

# **BEST PRACTICES IN HOMELESSNESS PREVENTION**

**DEMAND SIDE • SUPPLY SIDE • SYSTEMIC REFORMS • INTERNATIONAL EXAMPLES**

A teal-colored diagonal graphic element that starts from the top-left corner and extends towards the bottom-right, creating a split background effect.

**BEST PRACTICES IN HOMELESSNESS PREVENTION**  
**DEMAND SIDE**

DEMAND (CONSUMER) SIDE

Tier 1 / Primary Prevention (Systems-Level Policies that Affect Structures) | Tier 2 / (Effective Collaborations) | Tier 3 / Secondary and Tertiary Prevention (Direct Services)

Practice/Policy	Description	Effectiveness	Evidence	Tier 1	Tier 2	Tier 3	Aligns with Impact Area	Reference
<b>Permanent, Shallow or Deep Housing Subsidies / Expanding Housing Vouchers</b>	Housing supplements from any source (public, private or nonprofit) that fill the gap between housing costs and sources of income	Solid Evidence	Over a four-year observation period, families who were offered a voucher were much less likely to experience homelessness than those who were put on a waitlist (3.3% vs. 12.5%), including everyone offered a voucher, whether or not they used it to lease housing.	X		X	2	<i>Center for Evidence-Based Solutions to Homelessness: <a href="http://www.evidenceonhomelessness.com/wp-content/uploads/2019/02/Homelessness_Prevention_Literature_Synthesis.pdf">http://www.evidenceonhomelessness.com/wp-content/uploads/2019/02/Homelessness_Prevention_Literature_Synthesis.pdf</a>; In the Midst of Plenty, Shinn and Khadduri, p. 131-133.</i>
<b>Eviction Prevention: Financial Cash Assistance</b>	Direct payment of arrearages or damage repair to landlords	Solid Evidence	Analysis of data in Chicago from 2010-2012 (n-4448) of the impact of financial assistance on averting homelessness and HomeBase in NY demonstrated that assistance had the greatest effect for the poorest assistance seekers.			X	2	<i>Center for Evidence-Based Solutions to Homelessness; The Impact of Homelessness Prevention Programs on Homelessness, <a href="https://science.sciencemag.org/content/353/6300/694">https://science.sciencemag.org/content/353/6300/694</a>; In the Midst of Plenty, Shinn and Khadduri, p. 133</i>
<b>Comprehensive Case Management / Supportive Services</b>	Holistic support for housed population, including employment assistance, mental health and substance abuse, education/workforce development, food and nutrition, and other supports as needed	Solid Evidence	NYC's HomeBase Program		X	X	1, 2	<i>In the Midst of Plenty; Shinn and Khadduri</i>
<b>Community-Based Services, Especially in High-Risk Neighborhoods</b>	Intentional, planned-out and decentralized location of services, close to where people in need live	Solid Evidence	NYC's HomeBase Program		X	X	1, 2, 5	<i>In the Midst of Plenty; Shinn and Khadduri</i>
<b>Critical Time Intervention (CTI) for People Leaving Mental Health Facilities, Prisons or Other Institutional Settings</b>	Comprehensive planning for housing and supports in advance of discharge/ release to reduce risk of homelessness	Solid Evidence		X	X	X	1	<i>In the Midst of Plenty; Shinn and Khadduri</i>

**Tier 1** / Primary Prevention (Systems-Level Policies that Affect Structures) | **Tier 2** / (Effective Collaborations) | **Tier 3** / Secondary and Tertiary Prevention (Direct Services)

Practice/Policy	Description	Effectiveness	Evidence	Tier 1	Tier 2	Tier 3	Aligns with Impact Area	Reference
<b>Eviction Prevention: Legal Representation / Mediation</b>	Mediated or legal intervention to avert eviction, including negotiated financial and occupancy agreements	Suggested Evidence				X	1	
<b>Targeted Interventions / Transition Planning for Special Populations</b>	For populations needing mental/behavioral health, veterans, people with mental illness, people with disabilities, youth aging out of foster care, ex-offenders. Includes universal screening for veterans; housing subsidies with supportive services for people with mental illness; shallow, permanent subsidies; help for ex-offenders such as CTI (critical time intervention) and APIC (assess needs, plan, identify community and correctional programs, and coordinate)	Suggested Evidence			X	X	1, 2	<i>In the Midst of Plenty; Shinn and Khadduri</i>
<b>Rapid Re-Housing and Permanent Supportive Housing</b>	The designation and provision of housing units	Suggested Evidence	Data for Charlotte-Mecklenburg show successful outcomes for permanent housing retention via Rapid Re-Housing and Permanent Supportive Housing.	X	X	X	2	<i>2019 Charlotte-Mecklenburg State of Homelessness and Housing Instability report, p. 52-54. <a href="https://secureservercdn.net/50.62.172.157/275.2a4.myftpupload.com/wp-content/uploads/2019/09/2019-State-of-Housing-Instability-and-Homelessness.pdf">https://secureservercdn.net/50.62.172.157/275.2a4.myftpupload.com/wp-content/uploads/2019/09/2019-State-of-Housing-Instability-and-Homelessness.pdf</a></i>
<b>Child Care Assistance</b>	Reducing out-of-pocket child care costs while making it possible for parents/guardians to obtain and retain employment	Suggested Evidence	Center for Evidence-Based Solutions to Homelessness			X	3	<i>International – countries like Finland and Sweden</i>

Tier 1 / Primary Prevention (Systems-Level Policies that Affect Structures) | Tier 2 / (Effective Collaborations) | Tier 3 / Secondary and Tertiary Prevention (Direct Services)

Practice/Policy	Description	Effectiveness	Evidence	Tier 1	Tier 2	Tier 3	Aligns with Impact Area	Reference
<b>Benefits Enrollment</b>	Reducing cash outflow for essential needs like food, health care and child care expenses, thus freeing up more resources to stabilize housing	Suggested Evidence	Center for Evidence-Based Solutions to Homelessness			X	3, 4	
<b>Job Placement/ Employment Enhancement</b>	Insufficient income is the single greatest cause of housing instability; employment enhancement and placement is a suggested strategy	Suggested Evidence	Center for Evidence-Based Solutions to Homelessness		X	X	3, 4	
<b>Flexible Cash Grants to Low-Income Households</b>	Provide direct cash assistance to low-income households in order to close gap between household income and expenses	Might Be Effective	State of MA's Residential Assistance for Families in Transition (RAFT) program provides families with incomes below 50% AMI with up to \$4K in cash assistance to retain or obtain housing; also St. Paul, MN and Stockton, CA.			X	3, 4	<i>In the Midst of Plenty, Shinn and Khadduri, p. 144</i>
<b>Integrating Homelessness and Antipoverty Service Systems</b>	Cross-sector collaborations to provide holistic supports for families experiencing housing instability and homelessness	Might Be Effective	Use of city employees to serve as systems navigators for families in need of services appropriate to their situations	X	X	X	1, 2, 3, 4, 5	<i>In the Midst of Plenty</i>

Tier 1 / Primary Prevention (Systems-Level Policies that Affect Structures) | Tier 2 / (Effective Collaborations) | Tier 3 / Secondary and Tertiary Prevention (Direct Services)

Practice/Policy	Description	Effectiveness	Evidence	Tier 1	Tier 2	Tier 3	Aligns with Impact Area	Reference
<b>Use of Data and Predictive Statistical Models for Proactive Screening and Targeted Support</b>	Use of indicators and/or predictive models to identify subsets of population experiencing housing instability and to prioritize assistance	Might Be Effective if Customized to Local Context	Collaboration between the CA Policy Lab and the University of Chicago Policy Lab to use county data on multi-systems services to more effectively target homelessness prevention efforts; also, success with veterans	X	X		1	<p><i>Predicting and Prevention Homelessness in Los Angeles, September 2019.</i> <a href="https://www.capolicylab.org/wp-content/uploads/2019/12/Predicting_and_Preventing_Homelessness_in_Los_Angeles.pdf">https://www.capolicylab.org/wp-content/uploads/2019/12/Predicting_and_Preventing_Homelessness_in_Los_Angeles.pdf</a></p> <p><i>The Racial Wealth Gap: Charlotte Mecklenburg, November 2019.</i> <a href="https://ui.uncc.edu/sites/ui.uncc.edu/files/media/articles/RWTry2.pdf">https://ui.uncc.edu/sites/ui.uncc.edu/files/media/articles/RWTry2.pdf</a></p> <p><i>In the Midst of Plenty, Shinn and Khadduri, p. 126-129</i></p> <p><i>This tool was developed by Marybeth Shinn using HomeBase data, 2013.</i> <a href="https://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.2013.301468">https://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.2013.301468</a></p> <p><i>Subsequent model developed for adults, 2016.</i> <a href="https://www.journals.uchicago.edu/doi/abs/10.1086/686466?mobileUi=0&amp;journalCode=ssr">https://www.journals.uchicago.edu/doi/abs/10.1086/686466?mobileUi=0&amp;journalCode=ssr</a></p> <p><i>Greer's 2014 dissertation that compares effectiveness tools in NYC and Alameda County, CA.</i> <a href="https://etd.library.vanderbilt.edu/available/etd-07132014-092426/unrestricted/AGreer.pdf+&amp;cd=1&amp;h=en&amp;ct=clnk&amp;gl=us">https://etd.library.vanderbilt.edu/available/etd-07132014-092426/unrestricted/AGreer.pdf+&amp;cd=1&amp;h=en&amp;ct=clnk&amp;gl=us</a></p>

PUBLIC SECTOR

Source: World Economic Forum: Making Affordable Housing a Reality in Cities [http://www3.weforum.org/docs/WEF\\_Making\\_Affordable\\_Housing\\_A\\_Reality\\_In\\_Cities\\_report.pdf](http://www3.weforum.org/docs/WEF_Making_Affordable_Housing_A_Reality_In_Cities_report.pdf)

Determining Affordable Housing Eligibility	Evaluate Purchase Model: Rent or Own	Access to Credit
Encourage a balanced mix of tenure models ranging from rental housing, including long-term leases, through shared-equity ownership and shared ownership to complete homeownership	Reach out to community representatives, private developers and employers to discuss their opinions and concerns related to affordable housing projects	
Eviction Prevention: Financial Cash Assistance		
Develop a regulatory framework that protects tenants without distorting supply and protects landlords from the unfair effects of first-generation rent controls		

PRIVATE SECTOR

	Determining Affordable Housing Eligibility	Evaluate Purchase Model: Rent or Own	Access to Credit
Investors	Develop innovative ways of establishing creditworthiness and serving low-income households seeking to improve their informal housing	Reach out to community representatives, private developers and employers to discuss their opinions and concerns related to affordable housing projects	
Developers	Explore the potential of diversifying tenure structures through models such as build-to-rent and long-term rentals		
Employers			Consider supporting employees to meet housing costs through loans, subsidies or mortgage deals
Nonprofits	Explore innovative methods to provide financial assistance to the informal sector, working - where useful - with the private sector and city government		Provide education to improve the financial literacy of borrowers, helping them to plan expenses and minimize costs of construction or home improvement



A large teal-colored triangle is positioned in the top-left corner of the slide, extending diagonally towards the center. The rest of the slide has a white background.

**BEST PRACTICES IN HOMELESSNESS PREVENTION**  
**SUPPLY SIDE**

**Tier 1** / Primary Prevention (Systems-Level Policies that Affect Structures) | **Tier 2** / (Effective Collaborations) | **Tier 3** / Secondary and Tertiary Prevention (Direct Services)

Practice/Policy	Tier 1	Tier 2	Tier 3	Aligns with Impact Area	Reference	Comments
Changes to Zoning and Building Restrictions that Permit Ubiquitous Multi-Family Housing and Unconventional Structures (e.g., Tiny Houses, ADUs, etc.)	X			2	<i>In the Midst of Plenty, p. 155</i>	
Enact Local and State Legislation that Make it Less Costly to Build Affordable Housing	X			4		
Land Trusts and Land Banks	X	X		2	<i>Making Affordable Housing a Reality in Cities, World Economic Forum report, June 2019</i>	

PUBLIC SECTOR

Source: World Economic Forum: Making Affordable Housing a Reality in Cities [http://www3.weforum.org/docs/WEF\\_Making\\_Affordable\\_Housing\\_A\\_Reality\\_In\\_Cities\\_report.pdf](http://www3.weforum.org/docs/WEF_Making_Affordable_Housing_A_Reality_In_Cities_report.pdf)

Land Acquisition	Land Use / Zoning	Financing	Design & Construction	Other
<p>Transparent process using voluntary methods like land pooling, land swaps and negotiated settlements first</p>	<p>Mixed-use zoning and inclusionary zoning</p>	<p>Financial models should be focused on ensuring long-term affordability</p>	<p>Redevelopment should be encouraged where practical, such as conversion of offices or “repurposing” underused or decommissioned land or buildings to improve housing supply.</p>	<p>To address labor shortages, cities need to work with the construction industry to identify skills gaps and develop strategies to encourage training.</p>
	<p>Develop a long-term vision of anticipated growth with a flexible plan to phase housing development; a flexible and transparent land policy should encourage different forms of affordable housing development</p>	<p>In lieu of tax credits, real estate developers can be encouraged to provide affordable housing units through measures such as relaxation in development controls (e.g. height, density, building setback, energy-efficiency), bonus systems, fast-track approvals and reduction, exemption or refund of application fees, infrastructure charges or rates for such projects. When relaxing restrictions, cities need to account for environmental impacts and effects on other local structures.</p>		<p>Cities can encourage large, medium and small real estate developers to participate collectively in large-scale affordable housing projects, with a master developer with experience in affordable housing guiding smaller-scale developers.</p>
		<p>Cities should explore tools to generate funds for infrastructure development, such as developer or employer contributions, land access charges from lease of public land assets and sale of development rights to fund infrastructure development.</p>		
	<p>Taxation models can also help optimize land use by disincentivizing lands or properties being left vacant.</p>			

PRIVATE SECTOR

	Land Acquisition	Land Use / Zoning	Financing	Design & Construction	Other
Investors			<p>The private sector can develop the residential Real Estate Investment Trust (REIT) market, which can become a useful tool in scaling the supply of rental units in the city.</p> <p>Develop Real Estate Investment Trust market as a tool to scale the supply of rental units</p>		
Developers	<p>Employ innovative, less costly construction techniques and materials, such as 3D printing, prefabrication, alternatives to concrete and cement, advanced automated equipment and tools such as building information modeling, building automation and control</p>			<p>Investing in sustainable design concepts and energy-efficient housing can help optimize space (particularly co-living, micro-housing and macro-housing) and reduce energy costs (with use of green roofs and energy-efficiency measures)</p>	
Nonprofits	<p>Develop a regulatory framework that protects tenants without distorting supply and protects landlords from the unfair effects of first-generation rent controls</p>		<p>Work with city governments and the private sector on ways to offer alternative tenure models for those unable to access social housing or afford private rental housing. Mechanisms could include shared ownership, shared equity ownership and community housing providers investing in market-rate housing and using revenues to subsidize affordable housing.</p> <p>Work with private-sector investors, governments and international organizations to raise long-term funding and develop financial products that encourage private investment through government guarantees. Exploit funding channels such as foundation grants, charities, donations, local bond issues, government contributions to supporting infrastructure and loans backed by government or international financial organizations.</p>		<p>Help would-be homeowners and self-builders to access information on issues such as land-use regulations, legislative instruments, property rights, acquisition mechanisms, titling processes, building codes, low-cost construction techniques and energy-efficient housing</p> <p>Create awareness on the benefits of mixed-income, mixed-use development to address concerns around NIMBYism</p> <p>Provide technical and financial support services to communities that want to undertake self-construction or retrofit projects</p>

A large teal-colored triangle is positioned in the top-left corner of the slide, extending diagonally towards the center. The rest of the slide has a white background.

**BEST PRACTICES IN HOMELESSNESS PREVENTION**  
**SYSTEMIC REFORMS**

**Tier 1** / Primary Prevention (Systems-Level Policies that Affect Structures) | **Tier 2** / (Effective Collaborations) | **Tier 3** / Secondary and Tertiary Prevention (Direct Services)

Practice/Policy	Tier 1	Tier 2	Tier 3	Aligns with Impact Area	Reference	Comments
HUD Reform to Peg Estimates for Subsidies to the ZIP Code Level Instead of Metropolitan Area	X			2	<i>In the Midst of Plenty, p. 155</i>	Purpose is to permit more voucher users to use them in higher cost/higher opportunity areas
Deeper Targeting of Rent Subsidies / Vouchers to 15% AMI and Below, Not Just to Those in Shelter	X			2	<i>In the Midst of Plenty, p. 156</i>	This strategy would automatically eliminate the perverse incentive of entering shelters in hopes of being prioritized for housing
Temporary Rent Subsidies, Possibly Pegged to the Age of the Youngest Child in the Family				2	<i>In the Midst of Plenty, p. 156</i>	Placing time limits on housing subsidies to enable more families to benefit. If tied to the age of the youngest child, gets family past a high-cost period of life: child care costs.
Rent Subsidies Through Tax System	X			2	<i>In the Midst of Plenty, p. 157</i>	Like LIHTC, this would reduce rents for poor renters by giving a federal tax credit for the difference between the rent and the tenant payment. States would be given an allocation of tax credits and owners of developments would compete for them (15-year use of allocation of credits).
Housing Subsidies for Vulnerable Groups / Increase in Voucher Allocation for These Groups	X			2		Vets, disabled, seniors, families at risk of losing children to foster care due to lack of housing. Increasing housing vouchers is the most scalable strategy of all.
Outlaw Source of Income Discrimination	X			4		
Eliminate Exclusionary Zoning Laws	X			4		

**Tier 1** / Primary Prevention (Systems-Level Policies that Affect Structures) | **Tier 2** / (Effective Collaborations) | **Tier 3** / Secondary and Tertiary Prevention (Direct Services)

Practice/Policy	Tier 1	Tier 2	Tier 3	Aligns with Impact Area	Reference	Comments
Income: Raise the Minimum Wage	X		X	3	<i>In the Midst of Plenty, p. 155</i>	
Income: Reinstate and/or Expand Earned Income Tax Credits	X		X	3	<i>In the Midst of Plenty, p. 156</i>	
Income: Restore Collective Bargaining for Salaries and Benefits	X		X	3	<i>In the Midst of Plenty, p. 156</i>	
Income: Raise the Amount of Transfer Programs like SNAP and TANF or Increase Child Tax Credit	X		X	3	<i>In the Midst of Plenty, p. 157</i>	
Universal Subsidized Child Care	X		X	3		
Strengthen Income Support for People with Disabilities				3		
Targeted Universalism	X	X	X	5	<i>The Racial Wealth Gap, Charlotte-Mecklenburg, November 2019.</i> <a href="https://ui.uncc.edu/sites/ui.uncc.edu/files/media/articles/RWTry2.pdf">https://ui.uncc.edu/sites/ui.uncc.edu/files/media/articles/RWTry2.pdf</a>	

A teal-colored diagonal graphic element that starts from the top-left corner and extends towards the bottom-right, creating a split background effect.

**BEST PRACTICES IN HOMELESSNESS PREVENTION**  
**INTERNATIONAL EXAMPLES**



Source: World Economic Forum: Making Affordable Housing a Reality in Cities. [http://www3.weforum.org/docs/WEF\\_Making\\_Affordable\\_Housing\\_A\\_Reality\\_In\\_Cities\\_report.pdf](http://www3.weforum.org/docs/WEF_Making_Affordable_Housing_A_Reality_In_Cities_report.pdf)

## LAND DEVELOPMENT AGENCY – IRELAND

Various national and local public bodies are together estimated to own enough land in Dublin to build about 70,000 housing units. Ireland has recently created the Land Development Agency to optimize use of publicly owned land to speed up the delivery of new homes. It is building a comprehensive database of land owned by all government departments and state bodies and seeking opportunities to collaborate strategically with nearby private landowners to facilitate development.

Source: (Coleman, 2018) and (Melia, 2018)

## INCREASE URBAN DENSITY

A study of about 8,600 municipalities in Brazil, Chile, Ecuador and Mexico revealed that per capita expenditure on urban services was lowest at a population density around 9,000 residents per square kilometer – which was a higher density than in 85% of the cities studied, highlighting the “cost of non-densification.”

Source: (Libertun, 2018)

## FORM-BASED CODES – CALGARY, CA, ABU DHABI, DAMMAM

In conventional zoning practices, individual departments such as traffic, planning, and garden and parks units work in isolation. By contrast, form-based codes (FBCs) use placemaking principles to achieve a particular character of built environment, reflecting community input in design requirements that specify the relationship of building structures to the public realm – e.g. prescribing the height and placement of a building, the direction of windows and doors, etc. Using diagrams and images, it clearly sets out standards that will lead to streamlined approval. It is assumed that the use of buildings can change over time with minimal review if the physical form is appropriate. Hundreds of cities use FBCs, including Miami, Denver, Los Angeles, Calgary, Abu Dhabi and Dammam.

Source: (Galvin, 2017; Placemakers, n.d.; City of Marshall; Madden & Russell, 2014)

## MAYOR’S CONSTRUCTION ACADEMY – LONDON

London has tried to address the issue of insufficient investment in training and innovation through the Mayor’s Construction Academy. It is establishing a “quality mark” to accredit training providers, creating hubs to strengthen coordination between training providers and construction employers, and providing capital funding for upgrading training equipment and premises. The aim is to harmonize the various sources of construction-skills training in the city to benefit the industry while making it more attractive for young people. The city is also developing a broader program – the London Skills Strategy – to improve education and technical skills for those aged over 16.

Source: (Design Buildings, 2018) and (Greater London Authority, 2018)

## MELBOURNE APARTMENT PROJECT – ENCOURAGING HOMEOWNERSHIP AMONG LOW-INCOME HOUSEHOLDS

The Melbourne Apartment Project is a privately funded apartment development supported by Melbourne City Mission in which 28 of the 34 units were sold to social housing tenants and the remaining six at market rate. The project reduces homebuyers’ upfront costs by combining their deposit with a bank loan and second mortgage from the developer. A similar project in Toronto, Options for Homes, has delivered 6,000 homes in 20 years.

Source: (Raynor, Palm, O’Neil, & Whitzman, 2018)

## COMMUNITIES PLUS PROGRAM – SYDNEY, AUSTRALIA

Communities Plus is an initiative of the New South Wales Government in Australia, in partnership with the private, non-government and community housing sectors, focused on neighborhood revitalization and integrated community development. It aims to develop 23,000 new and replacement social housing units on sites in need of renewal, integrated with 500 affordable and up to 40,000 private dwellings, with proceeds reinvested in new social housing, community facilities and high-quality open space. Assistance with housing is linked to participation in education, training and local employment opportunities.

## CONVERTING VACANT AND NEGLECTED RENTAL PROPERTIES INTO AFFORDABLE RENTAL HOUSING – GERMANY

A recent study of 77 large cities in Germany revealed a shortage of 1.9 million affordable apartments. Grand City Properties, a residential real estate company, specializes in acquiring under-rented and undermanaged residential properties – mostly neglected by their previous owners – and reducing vacancies through repairs, maintenance and improved management quality. The company also invests in playgrounds and open spaces and provides services such as assisting those with language barriers to interact with German authorities.

*Source: Grand City Properties Contribution to the World Economic Forum study*

## MOTEL CONVERSION ORDINANCE – LOS ANGELES

The city of Los Angeles recently passed a Motel Conversion Ordinance that allows conversion of motel rooms – typically by adding small kitchens – into permanent housing for homeless people, regardless of current zoning requirements. The ordinance will also slash parking requirements and allow “permanent supportive housing” projects to be taller and denser.

*Source: (L.A. Times, 2018) and (Reyes & Smith, 2018)*

## BRICKLAYER ROBOTS – SEMI-AUTOMATED MASON (SAM) AND HADRIAN X

New York-based Construction Robotics has developed a bricklayer robot, SAM (Semi-Automated Mason). Running along a track and building a straight wall, SAM can lay five to 10 times more bricks than a human bricklayer – more than 3,000 in an eight-hour shift, with a margin of error that can be measured in millimeters. It is currently being operated on a few sites across the US. Perth-based Fastbrick Robotics has developed Hadrian X, a truck-mounted robotic arm that can “print” a house using blocks 15 times larger than a regular brick, placing them more than 30 meters away with sub-millimeter accuracy. The firm is piloting its technology in Mexico in partnership with GP Vivienda, one of the country’s largest construction companies.

*Source: (Wilkinson, 2018; Tchetvertakov, 2018)*

## POOLING PUBLICLY OWNED ASSETS INTO A COMMON INVESTMENT VEHICLE – COPENHAGEN

Hamburg’s Hafencity GmbH and parts of Copenhagen revitalized by the City & Port Development Company have improved housing supply by pooling publicly owned assets into a holding company – an “Urban Wealth Fund” – that enters into projects with the private sector, sharing risks and benefits. By aligning interests, this mechanism can streamline the complex execution of housing and infrastructure development projects.

*Source: (Detter, 2018)*

## MICROBUILD FUND – HABITAT FOR HUMANITY, TRIPLE JUMP, OMI DYAR NETWORK, METLIFE FOUNDATION

The MicroBuild Fund is a housing-specific microfinance investment vehicle, controlled by Habitat for Humanity International with Triple Jump, Omidyar Network and MetLife Foundation as partners and fund co-owners. It offers capital and technical assistance to MFIs to provide microloans to help households build or renovate houses. It also provides financial education to borrowers. Since 2012, it has lent to 42 institutions in 25 countries, and aims to serve 600,000 people by 2026. It hopes that positive returns for investors will encourage larger institutions to provide similar financing, growing the sector.

*Source: (Habitat for Humanity, 2017)*

## EMPLOYERS SUPPORTING CITY HOUSING – DENMARK, SOUTH KOREA

Employers are experiencing challenges in recruiting top talent to offices in cities where housing is expensive. In London, a recent survey by CBI/CBRE revealed that 66% of companies face issues with entry-level recruitment due to housing costs and availability. Employers such as Facebook and Google (in the US), IKEA (in Reykjavik, Iceland), Lego (in Billund, Denmark), Samsung (in Seoul and Suwon) and Alibaba (in Hangzhou) have started investing in the development of housing for employees. Other employers are offering help to meet housing costs, either in the form of loans, subsidies or mortgage deals. In China, Shenzhen-based Tencent offers interest-free loans to help employees buy property, while Starbucks subsidizes the rent of full-time workers.

*Source: (Forrest, 2018)*

## GLASS FIBER-REINFORCED GYPSUM (GFRG) – A GREEN BUILDING MATERIAL IN INDIA

GFRG panels are made of high-quality gypsum plaster reinforced with special glass roving, prefabricated at low cost and with low energy requirements, and erected on-site with cranes. GFRG panels were first introduced in Australia in 1990 (also known as RapidWall), as either load-bearing or partition walls. After a decade of research, the Indian Institute of Technology (IIT) Madras has now proposed a complete building system using GFRG panels, with minimal use of concrete and steel and no use of bricks. The government of India has approved standards for the structural design of GFRG buildings. The resulting houses will be fire and earthquake resistant and can be up to 10 stories in low seismic zones. The thermal resistance of GFRG also reduces the need for air conditioning. GFRG panels can be made using gypsum waste generated by India's fertilizer plants and have been confirmed as a green material by the United Nations Framework on Climate Change.

*Source: (Diwaker, 2018) and (Anam, 2018)*