



SUSTAINABLE
ENERGY FOR ALL

**Way forward for the promotion of
energy efficiency in the expanded
city areas**

**SE4ALL Energy Efficiency Forum
on Cities
Toyama and Tokyo**

28-30 October, 2015

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SE4ALL FLAGSHIP PROGRAMMES

□ Country Actions

- For energy access, renewable energy and energy efficiency

□ Global Energy Efficiency Accelerator Platform

- For energy efficiency
- Countries, cities and other jurisdictions

□ High Impact Opportunities

- 50 HIOs in 11 action areas (cover all objectives)

Global Energy Efficiency Accelerator Platform

The **Accelerator Platform** was established to support specific sector-based energy efficiency accelerators

Transport and Motor Fuel Efficiency

Improve the fuel economy capacity of the global car fleet



Lighting

Global market transformation to efficient lighting



Appliances & Equipment

Global market transformation to efficient appliances & equipment



Building Efficiency

Promote sustainable building policies & practices worldwide



District Energy

Support national & municipal governments to develop or scale-up district energy systems



Industrial Energy Efficiency

Implementing Energy Management Systems, technologies & practices



Power Sector

Improving the efficiency of generation, transmission, distribution & end-use



Finance

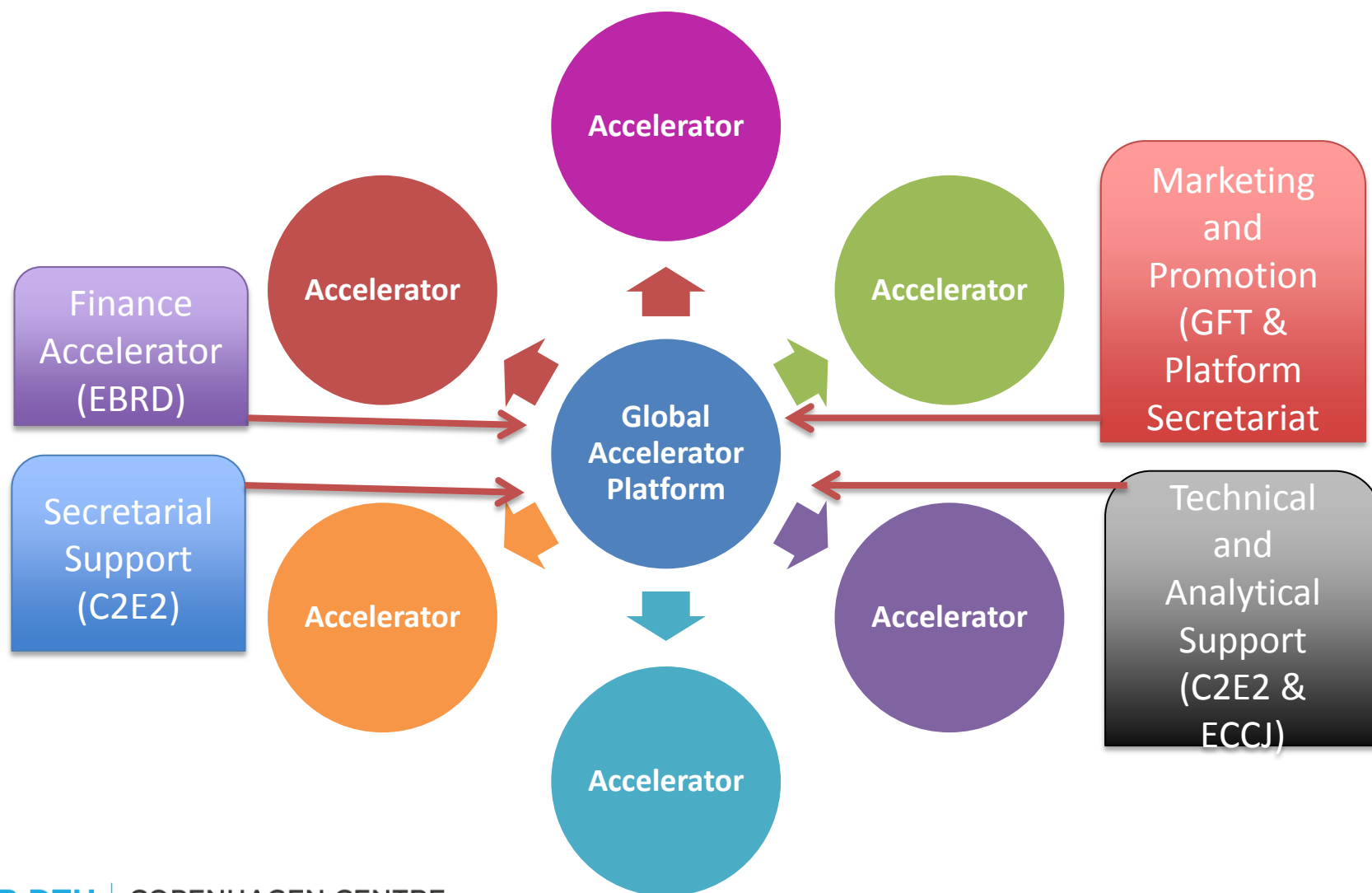
Accelerating investment in energy efficiency



COPENHAGEN CENTRE
ON ENERGY EFFICIENCY
SE4ALL EE HUB



Global EE Accelerator Platform



Global Accelerator Platform

- A country or city or any other jurisdiction can join one or more accelerators
- Accelerators offer a variety of opportunities- ranging from awareness about the opportunities to capacity building and implementation of real projects
- Opportunities to establish a PPP, collaborate and work with a variety of EE stakeholders, including experts, institutions and businesses
- Access to a variety of resources including tools kits, databases, publications and others
- Finance facilitation for Energy Efficiency Projects
- SE4ALL branding to engage various stakeholders, both in public and private sector

Cities Energy Dilemma

Secured, Affordable, and Environmentally friendly
Energy for use in;

- Buildings
 - Heating and cooling
 - Lighting
 - Appliances
- Water system
- Transport
- Waste management
- Industry

Cities Responses

Driving forces- Energy Use and Climate Change

■ Institutional

- The Covenant of Mayors (CoM)- Launched in 2009- 400 Mayors agreeing to the energy and climate targets of the EU.
- C-40 initiated by London Mayor in 2006 with 40 cities- global network of large cities taking action to address climate change
- ICLEI network of over 1,000 cities, towns and metropolises committed to building a sustainable future.
- ...

Cities Responses

- Carbon reduction targets – e.g.
 - Compact of Mayors- 200 cities with specific targets
 - Copenhagen carbon neutral by 2025, 15 C-40 cities 80% reduction by 2050, King County cities- 80% reduction by 2050
- Sectoral Actions- e.g.
 - Building Sector- Building codes, passive design, district heating and cooling
 - Transport Sector- BRT, bicycles, vehicle fuel standards, vehicle pollution standards, congestion charges
 - Street lighting

SE4ALL Global Accelerator Platform- Engagement with Cities -

Building and District Energy Accelerators

District Energy Accelerator

Multi-stakeholder partnership which aims to accelerate the transition to low-carbon & climate resilient societies through modern district energy systems.

The initiative will leverage the pool of expertise across its partners to:

- **INCREASE** awareness on the potential of district energy and its role in achieving multiple benefits, showcase good practices and successful efforts globally;
- **PROMOTE** and strengthen local and national policies and enabling environments, including by identifying and overcoming barriers, enhancing capacity, and mobilizing support;
- **ENCOURAGE** the participation of private sector operators and investors to take a lead role in the shift towards modern district energy systems.

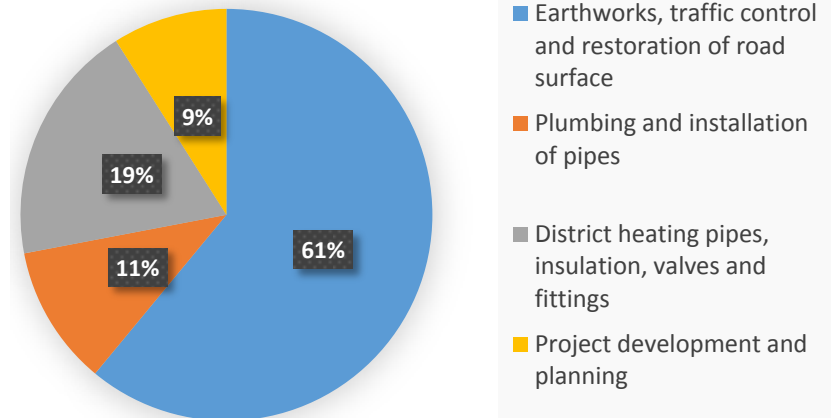


District Energy Accelerator

Focus on: Coordination

- Coordination lowers project costs and attracts private finance.
- Pilot projects could demonstrate coordination structure alongside demonstrating policies or technologies.
- Best practise: A specific structure for coordination that is a contact point for private sector.
- Can be a city department or an independent body formed of public and private players.
- Key actors: local planning department, building developers, district heating companies, transport authorities, waste collection department, heating regulator, water and gas utilities.

Inner city network costs, Sweden.



Partners and supporters of the Initiative



Building Efficiency Accelerator

BEA is devoted to help cities and sub-national governments speed up adoption of best-practice policies and implementation of projects on EE in buildings

Goal: to double the rate of energy efficiency improvement by 2030 in each participating jurisdiction

Three pillars of BEA's work

**Public-Private
Partnership**

Focus on Cities

**Policy & Project
Development**



Buildings - key to sustainable future



- Buildings account for:
 - more than one third global final energy demand
 - 60% of the world's electricity use,
 - one-third of energy-related CO2 emissions,
 - two-thirds of halocarbon,
 - and 25–33% of black carbon emissions (GEA 2012)
- At the same time the building sector offers near-term, highly cost-effective opportunities to curb energy-demand growth rates (IPCC 2014)
- Existing technological and design best-practices proved that up to 90% of energy use can be saved in buildings
- World Resources Institute and Johnson Controls have been lead on developing this Accelerator

Menu of Policy Options

Codes

- Building codes to establish minimum requirements of energy performance.

Targets

- Targets to align interests and spur action in the building sector.

Government Leadership

- Programs to support government efficiency, including public building retrofits and innovative procurement.

Benchmarking & Disclosure

- Policies that generate data, baselines, and disclosure to support transparent building performance to the market.

Financial Mechanisms

- Programs and incentives to provide funding to building efficiency improvements.

Utility Actions

- Planning and programs for utility companies for energy efficiency progress.

Certifications

- Certifications including green buildings that allow market differentiation of key environmental attributes.

BEA City Engagement Process

Light Touch



Commitment

Assessment

Development

Implementation

Improvement

Deep Dive



Partners

Coordinating partner:



WORLD
RESOURCES
INSTITUTE

WRI ROSS CENTER FOR
SUSTAINABLE
CITIES

Cities:

Mexico City, Milwaukee, Toyama, Warsaw

NGOs/Associations:

Global Buildings Performance Network

Global Green Growth Forum

ICLEI

UN Environment Programme

UN Foundation

US Green Building Council

World Business Council for Sustainable
Development

World Green Building Council

Companies:

Accenture

Alstom

China Energy Conservation and
Environmental Protection Group (CECEP)

Danfoss

Johnson Controls

Philips

Saint-Gobain

TECNALIA

The UNEP en.lighten initiative

Accelerating the global transition to efficient lighting by building competence and political will

- Established 2010
- Public-Private Partnership
- Incandescent lamp phase-out
- 67 country partners
- 6 National/Regional Efficient Lighting Strategies covering 37 countries
- SE4ALL high impact activity



Outcome: Policy + regulation to phase-out inefficient incandescent lamps, and accelerate use of efficient lighting technology.



Global Fuel Economy Initiative



Instruments Supported

Regulatory policies

+ National Standards

- Import Restrictions
- Technology Mandates

Economic instruments

Traffic control measures

Information Technology

THE GFEI FUEL ECONOMY TARGETS

From 2005 baseline:

30%

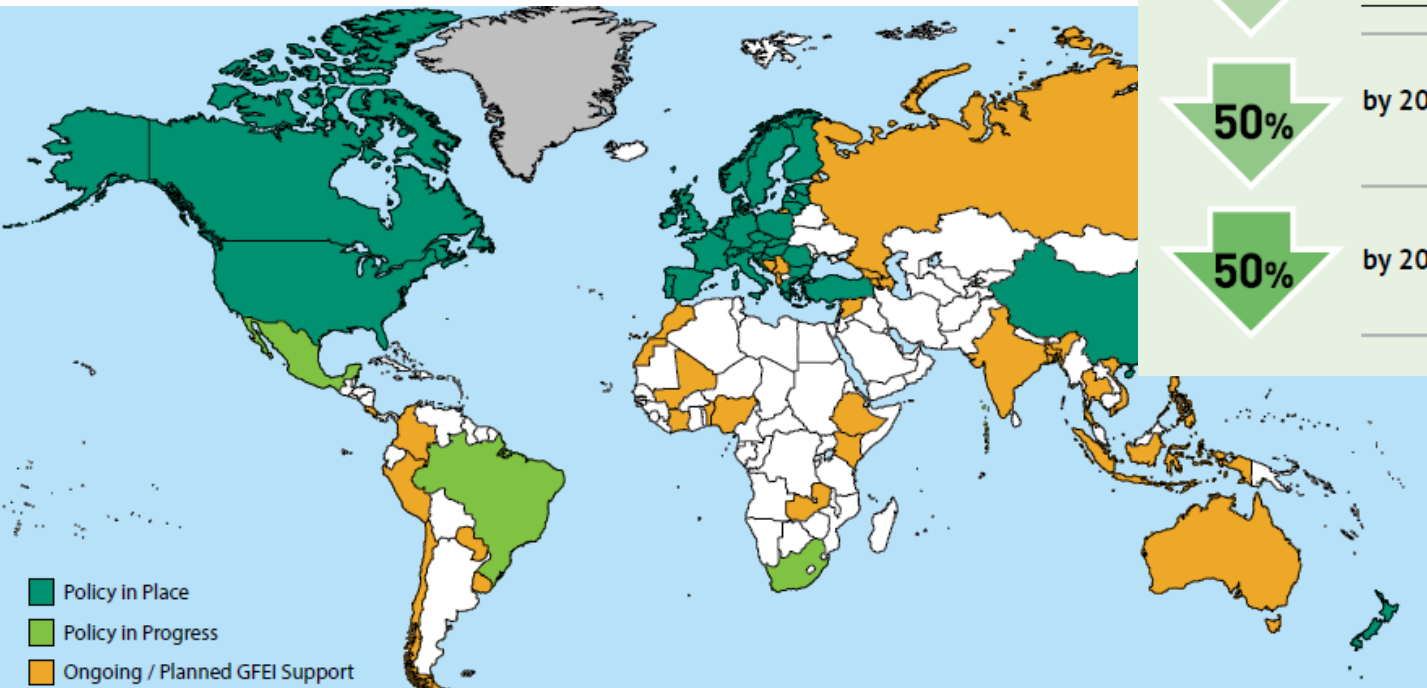
reduction in L/100km by 2020 in
all new cars in OECD countries

50%

by 2030 in all new cars globally

50%

by 2050 in all cars globally



OTHER GFEI SUPPORTERS



Thank You

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