wbcsd buildings

Energy Efficiency in Buildings

# Developing action plans to overcome market barriers

# WHY GET INVOLVED IN A MARKET ENGAGEMENT?

# Energy efficiency in buildings is a global issue but needs to be tackled locally

"Market engagement" refers to a structured methodology of bringing together the building value chain (architects, developers, owners, tenants, banks, utilities, policy makers, etc.) locally to identify the key market barriers withholding investments into energy efficiency in buildings and to define an action plan to overcome these barriers.

The WBCSD Energy Efficiency in Buildings (EEB 2.0) project **has piloted 10 private sector-led market engagements** to demonstrate how market barriers to energy efficiency in buildings can be overcome through a multi-stakeholder approach (market engagements).

1. Houston/US
2. Warsaw/Poland
3. Bangalore/ India
4. Jaipur/India
5. Rio de Janeiro/Brazil
6. The Netherlands & Belgium
7. Kuala Lumpur/Malaysia
8. Jakarta/Indonesia
9. Singapore
10. Shanghai/China

This paper is for organizations potentially interested in carrying out local "market engagements". It discusses the motivation for different stakeholder groups in the building market to initiate a market engagement to help transform the local building stock with the involvement of key stakeholders from both the private and public sectors.

A separate document explains the methodology developed by the WBCSD EEB 2.0 project in its 10 pilot local engagements (*How to carry out market engagements?*).

# Engaging the value chain to overcome market barriers

## Why energy efficiency in buildings matters

Energy efficiency in buildings is a key contributor to reaching the global imperative of keeping global warming below 2°C, but improving energy efficiency in buildings has many additional benefits.

Until recently, the calculated return on investment for energy efficiency in buildings was limited to the energy saved and associated cost savings. More effort is now underway to understand and monetize a wider range of benefits of energy efficiency, including:

- *For building owners and occupants:* improved durability, reduced maintenance, greater comfort, lower costs, higher property values, increased habitable space, increased productivity, and improved health and safety.
- *For governments*: improved air quality, reduced societal health costs, an improved tax base and lower budget variation, higher GDP and enhanced energy security.
- *Utilities:* benefit from cost and operational benefits due to reduced customer turnover, reduced emissions and reduced system capacity constraints.

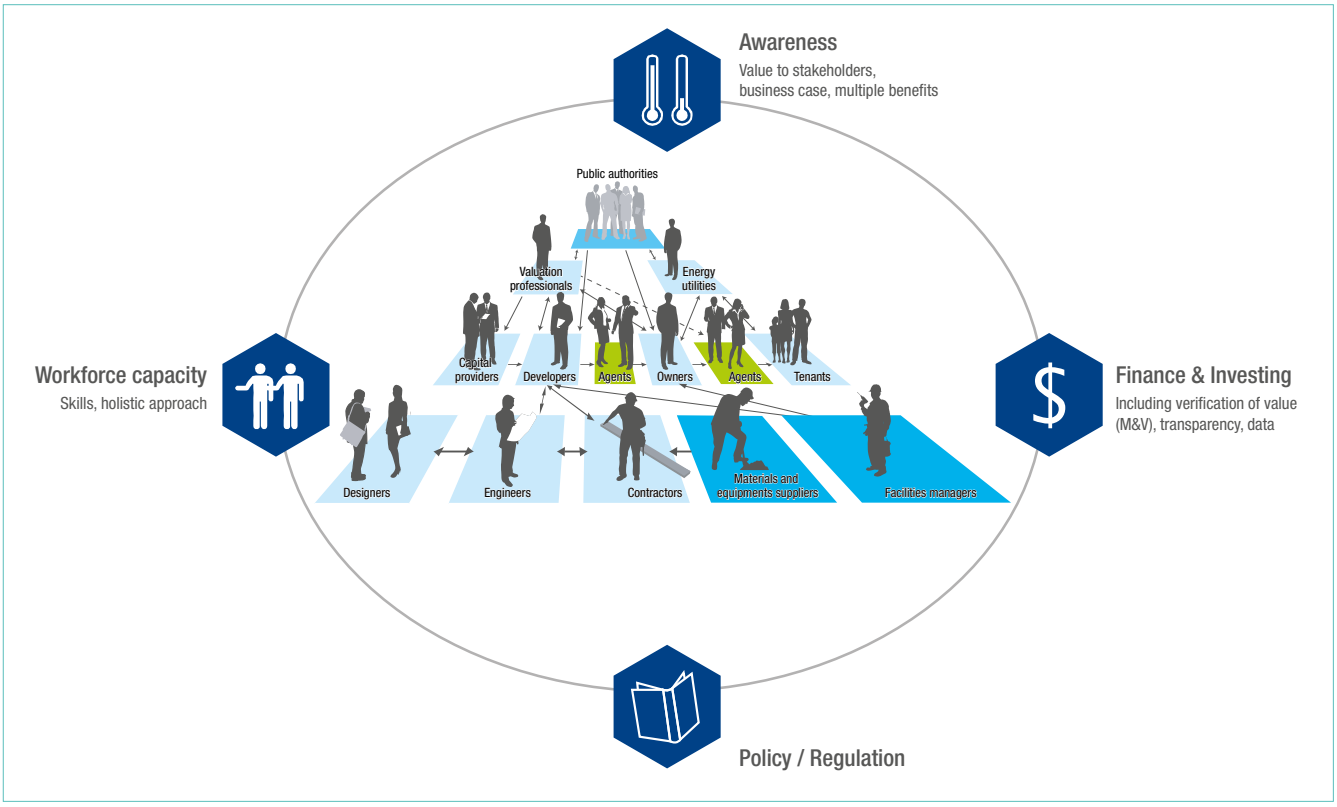
Source: Extract from Energy Efficiency Market Report 2015, IEA adapted from IEA (2014a), *Capturing the Multiple Benefits of Energy Efficiency*, OECD/IEA, Paris

## Overcoming market barriers

Technological solutions exist that use significantly less energy in building operations. However, achieving widespread uptake of efficient technology, design and best practice requires the correct market conditions.

**What hampers progress is a multitude of local, non-technical market barriers amplified by the highly fragmented building value chain.** The EEB 2.0 project's pilot engagements have shown that the following 4 core topics typically surface in all local building markets – though this does not preclude other issues from emerging during the preparation of a market engagement.

1. **Lack of awareness and leadership** particularly related to challenges in making the business case;
2. **Workforce capacity** and the need for proper skills and collaboration along the value chain to consult, plan, implement and operate the right solutions;
3. **Lack of adequate financing models** that overcome the split incentives inherent in the buildings sector and enable value sharing;
4. **Lack of consistent and long-term policy frameworks** (national and sub-national), including regulations and incentive schemes.



## Engaging the building value chain

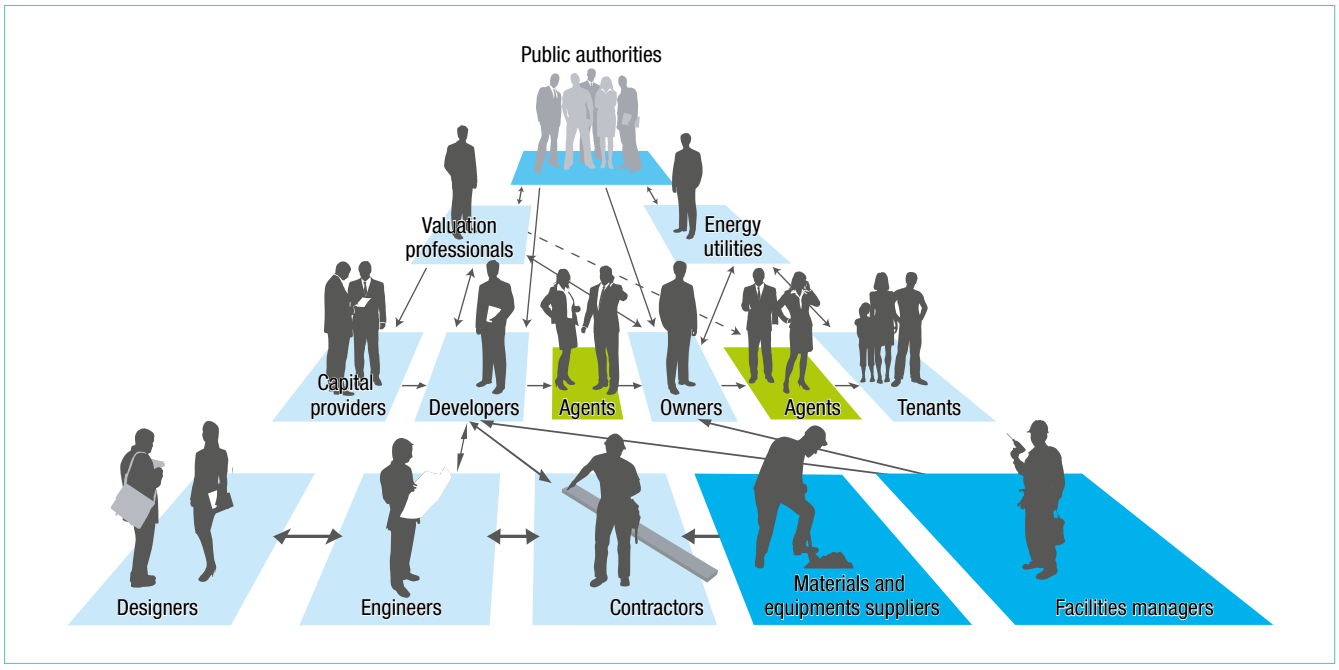
**These market barriers combined with fragmentation of the building value chain result in a misalignment of stakeholder interests, benefits and motivations.**

Therefore the market barriers are best overcome by convening all the relevant stakeholders in the building value chain at local level. This market engagement approach is a way of creating a sustained non-competitive environment by going beyond conservatism and building trust among stakeholders. It also helps to develop the necessary awareness and collaboration that will encourage decision-makers to adopt more energy-efficient building practices.

The market engagement process provides:

- An analysis of the market situation for EEB
- The engagement of all relevant stakeholder groups in the market
- The identification of the key market barriers and actions to overcome these barriers
- An action plan and identification of the stakeholders who will lead the implementation of these actions
- The formation of an EEB platform to enhance sustained action-oriented public-private sector dialogue
- Access to a global stakeholder network driving local action

The cornerstone of each market engagement that the WBCSD has piloted in 10 locations is the **Energy Efficiency in Buildings Laboratory (EEB lab)** – a three-day workshop bringing together the value chain which aims to get a clear understanding of the market situation and recommend actions around the four core topics usually addressed (Awareness and Leadership; Workforce capacity; Financing; Policy and Regulation). The actions are then implemented by the motivated stakeholders.




*Relationships in the building value chain*

*Source: WBCSD (2015), adapted from Energy Efficiency in Buildings, Business Realities and Opportunities, Facts and Trends*

# Why get involved in a market engagement?

The stakeholder table below summarizes why different stakeholders should get involved in a market engagement, in what capacity and what they stand to gain.

For the 10 pilots, the WBCSD and its members were the conveners for the market engagements. There are however different opportunities for stakeholders to be involved in a market engagement.

Why different stakeholders should get involved in EEB market engagements

| Category of stakeholder *(options for involvement: lead or support)* | Why get involved? | Stakeholder benefits from the market engagement (Short/ Medium/Long term) |
|---|---|---|
| **Business organizations** and their members (such as WBCSD, BCSDs at local level, Green Building Councils, RE associations) *Lead or support* | Develop the energy efficiency market for the benefit of their members | ST: Business networking opportunities; understand market issues and trends<br>MT: Identify collaboration opportunities to overcome market gaps (e.g. capacity building)<br>LT: Higher demand for energy efficiency solutions |
| **Professional organizations** (association of architects, owners, tenants, facility managers, developers, real estate, etc.) *Lead or support* | Promote sustainability excellence in their profession | ST: Enhanced market understanding; networking opportunities<br>MT: Ensure that professionals' interests are well understood<br>LT: Better trained professionals on sustainability issues |
| **Environmental NGOs/ institutes/think tanks** *Lead or support* | Tackle a key climate change topic in a holistic manner | ST: Ensure the challenges are framed in a way which is consistent with research<br>MT: Visibility for NGO work<br>LT: Transform the market to reduce energy consumption and emissions from buildings |
| **Energy Utilities** *Lead or support* | Manage energy supply and demand; develop new business models | ST: Satisfy their customer demand<br>MT: Develop new business models<br>LT: Transform the energy market |
| **Policy makers (cities, government)** *Lead or support* | Gain traction for their sustainability agenda and engage market actors to contribute toward policy framework | ST: Access to a network of private organizations<br>MT: Stakeholder consultation and input on public policies<br>LT: Enhanced support for the implementation of public policies; strategic engagement with the private sector and other stakeholders |
| **Academia** *Support* | Strengthen collaboration with industry | ST: Enhanced relationships with business<br>MT: Established trusted relationship with business<br>LT: New research and implementation opportunities |
| **Financing organizations** *Support* | Anticipate and formulate new investment opportunities | ST: Better understanding of the issues related to energy efficient business models<br>MT: Develop innovative financing models for EEB projects<br>LT: Finance EEB projects |

### Case Study: The market engagement (EEB Laboratory) in Warsaw assisted private building market stakeholders to engage with the public sector

The EEB Laboratory in Warsaw in June 2014 successfully involved many companies, including some with competing interests, and persuaded them to cooperate with each other and with the public sector, which has been highly engaged in the process. As a result the EEB Platform Poland was created to coordinate national work on EEB by raising awareness of which organizations are doing what, and sharing good practice. The platform also established strong relationships and long-term cooperation with the public sector. The platform plays an important role in avoiding the duplication of work, which was previously an issue in the market, and encouraging EEB action by promoting cooperation and engagement among EEB actors.

A particular outcome from this collaboration was the publication of a Health & Productivity White Paper (Q3 2015). The paper was produced to improve the awareness of the multiple benefits of energy efficiency (EE) in the Warsaw region, and to promote the consideration of secondary EE benefits when evaluating the full costs and returns of EE improvements.

The group now works in cooperation with the public sector to drive a long-term national multi-stakeholder campaign on EEB benefits – to communicate what the EEB Platform is doing, raise awareness of the importance of EEB, recruit more members, and achieve long-term policy change objectives. Other specific actions from the EEB Lab include the creation of a national energy benchmarking system for buildings and the development of training materials to be used to guide the commissioning, design and construction of EEB projects in Poland.

### Case Study: Building market stakeholders find synergies with the city of Houston

EEB Houston and the action in the Houston market is being managed by the Houston Advanced Research Center (HARC) in 2015. Efforts have concentrated on creating a stakeholder network and driving the activities around the focus areas of Policy, Building Operations, Finance and Communications, which are each managed by a dedicated EEB Houston committee.

The EEB Laboratory in October 2014 successfully brought together all actors involved in Houston's EEB ecosystem into a single platform. EEB Houston is therefore a unique resource that presents great opportunities for promoting EEB in the city. Local interest continues to grow along with the number of participants.

"EEB Houston is unique in its ability to harmoniously bring together key market participants from both the private and public sector,"- Jeff Craig, Ascentergy

The EEB committee for finance is playing a lead role in working with the City of Houston to create a Property Assessed Clean Energy (PACE) Financing District in Houston, which will facilitate access to funding for energy efficiency improvements.

The EEB Houston website provides information on the project background, project supporters and sponsors, the justification for EEB and resources (such as case studies and tools created by the EEB Houston committees).

# From Why to How

A broad spectrum of stakeholders stand to benefit from participating in local EEB market engagements. The WBCSD has refined the methodology for undertaking market engagements including the detailed description of the Energy Efficiency in Buildings Laboratory (EEB Lab). This methodology is detailed in the document “How to carry out market engagements”.

For more information, please contact Roland Hunziker, Director, Sustainable Buildings and Cities, WBCSD (hunziker@wbcsd.org)
www.wbcsd.org/buildings.aspx

**EEB2.0 members:**
LafargeHolcim (co-chair); United Technologies (co-chair); AGC; AkzoNobel; ArcelorMittal; Arcadis; ENGIE; Infosys; Schneider Electric; SGS; Siemens; Skanska

**Global Partners:**
World Green Building Council (WGBC); International Energy Agency (IEA); Urban Land Institute (ULI) and WBCSD Global Network

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