

# Energy Efficiency in Buildings 2.0

## Scale up implementation

Bill Sisson, United Technologies

SE4All Webinar  
23 June 2015

# Energy Efficiency in Buildings project (EEB 2.0)

Unlock **financially viable energy efficiency investments** that today are not being realized because of mostly non-technical barriers

## Co-Chairs:



## Core Group:



## Partners:



# First EEB project (2006-2010)

## “How to” - Transforming the Market



Global study – action areas – business viewpoint



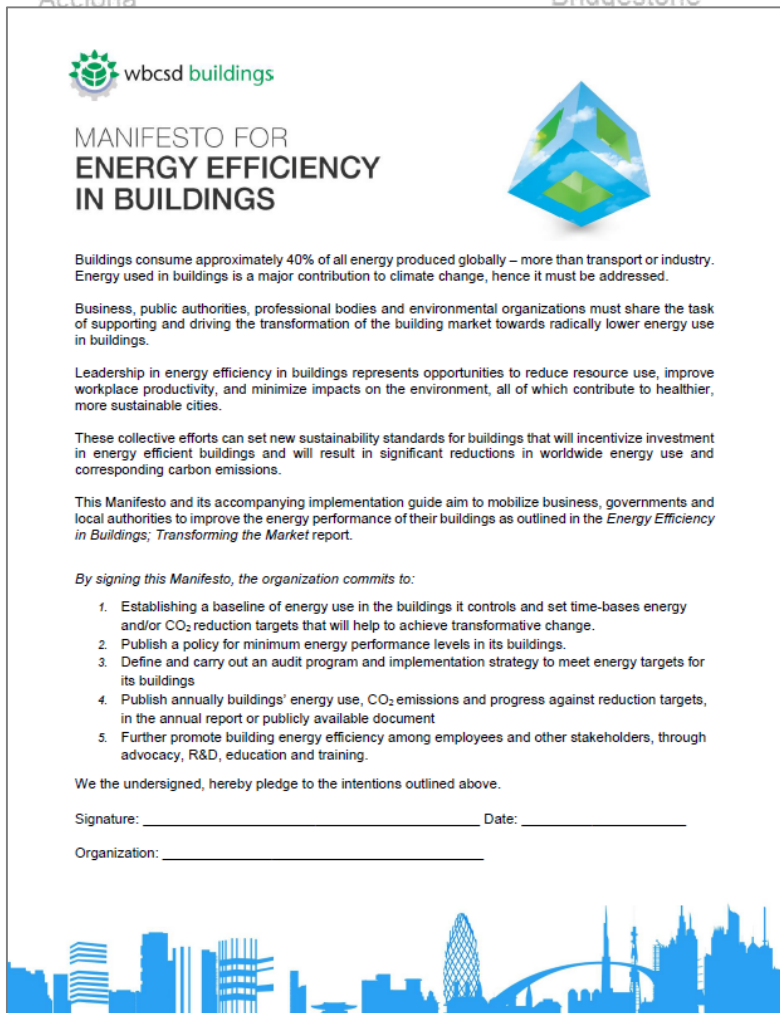
# And ... A Call to Take Action

ABB  
Acciona

Borusan Holding C.A.  
Bridgestone

Cathay Pacific  
CEMEX  
Chubu Electric Power  
Chunghwa Telecom  
Cimentos Liz

MTR  
Nissan  
Novartis  
Novozymes  
Philips  
Public Power Corporation  
RATP  
Rideau Recognition Solutions



**wbcSD buildings**

## MANIFESTO FOR ENERGY EFFICIENCY IN BUILDINGS

Buildings consume approximately 40% of all energy produced globally – more than transport or industry. Energy used in buildings is a major contribution to climate change, hence it must be addressed.

Business, public authorities, professional bodies and environmental organizations must share the task of supporting and driving the transformation of the building market towards radically lower energy use in buildings.

Leadership in energy efficiency in buildings represents opportunities to reduce resource use, improve workplace productivity, and minimize impacts on the environment, all of which contribute to healthier, more sustainable cities.

These collective efforts can set new sustainability standards for buildings that will incentivize investment in energy efficient buildings and will result in significant reductions in worldwide energy use and corresponding carbon emissions.

This Manifesto and its accompanying implementation guide aim to mobilize business, governments and local authorities to improve the energy performance of their buildings as outlined in the *Energy Efficiency in Buildings; Transforming the Market* report.

*By signing this Manifesto, the organization commits to:*

1. Establishing a baseline of energy use in the buildings it controls and set time-based energy and/or CO<sub>2</sub> reduction targets that will help to achieve transformative change.
2. Publish a policy for minimum energy performance levels in its buildings.
3. Define and carry out an audit program and implementation strategy to meet energy targets for its buildings
4. Publish annually buildings' energy use, CO<sub>2</sub> emissions and progress against reduction targets, in the annual report or publicly available document
5. Further promote building energy efficiency among employees and other stakeholders, through advocacy, R&D, education and training.

We the undersigned, hereby pledge to the intentions outlined above.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

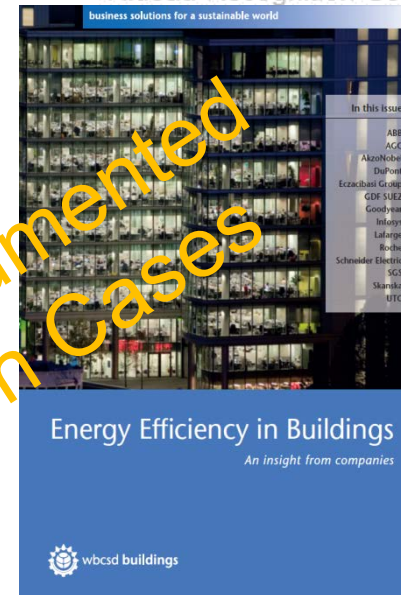
Organization: \_\_\_\_\_

BNP Paribas  
Fook Tin Group  
GDF SUEZ  
Gammon Construction  
GHD Pty Ltd  
Goodyear

**140+ signatories**



Hoffmann-La Roche  
Hong Kong Airport Authority  
Hongkong Electric  
Hongkong International  
Terminals  
Hang Lung  
Infosys  
Italcementi  
ITT  
Kansai  
LAFA  
La Poste  
Masisa  
Mets



Swire Properties  
Swire Pacific  
Telecom Italia  
TEPCO  
The Link Management LTD  
The Yokohama Rubber Company  
TNT  
Toyo Tire & Rubber

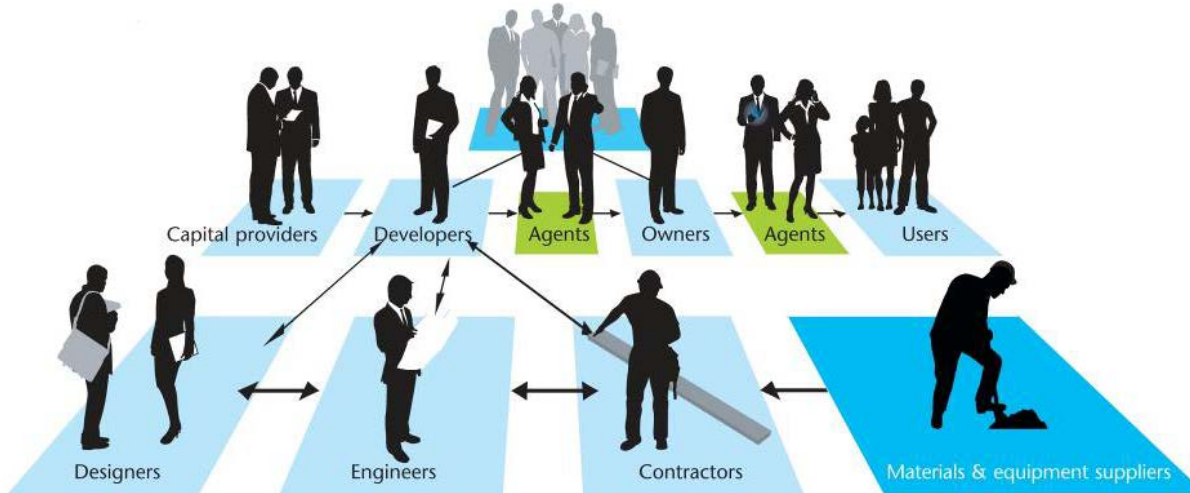
**+ Toolkit to plan and initiate financially viable EEB investments (web tool – Dec.2015)**

# EEB2.0: Engaging the value chain

Extend the business case (co-benefits)

Seek broad benefits, take action among:

Energy utilities  
Local authorities



WBCSD, 2007

*Owners/Developers/Occupiers*

- Asset values
  - Cost savings
  - Productivity, health and social
- Utilities*

- Energy security
- Regulation & capital allocation
- Energy prices
- Carbon mitigation

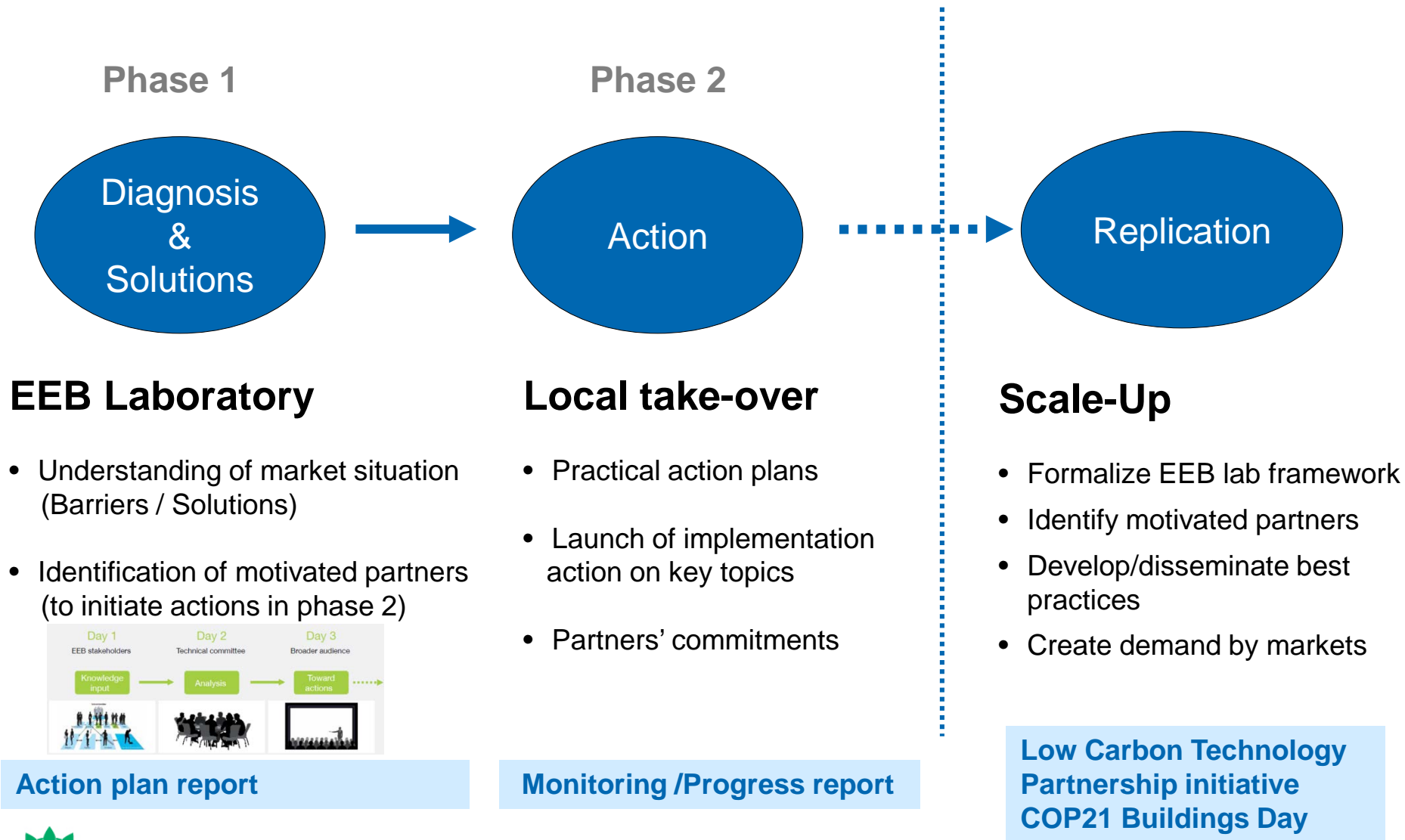
*Public Authorities*

- Job creation
- Poverty alleviation
- Public budgets/taxes
- Consumption
- Competitive advantage

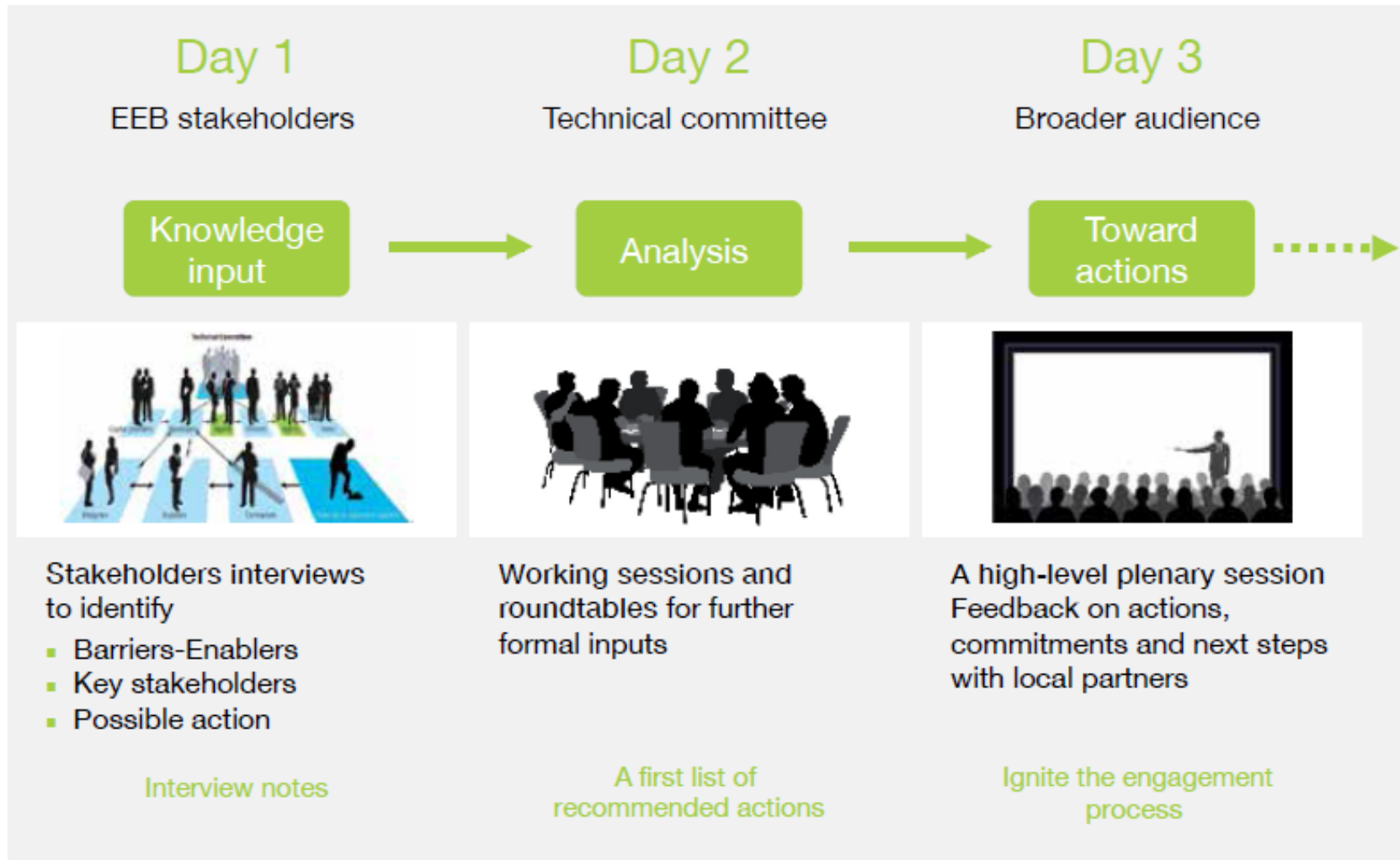
*Financial Institutions*

- Scalable investments
- Loan instruments

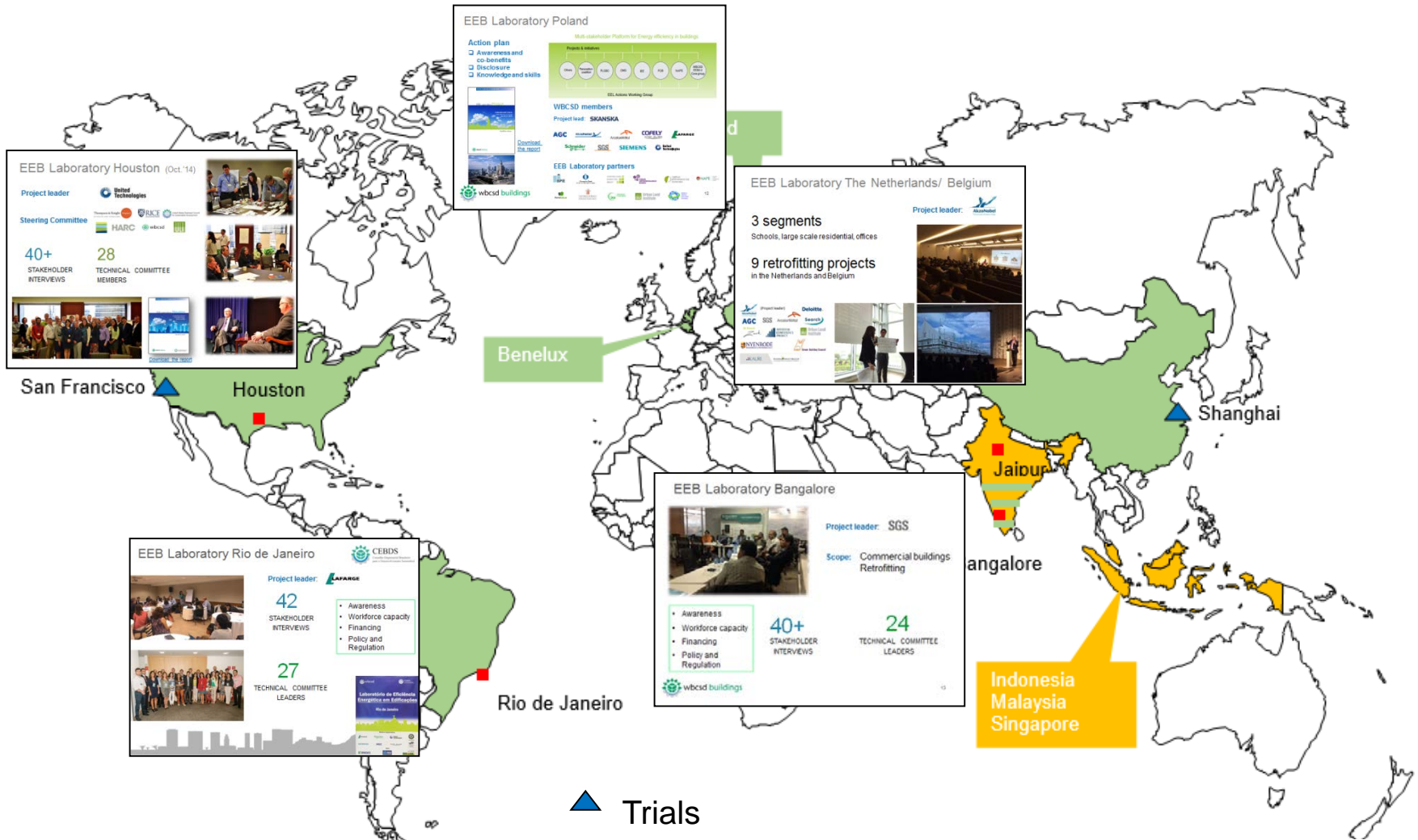
# A Need for a Scalable Framework



# EEB laboratory



# Perform market specific engagements

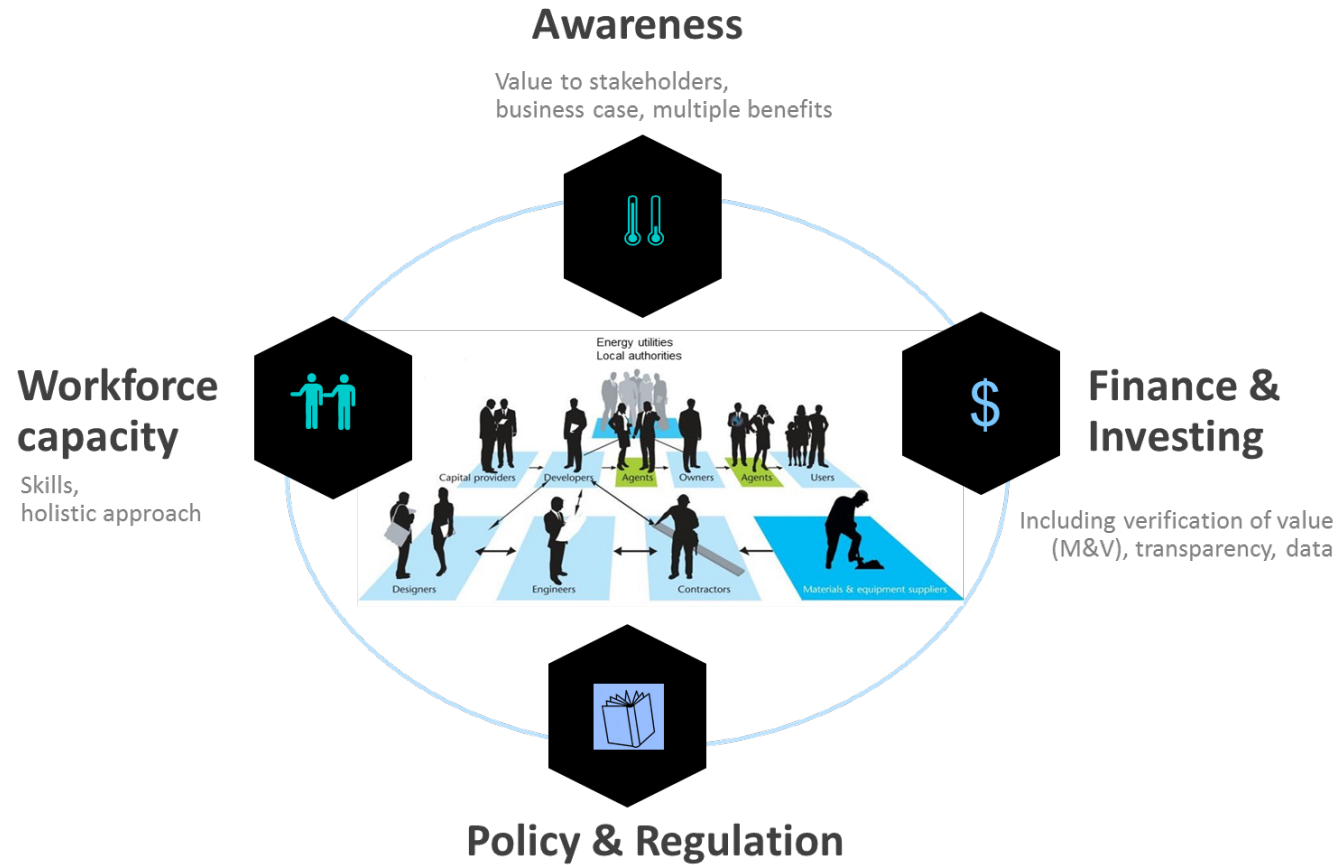




# 9 action plans

- Houston/US
- Warsaw/Poland
- Rio de Janeiro/Brazil
- Bangalore & Jaipur/India
- Belgium/The Netherlands
- Singapore
- Jakarta/Indonesia
- Kuala Lumpur/Malaysia
- China

## to locally address Lab discovered barriers



# “Energy Efficiency in Buildings – Houston” (March’15)

Action committees coordinated by  **HARC**

## Areas of work

## Members

### **Finance**

Bring PACE to the Houston market  
Promote the adoption of Investor Confidence Project

### **Ascentergy (chair)**

City of Houston; Thompson and Knight; Independent Consultant; McCord Development; Schneider Electric; Lionstone; Siemens

### **Operations (Workforce)**

Develop training opportunities of building operators

### **Automated Logic (chair)**

City of Houston; Mitsubishi; McCord Development; HARC; Boxer; NRG; MLN Company; Gensler; Ascentergy; TEAM

### **Competition (Policy)**

Advise on policies around benchmarking, building audits and operator training (City Energy Project)

### **Automated Logic (chair)**

City of Houston; Lionstone; Transwestern; Columbia Property Trust; Ascentergy; McCord Development; WHR Architects; PBK; Crimson; CPES LLC

### **Communications (Awareness)**

Develop a communication platform - website (right message to the right audience)

### **Shell (chair)**

City of Houston; Gensler; EES; JCI; McCord Development; Rice U; USBCSD; Entergy; Enterprise Realty Group; Lashley; ERM

# By 2030, 50% of projected energy use in buildings can be avoided by action on energy efficiency in buildings



(IEA, SDSN, WBCSD)

Proposing to support Buildings Day at COP21 to initiate Scale Up commitments together with LCTPi partners

## Scale up

- Shared ambition
- Convene local building market stakeholders
- Drive action plans
- Share knowledge
- Report on progress



# Partners LCTPi on Buildings

- CEBDS – BCSD Brazil
- Climate KIC
- Construction Marketing Group, Poland
- European Bank for Reconstruction and Development
- Global Buildings Performance Network
- International Energy Agency
- Investor Confidence Project Europe
- Ministry of Sustainable Development, France
- Ministry of Economy, Poland
- UNEP Finance Initiative
- UNEP Sustainable Buildings and Climate Initiative
- World Green Building Council
- World Resources Institute
  
- EEB 2.0 member companies: AGC, AkzoNobel, ARCADIS, ArcelorMittal, Engie, Infosys, Lafarge, Schneider Electric, SGS, Siemens, Skanska, United Technologies
  
- Interested: ICLEI, UNEP FI, Urban Land Institute

Thank you