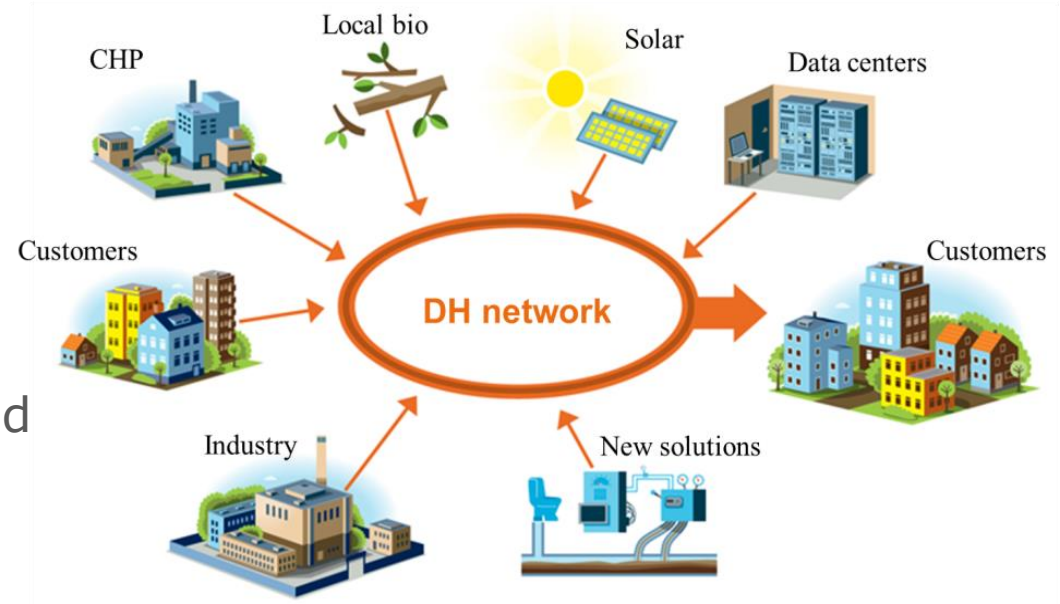
UPDATE FROM CLEAN ENERGY MINISTERIAL CHP/DHC WG

CLEAN ENERGY MINISTERIAL CHP/DHC WORKING GROUP
INTERNATIONAL ENERGY AGENCY CHP/DHC COLLABORATIVE
JOINT WORKSHOP
27 – 28TH MAY, 2014
PARIS, FINLAND



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WHY THE CEM?

- CEM is uniquely positioned to deliver real results
  - 23 economies
  - 80% of global CO_2 emissions
  - 90% of global clean energy investment
- Three part strategy
  - High level dialogue
  - Technical cooperation
  - Engagement with private sector and other stakeholders

Voluntary Constructive Collaborative

Producing tangible results…

CLEAN ENERGY MINISTERIAL
Accelerating the Transition to Clean Energy Technologies

STRATEGIC OBJECTIVES

- Efficiency of CHP to reduce emissions and use of fuels is very often underestimated.

- Consequently, the objective of the CHP Working Group is to increase awareness of the potential of CHP and DHC (District Heating and Cooling) by
  - Identifying existing barriers to increase CHP/DHC
  - Introduction of enabling policies to overcome barriers
  - Sharing best practices for promoting CHP and DHC adoption in public and private sectors

Objectives of Revised Strategy

Realize the potential through increased ambition and engagement

- Elevate discussions to reinvigorate Minister-level participation and engagement
- Ensure initiative work is ambitious, relevant and continues to progress
  - Gain commitments for scaled-up financial, technical and political support for initiatives
  - Align initiatives under thematic pillars
  - Identify ways initiatives can support domestic action
- Create more value for Ministers and other participants in roundtables
- Raise the public profile of the CEM and its achievements

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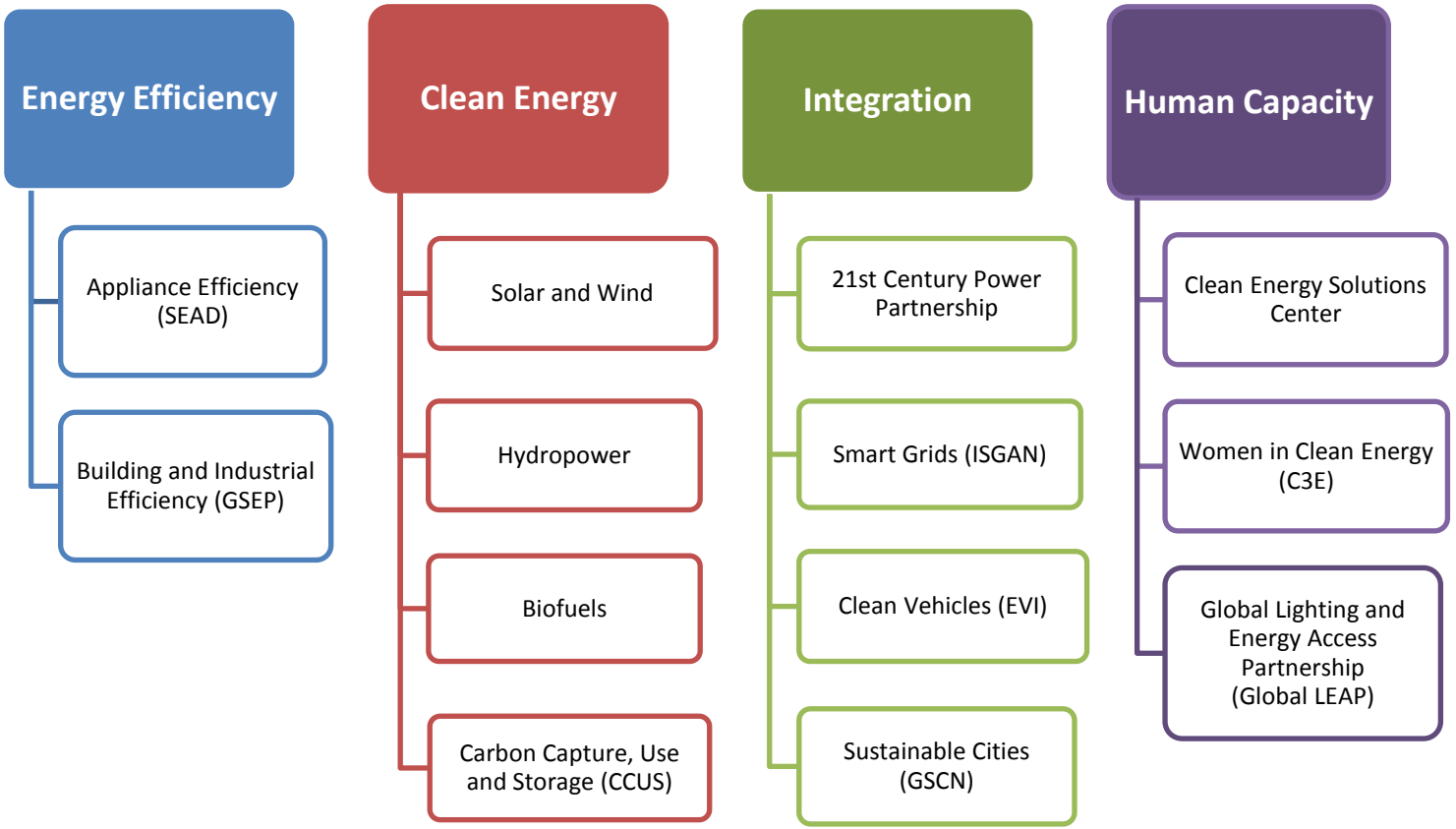
Initiative Structure

Proposed Structure: CEM Thematic Pillars

- Focus on thematic pillars and progress within them to streamline activities



MISSION OF CHP/DHC (COMBINED HEAT AND POWER AND DISTRICT HEATING AND COOLING) WORKING GROUP

- CHP/DHC WG will increase awareness about the vast potential of CHP and Efficient DHC to:
  - Reduce fuel consumption
  - Reduce emissions of greenhouse gases
  - Reduce emission of other air pollutants harmful to the environment and human health e.g. black-carbon
  - Increase the use of renewable resources for heat and power production
  - Reduce dependence on energy imported from other regions or countries
  - Increase economic competitiveness and generate employment.

CHP AND EFF DHC WG PARTICIPATION AND ACTIVITIES

- The activities of the last years have been carried out according to
- the working plan of WG. Participation includes
  - governments: Finland, Mexico, Russia, Sweden, USA, EU Commission
  - other organisations: International Energy Agency (IEA), Euroheat & Power, International District Heating Association (IDEA)
  - private sector several companies from different countries.

- Especially, creation the partnership with IEA CHP/DHC Collaborative has increased and accelerated activities and discussions with a larger group of stakeholders.

RECENT ACTIVITIES

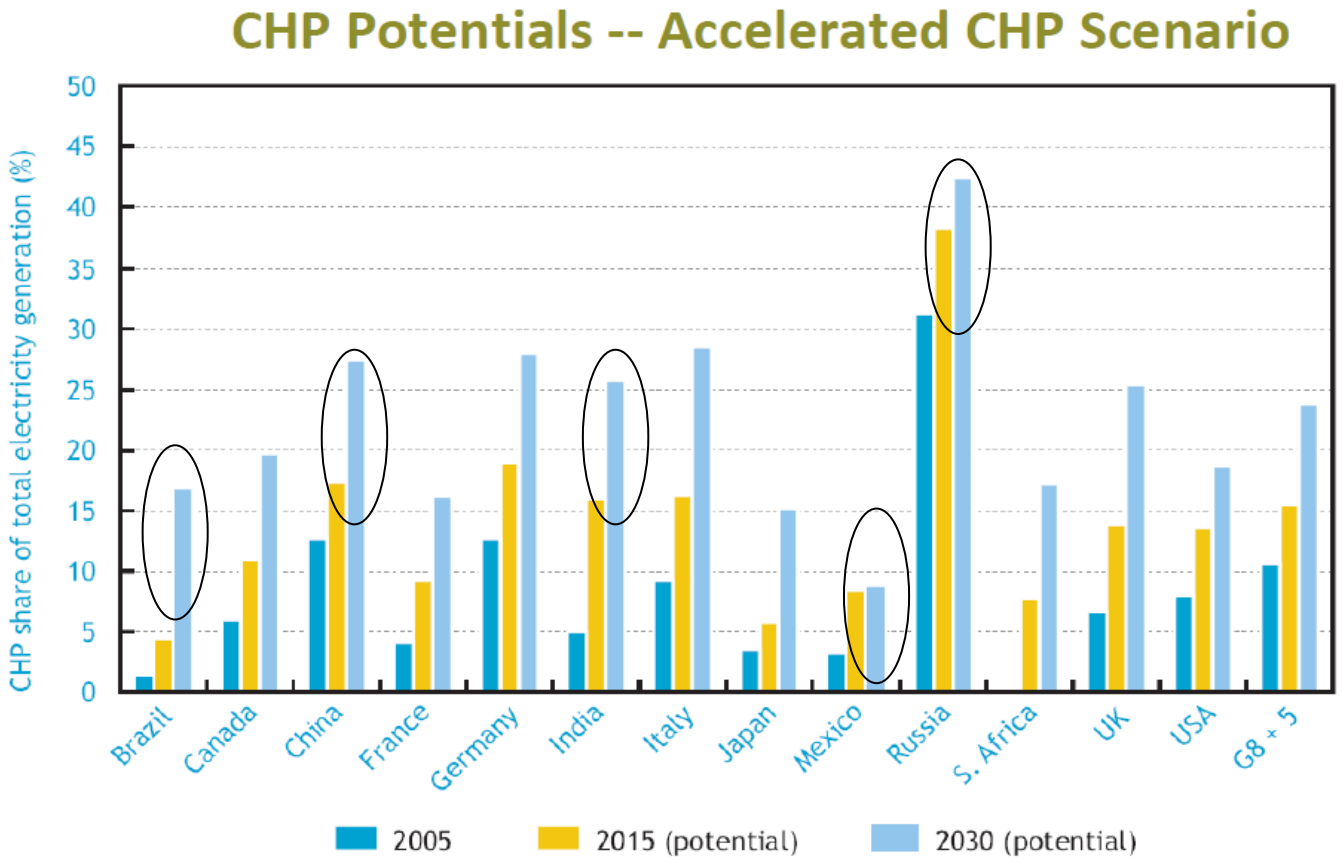
- CHP/DHC country scorecards providing a comprehensive snapshot of utility and industrial CHP applications, as well as integrated approaches of CHP within DHC networks, for Finland, Japan and Korea published by IEA in 2013 and for India in2014
- Meetings with GSCN and 21stCPP and Discussion with SENER about cooperation with Mexicoin Mexico City, February 2014
- CHP/DHC Working Group and IAE CHP/DHC Collaborative Joint Workshop November 26 – 27th , 2013 in Helsinki
- CHP-DHC WG and IEA CHP-DHC Collaborative had a WS on February 2013 in Paris to coordinate work activities moving forward
- Identification opportunities and barriers for CHP and DHC in countries at different stages of technology. A report for four country group published in CEM3, London, 2012.
- SharePoint site to share best practices, case studies, country potential estimates for CHP, technical information, tools and resources on CHP, launched in 2011

CHP/DHC WORKING GROUP AND IEA CHP/DHC COLLABORATIVE JOINT WORKSHOP *NOVEMBER 26 – 27TH , 2013 IN HELSINKI*

CONCLUSIONS…

- CHP/DHC Working Group will work with the IEA and other stakeholders to:
  - ✓ Produce additional CHP/DHC country scorecards
  - ✓ Produce a compendium of comprehensive applied case studies to highlight the role CHP and DHC can play in low-carbon energy systems
  - – **Develop key recommendations for the different stakeholders to increase the deployment of CHP/DHC solutions**
  - – **Examine possibilities for pilot and demonstration projects as well as investments in bilateral projects, and**
  - – **Increase co-operation with other organizations and stakeholders as well as with other CEM activities, including the Global Sustainable Cities Network initiative and the 21st Century Power Partnership**

SIGNIFICANT ADDITIONAL POTENTIAL IN CHP UTILIZATION



Source: IEA, *CHP: Evaluating the Benefits of Greater Global Investment* (2008)

FUTURE ACTIVITIES

- Increase co-operation with IEA, other organizations and stakeholders as well as other CEM activities, such as
  - Sustainable Cities
  - 21st Century Power Partnership
  - ISGAN
- to highlight possibilities of CHP/DHC to reduce energy consumption and emissions in decentralized, urban and industrial energy systems
- integration of intermittent renewable energy production and utilization of biomass and wastes as fuel

CHP plants transform fuels simultaneously into **both electricity and heat**

Heat can be utilised for either heating of **buildings** and tap water, or steam
and hot water in **industrial processes**. CHP plants can also provide **cooling**.