



**CEFIA**  
Cleaner Energy  
Future Initiative  
for ASEAN  
**ASEAN+3**

# Launching of the CEFIA Collaboration Roadmap

**Cebu, Philippines**

**16 February 2023**



## Objective of CEFIA

Contribute to the transition of the ASEAN countries towards a low-carbon society through facilitating specific business sector engagement in the areas of renewable energy and EE&C.

### Roles of the Collaboration Roadmaps

1. Serves as a platform for collaborations between public, private and academic sectors.
2. Clarifies collaboration between CEFIA and **APAEC Phase II: 2021 - 2025**.
3. Promotes collaboration among finance, frameworks, and low-carbon solutions.

**Collaboration  
Roadmap on  
Finance**



**Collaboration  
Roadmap on  
Flagship Projects  
(FP)**



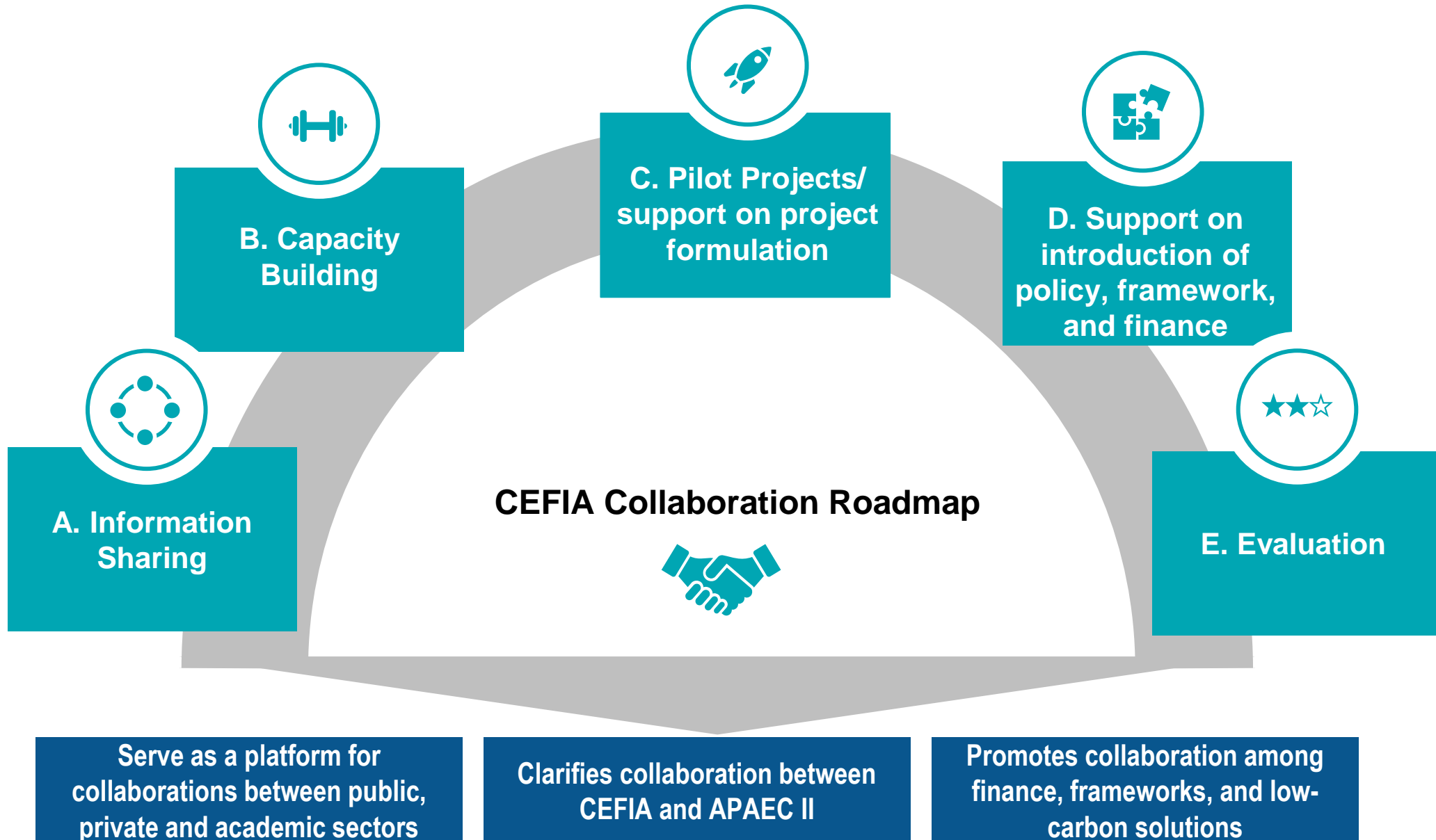
**Collaboration  
Roadmap on  
Visualisation**

# Process of CEFIA Collaboration Roadmap(s) Development



**NOTE: The Collaboration Roadmap would be a living document and will be continuously updated according to the progress of collaboration and AMS interest/ priorities/ suggestions.**

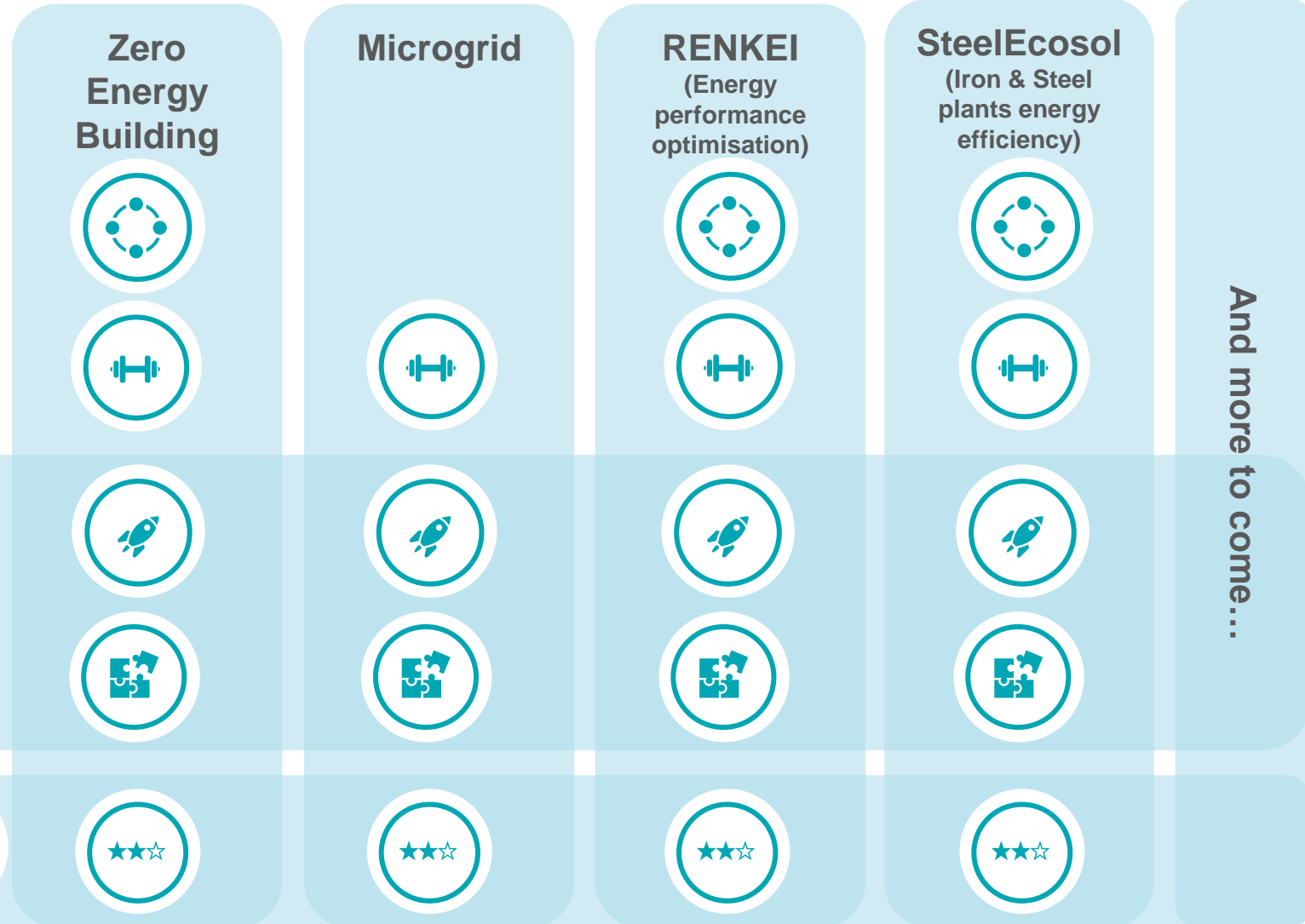
# Each collaboration roadmap comprises of five action areas








# Each action areas are integrated in the collaboration roadmap(s)

## CEFIA Flagship Projects

-  A. Info. sharing
-  B. Cap. building
-  C. Pilot projects
-  D. Policy, framework etc.
-  E. Evaluation



# The collaboration roadmap(s) are structured to show links with APAEC Phase II

<b>Overall target</b>		
	<b>A. Information Sharing</b>	<b>Outcome(s)</b> <b>Key activities</b>
	<b>B. Capacity Building</b>	<b>Outcome(s)</b> <b>Key activities</b>
	<b>C. Pilot Projects/ support on project formulation</b>	<b>Outcome(s)</b> <b>Key activities</b>
	<b>D. Support on introduction of policy, framework, and finance</b>	<b>Outcome(s)</b> <b>Key activities</b>
	<b>E. Evaluation</b>	<b>Outcome(s)</b> <b>Key activities</b>



<b>PA4. EE&amp;C</b>	<b>PA5. Renewable Energy</b>	<b>PA6. Regional energy &amp; planning</b>
<b>OBS1.</b> Expand, harmonise and promote energy efficiency standards and labelling on energy-related products	<b>OBS1.</b> Advance renewable energy policy and develop decarbonization pathway for the ASEAN member states	<b>OBS1.</b> To enhance the profile of ASEAN energy sector internationally
<b>OBS2.</b> Enhance participation of private sector and financial institutions including energy service companies (ESCO) and clusters for EE&C promotion	<b>OBS2.</b> Conduct high level policy dialogue on renewable energy to accelerate energy transition, access and resilience	<b>OBS2.</b> Raise the level of data and analysis on ASEAN's energy policy and planning
<b>OBS3.</b> Strengthen sustainability of energy efficiency in buildings	<b>OBS3.</b> Enhance renewable energy research and development (R&D) network	<b>OBS3.</b> Strengthen collaboration with development partners and international organisations
<b>OBS4.</b> Pursue energy efficiency in transport sector	<b>OBS4.</b> Promote renewable energy financing schemes and mechanisms for greater innovation and partnership	<b>OBS4.</b> Effectively manage the implementation of the APAEC
<b>OBS5.</b> Advance energy efficiency and energy management in industry	<b>OBS4.</b> Promote renewable energy financing schemes and mechanisms for greater innovation and partnership	<b>OBS5.</b> Attract investment and financing to accelerate ASEAN's energy infrastructure growth
	<b>OBS6.</b> Enhance the ASEAN renewable energy information and training centre	<b>OBS6.</b> Promote information sharing on the energy-climate nexus

# CEFIA Finance will contribute to PA4, PA5, and PA6 of APAEC Phase II

## Collaboration Roadmap for Finance

**Overall target**  
An enabling environment is created where finance is mobilized



A. Info.

**A. Finance knowledge hub** for FIs in ASEAN established

- Conduct **workshop** for FIs
- Develop **a knowledge hub** for FIs; good practices



B. Cap. build.

**B. Capacity of local FIs** enhanced to assess bankability of RE and EE&C projects

- Develop training materials
- Conduct **trainings** for FIs



C. Pilot

**C. At least one FP** receives finance

- Design **financial mechanisms**
- Conduct a **pilot study** with FIs



D. Policy, etc.

**D. A financing mechanism** is enhanced to accelerate low-carbon solutions **and** regulations and/or incentive schemes established

- Identify **options for acceleration**
- Strengthen **financing mechanisms**
- Identify **regulations and/or incentive** schemes for accelerated adoption

**NOTE: In the Actual CR, each activity has an indicative timeline**

**PA5, OBS4 AP4.1**

Establish a nodal network with at least one (1) national / regional / international financial institutions for RE financing

**PA6, OBS5, AP5.2** Conduct a workshop on evaluating financial sustainability to enable bankability of power projects

**PA4, OBS2 - AP2.5** Conduct information sharing on innovative EE financing mechanisms

**PA4, OBS2 - AP2.3** Establish at least two partnership schemes for EE&C with clusters, incubation centres, FIs and the private sector

**PA5, OBS4 AP4.2**

Develop RE support mechanism to promote bankable projects

**PA6, OBS5, AP5.1** Develop a Roadmap for 2021-2025 to enhance capabilities in enabling regulatory environments to attract investment in energy infrastructure and technologies

# CEFIA Visualisation will contribute to PA6 of APAEC Phase II

## Collaboration Roadmap for Visualisation

### Overall target

An Positive impacts and calculation of a low-carbon solution is known

### Output

### Activity



A. Info.

**A. Knowledge and best practices of quantification disseminated**

- Conduct **workshops**
- Conduct **networking events**



B. Cap. build.

**B. Knowledge/ skills on decarbonization technologies and quantification developed**

- Conduct **trainings**



C. Pilot

**C. Basic concept of visualisation outlined and Impacts quantified**

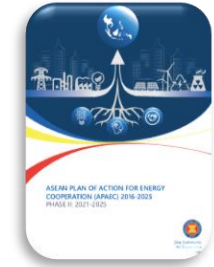
- Develop **draft basic concept**
- Develop **guidelines for quantification**
- Quantify **impacts of FP pilot projects**



D. Policy, etc.

**D. Regulations, incentives and financial frameworks introduced and Guidelines on quantification tools established**

- Develop **draft framework**
- Develop **draft guidelines**



### PA6. Regional Energy Policy & Planning OBS-AP

#### PA6, OBS6 – AP6.3

Organise regional seminars on ASEAN Low-Carbon Transition

#### PA6, OBS6– AP6.1

Share information and best practices on energy-climate nexus, including through policy dialogues

PA6, OBS4 AP4.1 - Monitor and evaluate the progress of the APAEC programmes

**NOTE: In the Actual CR, each activity has an indicative timeline**



# Overview of CEFIA Flagship Project Roadmap (Outcome and Activities)

CR for ZEB	CR for RENKEI	CR for Microgrid	CR for SteelEcoSol
<p><b>Overall target:</b> An enabling environment of ZEB is created</p>	<p><b>Overall target:</b> Best practice and lessons learned of RENKEI are consolidated</p>	<p><b>Overall target:</b> Enabling environment for autonomous microgrids established in ASEAN countries</p>	<p><b>Overall target:</b> Promoting introduction of EE&amp;C technologies and providing support for ASEAN iron &amp; steel industry to reduce energy consumption and GHG emission</p>
<p><b>PA No. 4, OBS 3</b></p>	<p><b>PA No. 4, OBS 2 &amp; 5</b></p>	<p><b>PA No. 5, OBS 4 &amp; 6</b></p>	<p><b>PA No. 4, OBS 5</b></p>
<p><b>Outcome:</b></p> <ul style="list-style-type: none"> <li>A. The <b>ZEB knowledge hub</b> established</li> <li>B. <b>ZEB specialists</b> developed</li> <li>C. <b>Commercial viability</b> business and financial models <b>confirmed</b></li> <li>D. <b>Market demand</b> for ZEB is <b>boosted</b></li> <li>E. <b>ZEB's potential market size</b> and <b>potential GHG emission reduction</b> evaluated</li> </ul>	<p><b>Outcome:</b></p> <ul style="list-style-type: none"> <li>A. <b>Network of private, public and academic</b> sectors established</li> <li>B. <b>Engineers are trained</b> on RENKEI</li> <li>C. <b>Feasibility study and pilot project</b> conducted</li> <li>D. A new <b>international standards</b> established; <b>Potential policy/framework</b> introduced; Tools/guidelines to <b>assess effectiveness established</b></li> <li>E. <b>Contribution</b> of RENKEI to EE&amp;C assessed</li> </ul>	<p><b>Outcome:</b></p> <ul style="list-style-type: none"> <li>A. Stakeholders are <b>equipped with know-how</b></li> <li>B. Autonomous microgrids <b>optimal sites</b> in ASEAN <b>identified</b></li> <li>C. <b>Financial mechanism</b> introduced to accelerate installation</li> <li>D. <b>Effectiveness</b> of autonomous microgrids <b>evaluated</b></li> </ul>	<p><b>Outcome:</b></p> <ul style="list-style-type: none"> <li>A. Creation of <b>Technology customized list (TCL)</b> for the iron &amp; steel industry</li> <li>B. <b>Dissemination</b> of the latest Japanese iron &amp; steel related to EE&amp;C /CN policies and technologies</li> <li>C. Develop <b>policy recommendations</b> to promote wider deployment of EE&amp;C in the iron &amp; steel industry</li> <li>D. <b>Potential of energy consumption reduction/ GHG emission reduction</b> is evaluated</li> </ul>

# Future Potential CEFIA Flagship Projects



**Consultation Meeting  
With EE&C-SSN and RE-SSN Focal Points  
3 August and 22 November 2022**

## Discussion objectives:

- To identify priority areas/activities for RE to be covered in CEFIA**
- To identify new areas/activities for public-private partnerships**

✓ AMS expected public-private sector collaboration activities to focus more on: **capacity building activities, development of pilot projects, and policy framework development**

✓ Support are needed most in **attracting more local financial institutions, building capacity of stakeholders, and policy framework assessment**

## Recommendations for new CEFIA Flagship Projects:

EV Fuel Economy Geothermal Hydrogen Fuel Ammonia  
Green financing Regional REC system RE project matchmaking  
IoT Technology Deployment Incentives Grid interconnections  
Blended financing structure Sustainable Aviation Fuel  
Industrial EE Benchmarking Building Energy Codes



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**Thank You.**

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