

Copenhagen Centre on Energy Efficiency- Work Programme and On-going Activities

Presentation - Morocco
Delegation Visit

October 21, 2014



Sustainable Energy For All (SE4ALL)

- Our Global Energy System Must Meet the Needs of
 - Today...and Tomorrow
- SE4ALL a Multi-stakeholder partnership between governments, private sector, civil society
- Launched by UNSG in 2011 after 2 years of preparation with 3 interlinked objectives until 2030
 - Ensure universal access to modern energy services
 - Double share of renewable energy in global energy mix
 - **Double global rate of improvement in energy efficiency**

www.se4all.org

Key components and Stakeholders

An Inclusive Agenda

All parties must act...

...and work together to realize a world with Sustainable Energy for All

Governments

National governments
Public institutions
Cities and municipalities
Multilateral organizations
Bilateral development partners

Businesses

Energy companies
Financial players
All companies

Civil society

Organization
Academic institutions
Individuals



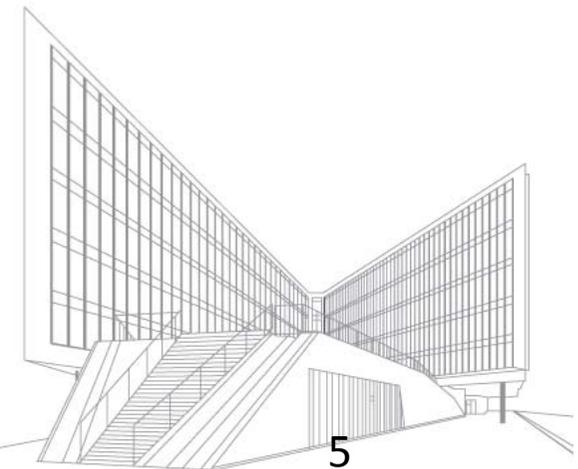
Copenhagen Centre on Energy Efficiency (C2E2)

- 1. Energy Efficiency Hub - Copenhagen Centre on Energy Efficiency (C2E2) under UNEP-Danish Technical University Partnership
- 2. Basic funding from Danish Government
- 3. Main Work Areas of the
 - Global Champion on Energy Efficiency
 - Analytical and Technical Support
 - A Knowledge Platform and Network for Energy Efficiency
 - Additional areas:
 - Support to Accelerators
 - Support to EE Committee
 - Platform for match-making (potential donors and project proposers)
 - Synergy with renewable energy with respect to SE4ALL



ENERGY EFFICIENCY HUB OBJECTIVES

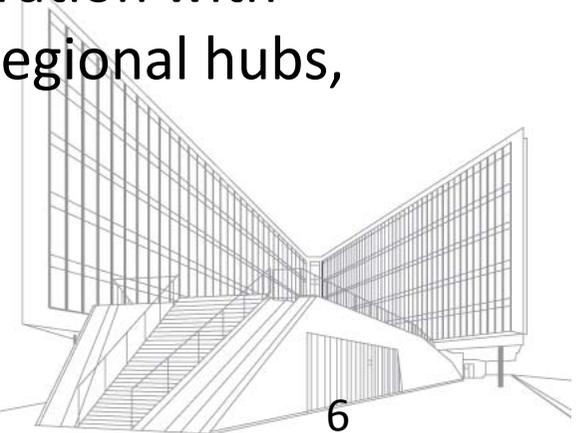
- Play a crucial role in achieving the SE4ALL energy efficiency objective
- Establish the hub as a knowledge centre for international collaboration and exchange of know-how on energy efficiency
- Support developing countries in achieving their EE goals



KEY FOCUS AREAS

SUPPORT TO SE4ALL ENERGY EFFICIENCY GOAL

- □ Global Champion for SE4ALL Energy Efficiency goal
 - Analysing pathways to achieve the EE goals
 - Engaging private sector in the SE4ALL EE initiative
 - Energy efficiency advocacy and global outreach at high level events and meetings
 - Awareness raising on EE initiatives and opportunities
 - Tracking progress of EE in SE4ALL countries, as well as globally to meet the EE goals, in collaboration with SE4ALL partners (IEA, the World Bank, Regional hubs, and others)



□ Analytical and other support to SE4All energy efficiency goal

- Assessment of national, regional and global strategies, commitments and action plans for EE
- Assessment of HIOs in energy efficiency for SE4ALL countries, BRICS, OECD and their global contribution

What is an HIO?

HIOs are categories of action that have been identified as having significant potential to advance the three objectives of Sustainable Energy for All (SE4ALL)

Over 50 High Impact Opportunities have been identified to date. Some examples include: Advanced Lighting and Appliance Efficiency, Building Energy Efficiency, Energy and Women's Health, Finance, Modern Cooking Appliances and Fuels, Off-Grid Lighting and Charging, Phase out of Gas Flaring, Sustainable Bioenergy, Sustainable Energy for Island Economies, and Vehicle Fuel Efficiency.

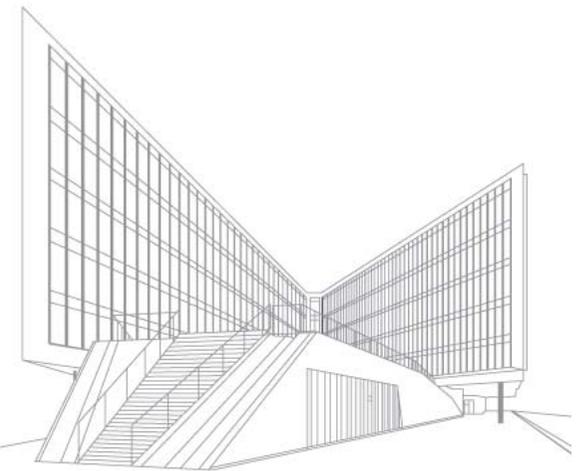


KNOWLEDGE CENTRE ON ENERGY EFFICIENCY

- Building / collaborating for creation of database on EE activities in the countries, EE Expert organisations, and other EE stakeholders
 - Building a network of EE stakeholders and engaging with experts and institutions worldwide
 - Providing a platform for sharing successful EE stories through workshops/ webinars / exchange forums/ networks / website / social media etc.
 - Facilitating collaboration on EE among SE4ALL countries and others



- One-stop shop for information, expertise, best practices, and collaboration opportunities for a varied range of stakeholders
 -
- Carrying out analytical work for EE promotion in areas where gap exists



SUPPORT TO DEVELOPING COUNTRIES

- Supporting inclusion of energy efficiency in national SE4ALL strategies
-
- Supporting developing countries and other stakeholders in implementing and achieving their energy efficiency objectives through partnership, networking, and access to information
- Supporting in countries in identification implementation of High Impact Opportunities (HIOs) in energy efficiency
- Facilitating financing of EE initiatives in SE4ALL countries through information sharing on financing opportunities

- Facilitating implementation of EE measures in countries (policy and others) through data and information sharing on successful initiatives
- In select cases, providing technical assistance to developing countries on their EE initiatives
(Eg. in identification of technologies, sectors, potential, policies and best practices to achieve SE4ALL goals)
- Promoting EE actions as nationally appropriate mitigation actions
- National/regional capacity building through workshops and awareness training, if needed



Global Platform on Energy Efficiency Accelerators

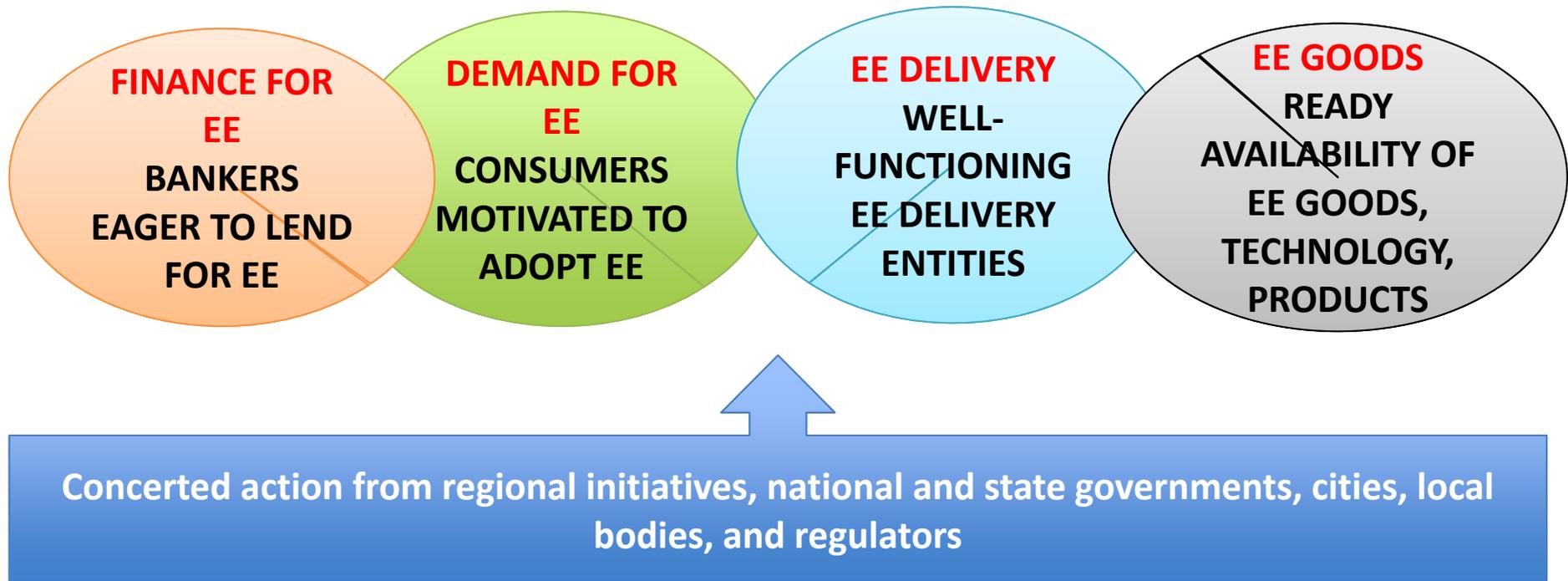


SE4ALL EE Accelerator Platform

- Work program focus for the EE Committee.
- Display concrete transformational initiatives/instruments in support of the SE4ALL efficiency objective.
 - *Global Public-Private Alliance on Accelerating Energy Efficiency*
 - *Focus on the interphase between sector/technology initiatives, policy and consumption aspects (countries, cities, companies) and finance - in a phased approach.*
 - *Initial accelerators focus on lighting, appliances, buildings, district energy systems and transport (vehicle efficiency)*
 - *Umbrella approach with individual groups engaged on each topic, each group has an industry co-lead*
 - *Implemented in cooperation with governments, cities and major private consumers.*
 - *Umbrella approach presented at UN SG CC Summit - Sept 2014*
 - *Larger showcasing envisaged in Paris 2015.*

For energy efficiency to happen, you need coordinated action from several stakeholders.

- Consumers willing to adopt EE,
- Bankers willing to finance EE,
- Energy delivery entities to deliver EE,
- Availability of EE goods and services in the market place,
- AND ABOVE ALL governments, cities, public bodies and regulators to make commitments and create conducive conditions for consumers, bankers, energy delivery companies and EE goods and service providers to help fulfill commitments.



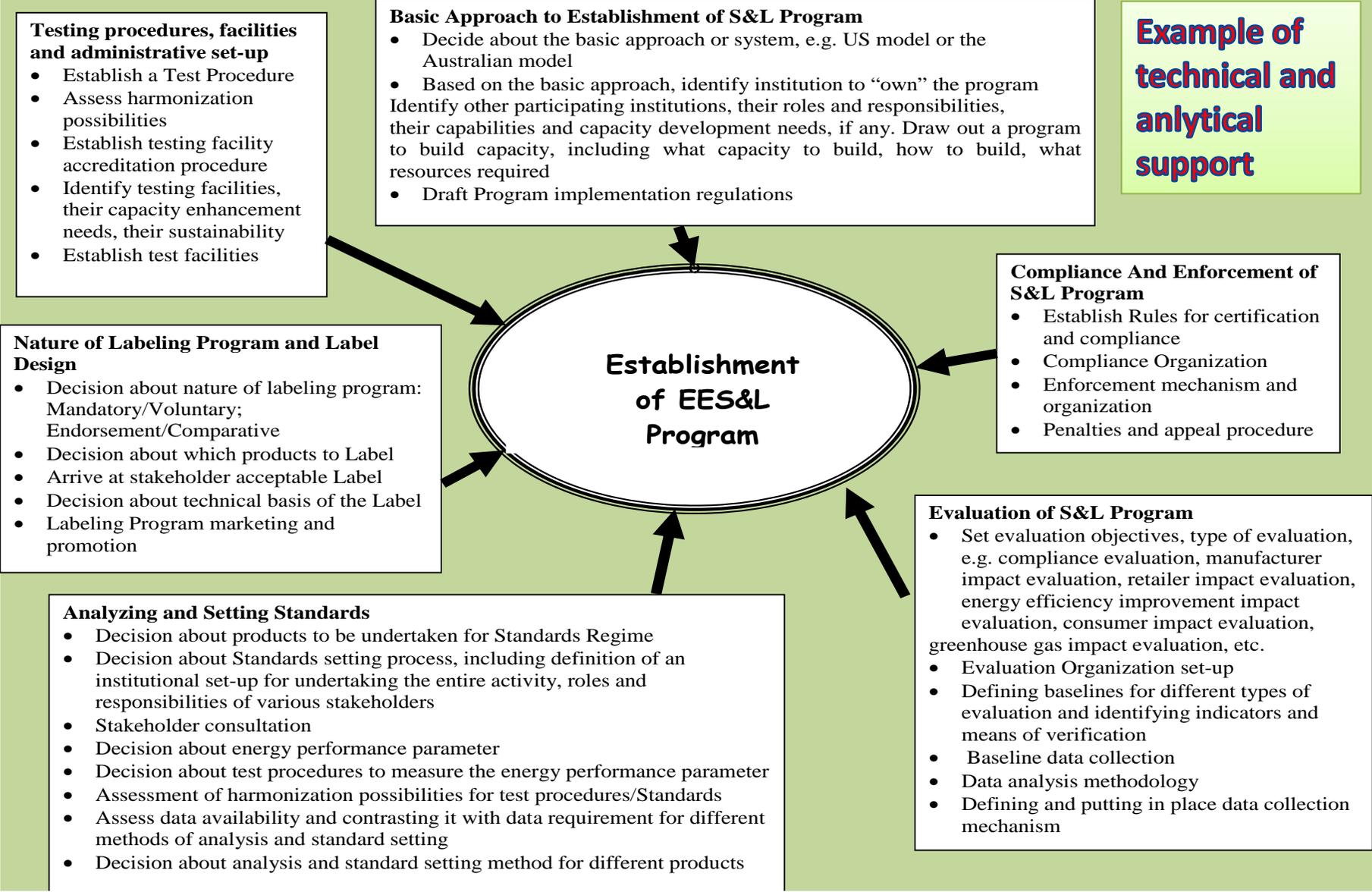
Copenhagen Centre on Energy Efficiency (C2E2)

● Support to Accelerators

- Function as secretariat for Accelerators - synergy between Accelerators
- Technical and analytical support
 - knowledge platform for comprehensive documentation and dissemination of various energy efficiency policies, including best practice tools and instruments.
 - analytical support at the national, regional and sub-national levels to analyse the efficacy of various best practices as well as innovative policy options
 - analysis of tools and instruments best suited for giving effect to policies under circumstances and conditions obtaining locally



Example of technical and analytical support



Lighting and Appliance Accelerators

- Global transition to widely available efficient lighting solutions in all lighting sectors by 2030 could reduce electricity demand by some 30 %.
- An increasing global demand for appliances like air conditioners, refrigerators and televisions requires increased energy efficiency.

Country-level actions	City-level actions	Industry actions
<ul style="list-style-type: none"> • Standard and labelling legislation/regulations • Harmonised test methods • Minimum energy performance standards • Energy rating labels • Endorsement labels • Monitoring, verification and enforcement • Rebates and incentives • environmentally sound management e.g. recycling, disposal • Education and awareness campaigns 	<ul style="list-style-type: none"> • Rebates and incentives • City procurement policies • environmentally sound management e.g. recycling, disposal • Education and awareness campaigns 	<ul style="list-style-type: none"> • Rebates and incentives • Innovation commitments e.g. high quality and green products • Commitment to affordability and marketing • environmentally sound management e.g. recycling, disposal • Education and awareness campaigns

Building Accelerator

- Policies, building design and technologies combined with behaviour change could deliver reductions in energy demand from new and existing buildings of over 50% compared to BAU.

Country-level actions	City-level actions	Industry actions
<ul style="list-style-type: none"> • Energy reduction targets in the building sector • Building Codes • Supportive enabling legislation can support infrastructure investment • Incentives e.g. Tax relief • Mandatory disclosure of building performance • Minimum standards for new buildings • Regulating the retrofit and renovation of existing buildings • Financial support e.g. underwriting loans, revolving funds • Green procurement standards for public buildings • Retrofitting existing government buildings and leased space • Education and awareness campaigns 	<ul style="list-style-type: none"> • Building codes • Enforce building codes. • Incentives e.g. Tax relief or EE construction/retrofits • Integrated policy roadmap • Energy reduction targets in the building sector • Minimum standards for new buildings • Retrofitting programs for existing buildings • Green procurement standards for public buildings • Education and awareness campaigns • Development planning e.g. zoning, density, orientation. • Priority approval processes for efficient buildings. 	<ul style="list-style-type: none"> • Low interest and longer term loans • Demonstrate energy efficiency innovation in buildings • Education and awareness campaigns • Utility policies that decouple profits from volumetric sales. • Energy Service Companies (ESCOs)

District Energy Systems (DES) Accelerator

- Bringing more effective ways to distribute electricity as well as heating and cooling is estimated to deliver 80 to 90% efficiency gains relative to conventional separate generation of electricity and heat.

Country-level actions	City-level actions	Industry actions
<ul style="list-style-type: none"> • National DES targets • Quantifying and promoting benefits of DES • Energy policies and programs that facilitate the deployment of district energy systems 	<ul style="list-style-type: none"> • City DES targets • Dedicated individual/committee to promote DES • Energy mapping and infrastructure planning • Land use policies promoting DES • Quantifying and promoting benefits of DES • Interconnection policies • Promote local energy sources e.g. renewable energies, waste heat • Local resource and demand mapping 	<ul style="list-style-type: none"> • Invest and finance DES systems • Education and awareness campaigns • Partnering city governments • New management skills (service quality)

Vehicle Accelerator

- Global fleet of vehicles is set to increase from 850 million today to some 3 billion by 2050 with most of increase in developing countries and transition economies – transport sector as a whole has highest growth of CO₂ emissions of any sector.

Country-level actions	City-level actions	Industry actions
<ul style="list-style-type: none"> • Transport efficiency targets • Vehicle efficiency/emission standards • Fuel quality standards • Import regulation to control import of old inefficient vehicles • Labelling • Incentive schemes to retire old inefficient vehicles • removal of fuel subsidies • Preferential tax incentive for efficient vehicles • Incentive schemes to retire old inefficient vehicles • Improving inspection and maintenance • Education and raising awareness • Funding research and development 	<ul style="list-style-type: none"> • low emission zones • Reduced parking fees for EE vehicles • Reduced fuel consumption targets • Improve public transport network including use of clean technologies • vehicle efficiency/emission standards • regulate the number of cars on roads • Improving inspection and maintenance • Education and raising awareness 	<ul style="list-style-type: none"> • Commitment to technological innovation to improve vehicle efficiency • Education and raising awareness • Funding and prioritising research and development



●

Thank You!

Jyoti Prasad Painuly
Head
Copenhagen Centre on Energy Efficiency
UNEP-DTU Partnership
Deptt. of Management Engg., DTU
UN City, Copenhagen
jypa@dtu.dk

THANK YOU