

BMZ



Federal Ministry
for Economic Cooperation
and Development



My Home, Your Business

A Guide to Affordable Housing Solutions for Low-Income Communities

Published by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

In cooperation with

BOP
LEARNING
LAB 

Dalberg Research

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH commissioned this study on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and would like to thank everyone who have contributed to the publication.

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BoP Learning Lab is based at the Confederation of Danish Industry. Since 2007 the Lab has worked to collect and disseminate knowledge and experience related to BoP markets. The Learning Lab has developed practical tools for companies working on low income markets and through workshops, study trips and other activities, functioned as a platform for knowledge sharing among companies and other stakeholders. The Learning Lab has also worked directly with many companies across sectors and countries, including affordable housing ventures. Sara Ballan has been the lead author from the Lab, with support from Karen Panum Thisted.

Dalberg Research, a member of Dalberg Group, is a research institution whose mission is to provide companies and public institutions with valuable insights and practical knowledge about frontier markets and global issues. Dalberg Research works with public and private sector development actors globally and specializes in qualitative and quantitative research methodologies combined with an on the ground presence, primarily in Africa. Hans Uldall-Poulsen and Stig Tackmann, with support from Julie Alsing have been lead authors from Dalberg Research.

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My Home, Your Business

A Guide to Affordable Housing Solutions for Low-Income Communities



People at the BoP spend 700 billion USD on housing every year and the market will increase to 1 trillion USD before 2020.



BoP customers spend on average 10% of their disposable income on housing.



In a few years the number of people in the developing world living in urban slums will reach 1 billion.



Photo: Harald Franzen/GIZ GmbH

Dear Entrepreneurs

Every morning millions of people wake up having spent another night in appalling living conditions. One third of the developing world's urban population lives in slums. And although access to decent housing and shelter is recognized as a human right, providing affordable housing for the poor is a global development challenge that remains unsolved. Global housing markets for low-income communities at the base of the pyramid (BoP) are under severe pressure. Innovative solutions are urgently needed, but governments cannot meet that challenge alone.

This guide, 'My Home, Your Business', hopes to show that the BoP housing market also offers business opportunities. Sustainable development and economic development are inextricably linked and the low-income housing sector lends itself particularly well to inclusive business models. Integrating low-income communities, both as users and consumers and also as suppliers and workers, helps advance human development. At the same time, it can be an efficient and effective way of addressing market failures and unlocking market potential.



Photo: Bundesregierung/Kugler

The German Federal Ministry for Economic Cooperation and Development (BMZ) recognizes that the private sector has a crucial role to play. It can help develop innovative solutions that will offer people better access to adequate housing. You as entrepreneurs are important partners in promoting sustainable and inclusive growth. Your drive, investments and skills are crucial in increasing the supply of affordable homes. By working together, we believe that we can make a major difference. With this guide, we aim to spark a new conversation on how to provide people with affordable housing that meets their basic human needs.

Hans-Joachim Fuchtel
 Parliamentary State Secretary
 German Federal Ministry for Economic Cooperation and
 Development

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The Business Opportunity



Business Model Generator



Support Directory



Photos: African Development Bank/Flickr
UN Photo/JC McIlwaine/Flickr
Michal Huniewicz/Flickr/www.m1key.me

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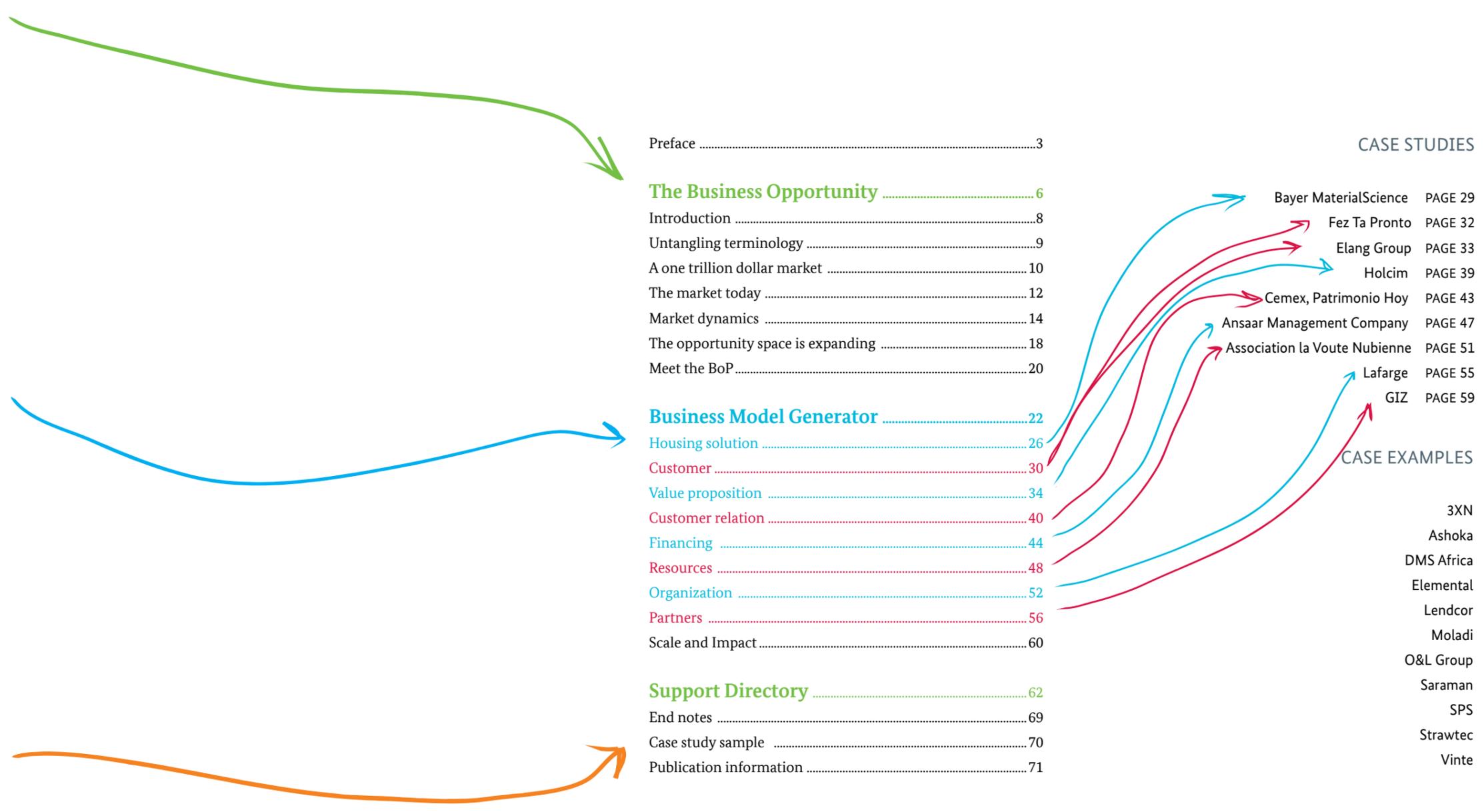
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The Business Opportunity



Photo: African Development Bank/Flickr



Introduction

In 2014, people living at the economic Base of the Pyramid (BoP) are expected to spend approximately 700 billion USD on housing.¹ At the same time population growth, rapid urbanisation rates and economic progress are pushing the boundaries of the market day-by-day. Over the next five years, the developing economies are expected to grow by almost 30%, while the number of urban slum dwellers will triple by 2050. The staggering numbers emphasize that regardless of flaws and informality, the BoP market for affordable housing solutions is *there* and is *growing* by the day. Families in low-income communities across the globe are building, repairing and improving their homes. They are buying cement and tiles, renting and selling. What is not there, are strong links between the formal and informal markets. As a result poor families often lack

adequate building materials, services, financing, and housing solutions.

This is however, not the case everywhere. Despite significant challenges, a growing number of companies are making a profitable business by building affordable homes or supplying building materials. These companies have understood the market's potential as well as its pitfalls. They have designed solutions that meet the demand and desires of the BoP and developed business models that compensate for market failures – and sometimes even turned them into strategic advantages. This guide leverages the hard earned experiences of these companies and helps you translate the market potential into tangible ideas and business models.

More people	More money	More knowledge	More opportunities
Almost 1 billion people do not have access to suitable homes and the demand for suitable housing is growing	Each year people living at the BoP spend 700 billion USD on housing. Spending and incomes are increasing	Many companies have already succeeded in unlocking the BoP market and new tools and insights make it easier to succeed	The business case for affordable housing is becoming even more attractive for companies all over the world

About this guide

This guide serves companies from all parts of the value chain who either already work in the BoP housing market or are considering entering the market.

The guide has been developed on the basis of an initial evaluation of nearly 100 cases, interviews with 25 companies and experts, as well as detailed analysis. As such, the guide provides an overview of experiences and lessons learned within the BoP housing sector and offers hands-on guidance by practitioners for practitioners.

The first part of the guide provides an overview of the business opportunity and key market dynamics. The second part introduces a **Business Model Generator**, which provides **insights and practical examples** on how to develop or strengthen your affordable housing business model. Finally, the Support Directory lists **stakeholders** and **references**, which can help you find additional inspiration.



Untangling terminology

Base of the Pyramid (BoP)

The Base of the Pyramid (BoP) concept represents the idea that the billions of people globally, living on only a few dollars a day, have unduly been ignored by companies.² These low-income customers are defined by their limited purchasing power, but collectively represent a large and growing market. Besides being poor the BoP is characterized by vast internal differences. Some have recently moved from rural areas to urban slums and have nothing but the clothes they stand in, while others have stable incomes and are slowly working towards middle-income status, and many others are in between.

Affordable housing

What is deemed “affordable” varies significantly across countries and income groups. “Affordable housing” is understood broadly as housing solutions which are priced or financed in a way that enables low-income households in developing countries and emerging markets to also be able to afford other basic needs.

The market for affordable housing represents a broad range of market opportunities that differ considerably. Essentially there are two broad categories of solutions: “new buildings” and “building upgrades”

Inclusive business

The ability to deliver *affordable* solutions is not sufficient to succeed at the BoP. Failed affordable housing ventures document that solutions not only need to be affordable, but also suitable and desirable. An inclusive business approach can help you achieve this and creates value for the BoP. Inclusive business includes the BoP on the demand and/or supply side and enables companies to develop business models that leverage the resources of the BoP – in ways that establish mutually beneficial partnerships. In the housing sector, inclusive business models target the BoP as customers, or integrate the BoP in the design process to ensure needs are understood. The BoP can also be involved as suppliers of building materials or during the construction process, as workers or empowered home owners with the skills and capacity to upgrade their homes.

Affordable housing – key market segments



New Buildings include construction of new housing developments and can range from a few houses to full scale cities with thousands of units.

New buildings can also include different types of temporary housing for example for refugee camps (not considered in this publication).



Building upgrades include improvement of entire building structures, or more incremental upgrades focusing on e.g. fixing a leaky roof or adding rooms or finishing to a home.

Business models primarily focus on supplying building materials or services for retail shops, self builders or local crafts men.

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A one trillion dollar market

2008 marked a true tipping point in the world's history. For the first time, more people lived in cities than in rural areas. About one third of these – around 1 billion people - live in slums. Most of them do not have access to safe housing that satisfy basic human needs such as clean water and sanitation, or housing constructions which can withstand the pressure of climate change or natural disasters.

Each day, an additional 25,000 urban households across the world are starting their search for affordable housing. In India alone, more than 19 million housing units are needed per year in order to meet the demand for affordable housing, while almost 100 million Indian slum dwellers constitute a solid market base for home upgrading solutions. In total the construction and upgrading market in India and many other

developing countries is growing towards a one trillion dollar market in 2020. For companies across the value chain the housing sector offers many entry points to engage in this market.

In terms of investment gap, there are estimates that suggest that it would require an investment of 9-11 trillion USD in construction spending alone to replace the inadequate housing of today and build additional housing units to meet demand in 2025. An estimated two-thirds would need to be spent on replacement of existing substandard housing, while about one-third would need to be spent on constructing new units.³ While an investment gap does not equal a market, the figures illustrate a significant business potential waiting to be unlocked.



Photo: Saraman

The market today

The global BoP housing market is growing fast. Asian countries by far represent the highest total BoP spending on housing globally. This spending mirrors the level of substandard housing. Today the top 10 nations – including all BRIC countries – account for 60% of substandard housing globally. Alone in China 61 million people are living in substandard housing.

Today, BoP customers use about 10% of their income on housing. Expenses include e.g. rental payments, home maintenance and repair, major home appliances and tools. Spending varies considerably by region from 8% in East Asia to 23% in Central America and Caribbean.

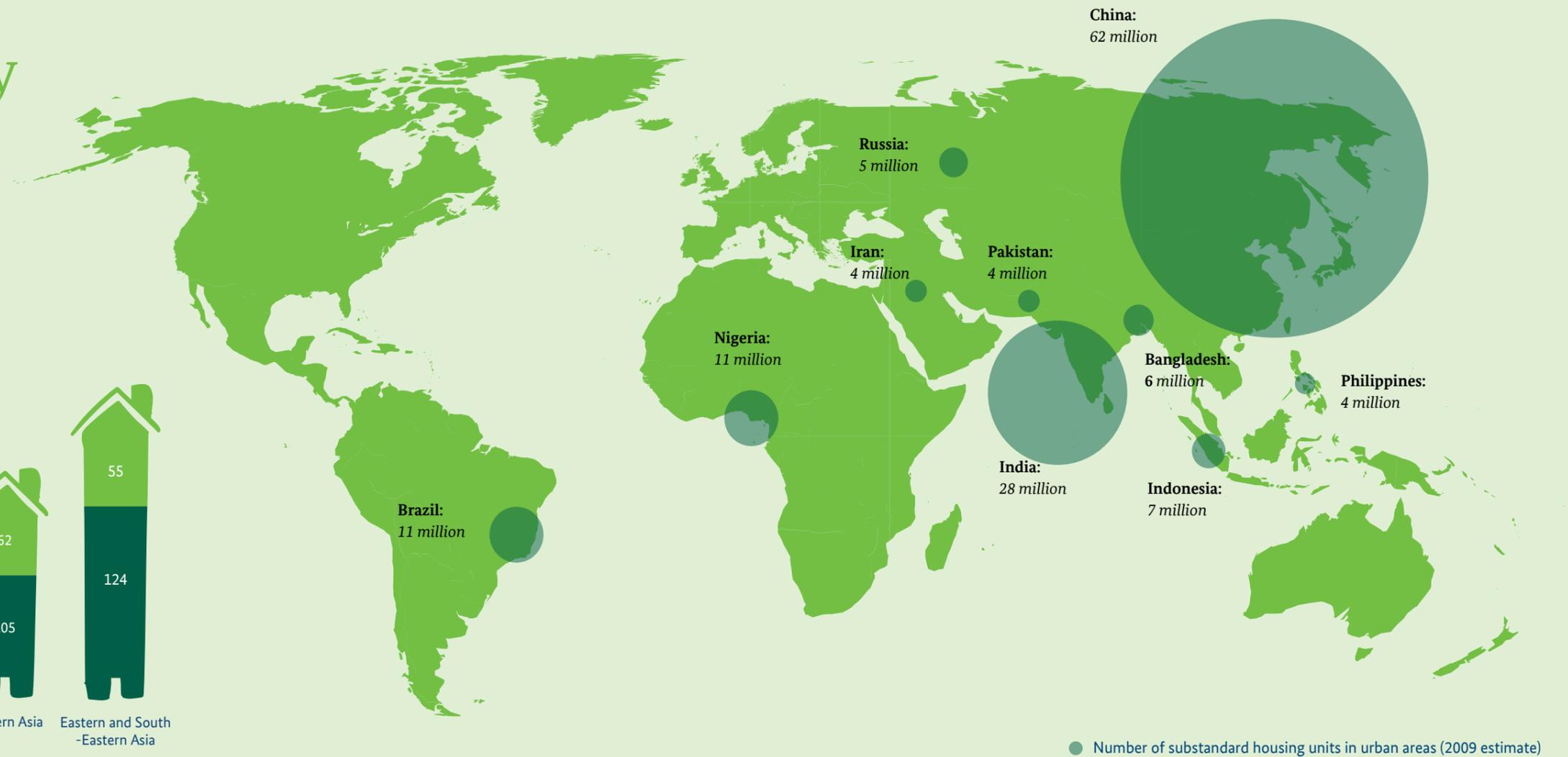
Annual spending, 2014 USD bn values (2005 PPP prices)



- Lowest income segment (<2.97 USD/day)
- Low income segment (between 2.97 and 8.44 USD/day)

Sources: IFC, Global Consumption Database, World bank and own calculations

About 60 % of substandard housing globally is concentrated in 10 nations



● Number of substandard housing units in urban areas (2009 estimate)

Sources: United Nations Millennium Development Goal Indicators, Census India, Rosstat, McKinsey Global Institute, Dalberg Research analysis

BoP Housing spending as a share of total BoP spending per region



Source: IFC

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Market dynamics

The BoP housing market shares a number of characteristics with traditional property markets, but also represents distinct differences that are important to understand and consider in the design of your business model.

Macro dynamics

Informal but structured markets

A large part of the BoP market for housing is currently served through informal markets. Informality does not imply lack of structure. Informal markets can be very efficient and regulated by strictly enforced informal rules. Currently, informal markets are doing what formal markets are not able to do: handling large quantities of migrants and distributing homes to them. As a company selling to the BoP the informal markets are an important competitor and sometimes partner that you need to understand.

A stuck housing circle

Mobility is a fundamental part of a healthy housing market. New houses are built, but most people move within the existing pool of homes. In many developing countries the market

does not work in this way. Limited supply of suitable homes for the growing middle class means this group is forced to stay put – sometimes in slum areas. As a consequence, affordable homes developed for the poor regularly end up serving middle income residents. The middle class might access affordable homes through connections, but often times affordable homes are re-sold or sublet on the formal market by their original beneficiary. To avoid this some companies include clauses on when people are allowed to sell their homes to avoid speculation and ensure people live and investment in their homes. In general the affordable housing markets are often difficult to control and are closely linked to national property markets.

Inefficient regulation

The housing sector is often heavily regulated and in many countries property rights systems are inefficient and land rights contentious. This means the cost of land and infrastructure is high and regulation difficult to navigate. In addition, housing is often a heated political issue, implying that housing policies may be used as a political tool. As a company you are exposed to political risks and need to find ways to understand and navigate the political environment to succeed. [See page 48.](#)

Lack of skilled workers

Qualified workers are often a shortage, which means labour supply can be a bottleneck in the construction phase, especially when scaling. Including investments in local skill development as an operational cost can you help avoid this.

Low margins and low volatility

BoP housing markets are typically less prone to market fluctuations and hence more stable than high-end markets. In addition they constitute a strong basis for scale due to the number of potential customers. The greater level of stability and the potential upside in terms of volume can, if done right, compensate for the normally lower margins in affordable housing ventures compared to high-end housing projects.

Company level dynamics

The BoP represents varying income, needs and aspirations. All BoP tiers can be reached with affordable housing solutions, but require different approaches.

Mixed financing for building upgrades

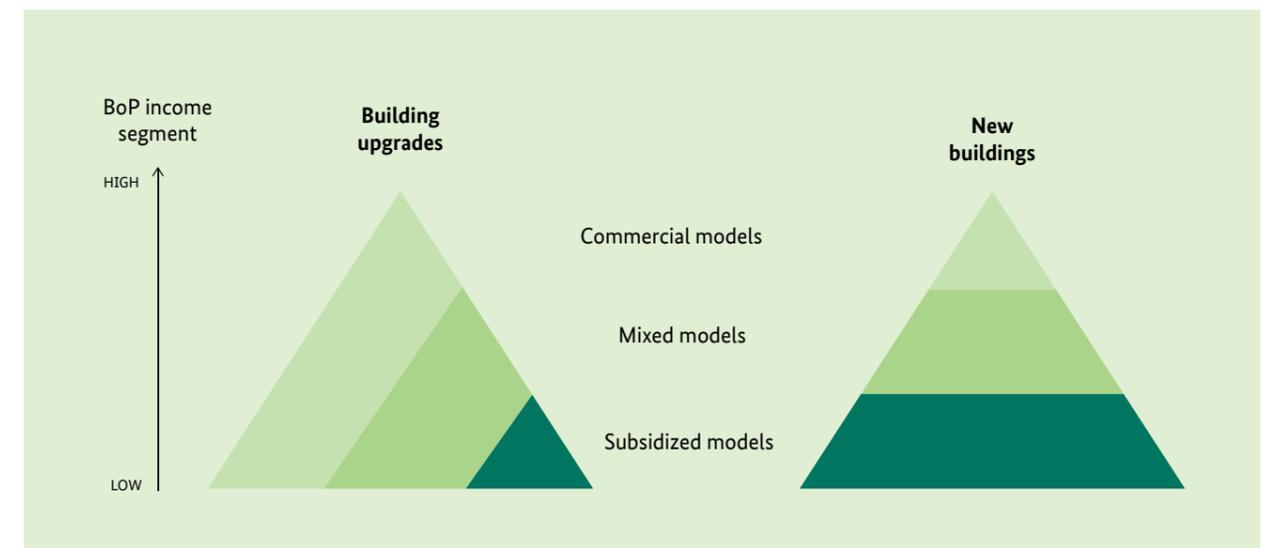
From high BoP segments to low - people at the BoP are currently buying simple building materials on commercial terms. For companies related to building upgrades, this means it is possible to target a wide range of income segments. However, the financial sustainability of the models are closely related to the ability to create scale - particularly for products and services offered at low price points. For larger purchases the poorest tiers sometimes leverage grants or subsidies as part of government or donor-financed slum upgrading programs.

Tiered financing for new buildings

For companies offering *new housing solutions*, the link between market segments and financing models is clearer. The highest income segments are typically served through commercial business models, while the medium tiers are traditionally reached through both commercial and mixed models (includes subsidies). The poorest tiers are very difficult to reach through commercial models and only access new housing solutions if governments or other organizations choose to subsidize them heavily.



Photo: Elang Group Housing



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BoP household dynamics

Size matters

People at the BoP live in a wide range of homes. From bamboo houses on stilts, over mud huts to brick houses. From high-rises to low urban sprawl. Housing units are often very small – beginning with a few square meters. While few people find very small homes ideal, it is often a problem that new developments do not include small enough units, which enable lower affordability thresholds.

Do-It-Yourself

The majority of BoP housing is self-made and built incrementally. People recycle materials or buy building materials when they can afford them and stock them until they have enough to begin building or improving their home. A home is often work-in-progress and might have a half floor or room waiting for better times. In order to keep construction costs down, neighbours, family and networks are often engaged in the construction process. As a result, construction at the BoP is based on creative solutions rather than structural soundness and compliance with buildings codes. Combining building materials and training can be a way to add value to upgrading solutions and avoid substandard construction.

It's expensive to be poor

Across BoP tiers, housing is a large expense for low income families. Many families rent their homes or land in the informal housing market. A challenge in low-income markets is the poverty penalty. Often, people in poverty are forced to accept solutions that are far from optimal due to a lack of alternatives

or lack of market information. In the slums in Mumbai for instance, people can pay as much as 20% per month in interest alone when buying a house. This means home acquisition can keep them in debt for the rest of their lives. In general the affordable housing market is hampered by very limited supply of financial products targeting low-income segments. This makes it difficult for the BoP to access and obtain mortgage financing due to uncertainties with credit worthiness. For your company this means your solution may not be accessible for the BoP, unless it is combined with access to financing (see page 45).

Housing as an enabler for development

Ideally, a home is much more than a roof and walls. A home plays an important role for social status. It provides personal safety and can enable access to basic necessities such as water, sanitation and energy. In addition, a home at the BoP is often used as a source of income generation through home-production, sub-letting, small shops or storage. Finally, people who live in formal settlements are typically better organized and engaged in the broader society, e.g. in terms of education, governance, tax payments and so forth. In other words, the value proposition of your solution is linked to a wide range of benefits which you can seek to strengthen – for example by making it easy to include productive purposes in the homes. Moreover, the societal benefits of housing can constitute an incentive for organizations or governments to join forces with your company.

Business model innovation calls for active integration of people and society



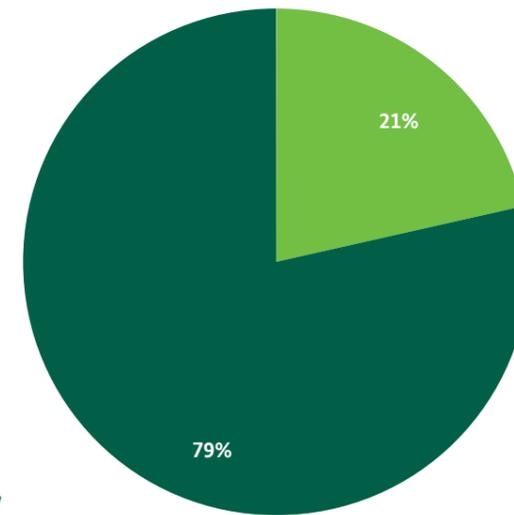
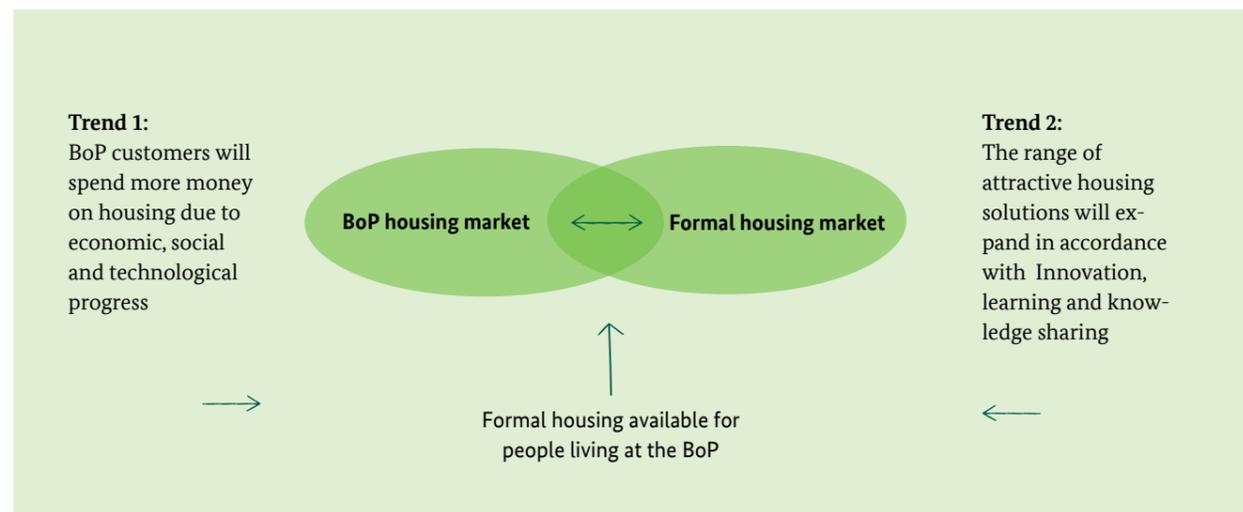
Photo: Holcim

The opportunity space is expanding

For many companies the BoP housing sector has traditionally been viewed as a “development case” characterized by high involvement of governments, civil society organizations and donors. The market has simply been deemed “too complicated” or “too risky”. Such an assessment might indeed be true for some companies: engagement requires a long-term perspective and a willingness to move beyond business as usual. However, for companies that hold the right combination of mind-set and solutions, the housing market represents a unique opportunity. The fact that a number of international players are already active in the market for affordable housing and are investing significant resources in the sector, accentuates that there is a market for affordable housing that is open for business. In addition, the market is likely to expand at a rapid pace in coming years due to two mutually re-enforcing trends related to the BoP segment and the housing sector respectively.

Trend 1: BoP customers will spend more money on housing
Over the coming decades, the number of people living in developing countries will grow rapidly, reaching 8.2 billion people in 2050. The urban population is expected to double within the same time period. This rapid growth will create a significant increase in the demand for housing solutions. In addition, many people at the BoP are slowly crawling up income tiers and increasing average, as well as total spending, on housing. As a result, solutions that are currently out of reach will become affordable for more people day-by-day. In other words investments today help secure market position in the future.

Trend 2: The range of attractive housing solutions will expand
It is becoming increasingly clear for many companies operating within the housing sector that future demand will to an even larger extent be driven by developing markets. Consequently, many companies are making significant investments in innovation of new housing solutions targeting low-income communities. The incentive to investment is further stimulated by a growing awareness of the housing sector’s instrumental role in terms of enabling human development among governments, civil society organizations, and development institutions. This enables a good platform for creating innovative partnerships across sectors.

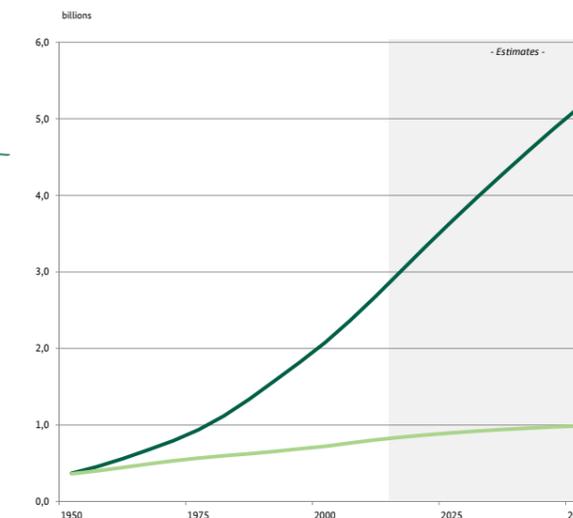


Distribution of expected increase in economic activity in the world, 2014-2030

- Developed countries
- Developing countries

Global demand is to a still larger extent being driven by emerging markets.

Source: IMF and Dalberg Research

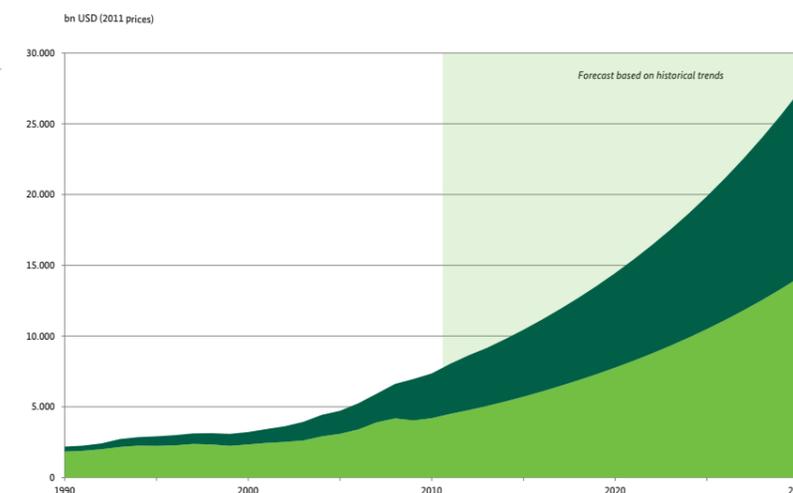


Population living in urban agglomerations

- Developed countries
- Developing countries

More than 90 % of the increase in the number of urban resident can be attributed to the urbanization process in developing countries.

Source: UN and Dalberg Research



Total investments

- China
- Developing countries (ex. China)

Economic progress will free up resources for new investments in housing and infrastructure.

Source: IMF and Dalberg Research

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Meet the BoP

Bienvenido a mi casa - Welcome to my home

Inés Flamenco Castro, a 61 year old woman, lives in Mexico City with her three daughters. Inés arrived in Mexico City from Salvadore when she was 18 and began to work as a labourer in a doll factory. In 1984 Inés acquired a land slot in Valle de Chalco for 55,000 pesos (3,230 EUR). Inés paid the debt through monthly instalments over a period of two years and says: *"I came here when there was still no electricity or drinking water. No one wanted to live here because of the distance to the Federal District (the city centre). It was so ugly, there were floodings, pure dirt roads, and we had no water and light - there was nothing. Now the public services and the neighbourhood has improved."*

Inés initially built a small house with the help of friends. The house slowly deteriorated due to poor construction. Two months ago there was heavy rain and the roof fell off. With the help of Inés' brother in law, who is a mason, they are constructing a new home piece by piece at the bottom of her land. The house has a room with four beds, a dining room and kitchen, all in the same space. But it's not finished – Inés has left a hole in the roof so she can construct a staircase and add a second floor later. Inés explains: *"I imagine the house. The dining hall will be here, my kitchenette there. I continue to save money to be able to keep building. I would have built more, but because my grandchild Riky is deaf we have other expenses."*



Photo: Makeba Gil

Currently, Inés is employed as a maid and has three different jobs. Inés works Monday to Saturday and has five hours of transportation every day, but says: *"Of course I don't feel sorry for myself - I feel proud because I have given my daughters all that I have been able to and I have raised them and pushed them forward on my own."* Inés' daughters are also part of the plan for the house. They have agreed to tear down the first house and construct a new little house for them: *"My dream is to secure a home for my daughters and grandchildren, so they can be independent and move ahead in life."*

Key observations

- People build despite lack of construction skills. Often solutions end up being expensive because they are not durable.
- Incremental home building can make a solution accessible and ensures a home can adapt to changing life circumstances.
- Location and access to adequate transport and infrastructure has a high impact on the value of a house.

Enkuan denah metachew - Welcome to my home

Rebika is 22 years old and lives in Addis Adaba, Ethiopia with her husband and two children. She and her family live in a slum area. Rebika moved to Addis three years ago from the Southern part of Ethiopia. Her husband's plot of land was too small to sustain the family so he moved to Addis to work. Rebika joined with her two children when he was settled.

Rebika's home is a single small, dark room with dirt walls and is often very muddy in the rainy season. The slum area is full of small houses, which have been divided into even smaller units. Rebika lives in a medium size unit, which is about 15 m². The family uses the public toilet and fetch water close-by.



Photo: Sara Ballan/BoP Learning Lab



Photo: Sara Ballan/BoP Learning Lab

Rebika says: *"I rent my home and it is very expensive for us. I pay more for a slum room, than some do for a nice place. I am paying towards a down payment every month for an affordable home, which is being built. This month I have to skip my payment - I had to buy a school uniform instead for my son. The houses are being built now and if God allows I will be able to move to a new condominium with my family. I am very excited about moving there. It is a real home!"*

Rebika and her husband have a small street shop where they fix and clean shoes and sell small items. According to Rebika the street stall constitutes her actual home at the moment: *"We work here all day, seven days a week. The kids play here. Our house is just somewhere we sleep at night. I am dreaming of having a real home. My son is named Freedom. This is what I hope for, when we get our house."*

Key observations

- Urban slum areas are expanding at a rapid pace. This puts pressure on land and creates a poverty penalty. People might already be paying a lot for very little.
- Incomes are very low and volatile, which impose a challenge in terms of access to finance.
- Even though the family is part of the lower BoP tier they are able to put aside small amounts towards a down payment.

Business Model Generator

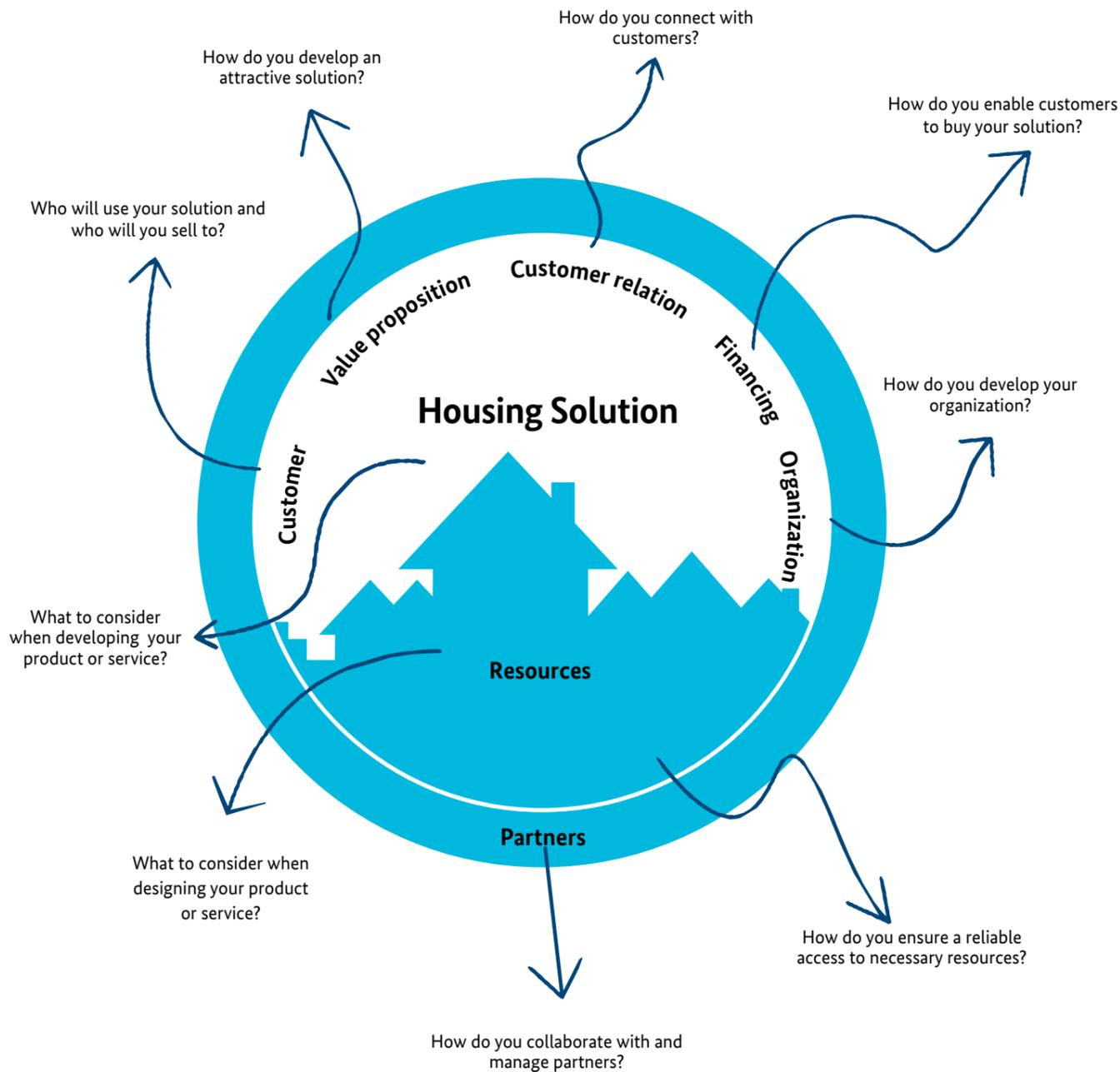


Photo: UN Photo/JC McIlwaine/Flickr



Business Model Generator

The Business Model Generator helps you develop a solid strategy for your company, by helping you ask the right questions throughout your go-to-market process. The model is based on eight elements that are relevant to consider when developing affordable housing business models.



How does the generator work?

The Business Model Generator illustrates **business model elements** which are particularly important for affordable housing ventures.

At the **core** of the model, the **housing solution** represents *what* you are selling. It can be a house design, a construction method, a special type of building material or a range of other products or services.

The **surrounding elements** depict the **internal dynamics** in your business model. For example: What is your value proposition?

To *whom* and *how* are you selling your product or service? And how do you *organize* your business?

The **foundation** of the model represents all the **external factors** that influence the success of your business model - for example access to land, labour and building materials.

Finally, **partnerships encircle the model** as they are instrumental for how the internal dynamics of your business model are linked to the external factors that influence your business model. The business environment for affordable housing can be very complex to navigate. Access to the right partners is therefore often a prerequisite for your success.

Where to start?
 Your vantage point might be to develop a new housing solution for a particular target group. Or instead you might identify which target segments fits your solution and investigate how to adjust to their needs. However, the generator does not prescribe one particular process to follow or tell you where exactly you should start. Often business development will be an iterative process with many feedback loops. Each time you adjust one part of the model, it impacts the rest.

Generator elements

The Business Model Generator walks you through each business model element and presents:

- typical **challenges** your company might face
- key business model **questions** to consider
- **inspiration** for business model strategies and tools
- practical **case examples** from other companies



Housing Solution

The Housing Solution is the physical home, building material or service you are selling. The first question to answer is what type of service or product you want to offer. And which need or demand your solution is addressing. Designing affordable and desirable solutions is full of choices, dilemmas and trade-offs between different considerations. For example, innovation vs. tradition. Quality, safety or sustainability vs. price. In order to develop a business model that is financially viable you need to find the right balance between these trade-offs and make a well informed choice with respect to building materials, building methods, and the safety and environmental profile of your solution.

Business model questions

- What service or product will you sell and how can building materials and methods bring down the costs of your offering?
- How do you deliver safe housing solutions at low costs?
- How can you assess the environmental impact of your solution and ensure sustainability?

Choosing the right building materials and methods

Housing is a conservative industry where traditional design and building techniques still dominate. To reduce costs, new approaches and materials are often needed. A key question is how to balance cost against quality. Aiming for the highest standards can bring houses out of reach for low-income buyers. While low quality homes quickly become expensive,

unattractive and unsafe, when they start to fall apart and potentially leave your company with a bad reference project. Companies come up with very diverging solutions to find the right balance. Solutions range from traditional techniques to high-tech solutions or combinations which integrate the positive attributes of both.



Photo: Elemental

	TRADITIONAL	NEW
METHODS	<p>Building techniques have often developed locally over hundreds of years, combining available materials with the demands of climate and culture. Identifying traditional techniques can help you understand what people are used to and inspire new solutions.</p> <p>In the Sahel region of Sub-Saharan Africa, La Voûte Nubienne has developed a social entrepreneurship model focusing on Nubian styled homes. The units are built with ancient building techniques, which provide low-cost and durable solutions. Read more on page 51.</p> <p>Traditional techniques can also be a challenge. People migrating from the countryside to urban slums often bring their traditional building methods. Combining these with urban building materials can result in dangerous constructions. For companies working with slum upgrading, it is important to recognize these traditions and encourage suitable techniques.</p>	<p>Standardizing housing elements such as finishing or structural design brings down costs through economies of scale. Prefabrication of entire modules using industrial production methods is a more radical solution for standardisation. Prefab was traditionally used to produce high volume homes, with a short life span and little thought dedicated to design and environmental concerns. This is quickly changing: many companies are using full scale prefab solutions or elements to create quality solutions.</p> <p>In Uganda, DMS Africa is introducing locally produced prefabricated houses, while Saraman in Iran prefabricates the most complicated structures, and then supplements these with local components and materials. The prefab method enables uniform products and quick construction, which is less dependent on skilled labour. This brings down cost levels. The prefabrication method often also enables companies to focus on the core value of a housing solution and remove non-essential features which increase costs.</p>
MATERIALS	<p>Import of materials is often a cost driver and can be a logistical headache. Many locally available resources, such as earth and stone based building materials are cheap, recyclable, energy efficient to produce and have good heat and health attributes. Use of local materials can also reduce execution risks, such as inefficient storage, inflation and import barriers.</p> <p>In Rwanda, German company, Strawtec, is using traditional raw materials in new ways. Strawtec uses straw to produce modern housing panels, which are used as the primary building material for mass housing. Read about the developPPP.de partnership between GIZ and Strawtec on page 62.</p>	<p>High-tech doesn't always mean high cost. Economies of scale means that advanced materials can be a cost-efficient option. Mobile phones are an example where high-tech has become available for the masses. A number of companies are testing whether the same can be done for building materials.</p> <p>Bayer MaterialScience has developed state-of-the-art composite building materials which are lighter than wood, but as strong as concrete. The materials are easy to use, which brings down costs considerably. Read more on page 29.</p>



Balancing safety and costs

Stories of buildings collapsing can be found regularly in newspapers in developing countries. Poor construction and implementation of safety regulations are among many reasons for these often fatal accidents. Accidents also happen in luxury developments, but safety issues are especially critical in affordable housing projects, where margins are low and safety not always a high priority. Design, building materials and construction all impact your safety profile, when developing your solution. If you are aware of risks from the outset, many safety features are low cost to integrate or a question of good construction management. Three issues are worth considering:

Construction flaws: Safety issues are often caused by construction flaws, rather than technical design. Many good projects fail because too little attention is paid to the implementing partner. Often, pressure to meet deadlines and budgets combined with inadequate skills and corruption result in substandard construction. To avoid this, you need to make sure materials are not compromised and assess which local skills are available in the initial design phase, to be able to accommodate for any shortcomings.

Natural hazards: Climate change and extreme weather increasingly create devastating destruction in low-income communities. To build appropriately, you need to understand weather patterns and risks of natural disasters in the area in which you are working and plan accordingly. Solutions range from flexible construction methods, over housing layout which mitigates flooding risk, to flame resistant materials. A company that has specialised in this area is **Saraman**, based in Iran. The company was established as a response to the devastating earthquake in Bam in 2003. Saraman designs, fabricates and erects affordable, earthquake-proof steel structures for houses, schools and hospitals. To do this, a new technology from a German academic spin-off was adapted to reduce cost and construction time using locally available material. [See the Support Directory for guides on designing and constructing resilient homes.](#)

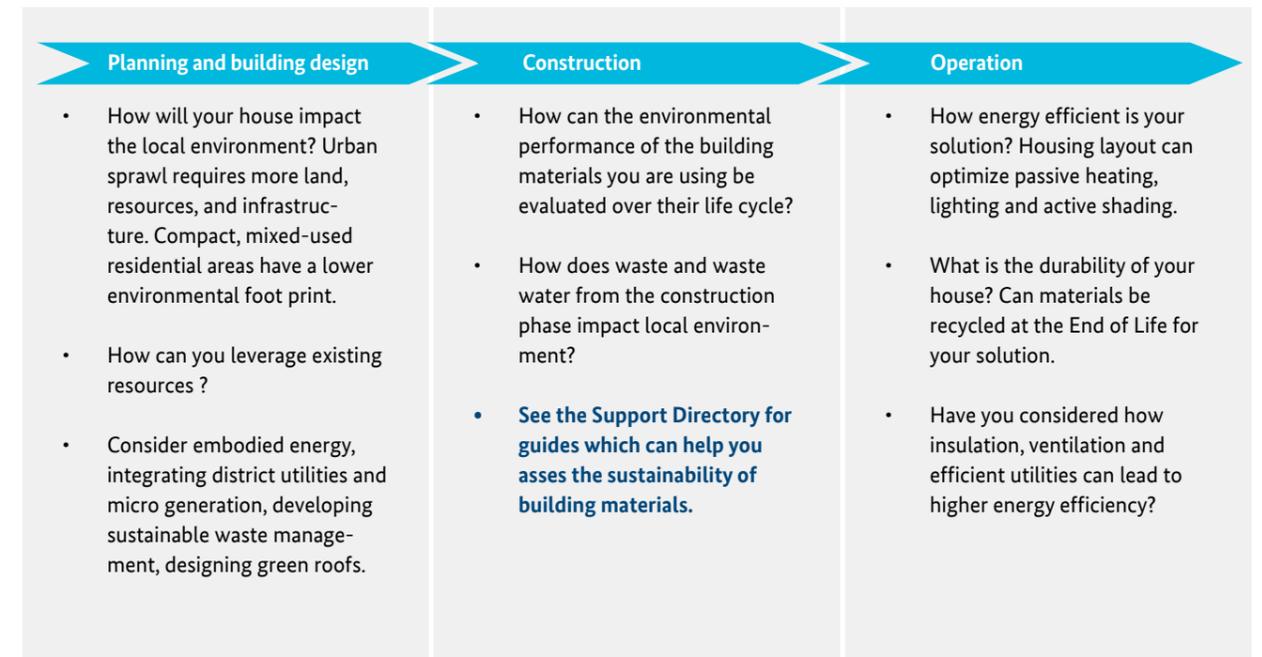
Willingness to pay for safety: Local perceptions of safety and quality often surprise companies. A house in a low-income community might have a very nice façade, while little priority is given to indoor finishing and safety features, e.g. fire exits. While people are often aware of the hypothetical risks, they tend to focus more on the immediate value and visible qualities of a home or building material. In other words, paying extra for

safety features is often a tough sell. Customer education is one way to inform about the value and necessity of safe housing solutions. Alternatively, it is important to promote your solutions on other parameters. Your house might be flood resistant, but maybe other attributes rank higher in perceived value. **La Voûte Nubienne** for example, builds houses which reduce fire risk and are insect resistant, but promote these features among many other attributes.

When is green enough?

Scaling affordable housing to meet the vast demand will pressure natural resources and likely increase the price of building materials. This encourages smart thinking with respect to waste reduction and use of recyclable materials. Other choices are less straight forward: Is it better to ship sustainable building materials than to use locally available materials? Is wood better than bricks or vice versa? Is it better to build a few very sustainable houses or scale an environmentally acceptable - but not perfect - solution? The answer often is: *it depends*. The only way to make qualified choices is to map and understand your environmental impact and then decide what is feasible and acceptable. [The questions to the right are a good place to start, but can easily be expanded.](#)

Risk reduction is, however, only one side of the equation. If you open the eyes of governments or end-users about the value of environmentally friendly solutions, these issues can be an important differentiating factor. In Mexico **VINTE** is showing that affordable housing can be combined with high environmental standards and profitable business. VINTE spans the value chain including, design, development and construction of housing communities. To ensure a strong environmental profile VINTE has developed an environmental management system on the basis of its shared value approach. As a result VINTE has for example designed and implemented wells and lagoons that recover 80% of pluvial water and installed solid waste management systems. VINTE has also participated in green housing initiatives such as the Ecocasa Program, which develops homes that reduce greenhouse gases emissions by at least 20%, compared to conventional homes. Technologies include insulation in ceilings and walls, the use of reflective paint, efficient gas heaters, or energy-saving windows. These energy saving features increase the value of the home, since operational costs are reduced for inhabitants.



Inspiration from UN Habitat*

CASE 1

High-tech – low cost, Bayer MaterialScience, Philippines

Bayer MaterialScience is bringing down housing costs through high-tech building materials and local adaptations.

Bayer MaterialScience focuses on high-tech polymer applications and has set up a business initiative which seeks to establish new business models to improve lives at the base of the pyramid. The housing projects in Asia, the Middle East and Africa show potential for scale, but also imply challenges. Taste, preferences, needs and legislation vary substantially from market-to-market and from project-to-project. As a result Bayer MaterialScience always needs to focus on adapting solutions to local conditions. Veeralakshmanan Bagavathi, who heads up the company's Inclusive Business operations, explains: "Our challenge is balancing standardized technologies with local adaptation, while still ensuring economies of scale." Bayer MaterialScience is doing this by developing affordable housing solutions based on composite panels, which are lighter than wood but as strong as concrete. These can be assembled within five days with a minimum of workers and technical support. The insulation properties of the material allow the houses to be energy efficient and comfortable to live in.

The development of high-tech solutions is a large, sunk cost that can only be compensated for through scale. Contributing to one million homes in Malaysia and other large scale projects means that Bayer MaterialScience is used to thinking about scale: "To really achieve scalable solutions on inclusive business it is essential to collaborate. As our company primarily operates in Business to Business or Business to Government markets, we are very dependent on good partners along the value chain, ranging from local building developers, financial institutions, governments and civil society organizations" says Veeralakshmanan Bagavathi.

For Bayer MaterialScience, the focus on affordable housing is both a sound business choice, but also about leveraging corporate strongholds for social benefit. In the Philippines, Bayer has launched a partnership with Habitat for Humanity and Wyndham homes. Veeralakshmanan Bagavathi explains: "By working with local housing developers as well as Habitat for Humanity, we can both contribute and learn more about the needs and challenges of affordable housing."





Customer

Customers and end-users are not always the same for affordable housing ventures. When designing your business model you need to consider which BoP segment your solution is designed for, but also who your direct customer will be. You can sell *directly* to different tiers of BoP segments, or target users *indirectly* by offering your solution to either public or private entities. Dealing with multi-billion dollar institutions and low-income populations naturally represents very different business opportunities and opens up different possibilities to develop inclusive business models.

Business model questions

- Which segments will you target and what characterizes your end-user?
- Who will be your direct customer and how are your customer and end-user linked?
- How do you assess BoP customers with no financial records?

Choosing the right market segment(s)

As noted in the first part of the publication, different solutions and business models are relevant for different tiers of BoP customers. For the lowest tiers upgrading solutions or subsidized models are most relevant, while the range of solutions and models is wider for the higher tiers.

For companies entering the affordable housing sector it is often a struggle to develop financially viable models if the lowest tiers are targeted from the outset. To avoid this, you can consider different approaches.

DIP strategy

Instead of initially targeting the bottom tiers, some companies use a *deeper into the pyramid* strategy (DIP). The vantage point is moving from traditional high or mid-income segments to the top BoP segments and slowly bringing down the affordability threshold while increasing market understanding and adjusting business models gradually.



Identifying your direct customer

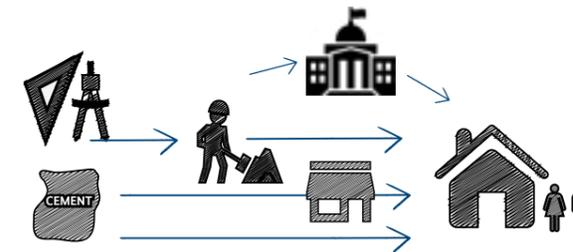
Selling directly to the BoP enables a high degree of control without middle men increasing the costs. It also enables a unique understanding of your end-users. For companies working with housing upgrades direct sales or sales through retail partners is often easiest. Mexican cement manufacturer, **CEMEX**, for example values this relation. In the mid-nineties, economic crisis in Mexico caused traditional customers such as major companies and institutional buyers to scale down. At the same time, CEMEX noticed that 30-40% of bagged cement used in Mexico was bought by low-income families. For CEMEX, this

Multi-tier strategy

The multi-tier approach targets different income tiers as parallel segments or combined. Building material company **Lafarge** has four different business models for different segments and applies a mix of relevant models in each country. This ensures flexibility and risk diversification. For Architects **3XN**, mixing segments is also part of the deal. In Mumbai, housing developments can be built in slum areas if a minimum of 70% of slum dwellers are relocated to the new development. To this end, 3XN has designed a high rise where the lower floors include units for low-income inhabitants and spaces for small shops, while the floors above target middle and high-income inhabitants.



finding was the start of a long business development process to understand and refine how to develop business models for and with the BoP directly through the subsidiary Patrimonio Hoy. [Read more on page 43.](#)



Examples of channels: Cement value chain through retailers or direct sales. New housing value chain through government or direct sales.

For companies working with new housing solutions direct sale can also be a viable option. In Indonesia, **Elang Group** has developed a profitable business model selling homes to the BoP and sees no reason to add an extra layer of distribution costs (see page 33). For other companies, direct sales are not the most obvious approach. Engaging directly with the BoP as customers bundles different challenges, for example dealing with many entry points and low individual purchasing power. Supplying affordable homes through public entities, civil society organizations (CSOs) or corporate customers can be a valid alternative or means to diversify.

Public or CSO customers

Government and civil society organizations invest large sums of money in affordable housing. For some companies, these organizations are the direct customer, while others cooperate with government programs to provide financing. In Brazil, **Fez Ta Pronto** for example could see a clear need for affordable solutions, but little possibility to deal directly with low-income communities from the outset. Instead the *government* has been their initial customer. [See case page 32.](#)

Corporate housing

Large companies can also be a customer group for affordable housing solutions. For companies providing access to affordable housing for workers can enhance their value as employers and solve practical problems. In Algeria, prefab company **SPS** combines direct sales with sales to companies. This

enables a combination of small individual customers and volume sales which diversifies risks. At the moment, individual sales are slow and corporate sales are the largest source of income, which keeps the business running.

Financial assessments of informal households

BoP customers often do not have a credit history, pay slips or bank records. This makes financial evaluation hard – but not impossible.

Example - financial realities across the slum

Priya lives in a slum in Mumbai. She has a tailoring shop and her children are on their way to college. Even though she has some financial resources, she has no access to a suitable and affordable home. Devika lives in the same slum, but has a low fluctuating income from her job as a day labourer working at construction sites. If homes were available, Priya would be able to use her savings for the mortgage, while Devika has little chance of doing this. She might instead be interested in an improvement loan for her current slum dwelling. From the outside Priya and Devika are defined as slum dwellers, irrespective of them having very different resources and requirements for a suitable housing solution that meets their needs.

Civil society organization **Ashoka** works closely with local partners to develop new ways of assessing credit worthiness of the BoP. A taxi driver for example has a quite stable income, which can be evaluated surprisingly accurately by combining knowledge of the taxi business with interviews and calculations of expenses and average monthly income.

To encourage developers to focus on affordable housing, Ashoka is also developing hybrid models, which make it easier to identify the right customers. Ashoka recruits citizen sector organizations to help identify and screen customers and combine these with mortgage institutions, who assess the creditworthiness of the customers. Housing companies or developers are then presented with a qualified group of potential customers.

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CASE 2

Partnering to reach the BoP, Fez Ta Pronto, Brazil

To reach the lowest income groups in Brazil, Fez tá Pronto Construction System is working with the Brazilian government's social housing program.

In a pressured Brazilian housing market where most low income families live in substandard housing the Minha Casa, Minha Vida program was initiated by the Brazilian government in 2009 with the ambition to transform this reality. The Fez Tá Pronto Construction System is one of several companies looking to integrate its building materials and semi-industrial practices within the initiative. "Families in the favelas are paying absurd rents for their homes and everyday more people are arriving into urban areas, exacerbating the situation. Combining our solution with Minha Casa, Minha Vida is one of the ways that more sustainable solutions can be brought to the marketplace" says Ruban Selvanayagam, BoP Housing Developer from Fez Tá Pronto.

Under its Rent-to-Own scheme the Minha Casa, Minha Vida programme provides subsidies for three different income groups. Fez Tá Pronto focuses on building houses for the lowest income group; families earning between 1 to 3 times the national minimum salary. This is where the majority of Brazil's housing demand is found. Targeting this segment is possible by combining the financial support of the Minha Casa, Minha Vida Program with competitive construction materials and technology. Fez Tá Pronto's system is based on patented gypsum plaster blocks, a technology allowing five times higher construction productivity with high quality standards.

According to Fez Tá Pronto the government program is a useful initiative from a private perspective: "The Minha



Photo: Fez tá Pronto Construction System©

Casa, Minha Vida certainly provided a much needed incentive for growth in the affordable housing market. The program also has strict engineering examinations of solutions. This is a benefit for us as a company investing in new techniques, but even more for low income families" says Ruban Selvanayagam. On the negative side, Minha Casa, Minha Vida has a series of inherent inefficiencies especially in relation to how projects are being developed without enough consideration to urban development, according to Ruban Selvanayagam.

An important component of Fez Tá Pronto's business model relies on their ability to design solutions that fit the market dynamics of affordable housing and the preferences of the BoP: Ruban Selvanayagam explains: "You need a lot more than housing units – health care, schools, public transport, local commerce are just a few of the core necessities that need to be developed simultaneously. For this to happen we need to understand housing as well community development and partner effectively with governments in the long term."

So far, Fez tá Pronto has completed five developments in the state of Rio de Janeiro and is expanding. Moving forward, Fez tá Pronto is approaching project finance differently: "We can see that the Brazilian affordable housing sector could be more efficient if the government initiatives were combined with investor financing" says Ruban. For this reason, Fez Tá Pronto is looking at more market based approaches and partnership models which can efficiently leverage the roles of both the public and private sector.

CASE 3

Selling directly to the BoP, Elang Group, Indonesia

Elang Group has developed a profitable business model selling standardized housing to the BoP in Indonesia.

In seven years, Elang Group has grown from a start up with a vision to sell affordable homes, to a profitable company which has built and sold nearly 7000 housing units and employs 300 workers.

Elang Gumilang, CEO and founder of Elang Group, comes from a modest family. He could see a clear need and market for better solutions to meet the backlog of over 10 million affordable homes in Indonesia. Elang Group entered the housing market with a business model based on sales of standardized units directly to the BoP. The customers represent a diverse range of BoP households including factory workers, workers in informal sectors, as well office workers. In the beginning the Elang Group mainly focused on subsidized low cost housings. In the last two years Elang Group has been shifting its business model towards selling without subsidy, to avoid bureaucratic challenges. The current portfolio is split equally between subsidized and non-subsidized homes.

One key success factor for the business model of Elang Group is a strong cooperation with a local bank. Through this partnership, Elang Group can sell subsidized low-cost housing for a fixed interest of 7.25% per year. This makes the homes available for customers with incomes from 170 to 330 USD a month, who each pay a fee of around 60-85 USD a month for 15 years. Since customer financing is a key bottleneck for direct sales to the BoP, Elang Group is considering developing their own financial institution, which would expand the potential customer base.

Another key to success is that Elang Group sells directly to the BoP, but also includes the BoP as material suppliers



Photo: Elang Group Housing

and construction workers. Elang Gumilang explains: "It is very important for me to include local workers and suppliers. Besides being a good source of labour and necessary building supplies, the local involvement creates a win-win partnership with the community and means we avoid many conflicts."

One of the challenges for Elang Group, especially when providing subsidized homes, has been the lack of awareness of the customers towards the administrative requirements needed to obtain a house. Elang Gumilang says: "Our customers often live in informal settlements and are not familiar with the documents required. To make it work we have to guide them through the whole administrative process." Another challenge for Elang Group is aligning customer expectations. To keep prices affordable, Elang Group mass produces different elements which means individual wishes are not possible. "Customers sometimes have unrealistic expectations. We need to communicate clearly about the solution and the financial restraints to avoid disappointment" says Elang Gumilang.

In total Elang Group has seventeen low-cost housing estates operating in the region around Bogor, West Java, with ambitious plans to expand regionally and nationally. For companies interested in the sector, Elang Gumilang advises: "Affordable housing is a tough, but very attractive business. To succeed you need to be patient and realize that return on profit will take a while and shouldn't be your only focus. A focus on the social aspects of housing is also necessary and gives better business results."



Value Proposition

Ghost towns – built by well-meaning developers and governments – can be found in many corners of the world. The gleaming housing projects might be affordable and of better quality than the alternatives, but this is not necessarily enough. If people have no access to jobs, public transportation or social networks, they will often stay put and accept the burden of poor housing. Often a perceived need is confused with unconditional demand. To avoid this, a holistic understanding of your target group and their preferences and aspirations is key to developing a strong value proposition.

Business model questions

How do you understand and strengthen the value proposition of your solution?

How can your housing solution capture broader value – for example by considering the home as a basis for living as well as productive purposes?

Opportunity costs and housing value from a BoP perspective

Luanda, Angola is experiencing a big influx of people and growing by the day. As a result, property prices and availability are under great pressure. Travel 20 km out of town and you will find row upon row of high-rise towers in neatly ordered urban grids. This is Kilamba Kiaxi, one of many examples of flagship satellite towns struggling to keep prices affordable, ensuring adequate infrastructure and transforming bricks and concrete into a vibrant city. It's too early to say what the faith of Kilamba Kiaxi will be, but a lot can already be learned.

Viewed from the outside, people living in poor conditions need better housing. The problem is, however, that needs are always relative and weighed against other needs, for example access to income and distance to family. Slums might lack physical standards, but are often located in the centre of cities, close to jobs and organized around networks of people from the same regions or families. In other words, they represent another value for people than housing quality. This is how a former slum dweller in Ethiopia responded to resettlement from a slum area. *“I used to hang out with my friends after work or school. Here, you just come home from work, lock your door, and watch TV. No interaction, no social life, nothing.”*⁵

Check list: Opportunity costs and value proposition

Location, location, location

- ✓ Access to jobs
- ✓ Access to adequate roads and affordable transportation

Physical infrastructure

- ✓ Access to water and sanitation
- ✓ Access to electricity
- ✓ Access to waste handling

Community infrastructure

- ✓ Access to schools, healthcare, religious institutions and public spaces

Another new inhabitant added: *“In the beginning, the condominium was almost empty and it was a scary place to live, particularly for people like us, who came from populous neighbourhoods.”*⁵ Slums shouldn't be romanticized: they can be dangerous and unhealthy, but they can also be resourceful living spaces with tight-knitted social networks.

To understand what people are willing to pay for your product or service, you need to understand the opportunity cost for people. In other words: What are people willing to give up, but also: what value are you offering in return? The check list can be used to assess what you are offering besides a house.

While focus on sustaining income possibilities is quite rational other priorities are less obvious. If you walk around slum areas you might find a fancy TV and stylish inhabitants living in a house with a leaky ceiling. In other words *needs* for status and entertainment rank beside more basic needs for shelter and priorities are not always logical from a narrow needs perspective. As a company, understanding how your solution creates status and fulfils the aspirations of the BoP can be important to strengthen the value proposition.

Enabling a business as well as a home

As noted homes provide shelter, but often much more than that. Homes can add value to the owner as a rental space, storage facility, production unit etc. Designing houses so they support multiple functionalities is one way of enhancing the value proposition of your solution. In Argentina, **Holcim** worked with a local community to develop an affordable housing complex. The houses were developed holistically and include small gardens so people can produce food. They also include social programs which help women produce and sell crafts and earn a livelihood. By thinking about housing value broadly, Holcim was able to expand the value proposition of the solution and make the homes more attractive.



Photo: © Lafarge Media Library



Toolbox

These tools can be used to test business ideas and understand and refine your value proposition.

Interviews and focus groups

Interviews and focus groups are often a cost-effective starting point to obtain information. They can be completed informally or by using different facilitation tools.

The architecture firm **3XN** has been involved in four larger housing projects in Mumbai and has, by trial-and-error, experienced how important it is to involve the end-users from the very beginning. The company's largest project has been the design of two residential towers which will house more than 1,500 people. By involving future inhabitants through structured interviews, 3XN realized the significance of cultural and religious codes such as the need for separate entrances for the service staff and the local importance of 'Vastu Shastra'. Vastu Shastra draws on traditional Hindu and Buddhist beliefs and prescribes rules for architecture based on geometric patterns and symmetry. This meant an extra set of design criteria besides aesthetics and functionality.



Photo: Association la Voûte Nubienne

Prototyping

Interviews and observations can be good, but real time feedback is more accurate. Houses are all about space and tactile input. Depending on time and resources, small scale models or even better full scale prototypes give you invaluable information. The prefab housing company, **DMS Africa**, quickly prioritized building a prototype in Uganda. Executive Director Flemming Pedersen says: "In our experience people need to be able to see and feel the house. We didn't start with the perfect house, but built a beta prototype to get market feedback straightaway. It was an investment, but we saved time by knowing exactly how people see our solution. The main challenge for DMS Africa is fighting preconceptions. Flemming Pedersen says: "Ugandans have a strong idea of what a real house is. They associate bricks with quality and are sceptical about prefab. We really understood this when we saw them knock on our walls and ask us lots of questions about quality when they visited the prototype. We really have to work hard to change this perception, but at least we know what we are up against."

Observations

Interviews should always be tested against observations. People often take things for granted or respond with what they think you want to hear. Spending time among your end-users enables you to dig deeper and understand habits. You can also ask people to document their daily life with single-use cameras. Chilean architects **Elemental** ended up constructing bathtubs in their homes, instead of other seemingly more important features. Through observations and dialogue, they found that tubs were used for a multitude of purposes and created more value for people than they had imagined.

Co-creation

For Elemental participatory design is an integral part of the design process. The first step is always to explain the basic opportunity space for people in order to communicate the framework of restrictions: Which elements are given and which can be adjusted. As the next step, **Elemental** conducts workshops where they show people different options through physical models and sometimes site visits. Architect Juan Ignacio Cerda explains: *We are always honest with people – and make our architectural dilemmas visible for them. For example size of units vs. how many people we can accommodate. We also tell them there are disadvantages linked with moving to the new homes: "for example, we tell them that horses which live with families in the slum and are used productively cannot live in the new gardens."* Once people understand these issues their input is very realistic and constructive and they are able to understand that moving will impact them in different ways. Through these workshops future residents help us prioritize and adjust the solutions to what best suits their needs – as individual household but also as a group of future residents. Choices could be related to size of units, layout of rooms or other design features.

According to Elemental, it is very important to make the options and models as clear as possible – if you don't, people have their slum homes as a reference and might not be able to imagine or understand the choices they have to make.

People are used to living in slums and the way of life in slums. This also means they usually need to change their habits when they move. Juan Ignacio Cerda says: "Through workshops, we assist the communities define common rules – regarding, for example, waste management and maintenance of common areas. This creates ownership and builds new standards." The most important participatory process, however, relates to the house itself. Elemental designs 100% of the basic structure, but only builds 50% and people are trained in simple building techniques. This means costs are reduced, but just as importantly people are able to extend their house over time and adjust it to their specific needs and preferences.

Test sales and pilots

Many companies have done everything by the book, but are still surprised to learn that demand is not there for their solutions. This fact underlines just how hard preferences and demand are to measure and predict. Test sales are the most bullet proof way to obtain market feedback. Putting different beta models on the market and mimicking your expected sales situation as closely as possible can give you essential market feedback. For example, if people are willing to pay for your solution. **CEMEX** Patrimonio Hoy for example chose a test town with many typical characteristics and piloted their model. **Lafarge** has the same sentiment: "Be pragmatic. Start somewhere and then learn by doing. We always learn more when we do things ourselves and learn from pilots."

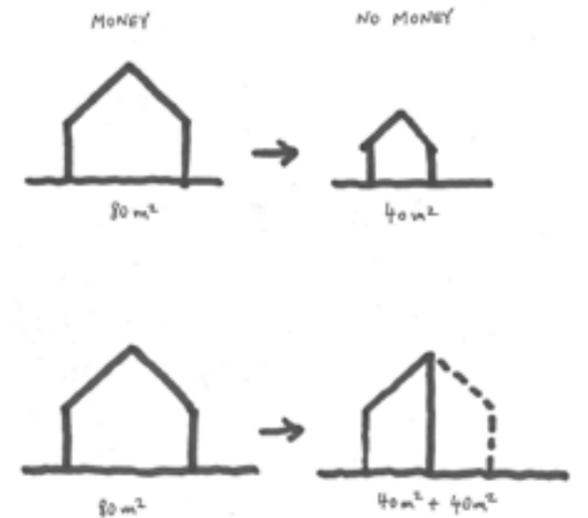


Photo: Elemental



Photo: Holcim

CASE 4

A virtual value proposition, Holcim, Indonesia

Holcim Indonesia is using software to help customers design and imagine their homes.

As a consequence of devastating tsunamis and earthquakes in Indonesia, Holcim began looking at how it could support rebuilding efforts with its cement products and know-how. The seismic tremors combined with low quality building materials and poor maintenance, left hundreds of thousands of people homeless. This immense challenge called for new solutions and partnerships. In collaboration with GIZ and other partners, different novel housing solutions were tested and developed.

The natural disasters put homeless people in the headlines, but at the same time millions of other people across Indonesia were living in inadequate housing. During the reconstruction projects, Holcim Indonesia began considering whether the ideas emerging could also be used more widely to supply affordable housing solutions. By studying the market Holcim noticed that low income families use bricks and building materials as investment objects and start building "little-by-little". This means home building is a lengthy process, where builders often lack skills and aren't able to finish homes because they cannot predict the cost of the materials. Holcim Indonesia could also see that the BoP were deemed un-bankable due to lack of collateral and formal income. On the plus side however, Holcim Indonesia realised that self-builders find many creative ways of personalising their homes to their needs.

By combining the learnings from the earthquake response with studies of the benefits and bottlenecks of self-built homes, Holcim Indonesia developed the Solusi Rumah business model, targeting especially the higher BoP tiers. Solusi Rumah is a one-stop shop where people can customize their housing solution by combining modular construction elements in different ways. In other words the benefits of standardized low cost materials are combined



Photo: Holcim

with individual options. In addition, Holcim Indonesia has partnered with different financial institutions that provide construction loans and micro credits as well as insurance products.

Combining the solution and financing was however not enough to convince people. General Manager Peterson Siringoringo says: "We noticed that the building projects were hard to manage for the individual families and that it was hard to communicate the value of the new home. To enable our customers to visualize their future home, we developed a software system to help them plan how they want their house to look, how much it will cost and the building sequence they need to follow." The lower BoP tiers also benefit from this feature even though they are mostly self-builders and buy materials in different steps, they can follow the plan and know exactly what they will need.

To scale up the business model Holcim Indonesia partners with local investors and SMEs. Cement based building materials and elements are produced in partnership with local SMEs who are trained on material production, on occupational health and safety and also on how to serve low income communities. This partnership is formed with a franchise model, where retail shops are combined with service centers. From the initial successful pilot, the model is now being rolled out in 180 outlets in Indonesia serving a diverse range of customers including the BoP.



Customer Relation

Regardless of your position in the value chain, it is worth considering what type of customer relation connects your solution with the BoP. Often this relation is as important as the product itself. Solutions may not be met by great demand if customers lack skills or awareness. Many successful companies are expanding focus from products to also including enabling services.

Business model questions

How will you connect with customers and support market creation?

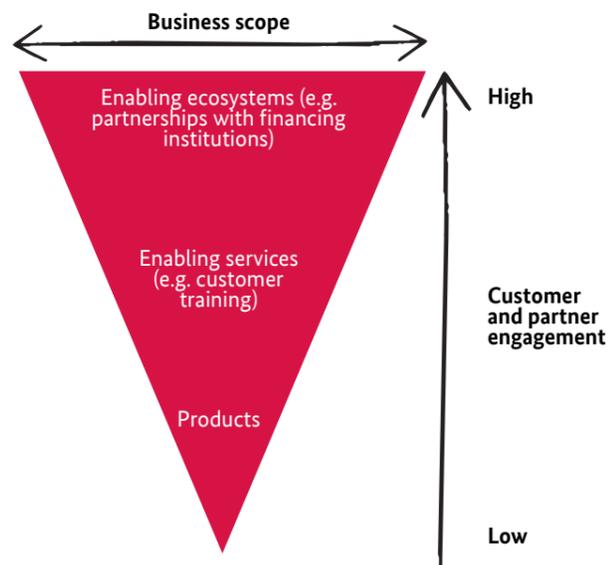
How can you capture the financial value of strong customer relations?

From customer education to market creation

Home upgrading businesses take their vantage point in the desire and ability of the BoP to maintain and improve their own homes. To create additional value, many companies in this sector are linking building materials with additional services such as customer education and financing. In other words, enabling customers is a driver for additional market creation. Besides making the housing solution accessible in practice, customer education also means that you build valuable and potentially lasting relationship with the customers. In Latin-American, CEMEX Patrimonio Hoy, for example, has developed an extensive business model based on linkages between building materials, customer education and financing. See case page 43.

Enabling financial literacy is another area where increased knowledge can be a market driver. If you're not able to read or write, understanding a mortgage, loans and their consequences can be challenging. Lack of knowledge dampens interest in investing in housing – or even worse, means that people are not able to manage their housing investments. Training the BoP on the basics of housing financing and what it means to be a home owner might be necessary to enter formal leases and financial agreements with the BoP.

In South Africa, GIZ and BMW have developed a Financial Wellness Toolkit which can help employees, but also other groups, manage and understand their financial situation. The program was developed in response to discovering that financial indebtedness of employees was an important workplace problem in South Africa. However, the toolkit can also inspire financial training related to housing (Support Directory page 65).



Adding services or ecosystem partnerships can expand the value of your solution.

The key concern is naturally balancing education costs with increased revenue. Often, education efforts require upfront investments with longer returns. Sometimes you can find local civil society organizations that share your objectives of BoP education and who are willing to collaborate and execute training.

Creating incentives for long-term customer relations

In the words of architects **Elemental** – “When buying a house, one expects its value to increase over time. That is why a house, almost by definition, is an investment. Unfortunately, this doesn’t always apply in social housing. Social housing is closer to buying a car than to buying a house: every day that goes by, its value decreases.” Affordable homes are built and companies often have too few incentives to engage beyond construction. Some companies are, however, beginning to think differently about how they engage more strategically with customers. In Pakistan, housing developer **Ansaar Management Company** commits to a five year engagement to support community development and maintenance. An example, is engaging residents in the maintenance of the common properties through neighbourhood block associations. These activities create ownership and social bonds, but also represent a significant investment. To make the math work, Ansaar Management

Company builds and sells the homes gradually and receives a higher upside for the last proportion of homes sold, because an attractive community has been developed (case page 47).

Ansaar Management Company’s model is “high touch” and requires tasks that are foreign to many companies. An alternative approach, is engaging with local civil society organizations, who are often important drivers for community development. Examples of organizations include community development organizations, hometown associations (support migrants from specific areas), religious associations or women’s groups. These organizations are often community-based or have close links with low-income communities and can activate and mediate relations with the BoP. Read more about partnering on page 56.



Photo: DBS Communities

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Photo: Courtesy of Patrimonio Hoy

CASE 5

From cement sales to integrated solutions, CEMEX Patrimonio Hoy, Mexico

CEMEX, a multinational Mexican based cement producer, retains a close relationship to customers by thoroughly assessing needs and supplying holistic solutions through its subsidiary Patrimonio Hoy.

CEMEX has been working with integral housing solutions and affordable building materials for more than 16 years and has refined its business model for cement sales through Patrimonio Hoy. The overall goal of Patrimonio Hoy is to offer a market-based solution to the housing needs of low-income families in urban marginalized areas in order to improve their quality of life and empower them.

For CEMEX Patrimonio Hoy the initial learning curve was steep. CEMEX knew that around 30 to 40 % of bagged cement was consumed in the low-income segment, but CEMEX didn't know how people built, what their problems were etc. To acknowledge this CEMEX made an internal *Declaration of Ignorance*.

To gain knowledge and get the model right, CEMEX launched an extensive hands-on market study in Guadalajara and was open to disregard traditional business approaches and consider new ways to reach low-income customers. The key insight was that to build a 10 square meter house, families on average spend 4-5 years on construction – due to significant market failures;

- Lack of access to credit/financing.
- Lack of competencies. People are self-builders, but lack construction knowledge and often get cheated.
- Lack of storage opportunities, which leads to long building time.

As a result of these findings, CEMEX decided to rethink its customer relations by launching *Patrimonio Hoy* – an inclusive business which offers integral housing solutions, covering not only construction, but also financing, expert advice etc. To ensure valuable customer relations, customers enter into a micro-lending model, where families sign up without any requirement beyond personal identification.

The customer is responsible for committing to a 70-week project and remitting a modest weekly installment of 21 USD, which is held as credit toward future building material. The model functions as a saving and credit scheme where customers can choose between a schedule with multiple deliveries of building materials – depending on their needs, and the desired timeline for building the construction.

Patrimonio Hoy retains a membership fee from each weekly remittance which covers services and guarantees: Patrimonio Hoy for example provides an architect to plan and organize in-situ with participants and all family members. In addition the cost of materials is held fixed over the course of work, protecting customers from price fluctuations and other macroeconomic instability. Patrimonio Hoy also offers customers the option to take a break from material delivery, if customers run into periods of inconsistent employment or wish to delay construction.

By adding value to the customer relations, Patrimonio Hoy sells full enabling solutions, which includes financing, technical assistance, guarantees through fixed prices and all kind of building and finishing materials. By using this model, the Patrimonio Hoy venture has provided affordable home improvement solutions to more than 425,000 families (equaling more than 2 million people) in Latin America and supported the construction of more than 3 million square meters. More than 280 million USD have been granted in credits with a repayment rate of 99%.



Financing

Many companies in the affordable housing sector quote financing as the biggest bottleneck in their business model. Housing financing is a broad concept ranging from construction financing, over corporate financing, to end-user financing. End-user financing is the focus here, since this area is uncharted territory for many companies. Low and fluctuating incomes, lack of collateral combined with a lack of financial literacy, often make it difficult for the BoP to engage directly with traditional financial institutions. Similarly, the cost of loans on the informal markets are often so high, that they do not constitute a viable option for house investment or for financing a significant building upgrade. Consequently, your company needs to consider alternative financing options to ensure accessibility to your products.

Business model questions

- How will you measure affordability and determine financing needs?
- How can you bring down the financial threshold to make your solutions accessible for people living at the BoP?
- Is customer financing an option for the solution you offer– and how can you revise your business model to support this?

Measuring affordability

While there is no universally agreed measure of affordability, housing is generally deemed affordable when a household spends less than 30% of their income on housing related expenses such as mortgage payments, rental fees and direct operating expenses. The affordability model shows the relation between purchasing costs, operating costs and financing ability. You can use the model to check the cost drivers in your solution – and assess the financial capacity of the segment you are targeting. The model will help you see the full picture: your solution might be cost-efficient, but if land is prohibitively expensive or interest rates are high, affordability is hampered. To enhance affordability you can work on reducing the financial threshold or work to secure end-user financing.

Bringing down the financial threshold

To lower the entry barrier for accessing solutions, different innovative financing approaches are emerging.

Cross subsidizing

Ansaar Management Company sells the first homes they build in each development at cost price to attract a critical mass of families that can begin developing the communities. Once this has happened, the remaining units are sold at a premium price, since the value of the housing development increases (see case page 47).

Incremental financing – brick by brick

A number of successful businesses are dividing solutions into more manageable units in order to reduce the cost of each part or simply selling the basics.

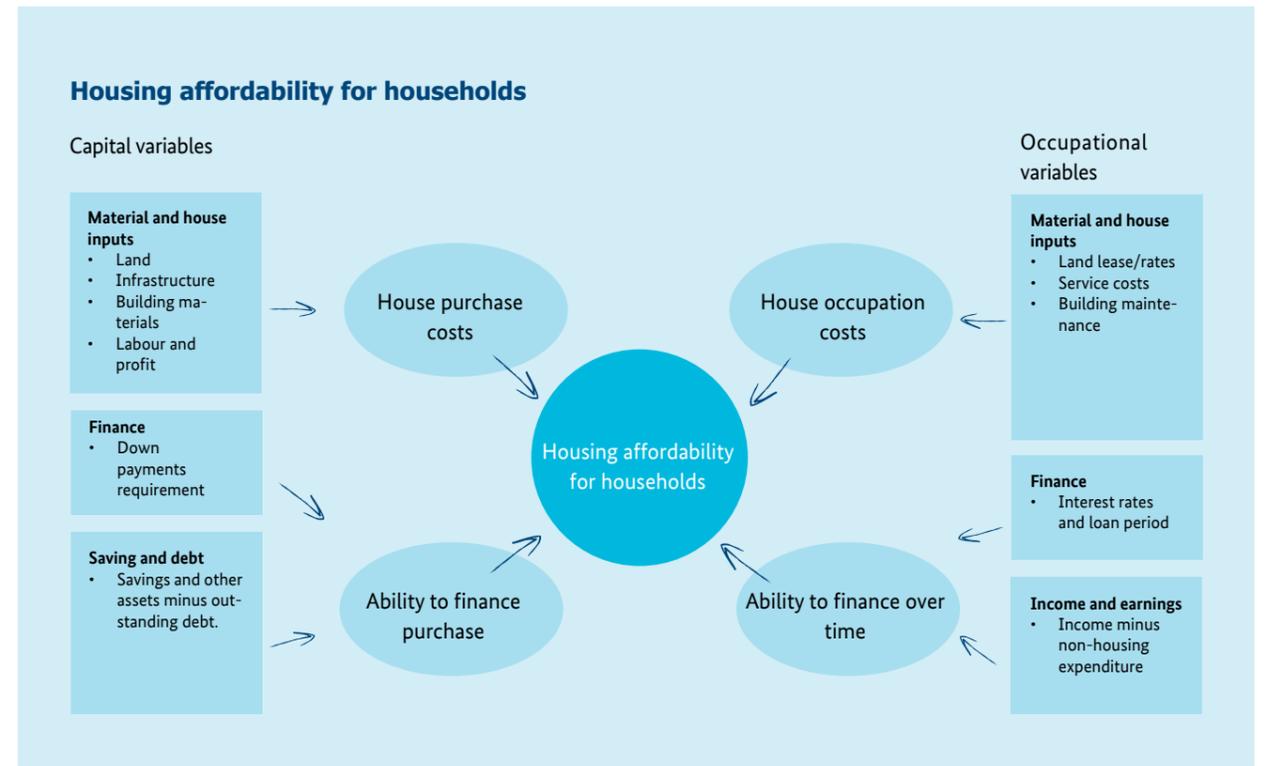


Figure based on UN Habitat model.

In Chile, the architect company **Elemental** has chosen not to compromise on quality, such as location or size of the house. Instead they design complete solutions, but construct only 50%. To make this possible, Elemental educates customers on how to complete their houses. Besides making the homes affordable, people feel increased ownership and are able to build their house, so it fits their particular needs and preferences.

Incremental financing - Rent-to-Own

In Latin America, among other places, developers are testing models where the BoP rents a home until they have built a payment history over several years, while saving sufficient capital to make the down payment on a mortgage loan. Critical to this model is naturally the link with mortgage lenders who are committed to issue a mortgage when the families have met the necessary financial obligations.

Rental solutions

Owning a home is however not always the best solution. Normal renting models can reduce risks for families, are more flexible and financially accessible for the lowest segments. Local developers or landlords who are active in the rental market can be good customers for affordable housing solutions or partners.

Customer financing

Many companies within affordable housing base their business case on the availability of housing subsidies for the BoP. Subsidies can be a financing option for solutions aimed at the poorest segments or a source of financing in the initial phases of a project, but is rarely a sustainable financing model in the long run. Policies change and often administrative costs and bureaucracy eat up many of the benefits. While supply is still patchy, many innovative financing products and models are emerging globally within affordable housing financing. As a company you can partner with Savings and loans groups, Housing development cooperations, Financial institutions, or alternatively organize your own scheme. Models typically target either individual households or groups. Group financing enables the BoP to pool resources and provides fewer financial entry points, but also requires a strong organization and structural incentives.

Traditional housing financing adapted to the BoP	New micro financing models adapted to housing
<p>Housing Micro Financing (HMF) Partnering with HMF institutions can be an important strategy to ensure financing options for lower BoP tiers and housing upgrading. Lendcor in South Africa is an example of a finance institution, which has designed financial products specifically for low income segments. The financing product has enabled 130,000 people to buy materials for home upgrading in South Africa. This is achieved through a network of 1,000 building material supply merchants situated in 380 towns and villages in South Africa. The significant difference between Lendcor and other financial institutions is that loans granted are paid directly to the merchant. In general, HMF comes in a multitude of configurations. Many good resources are available for companies interested in partnering with HMF providers or developing their own financial services (see page 65).</p>	<p>Micro-mortgages Mortgage models are the traditional method for financing home ownership, but they are rarely available for the BoP. Different types of micro-mortgage models have been developed as an alternative. Micro-mortgages are housing loans that exhibit the characteristics of traditional mortgage loans (longer repayment period, house as collateral for the loan, house sale in case of default), but are designed for smaller investments. Schemes are designed in many ways. Some include special credits-rating systems designed for BoP households, while others include savings-first models, where families put money aside and qualify for mortgage over time.</p>
<p>Target segment HMF enables smaller loans that are accessible for lower BoP segments and can be used for home improvement purposes or incremental construction projects.</p> 	<p>Target segment Mortgage models are often most appropriate for the higher BoP tiers that have formal title to their homes and regular incomes.</p> 

CASE 6

Avoiding ghost towns and ghettos, Ansaar Management Company, Pakistan

Ansaar Management Company combines incremental financing and long term engagement to ensure cash flow and return-on-investment.

A greenfield housing project is typically divided into three distinct phases that follows a natural sequence. Firstly, all the land is acquired and cleared, then the infrastructure is installed, and ultimately homes are constructed. Once this is completed, the properties are sold and the developer moves on to the next project. While this model ensures an economy-of-scale and a clear division of roles and responsibilities, housing developers Ansaar Management Company has also identified a number of flaws in the traditional model. One challenge is that it can simply be difficult to mobilize sufficient funds for a whole project at the beginning of the project. However, another and equally important reason is that the value of an individual house is closely related to the nature of the surroundings in which the house is located. Buying a house in a vibrant neighbourhood is simply more attractive than buying a house in a brand new development with few residents. "We have seen many sombre examples of ghost towns and decided to think differently about housing development. Our inspiration was from non-profit sector models, although we felt to succeed and scale we would need to be business people with a community mind-set rather than an NGO trying to run a social business." says CEO Jawad Aslam.

To avoid what Jawad Aslam calls "ghost towns and ghettos," Ansaar Management has chosen a different approach to the standard developer model: Rather than do everything at once, they build communities in batches of housing units. The company is engaged throughout the whole development and construction phase and stay engaged for five years in order to support community development and hereby increase the value of their investment. The basic business model is based on the fact that occupation of a critical mass of homes will have a positive impact on the price of the remaining houses in a development. Hence, 51-70% of the housing units are sold at cost rates, under the condition that residents cannot sell, rent, or leave the unit vacant for a period of five years. This ensures that the community constitutes a sustainable and well-functioning social unit from the beginning. As a result of the investment in community development the price of the remaining housing units can increase 2-3 times. The profit that derives from this price compensates for the zero-margin on the first housing units.

This incremental approach may reduce average margins and limit the ability for scale in the short run. However, the model puts a clear cap on the potential downside for investors and reduces individual risks for house owners. In addition, the model also allows for a recycling of capital. Ansaar recycles capital and often builds block by block instead of financing all blocks from the outset.

So far Ansaar Management Company has been involved in four major housing projects in Pakistan ranging from 100 to more than 2000 units.



Photo: Ansaar Management Company





Resources

Even the best housing solution is worth little if land, regulation or skilled labour is lacking. Housing markets in many developing countries are plagued by systemic challenges and market failures such as poor regulation, lack of adequate infrastructure and skilled workers. This means that the affordable housing ecosystem is full of gaps which your business model has to reflect and compensate for. Consequently, as a company, you might be forced to lift tasks and activities that fall outside your traditional core business – at least for a while.

Business model questions

- How will you access land and avoid potential conflicts related to land rights?
- How will you ensure access to adequate infrastructure and public support?
- How will you ensure access to workers with the right skills?

Accessing suitable land

Land is often a scarce resource in urban areas. Consequently it can be challenging to access land at a reasonable cost. The challenge is further aggravated by the existence of illegal settlements and often contentious property right systems with clashes between common and customary land rights, (e.g. based on inheritance or clan structures). Restricted access to land makes policy and stakeholder management an essential part of large-scale housing projects – in particular in urban areas. An alternative strategy is to focus on greenfield investments outside the urban centres. However, cheap land is often found in areas with inadequate infrastructure and limited access to key resources. Hence, cheap land can often come at a high price.

There are no simple solutions that can fix land issues, but many companies are trying to work creatively to mitigate the challenges. In Chile, **Elemental** focuses on attractive land, but develop solutions which increase density and utilization per square meter. In India, prime property is being used for affordable housing by mixing income tiers and cross-subsidizing. In Pakistan, **Ansaar Management Company** is increasing the value of cheap peri-urban land and reducing the perils of greenfield developments.

Besides innovative solutions, risk management is important. Questions to consider are, for example, whether your development will lead to eviction of current illegal residents. Or if your development will clash with customary property rights. These issues can create social as well as

political and operational challenges if not managed properly. See the **Support Directory** for advice on strategies for handling eviction and relocation in a responsible manner.

Ensure adequate infrastructure and public support

The commercial value of a housing solution is closely related to the quality of surrounding infrastructure and connection to services such as electricity, water and sewage systems. Working in countries with strained public sectors means adequate infrastructure cannot always keep pace with construction and is not prioritized sufficiently in low-income areas. In these cases, it can be necessary to include, for example, decentralized energy in the construction process as **Ansaar Management Company** does. Ideally, this is not necessary. Attempting to cooperate with the public sector to provide basic infrastructure is the natural first choice. For **Moladi** in South Africa, public commitment is a high priority before engaging in new projects. CEO Hennie Botes says: *“Understanding the political landscape and ensuring the right level of commitment is essential for success and always the first step.”*

In other words engaging constructively with public stakeholders and utility providers is crucial to ensure commitment. The check list provides examples of questions to consider.

Mapping and understanding public stakeholders

- ✓ Which public entities are you dependent on (regulatory bodies, utilities, infrastructure etc.)?
- ✓ How can you engage public stakeholders early in the process, so you can understand local infrastructure plans and restraints?
- ✓ What is the value proposition for the different public stakeholders – will your project ease their life or create hassle for them?
- ✓ How can you ensure your project also becomes a success for them? Does your venture feed into public housing strategies? Can you contribute and make it easy to connect utilities to your development? Are you creating local value by sourcing from local industry, training local people?

construction process – especially outside urban centres. One strategy is using simple construction techniques or prefabricated elements which enable the use of unskilled labour. In South Africa, **Moladi** sells standardized building process with reusable lightweight plastic moulds that enables employment of unskilled workers. When Moladi engages with a local housing developer, local employees enter a training program lasting 1-2 weeks. All processes are explained through hands-on training sessions and detailed construction manuals targeting unskilled workers. Once workers are trained, it is possible to erect one house structure per day, which makes the model attractive for larger scale projects.

For more technically demanding housing projects, more extensive skill development is necessary. Training local labour is often a cheaper and more sustainable solution than importing skilled labour and ensures that the right capacity is there to scale your business. **Elemental** in Chile empowers BoP customers to self-build parts of their house, while many others integrate the BoP in normal construction. In Iran, **Saraman** cooperated with DAAD (German Academic Exchange Service), University of Wuppertal and German companies, to train Iranian engineering graduates about earthquake-proof construction technologies. In Ethiopia, **GIZ** has worked extensively with skill upgrading of local companies and stakeholders. Partnering with development organisations like GIZ can enable your company to share risks, training costs and leverage the often considerable local knowledge and network of these organizations (see page 59).

Access to labour with the right skills

Skilled workers are often in short supply at the BoP. This means access to adequate labour can constitute a barrier in the



Photo: AMC

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Photo: Association la Voute Nubienne

CASE 7

Translating market gaps into business advantage, Association la Voute Nubienne, Sahel region

Social entrepreneur La Voute Nubienne is combining an innovative housing solution with skill development and market creation.

In the Sahel region of Africa, desertification and population growth has put a pressure on building materials. Scarcity of timber and straw for traditional roof construction means many families spend their small incomes buying expensive iron roofing sheets. To solve this problem, Association la Voute Nubienne (AVN) developed an affordable housing solution based on the traditional Nubian Vault technique (NV) using locally available materials. However, it quickly became clear that the housing solution would create little value alone. Local resources such as skills and market infrastructure were missing. To create the necessary framework AVN developed a strategy with three focus areas: A Roof, A Skill, A Market.

A roof

The solution itself is based on the specific challenges in the Sahel region: lack of building materials and special climatic conditions. The Nubian vault is a 3,500 year old, timberless, construction technique, which relies on locally available resources: rocks for foundations, earth and water for adobe bricks and mortar. Nubian homes are affordable, durable and ecologically sustainable.

A skill

To be able to build Nubian homes on a large scale, AVN has simplified and standardised the traditional technique so that it can easily be taught to local apprentices. These are taught through a uniform programme ranging from basic skills to supervisor roles. Apprentices learn the techniques on-site by working in teams alongside experienced masons. Apprentices are chosen from the local population. Since AVN's creation 14 years ago, 330 masons and entrepreneurs have joined the program, and around 440 apprentices are being trained.

A Market

AVN is a social entrepreneur which means profits are re-invested and different donors are partners. To create scale and impact, AVN is very focused on market development by supporting the emergence and the autonomy of local markets. The model and housing solution is new to people, which means AVN needs to create the market. Cécilia Rinaudo says: "We do this by training extension agents who start in pilot villages, which then evolve into pilot zones, and then into entire regions." The stimulation process starts with the identification of local 'champions' and supporters and continues with promotional meetings at village level. "When we get the first houses built, we can see interest spread in the village and neighbouring villages" says Cécilia Rinaudo.

To create scale, AVN is also setting up franchise arrangements and developing partnerships with NGO's and development organizations. The majority of AVN's customers are BoP families living on subsistence farming or informal jobs in the rural and semi-rural sectors. However, as the NV concept becomes better known, other customer groups, for example urban families and local authorities, are also becoming customers and expanding the market for trained NV builders and entrepreneurs. Currently, the trained NV masons have no difficulty finding customers and marketing their skills, since the demand for new NV constructions is exceeding the supply of skilled builders.

2,420 Nubian Vaults have been built on more than 1,250 construction sites in over 570 towns and villages in Burkina Faso, Mali and Senegal. With an average annual growth rate of 30% and a continuously growing demand, AVN is now planning to scale up to Benin and Ghana. In addition, quite a few of the more ambitious NV builders and entrepreneurs have also worked on AVN pilot projects outside the Sahel for example in Zambia, Madagascar and Rwanda.



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Organization

The level of complexity in the BoP housing market means that market entry often requires a significant investment of time and resources. In addition, there will often be a need to adjust existing business models or market approaches. This means BoP projects are often hard to position organizationally and measure against normal performance matrices. In order to succeed you need to have an agile organization with the right mandate, support, skills and mind-set – including a long-term perspective on the business case, as it will often require a longer term perspective to deliver results.

Business model questions

How is affordable housing efficiently anchored in your organization?

How do you enhance organizational commitment and knowledge sharing?

How do you ensure your organization can handle the uncertainties and business demands of BoP markets?

Building the right organization for affordable housing

Business development of affordable housing ventures can be initiated and rooted in different parts of existing organisations. For some companies, affordable housing starts in the CSR department as an effort to leverage corporate competencies for strategic CSR projects, while other companies choose to approach the sector as part of their core business to tap future markets. Each approach has clear pros and cons and the optimal anchoring of a project will need to be evaluated on the basis of the project objective.

Holcim is an example of a company that has integrated affordable housing in CSR efforts, as well as in individual business units. In the CSR department, it has been possible to “shelter” learning and project developments from the normal shorter term requirements for new business development. The immediate gains have been CSR-related, but constitute important learnings for new affordable housing projects across the orga-

nization. As the case on [page 39](#) shows, Holcim has also worked strategically with affordable housing in Indonesia. These efforts were initiated as a CSR response to natural disasters, but have since been anchored in a normal business units.

In **Lafarge** the philosophy has been clear from the outset: creation of a scalable business model requires that responsibility is allocated to business people and that management of the unit is placed at headquarters to ensure knowledge sharing and appropriate decision-making power. This also demonstrates the strategic commitment from top management. Affordable Housing Manager François Perrot says: “We have been clear from the beginning of the initiative that our objective was to develop projects which have to become profitable and which have to be managed by people who are at ease both with the social dimension and the business dimension of our projects. Through this approach, we have reached profitability in five countries.”

Ensuring internal commitment

The decision to engage in the affordable housing sector often requires internal high level commitment and engagement from external stakeholders. A clear communication strategy can help prepare relevant stakeholders for the various risks and challenges that may emerge during the preparation and execution phase. Such an understanding can be instrumental for the ability to manage unforeseen challenges without jeopardizing the long-term commitment from senior management as well as external stakeholders such as banks.

To drive business development and push the inclusive business agenda internally, **Holcim** has set a resolute goal: In 2030 Holcim’s aspires to “improve the quality of life – in particular with regard to livelihoods and shelter – of 100 million people at the base of the pyramid through inclusive business solutions and strategic social investments.” An ambitious mission such as Holcim’s provides stakeholders with a clear idea of the strategic commitment of the company and encourages a long-term perspective that can be a useful guideline in the day-to-day work.

Developing a good team

Working at the BoP might be uncharted territory for your company. Cultural differences and language barriers often result in misunderstandings of the market and partners. To succeed many companies find it invaluable to involve local teams with BoP market experience. This not only ensures key organizational skills, but is also important for business development. **Lafarge** applies a flexible and explorative approach in which it allows for key learnings locally to influence decisions about what type of projects and activities to initiate. The basic rationale is to adapt an open mind-set and acknowledge that new ideas and opportunities will often emerge bottom up, rather than from headquarters. To share ideas and knowledge across the organization, Lafarge works closely with the marketing department in order to spread awareness in the organisation of the bottom up initiatives and the corporate level strategies. [See more page 55.](#)



Photo: Copyright © 2014 Moladi. All rights reserved.



Photo: © Lafarge Media Library, G.Osodi-Capa Pictures

CASE 8

Building an organization for scale, Lafarge

Global cement company Lafarge has built a strong, affordable housing business within a few years based on a strategic focus at group level and distinct local variations.

In 2010 Lafarge established an affordable housing unit with a business plan and implementation strategy in their headquarters in Paris. Lafarge could see that affordable housing was a lucrative business case and could create significant social impact – if handled properly. The development of the new unit was hence driven by a clear business incentive to capture the growing market for housing upgrades. The team knew that they would need to think differently about products, services and organizational culture, and that financial and social impact would require business thinking.

To develop the new products and services, Lafarge conducted detailed studies including surveys and interviews with end-users and local stakeholders. A key step was to map the local production value chain to analyse bottlenecks and understand how Lafarge could add value. For Lafarge this customer discovery exercise has been extremely important and has been combined with pilot projects and rapid adjustment cycles to test ideas.

Starting in a few countries and thereafter expanding to additional countries step-by-step, has been an important part of the process. The core idea has been to understand local needs and adapt products and services. The first service package focused on microfinance as this was identified as a key challenge in many countries. Since, three other types of business models have been developed to meet local needs:

- **Slum Rehabilitation:** Brazil, India
- **Earth & Cement:** Malawi, Rwanda, Tanzania, Cameroon, Zambia

- **Mass Affordable Housing:** Brazil, Cameroon, Nigeria, Philippines, Zimbabwe, Algeria, France (Social Housing)
- **Microfinance:** Indonesia, Philippines, Morocco, Kenya, Nigeria, Zambia, Sri-Lanka, Bangladesh, Serbia

For Lafarge it is an important point that not all four activities are implemented in all countries. Affordable housing manager François Perrot Lafarge explains: “As an organization, we have a clear strategic direction but know that we need a flexible approach that allows for learnings locally to inform decisions about what type of projects and activities to initiate. We need to be agile and prepared to capture opportunities. As soon as you start your pilots, new ideas will pop up and new business lines might come forward.”

A organizational learning for Lafarge has been not to equal need with demand. As François Perrot explains: “Our projects are about creating demand. It is not enough to focus on our products. For instance, housing loans are not just about developing a new type of credit product, but creating a business ecosystem that creates the demand. In Nairobi, we launched our housing microfinance academy and now train microfinance banks managers on how to launch their products in order to create a demand.” As an organization, this requires business thinking beyond a normal ‘cement’ scope and strategic partnerships. Focusing on core competencies is important for Lafarge: “We are a building material company” François Perrot says “it is important for us not to become what others do very well. In mass houses we for example partner with NGOs, in microfinance we partner with banks.”

Affordable housing is proving to be a solid business for Lafarge. “We know that financial return can’t be expected from day one” explains François Perrot, “but every year new countries are reaching breakeven and many of our programmes are profitable.” The goal guiding the next few years is to impact 2 million people by 2020.



Partners

Affordable housing ecosystems are often complex. The close interdependencies in the value chain mean it will often be necessary for your company to engage in a partnership with either public institutions, organizations or other companies to compensate for market gaps. To do this, it is crucial to understand the driver of each partner – and focus on ensuring that shared value is created.

Business model questions

- How do you navigate the housing ecosystem and identify partners which can support your business model?
- How do you manage risks and rewards in a partnership?
- Will a public private partnership or development partnership strengthen your business case?

Choosing and developing the right partnerships

Linking with partners along the value chain can help you create the necessary business ecosystem. Examples include:

- **Public institutions:** Access to land, infrastructural development, financing, subsidies etc.
- **Development Organisations:** Implementation support, local networks on different levels, programmes
- **Civil Society Organisations:** Access to local communities, mobilization of local residents, co-investors or training partners
- **Business:** Access to materials, competences, finance etc.

To avoid frustrating partnerships defining partner requirements, mapping stakeholders and investing time in the initial partnership development process pays off. A simple stakeholder map can be used to create an overview over partners you need to Know, Manage or Collaborate with.

To develop strategic partnerships you can consider:

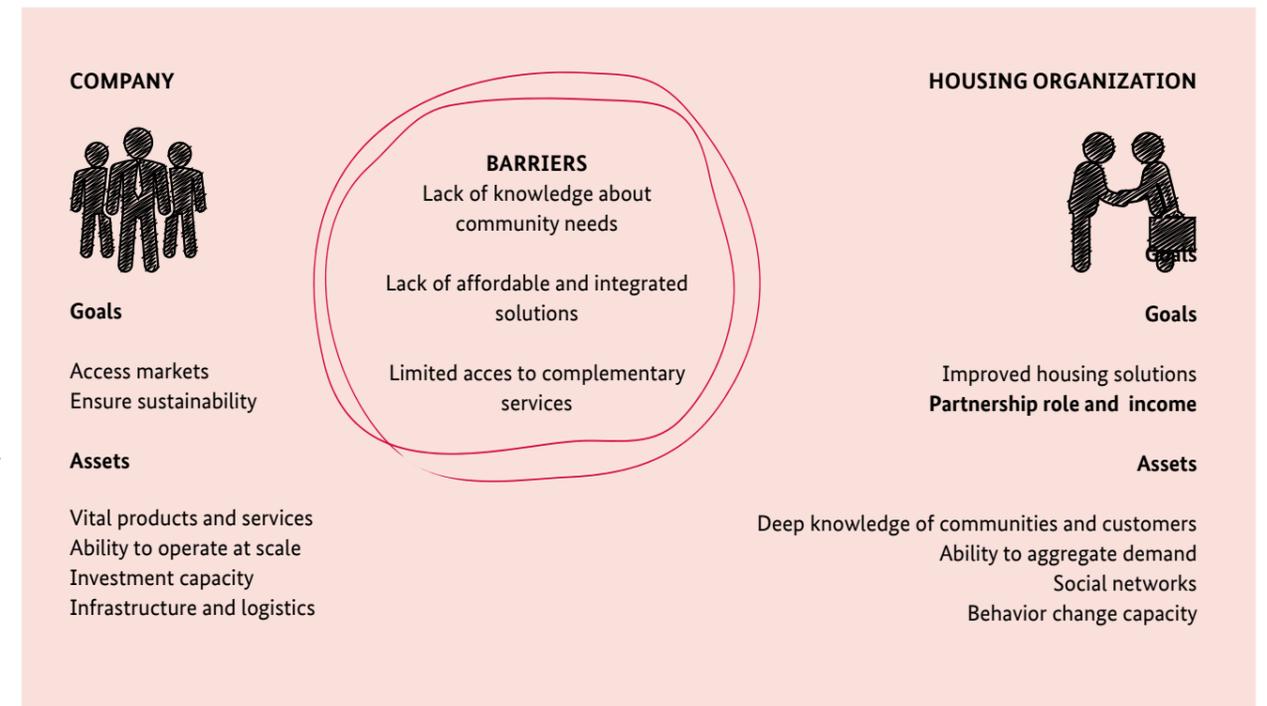
Strategic match

Too many partnerships are entered between organisations with little knowledge about each other. To test a partnership potential, you need to engage in thorough dialogue and identify the motivation and concerns of your potential partner. Often starting with a small practical collaboration can test your compatibility before you enter more strategic partnerships.

Leverage partner competencies and align expectations

The importance of aligning roles and responsibilities seems matter of fact, but is often not prioritised sufficiently. Mapping the competencies of each partner up-front can be a good way to start this process. The diagramme shows an example of how an assessment of partnership value could look. In the middle key barriers are listed and on each side the partners (in this case a company and a civil society organization) has defined goals and which value the organization can contribute.

Example of stakeholder map



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Risks and rewards

An investment in a house is a long-term investment that is associated with different risks and uncertainties. The high level of regulation implies an exposure towards changes in the political system. Inflation and exchange rate volatility creates price risks during the construction process, while low and volatile incomes generate an exposure towards economic default. To unlock the market, your company can build a coalition of partners and break down the risks and rewards associated with the investments to create a better match between project risk profiles and desired risk profiles among partners.

In order to nurture employees and enhance the productivity of workers, **O&L group** in Zambia embarked on a housing project with the aim to enable its employees to gain access to affordable housing. The program model includes a re-distribution of risk and rewards. O&L group is offering to cover a part of the risk that a local bank will encounter when providing loans to O&L employees for investment in an affordable housing project for the first five years after construction of the homes. In exchange, the financial institution makes a commitment to provide the low income employees with a long-term loan that exceeds the five year period. This way risks and rewards are shared.

Ensuring Public Private Partnerships create mutual value

Governments are increasingly turning towards companies to build and develop affordable housing through Public Private Partnerships. If done right this type of partnerships can be a framework for inclusive business models. A public private partnership can offer the benefits of a large scale customer, but as a company you need to prepare for the risk of unforeseen hiccups in the process, e.g. due to misalignment of project objectives or risk incentives. Two examples reflect typical challenges:

Example - suitable land

A government may donate or sell land at a low cost, but with little thought to the suitability of the location. While this reduces costs, the value of the project also declines and worst case ends with a ghost cities.

Example - infrastructure and incentives

A company is contracted to deliver a number of houses on a certain date, while the government makes few commitments, e.g. in terms of investments in infrastructural development. Companies have no demand risk and little incentive to understand end-users. At the same time, governments might not fulfil their part of the project. As a result, promising housing solutions risk becoming substandard developments that do not meet the needs among end users and end up being underutilized.

To mitigate these risks companies can challenge public stakeholders on suitability of land and partnership models. Risks and rewards often need to be shared in order to support the creation and maintenance of a well-functioning partnership. With respect to the demand burden, one option is to encourage models where governments focus on facilitating access to approved buyers, while letting companies manage distribution through agreed pricing models. Such a model can create a greater upside and enhance incentive structures to support the development of attractive homes.

Partnering for affordable housing in Ethiopia, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Ethiopia

GIZ has worked with construction, housing and urban development worldwide for decades. As a company you can benefit from these experiences.

GIZ has been involved as a hand-on partner on many housing projects around the world. Consequently, GIZ has acquired extensive practical experience regarding the “do’s and don’ts” of construction planning and management, capacity building and other operational issues. As a result, GIZ has also developed a strong network in local construction industries and often has extensive knowledge about local housing ecosystems.

In Ethiopia, for example, GIZ has worked extensively in the construction and affordable housing sector. Ethiopia’s capital Addis Adaba, is booming with more than 5 million inhabitants. This growth is creating a severe housing shortage. A number of affordable housing projects have been developed in response to this acute need. GIZ was closely involved in the Low Cost Housing project (LCH), focusing on apartments for the upper/middle tiers of the BoP.

GIZ and local partners developed a cost efficient construction method which is now widely used in Ethiopia. The method reduces the square metre cost by up to 40 % compared to similar local projects, by using standardized and fewer building elements, in addition to prefabricated and modular construction systems. This saves cost and time and enables use of local unskilled labour. The modular design eliminates the need for room-specific details, which in return allows construction to take place at a fairly regulated and predictable pace, lessening dependence on highly skilled inputs.



Photo: Dirk Ostermeier/GIZ GmbH

In 2009, nearly 11,000 new flats were ready at 21 sites built by GIZ, public partners and local companies from all parts of the value chain. The flats are completed with installation of functioning water, electricity and sanitation. The biggest challenge for GIZ has not been the technical solution itself, but managing the construction process efficiently and ensuring that the end-results have the intended quality. A solid understanding of skill gaps and the local dynamics in the construction sector, combined with training and tight project management, proved to be the crucial factors for the project’s success.

Based on experience, GIZ recommends involving local companies and workers based close to the construction site. This enables access to a stable local work force with a good understanding of building requirements in the specific localities. Through a project focusing on capacity building of the Ethiopian construction industry, GIZ supported the contracting of more than 600 local subcontractors at 15 major construction sites. This type of subcontracting was not normal in Ethiopia, but during the process it became clear that not only the local economies benefited, but also the major contractors who were able to enhance their value chains.

As a company you can contact GIZ to learn more about their work or partner directly with GIZ and local stakeholders on specific projects through e.g. the [develoPPP.de](#) programme (see page 62).

Scale and Impact

Affordable housing is a massive *challenge* and *opportunity* alike – requiring introduction of many new ventures, replication of successful models, radical innovations, and a global shift in mind-set. Moving from promising pilot to significant scale and impact is hard, but achievable – as many of the cases in this publication shows. To stand on the shoulders of these pioneers, it is important to consider from the outset what it would take to scale your business and whether there are choices you need to make to enable scale.

Scaling strategies

Scale is not necessarily an end in itself. Affordable housing is, however, often a low-margin business, which means scale is an important driver of financial sustainability.

Scale your organization

Scaling your business through organizational growth, branches, franchises or JVs are part of normal company growth, but can include distinct challenges for inclusive business models. Often finding the necessary staff with the right skills and mindset can be hard. In addition scale can be stunted by lack of appropriate finance. In the [Support Directory](#) you can find examples of impact investors and organizations interested in investing in and supporting inclusive business.

If your solution has a proven track record and sustainable impact, engaging other partners can also help you scale. Globally, there are a multitude of civil society organisations, government entities, development organisations, and impact investors engaged in affordable housing – and often looking for innovative solutions.

Scale in country

The housing ecosystem often varies considerably from country to country, which means the upfront investment in understanding and adjusting a business model to a particular location is high. Scaling in one country is the first natural step.

Scale across countries

Sometimes regional or international scale is necessary. **DMS Africa** focuses on East Africa to create the necessary volume for local mass production of prefab houses. This also diversifies country risks. **Lafarge** has global operations and has housing projects in many countries. By developing four distinct solutions that meet different local needs, Lafarge is able to pick the mix of solutions which fit the local context, but also ensure cross-organisational learning and scale.

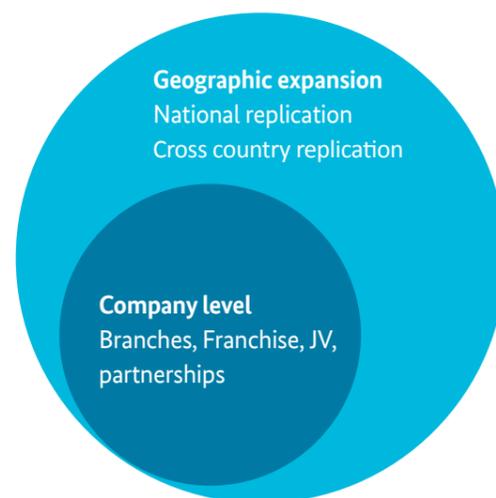


Photo: Florian Kopp/GIZ GmbH.

Support Directory



Photo: Michal Huniewicz/Flickr/www.m1key.me/





Spotlight: develoPPP.de – development partnerships with the private sector

Whether the aim is to provide training for local employees, promote the use of climate-friendly technologies or improve social standards at production facilities, the objectives of private enterprises and actors involved in development cooperation often overlap. develoPPP.de was set up by the BMZ to foster the involvement of the private sector at the point where business opportunities and development policy initiatives intersect. In the context of a develoPPP.de partnership, companies will always cooperate with one of the three official partners responsible for implementing the programme on behalf of BMZ: Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and sequa gGmbH.

Companies benefit from decades of professional and regional experience of these organizations in developing and emerging countries, as well as from their contact to governments, business associations and companies at the local level. A development partnership can help lower the costs involved in pioneering inclusive business models for

sustainable development. It can also help reduce risks and facilitate the transfer of know-how needed to upscale successful pilots.

Through the develoPPP.de programme, BMZ provides companies investing in developing and emerging countries with financial and, if required, also professional support. The company is responsible for covering at least half of the overall costs and BMZ contributes up to a maximum of EUR 200,000. These development partnerships with the private sector may last up to a maximum of three years and cover a wide variety of areas and topics – from eco-certification in Serbia to vocational training in India. Companies are invited to register their interest with DEG, GIZ or sequa by participating in one of the ideas competition which is open four times a year. These are open to all German and European companies and their subsidiaries in developing countries and emerging economies.

For more information visit: www.develoPPP.de

EXAMPLE: develoPPP.de and STRAWTEC

Construction costs in Rwanda are high, with most building materials currently being imported. To change this German company STRAWTEC decided to manufacture locally produced building material for mass-housing and commercial construction based on wheat straw.

Through develoPPP.de STRAWTEC has partnered to improve the Rwandan construction sector and promote green building materials within Rwanda and neighbouring countries. In return STRAWTEC is able to access qualified labour and helps build a stronger ecosystem for the business. The partnership for example focuses on skill

development of workers and farmers in collaboration with local schools and partners. STRAWTEC's agronomist e.g. hosted group training sessions prior to the summer harvest to explain the required harvesting, baling and storage techniques for wheat straw. This enabled farmers to deliver quality straw for STRAWTEC and yield higher crops and income.

The partnership ensures local capacity building, import substitution and job creation. This combination is good for STRAWTEC – and good for the local economy.

Support Directory

A wide range of national and international institutions can support efforts to provide BoP housing solutions.

This section highlights a number of organizations and institutions that offer support in the areas of implementation and financing. The list is not exhaustive but rather provides a general overview of resources for housing and inclusive business for further exploration.

Additionally, a list of suggested further reading provides links to useful documents and websites.

Training on affordable housing

An interactive training program is available for company representatives interested in developing inclusive affordable housing business models. The workshop builds on the findings from the practitioner guide. It offers participants a chance to test business ideas and receive tailored advice from peers and experts. More information on this and other sector specific training: www.giz.de/inclusive-business

shares learnings and improves the enabling environment.
www.bopin.org/

GIZ - Partner for the global challenges of tomorrow

The wide range of services offered by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH are based on a wealth of regional and technical expertise and on tried and tested management know-how. GIZ is a German federal enterprise and offers workable, sustainable and effective solutions in political, economic and social change processes.
www.giz.de/en

Ideo.org

This US-based organization seeks to bring human-centered design to people facing poverty, and works with non-profits, social enterprises and foundations to create solutions (also mobile-based) to poverty-related challenges.
www.ideo.org

Innovations for Poverty Action

Support the application of randomized controlled trials (RCTs) for product development etc.
www.poverty-action.org

mHS City Lab

Engages in hands-on implementation of pilots and prototypes for proof of

concept, and seeks to influence policy and project design by undertaking research and providing consultancy services to companies, international and governmental institutions.
www.microhomesolutions.org

Responsible & Inclusive Business Hubs (RIBH)

The RIBHs serve as regional focal points for companies and startups. They give advice for the implementation and mainstreaming of inclusive business and responsible business or corporate responsibility activities in the region. They provide information and contacts; have implementation know-how and extensive networks related to inclusive business in and among partner countries. Furthermore they support the replication of successful inclusive business models in Africa, Asia and the MENA region. The RIBHs are operated by GIZ on behalf of BMZ.
www.ib-action-network.net

Market insights

Affordable Housing Institute

USA-based global non-profit providing housing finance expertise and thought leadership to organizations working to make housing accessible to low-income people.
www.affordablehousinginstitute.org

Implementation support

This section includes organizations working globally or locally within affordable housing. Organizations can be entry points for knowledge, support, networks or partnerships in different parts of the value chain.

Business support services

BoP Innovation Center

The BoP Innovation Center (BoPInc) accelerates the number and impact of inclusive innovations in low-income markets. BoPInc incubates innovations,

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Centre for Affordable Housing Finance Africa

Research and market intelligence, supporting cross-sector collaborations and market-based approaches. Four main areas: (1) understanding the housing asset, (2) monitoring housing sector performance, (3) exploring innovation in housing finance, and (4) supporting housing finance market development. www.housingfinanceafrica.org

HDM Lund University

HDM undertakes research and education in housing and urban development from an international perspective. The goal is to increase knowledge about how to conduct and improve participatory processes leading to good housing and sustainable development, especially for the poor. www.hdm.lth.se

World Resources Institute

Global research organization that collects data on issues at the intersection of environment and development: including cities and housing. www.wri.org

Platforms/Advocacy**Ashoka**

The Housing For All initiative contributes to the acceleration of the development of affordable housing markets around the world. At the same time, it is building a global learning platform to enable major alliances between companies and citizen sector organizations committed to sustainable and scalable housing solutions. www.fec.ashoka.org/

International Union for Housing Finance

Worldwide housing finance network organization which enables its members to keep up-to-date with latest developments on housing. www.housingfinance.org

The Asian Coalition for Housing Rights

ACHR is a regional network of grassroots community organizations, CSO's and professionals actively involved with urban poor development processes in Asian cities. www.achr.net

The Inclusive Business Action Network (IB Action Network)

The IB Action Network is operated by GIZ on behalf of BMZ and is based in Bonn, Germany. It engages and facilitates dialogue with policy makers in developed, developing and emerging markets. It serves as an entry point to the global inclusive business community and connects companies and entrepreneurs with existing initiatives, stakeholders and networks around the world. www.ib-action-network.net

The National Cooperative Housing Union (NACHU)

NACHU is an apex organization made of registered primary housing cooperatives. NACHU works to provide affordable and decent housing to Kenyans within the low and modest income communities, and is a leading organization in the provision of housing micro-finance, capacity building and technical services. www.nachu.or.ke

UN Habitat

UN-Habitat works towards a better urban future. Its mission is to promote socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all. www.unhabitat.org

USAID Making Cities Work

Works to strengthen inclusive cities that adequately serve their citizens, encouraging people to live productive lives in safe and healthy communities. www.makingcitieswork.org

Financing

Public donors and development organizations offer challenge funds, public-private partnership programs, and preferential debt and equity financing.

Public donors and development finance institutions**African Development Bank**

Supports efforts in Africa to reduce poverty in a sustainable way through projects, financing, technology assistance and other services. www.afdb.org

Asian Development Bank

Provides low-income housing finance to developing countries. www.adb.org

BMZ

The German Federal Ministry for Economic Cooperation and Development (BMZ) is responsible for formulating the principles and strategies underlying German development policy. These form the basis of cooperation projects and programmes developed in conjunction with BMZ's cooperation countries and other international organizations. www.bmz.de/en

KfW Development Bank

Bank and development institution with financing expertise, and expert knowledge of development policy as well as national and international experience. On behalf of the German Federal Government it finances and supports programmes and projects that mainly involve public sector players in developing countries and emerging economies. www.kfw-entwicklungsbank.de

CDC

The UK's Development Finance Institution supports the building of businesses throughout Africa and South Asia. www.cdcgroup.com

Deutsche Investitions- und Entwicklungsgesellschaft (DEG)

German development agency financing private-sector investments in developing countries. www.deginvest.de/deg/EN/Home/index.jsp

Inter-American Development Bank (IADB)

Supports efforts by Latin America and the Caribbean countries to reduce poverty and inequality. Access to public and private financing for housing services for the poorest populations. Besides loans, they also provide grants, technical assistance and do research. www.iadb.org

International Finance Corporation (IFC)

Supports developing countries' private sectors through investment and advisory services. Works through financial institutions to build mortgage markets and increase access to finance for property construction and mortgages. www.ifc.org

USAID Global Development Alliances (GDA) The GDAs is the premier model for public private partnerships within USAID. The partnership focus on innovative, sustainable approaches to development. www.usaid.gov/gda

World Bank Income Housing Finance

Provides access to sustainable housing finance for low-income households, to purchase, build or upgrade their dwellings. Supports financial inclusion by providing access to housing finance to low-income and informal sector households in urban areas and by strengthening the capacity of financial

institutions that target these groups on a market basis. www.worldbank.org

Private Foundations/Funds**Entrepreneurs du Monde**

French civil society organisation works with communities in developing countries. The organisation supports social microfinance, social entrepreneurship and the creation of very small businesses. www.entrepreneursdumonde.org

Global Impact Investing Network

Non-profit organization dedicated to increasing the scale and effectiveness of impact investing with membership of impact investors and fund managers around the globe. www.thegiin.org

International Housing Solutions (IHS)

Private equity firm focused on the development of residential housing: IHS partners with financial institutions, real estate developers, private capital groups and local government authorities to provide equity finance for residential projects, primarily in the affordable housing market. www.deginvest.de/deg/EN/Home/index.jsp

National Housing Finance Corporation

Makes housing and housing finance accessible and affordable for the low-to-middle income households and provides project finance to Social Housing Institutions and developers who develop projects for ownership or rental housing purposes; including inner city renewal developments. www.nhfc.co.za

Shelter Afrique

Pan-African finance institution that exclusively supports the development of the housing and real estate sector in Africa, through e.g., project finance,

institutional lending, equity investments & joint ventures, trade finance, and social housing. www.shelterafrique.org

Further reading

These publications help to understand the broader context of affordable housing and the BoP segment. Some also focus on specific issues related to for instance housing finance or housing issues in specific global regions.

All articles and reports can be found on the internet by entering the document title into a standard search engine.

Cross cutting

Ashoka, Hystra (2011)
Access to housing at the base of the pyramid: enabling markets for affordable housing
Investigation into access to housing at the base of the pyramid, specifically for low-income urban dwellers worldwide.

Ashoka and Next Billion (2012)
The Big Idea: Global Spread of Affordable Housing
Ebook comprising of two dozen posts from leaders and experts on low-income and affordable housing.

McKinsey (2014)
A blueprint for addressing the global affordable housing challenge
The analysis draws on MGI's Cityscope database of 2,400 metropolitan areas, as well as case studies from around the world.

McKinsey (2012)
Urban World: Cities and the rise of the consuming class
Offers insights into the evolution of the urban world and its demographics, household structure, and incomes.

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Data

World Resources Institute, International Finance Corporation (2007)

The Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid

Overview and analysis of the BoP housing market and associated opportunities and implications.

For updated data also see: datatopics.worldbank.org/consumption/sector/Housing

Financing

International Finance Corporation (2014)

Housing Microfinance Toolkit: Guidelines for Product Development and Operations

Guidelines for financial institutions seeking to launch a housing microfinance product.

International Finance Corporation (2014)

The 6th Global Housing Finance Conference "Housing Finance in Emerging Markets"

Various reports and documents from the Conference hosted by the World Bank Group with overview of Housing Finance Projects.

Habitat for Humanity (2012)

Housing Microfinance: Product Development Toolkit

Housing Microfinance toolkit. Focuses on product development, housing support services, planning of pilot project and funding.

The World Bank (2009)

Housing Finance Policy in Emerging Markets

Book that pulls together knowledge and experiences from advanced and emerging markets to help policy mak-

ers in all markets establish sound housing finance policies.

International Federation of Surveyors (2008)

Improving Slum Conditions through Innovative Financing

Summary report of the seminar "Improving Slum Conditions through Innovative Financing", which was dedicated to adequate and affordable housing for all.

UN Habitat (2006)

Innovative Financing: Experiences with Secondary Urban Centres Water Supply and Sanitation Service Delivery

Specifically deals with financing mechanisms for towns with populations between 2,000 and 50,000 people.

Allianz group (2010)

Learning to insure the poor: micro insurance report

Expert views on and lessons learned from micro insurance practices.

Sustainable housing

UN Habitat (2012)

Going green. A handbook of sustainable housing practices in developing countries

Overview of sustainable housing practices with a focus on "green" building materials and construction technologies, and climate-responsive housing and settlement design.

UN Habitat (2012)

Sustainable housing for sustainable cities: A policy framework for developing countries

Outlines key concepts and considerations underpinning the idea of sustainable housing.

UN Habitat (2005)

Building materials and construction technologies: Annotated UN-HABITAT bibliography

Summary of existing UN-Habitat publications, reports and other documents on building materials and construction technologies. Provides an overview of work undertaken by UN-Habitat in these fields during the last two decades.

Rental housing

UN Habitat (2011)

A policy guide to rental housing in developing countries

Emphasizes rental housing as a key component of a well-functioning housing market.

Impact and scale

Esper and London (2013)

Improved Housing and its Impact on Children: CEMEX's Patrimonio Hoy

Explores the impacts improved housing has on children from the Base of the pyramid (BoP) and how these impacts can be enhanced.

Endeva (2014)

Multiplying Impact: Supporting the Replication of Inclusive Business Models

Exploring ways to improve support for the replication of successful inclusive business models.

Harvard Kennedy School (2011)

Tackling Barriers to Scale: From Inclusive Business Models to Inclusive Business Ecosystems

Describes the concept of an inclusive business ecosystem, and presents three strategies companies can employ to strengthen these ecosystems.

World Business Council for Sustainable Development (2013)

Scaling up inclusive business: Solutions to overcome internal barriers

Identifies some of the most common internal barriers to scale inclusive business.

Latin America

Inter-American Development Bank (2014)

Many paths to a home

Emerging business models for Latin America and the Caribbean's base of the pyramid.

Inter-American Development Bank (2012)

Room for Development: Housing Markets in Latin America and the Caribbean

In-depth look at the opportunities countries have to improve urban housing markets and pave the way for solutions that involve the private sector.

UN Habitat (2011)

Affordable land and housing in Latin America and the Caribbean

Explores the major trends in housing conditions, availability, quality and tenure modalities.

Asia

KPMG (2012)

Bridging the Urban Housing Shortage in India

Discusses the rising trend of urbanisation in India and the looming urban housing shortage.

McKinsey (2010)

India's urban awakening: Building inclusive cities, sustaining economic growth

Looks at how India's urbanization might evolve, the many problems facing

India's fast growing cities and what policymakers can do to mitigate the strains of urban life in India.

KPMG in India (2010)

Affordable Housing – A key growth driver in the real estate sector?

Assesses demand and supply constraints, and highlights the initiatives taken by key stakeholders.

UN Habitat (2011)

Affordable land and housing in Asia

Explores the major trends in housing conditions, availability, quality and tenure modalities.

Africa

Center for Affordable Housing Finance in Africa (2013)

2013 Housing Finance in Africa Yearbook

Yearbook that reflects the mood and temperature of housing finance markets on the African continent in 2013.

FinMark Trust and Rooftops Canada (2010)

Housing Support Services for Housing Microfinance Lending in Eastern and Southern Africa

Focus on a key challenge to increasing the scale and impact of housing microfinance.

UN Habitat (2011)

Affordable land and housing in Africa

Explores the major trends in housing conditions, availability, quality and tenure modalities. Analyses housing policy responses to address growing affordability problems and the improvement of substandard housing conditions. Provides key recommendations for local, national and international policy initiatives.

UN Habitat (2011)

Housing the poor in African cities. Quick Guide series

Quick Guide 1: Urban Africa 2: Low-income housing 3: Land 4: Eviction 5: Housing Finance 6: Community-based organizations 7: Rental housing 8: Local government

Quick Guide series that assists policy makers. Includes background information relevant for companies.

End notes

1. IFC estimates that the global BoP market covers 4.5 billion people and a total market of 5 trillion USD.
2. IFC estimates that the global BoP market covers 4.5 billion people with a total purchasing power of 5 trillion USD, source: IFC, Global Consumption Data for Inclusive business, 2014.
3. McKinsey (2014): A blueprint for addressing the global affordable housing challenge
4. 2012: UN Habitat, Sustainable Housing for Sustainable Cities: A policy framework for developing countries
5. Interviews by researcher Yewilsew Mengiste, Ethiopia
6. 2011: UN Habitat, Affordable Land and Housing in Africa, page 10
7. Holcim Sustainability Report 2013

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Case study sample

COMPANY/INITIATIVE	CASE GEOGRAPHY	TYPE OF HOUSING BUSINESS
3XN	India	Architect
Ansaar Management Company	Pakistan	Developer, construction and operation
Ashoka	India	Social entrepreneurship focus
Association la Voute Nubienne	Sahel Region, Africa	Social entrepreneurship focus
Bayer MaterialScience	Philippines	Building materials
Cemex	Latin-America	Building materials
DMS Africa	Uganda	Prefabricated homes
Elemental	Chile	Architect
Elang Group	Indonesia	Prefabricated homes
Fez Ta Pronto	Brazil	Construction system and housing model
Holcim	Indonesia + Argentina	Building materials
Lafarge	Many countries	Building materials
Lendcor	South Africa	Microfinance
Moladi	South Africa	Construction system and housing model
O&L Group	Zambia	Corporate housing partner
Saraman	Iran	Construction system
SPS	Algeria	Prefabricated homes
Strawtec	Rwanda	Construction system
Vinte	Mexico	Developer, construction and operation

Imprint

Published by

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Sector Programme Cooperation with the Private Sector and Corporate Responsibility for Sustainable Development

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Design & layout

Muku Media, Kasper Bjerre, Copenhagen

Copyediting

Dalberg Research, Jill Freebury

Printed by

Metzgerdruck GmbH, Obrigheim
Printed on 100% FSC-certified paper

Photo credits

Credit for the cover photo: ©GIZ GmbH / Guy
Photo credits are indicated on respective photo

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Publication Date

December 2014

One third of the developing world’s urban population live in slums. At the same time people at the base of the economic pyramid (BoP) spend more than USD 700 billion on housing every year. In other words one of the greatest development challenges also represents a business opportunity. This guide serves companies from all parts of the housing value chain, who already work with affordable housing or are considering entering the market. Pioneering companies and experts have contributed with lessons learned, innovative approaches and best practice for developing and scaling affordable housing solutions. The guide gathers this inspiration and advice in a Business Model Generator, which can help your company develop or strengthen an inclusive affordable housing business model.

