisms. As a result, the focus is on using public incentives and risk management mechanisms to make sure there's enough supply.

This asset-based approach can result in the construction of new housing stock or the regeneration of old stock. But as we've shown, for social housing to be resilient, cities need to design and deliver it in a way that considers more than just the physical asset.

For social housing to be resilient, cities need to design and deliver it in a way that considers more than just the physical asset.



From theory to reality: new ways of delivering resilient social housing

Delivering and financing resilient social housing means shifting the focus to outcomes-based models

Social housing is a complex issue for cities everywhere, cutting across economic, political, social and environmental concerns. So putting the resilience principles on page 10 into practice is no easy feat.

We believe that to achieve resilience in social housing, cities should switch gears to embed resilience *outcomes*

into their financial and project structures. We favor these models because they focus explicitly on the resilience dividends cities want to achieve through social housing, rather than on the supply. But to deliver and finance these outcomes-based social housing projects, cities will need to take a more innovative approach.



What do innovative outcomes-based projects look like?

As no two cities face exactly the same challenges, there's no single solution to the challenge of putting resilience principles into practice in social housing. Having said that, the more innovative outcomes-based models share certain characteristics.

These models:

1. Shift the focus from assets to people

Social housing isn't just a physical asset that the city owns; it's a service and "experience" for individuals and their families. So improving social housing is about serving the needs of residents as well as improving physical infrastructure. By focusing on better outcomes for residents, this delivery model is more likely to bring a range of resilience benefits.

2. Understand different cohorts

One of the first steps in designing a program that aims to deliver against specified outcomes is to know the people. The social housing sector includes many different cohorts defined by age, cultural background, household circumstances, needs and vulnerabilities, among others. A one-size-fits-all approach isn't going to work.

3. Provide services beyond housing

Providing stable housing is critical, but it's only one part of the solution. Supporting people in achieving certain outcomes requires an integrated solution that combines housing (and associated asset and tenancy management services) with access to appropriate support. The type of support will vary depending on the specific needs of each individual; examples include education and training, employment, skills development, and mental health and elderly care.

4. Contribute to community integration

As well as focusing on the benefits for individuals, social housing programs should also consider the wider social structure those people sit within. The services social housing programs provide affect various diverse groups, so the services should accommodate their needs. At the same time, the services should encourage those groups to integrate to create a more cohesive social structure in the housing unit.

5. Define and measure outcomes

As social housing serves an extremely broad tenant base, it's unrealistic to expect everyone to progress at the same pace and achieve the same outcomes. The owners of social housing projects need to understand what outcomes their project can realistically achieve for the individuals living in it. They should then create a comprehensive framework that defines the appropriate outcomes for different people. This should also include the associated indicators of progress against each of those outcomes.

6. Build an evidence base

To measure and assess progress against specified outcomes, project owners need to build evidence by continuously collecting and reporting on data. This makes it essential to develop a baseline for benchmarking those outcomes.

Options for funding and financing resilient social housing are flexible

Funding versus financing

Social housing projects involve both funding and financing, from a combination of public and private sector sources.

Funding refers to the ultimate source of payment for the asset or program over the longer term, such as the government, taxpayer or end user. Government funding can take the form of a recurrent funding stream, up-front capital or often both. A funding source must be present to support finance.

Financing is the debt or equity raised to construct or deliver the program, with the expectation that it'll be repaid.

Just because capital or financial products are available doesn't mean there's no longer a need for funding. Typically, government funding is critical for making sure social housing programs are financially viable. On some projects, the private sector can finance part or all of the project delivery. But ultimately the government funds it by paying the private sector back (which allows the financiers to be paid back).



Financing for outcomes-based social housing models can take many forms

To implement outcomes-based social housing projects successfully, city governments need finance. There's no fixed model for this, and many models can support a given social housing project. But it's likely to be some form of public-private partnership.

There are two reasons for this:

1. With fiscal budgets tight, governments need to explore a mix of financing arrangements. They also need to introduce potential new funding streams and more innovative forms of financing models.
2. As the guiding principles for social housing projects on page 10 suggest, both the public and private sectors need to contribute to – and invest in – building resilient cities. This also indicates an important role for private capital.

Ways to think differently about funding and financing

With outcomes-based models, the emphasis is on social housing programs delivered in an integrated way (see “10 principles for designing resilient social housing” on page 10). But governments are starting to move from delivering services directly to managing systems. As a result of this shift, the end-to-end delivery of housing (and associated asset and tenancy management services) is increasingly falling to non government entities. Access to, or provision of, appropriate support services is also moving to these private for-profit and non profit organizations. Change and innovation in both funding and financing for social housing will need to follow.

On the funding side, innovation means moving away from the current model, where government typically provides the cash to pay back social housing project financing. Let’s assume a transaction has the same stakeholders – including government, private sector developers and social housing providers. How can it be structured differently to introduce an alternative source of funding, while still focusing on social outcomes?

There are two major alternatives to highlight here. One is mixed development. (For example, where the social housing provider is in control of development and may also be able to use its investment to build and sell properties in the private market.) The other is outcomes-based contracting.³

On the financing side, innovation may mean exploring some form of private sector participation. Program owners can explore options for using private sector finance to deliver part or all of their social housing programs. At the same time, they can look into engaging more private sector capabilities to deliver these programs.

This is important because the ultimate aim of a public-private collaboration is to deliver better services and value for money. PPP projects do this by transferring risk appropriately and integrating whole-of-life management (underpinned by private financing).

An outcomes-focused delivery model will, by design, focus on social outcomes and resilience. To complement this, the chosen financing model should also focus explicitly on social outcomes, particularly as the role of the private sector grows.



3. A contract where the supplier’s charges are linked to a defined outcome, rather than charges based on inputs, such as labor, or outcomes, such as volume of services

Getting the balance right

The degree of public-private engagement will vary from project to project and reflect many factors. These include the risk profile; time horizon; sector maturity; and social, economic and political considerations.

Some social housing programs will sit more at the public end of the finance continuum, while others will be more at the private end. The closer toward the private end a program sits, the higher the level of risk transfer, capital investment and potential upside to the private sector.

The breadth of this continuum means that to deliver an outcomes-based contract effectively, social housing program owners can consider more than one public-private financing arrangement. In the following pages, we summarize some key models, including potential use cases. While it's not a definitive list, it shows some emerging and well-established funding and financing models cities could use.

Most of the models (with the exception of the social impact bond, or SIB) haven't necessarily been used for outcomes-based programs. But there's potential for governments to use them in this way, once they've explored the option fully.

This is a critical point as outcomes-focused social housing programs move forward. Innovation isn't just about using new financing models. It's also about better integrating existing public-private financing models with outcomes-focused social housing delivery, to drive effective social housing programs.



Potential public-private models for outcomes-based social housing programs

Model Social impact bond

Overview An innovative way for governments to finance social programs using outcomes-based contracts. Linking payment to defined outcomes provides a big financial incentive for the project to deliver those outcomes.

Funding: Non government investors provide the capital to pay the service provider to deliver the specified intervention. The government pays the investor the capital plus returns only when the service provider achieves the set outcomes.

Sources of alternative funding this accesses: Funding provided only on the basis of achieving set outcomes.

Financing: Investors provide the capital to finance service provision, with the expectation of getting a financial return if the outcomes are achieved.

Examples London Homelessness Social Impact Bonds, UK; Denver Social Impact Bond Initiative for Permanent Supportive Housing, US

Model Housing bond aggregator

Overview A vehicle for social housing providers to aggregate their debt financing requirements. Aggregation allows housing providers to access better pricing and longer-term debt than they could secure individually.

Funding: Obtained from the wholesale market. A specialist, independent financing intermediary coordinates across housing providers to aggregate debt needs. It then sources these total funds from wholesale markets by issuing bonds and loans the funds raised to housing providers in return for interest payments. Government guarantees the debt.

Sources of alternative funding this accesses: Private sector capital via debt markets.

Financing: Investors provide capital by investing in wholesale debt markets.

Examples The Housing Finance Corporation, UK; Housing Construction Convertible Bonds, Austria; National Housing Finance and Investment Corporation Affordable Housing Bond Aggregator, Australia



Potential public-private models for outcomes-based social housing programs

Model Social housing corporations

Overview A non government corporate structure that's financed independently. The corporation finances and provides social housing, using a portfolio-based approach to investment.

Funding: Independently funded (though governments have provided substantial public loans in previous decades). The sale of existing stock is major source of equity for new social housing. The profits from renting some properties at market rates can be used to cross-subsidize the portfolio, including developing social housing. State and cities can act as guarantor of last resort. Some cities also offer land at below-market prices for social housing.

Sources of alternative funding this accesses: Corporations' own equity and profits.

Financing: New social housing financed through bank debt (70% to 80% on average) and corporations' own equity.

Examples Social housing approach in the Netherlands

Model Housing trusts

Overview A model to promote the redevelopment of public housing stock by using private investment. Under the trust, governments pool public housing assets to create economies of scale for management, as well as diversity in the trust portfolio. Government, or a private entity, may own the land on which the trust then builds social housing.

Funding: Cash flow from the trust's affordable housing assets. A housing trust can make use of the equity value of the current public housing stock.

Sources of alternative funding this accesses: The opportunity for mixed development, giving private sector access to social housing asset values.

Financing: Private investors provide both debt and equity investment in exchange for expected returns (interest and dividends and capital appreciation).

Examples Fonds de Logement Intermediaire, France; US Housing Partnership Equity Trust, US

Testing the mettle: using outcomes-based models for resilient social housing

As this report shows, there are several models cities can use to design, fund and finance resilient social housing initiatives. But when it comes to applying them to address their resilience challenges around social housing, many cities are still in the exploratory phase.

That's why we asked for your feedback in the foreword to this report. Are you trying to build resilient social housing in your city? If so, which models are you

investigating or implementing? And how closely are you working with the private sector to design effective programs?

To tell us about your programs, or share any comments about this report, get in touch.

Contact us

EY

**George Atalla**

EY Global Government & Real Estate Leader
+1 703 747 1548
george.atalla@ey.com

**Bill Banks**

EY Global Infrastructure Leader
+852 2515 4198
bill.banks@hk.ey.com

**Rebecca Hiscock-Croft**

Senior Strategic Analyst,
Government & Public Sector
+61 415 419 227
rebecca.hiscock-croft@au.ey.com

**Marina Huynh**

Associate Director,
Ernst & Young Australia
+61 422 352 777
marina.huynh@au.ey.com

100 Resilient Cities

**Elizabeth Yee**

Vice President, Resilience Finance
100 Resilient Cities
+1 646 612 7167
eyee@100resilientcities.org

**Rebecca Laberrenne**

Associate Director
Solutions Development & Innovation
100 Resilient Cities
+1 646 612 7251
rlaberrenne@100resilientcities.org

**Samatha Nemana**

Manager, Network
Knowledge & Impact
100 Resilient Cities
+1 646 392 7440
snemana@100resilientcities.org

EY | Assurance | Tax | Transactions | Advisory

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

How EY's Global Government & Public Sector can help your organization

Around the world, governments and not-for-profit organizations are continually seeking innovative answers to complex challenges. They are striving to provide better services at lower costs and to create sustainable economic development, a safe environment, more transparency and increased accountability. EY combines private sector leading practices with an understanding of the public sector's diverse needs, focusing on building organizations' capabilities to deliver improved public services. Drawing on many years of experience, we can work with you to help strengthen your organization and achieve lasting improvements. Our Global Government & Public Sector brings together teams of highly skilled professionals from our assurance, tax, transaction and advisory services. We are inspired by a deep commitment to help you meet your goals and enhance public value, for today and tomorrow.

© 2018 EYGM Limited.
All Rights Reserved.

EYG no. 012270-18Gbl

BMC Agency
1008308

ED None

 In line with EY's commitment to minimize its impact on the environment, this document has been printed on paper with a high recycled content.

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax or other professional advice. Please refer to your advisors for specific advice.

The views of third parties set out in this publication are not necessarily the views of the global EY organization or its member firms. Moreover, they should be seen in the context of the time they were made.

ey.com/government

 @EY_GovtPublic