



## Copenhagen Centre on Energy Efficiency

**ASIA CLEAN ENERGY FORUM 2018**

HARNESSING INNOVATION TO POWER THE FUTURE

Manila, Philippines • 4-8 June 2018

**Deep Dive Workshop, June 5**

Sustainable Energy for All in the Asia-Pacific

**UNEP DTU**  
PARTNERSHIP

**COPENHAGEN CENTRE**  
**ON ENERGY EFFICIENCY**  
SE4ALL EE HUB

**Ksenia Petrichenko, Copenhagen Centre**

# The Copenhagen Centre on Energy Efficiency



# Our Model: Standardisation, Upscaling and Replication

1.



Cities, towns,  
villages

2.



Standardised  
data collection  
& analysis

3.



Bundling of  
projects

4.



Financing &  
Procurement

5.

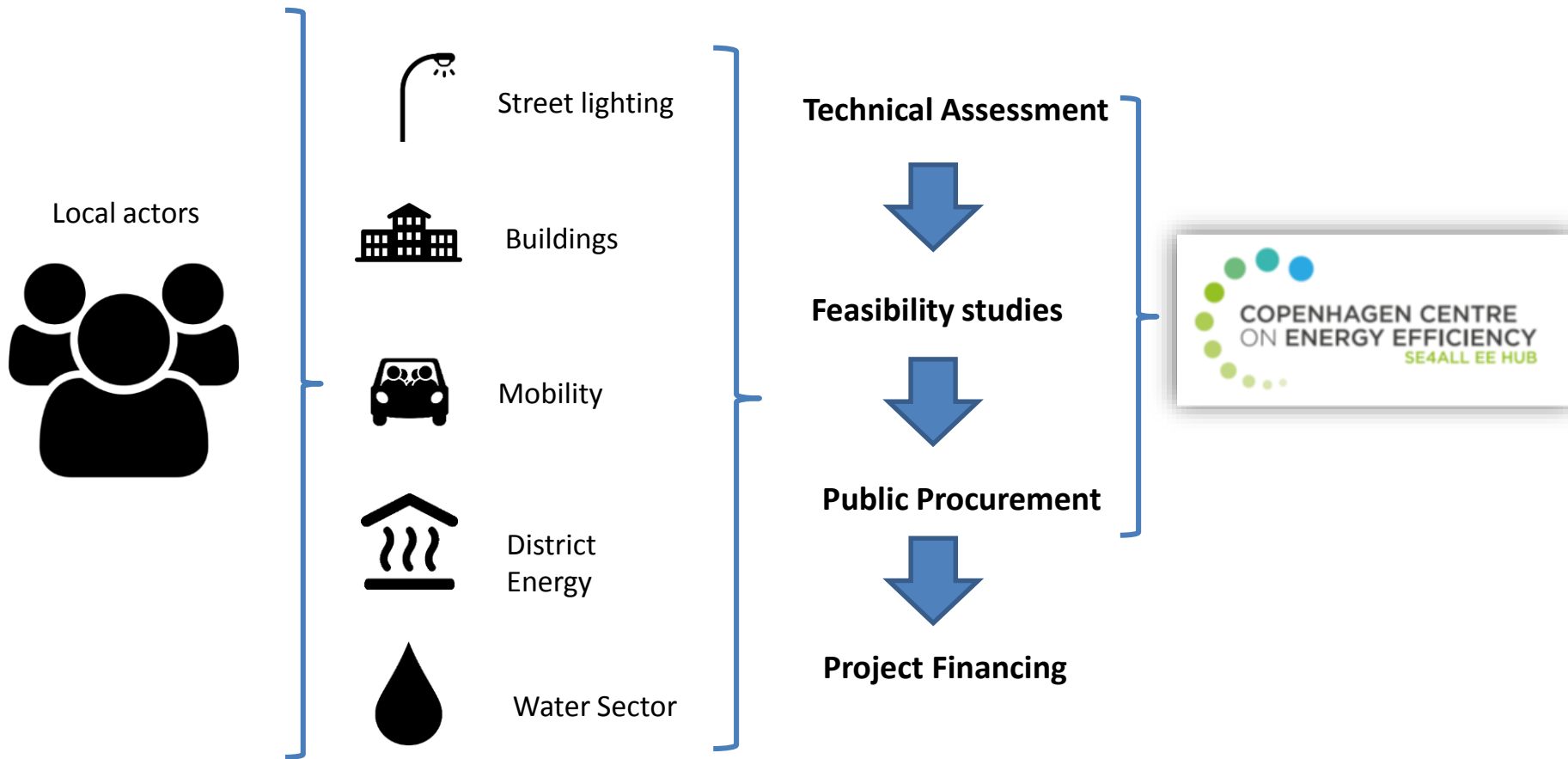


Investment &  
installation

6.



# Aggregation mechanism



# Bundling EE in existing public buildings

## Aggregation of Buildings:

1. Buildings in Municipality A
2. Buildings in Municipality B
3. Buildings in Municipality C
4. Buildings in Municipality D
5. Buildings in Municipality E
6. Buildings in Municipality F
7. Buildings in Municipality G
8. Buildings in Municipality H
9. Buildings in Municipality I
10. Buildings in Municipality J

n Municipalities  ~ x million inhabitants



Interactive depository for bundles development



Typical public buildings:  
schools, & sports centres, hospitals, etc..

## On-going work:

- Data collection for technical assessment is in progress
- Active engagement with local CoM offices
- High potential for replication across typical buildings
- Current countries for replication in the UNECE region:  
Belarus, Georgia, Armenia



# On-going work on EE street lighting

## Aggregation of Municipalities

1. Municipality A
2. Municipality B
3. Municipality C
4. Municipality D
5. Municipality E
6. Municipality F
7. Municipality G
8. Municipality H
9. Municipality I
10. Municipality J



10 X Municipalities



1. Forecast savings & Bundling

2. Project development



3. Financing



4. Public procurement



5. Implementation

## On-going work in Argentina:

- Technical assessment for the bundle is completed
- 41 municipalities
- Light fixtures to replace: 268.778
- Approximate total investment: 135 Million US \$



# Potential replication in Southeast Asia

- Rapid assessment at the local level in the national context
- Collaboration with BEA
- Data collection through the engagement with the local authorities
- Identification of energy efficiency opportunities and priority areas for project development
- Development of the methodology for projects aggregation (mid-term)
- Example: construction of EE hotels



Da Nang, Vietnam, city view

# THANK YOU!



## Knowledge Management System

The Copenhagen Centre's Knowledge Management System (KMS) engages stakeholders in energy efficiency initiatives through knowledge sharing and outreach. The KMS provides users with access to selected information, reports, publications, and databases on energy efficiency. The KMS is linked to many other energy efficiency initiatives.

<http://kms.energyefficiencycentre.org/>



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# Building Efficiency Accelerator



## GLOBAL ENERGY EFFICIENCY ACCELERATOR PLATFORM

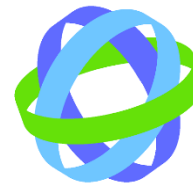
# Building Efficiency Accelerator

5 June 2018



WORLD  
RESOURCES  
INSTITUTE

**I.C.L.E.I**  
Local  
Governments  
for Sustainability



WORLD  
GREEN  
BUILDING  
COUNCIL

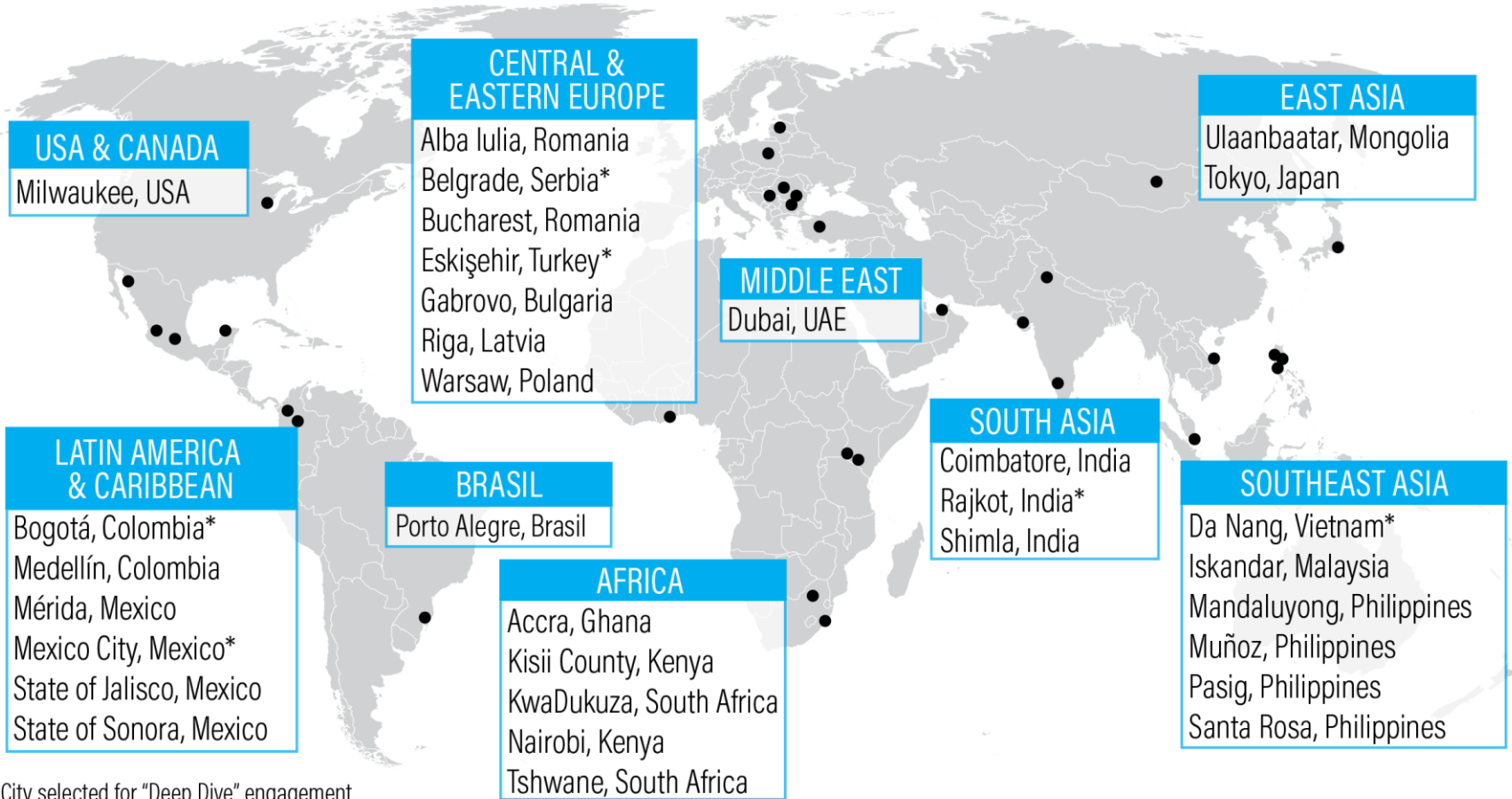


**UN**  
environment



**Building  
Efficiency  
Accelerator**

# BEA Partner Jurisdictions



\*City selected for "Deep Dive" engagement

# What are cities signing up to do?

## Overarching commitment:

double the rate of building energy efficiency by 2030 in targeted sector within the jurisdiction

Implement one enabling **policy**

**Policy**

Implement one or more pilot **project**

**Project**

Track and report progress, and **share experiences** with other governments

**Tracking & communication**



# 2015-2017 BEA Accomplishments



**253 CITIES**

reached with Building Efficiency Accelerator (BEA) resources



**47 COMMITMENTS**

on building efficiency action from

**25 CITIES**



**9 GLOBAL  
& REGIONAL EVENTS**

with 300+ participants



**18 LOCAL EVENTS**

meetings and workshops  
with 500+ participants



**21 WEBINARS**

with 1,000+ participants  
from 121 countries

9 BEA cities engaged with potential funders at 2017 SEforALL Forum to discuss projects with investment potential of at least

**\$1.5 BILLION USD**



**8.3 MILLION TONS  
CO<sub>2</sub> EQUIVALENT**

Avoided through 2030 based on BEA deep dive city actions under development, saving over \$1B in energy costs



Learn more at [buildingefficiencyaccelerator.org](http://buildingefficiencyaccelerator.org)

## Available to all partner jurisdictions:

- Assigned BEA point of contact (local & global)
- Assessment and action prioritization process
- Resources and assistance from technical work groups of global partners
- Webinars, trainings, regional meetings
- Matchmaking with peer, inspiring, or aspiring cities

## 6 BEA jurisdictions selected as “deep dives”:

- Funding: one full-time staff from BEA partner to support jurisdiction for 12-16 mos
- Coordinate prioritization, planning, implementation of building efficiency actions
- Resulting in:
  - Enhanced staff capacity and building efficiency focus
  - Facilitation and development of local multi-stakeholder partnership
  - Prioritization of actions and implementation assistance by leveraging BEA partners



Building Efficiency Accelerator

# Da Nang, Vietnam



**Policy:** Energy code; Energy use transparency for large buildings.

**Project:** Provide assistance for retrofit of 1+ hotel.

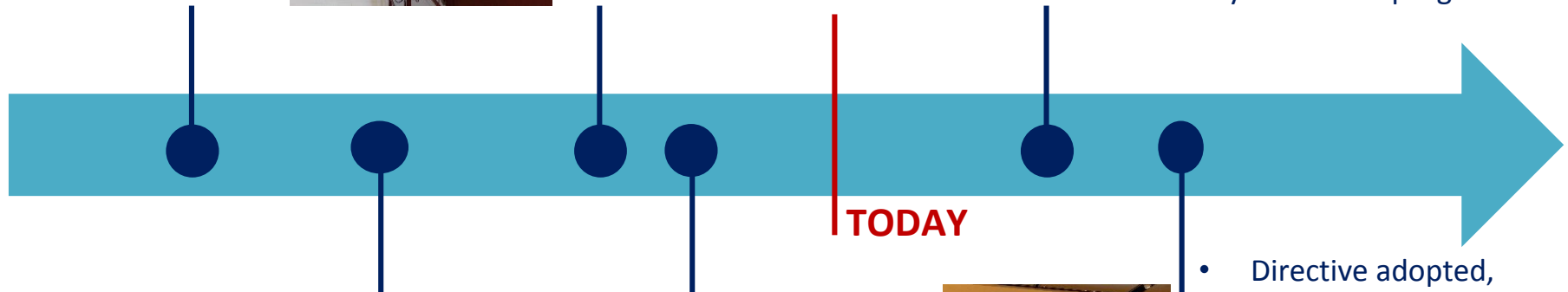
## Sep - Dec 2016:

Launch workshop, working group meetings, actions selected.



**April 2017:** Draft directive on department coordination to implement code and transparency.

- Retrofit scope finalized, measures installed and verified.
- Potential next phase: Development of efficiency assistance program.



**Jan-May 2017:** Engagement of hotel owners on EE opportunities, assessment of buildings, detailed audit completed on 1 hotel.



## May 2017:

- City presents BEA work to national government and international partners
- Hosted first in a series of trainings on energy codes and building efficiency for officials and builders.



- Directive adopted, specific actions identified, responsible parties act.
- Participation in code training and study visit to Singapore
- Implement energy code
- Implement annual energy use reporting



**Building  
Efficiency  
Accelerator**

# BEA activities and events in Asia



## City stakeholder and activity development events

- BEA Da Nang Kickoff Workshop – September 2016
- BEA Rajkot Kickoff Workshop – November 2016
- BEA Coimbatore Workshop – March 2017
- BEA Iskandar Local Stakeholder Meeting – September 2017
- BEA Shimla Workshop – November 2017
- Da Nang Phase 1 Close Workshop – November 2017



## Regional/national exchange and learning events

- ICLEI World Congress – Seoul - April 2015
- BEA Regional Partners Meeting - Singapore - September 2016
- BEA Philippines Knowledge Share Event - Manila - December 2016
- BEA East Asia Launch at MOHURD Conference - Beijing – March 2017
- BCSE/BEA Side Event at Clean Energy Ministerial – Beijing – June 2017
- Building Efficiency Accelerator Philippines Mobile Workshop – November 2017
- Summit of International Partnership for Green & Smart Cities, Langfang, China - May 2016





## Phase 2 – Submitted GEF Project Proposal

1. Deepen partnerships with existing BEA cities (30)
  - Support city implementation of a policy, pilot project and performance tracking method
  - Assist cities in identifying programmatic pathways to achieve increasingly ambitious targets
  - Help cities institutionalize policies, programs and investment mechanisms for long term impact
2. Expand our network to include new city partnerships (30)
3. Strengthen private sector engagement (30+ new companies/organizations: global, regional, national, or local)
  - Obtain specific private sector commitments to support local, national or regional action
4. Develop new national government partnerships (3 countries each with 3+ BEA cities)
  - Improve coordination between national and local policies, programs and actions
5. Facilitate the development and financing of local project pipelines and programs





# Criteria for Deep Dive and National Engagement Selection

- Deep dive applications received from 14 cities in 10 countries
- Aligned city and national assessments
- 12-17 selection criteria across 4 categories
  - Impact potential
  - Political will
  - BEA capacity and track record
  - Influence, replicability and scaling
- Recommendations for 1<sup>st</sup> round of deep city and national engagements to Steering Committee by July