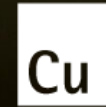




EU
SWITCH
Asia



International Copper
Association Southeast Asia
Copper Alliance

ASEAN Standards Harmonization INitiative for Energy Efficiency



An EU SWITCH Asia Programme



Sponsor: European Union (SWITCH Asia), Grant: 1,749,099 EUR

Program duration: 2013 - 2016

Program Lead: European Copper Institute (Belgium)

Overall Management and Coordination: ICASEA (Thailand)

Partners:

- Electrical and Electronics Institute (Thailand)
- SIRIM QAS International (Malaysia)
- Research Center for Energy and Environment (Vietnam)
- Integrated Institute of Electrical Engineers (Philippines)
- United Nations Environment Programme (Bangkok)

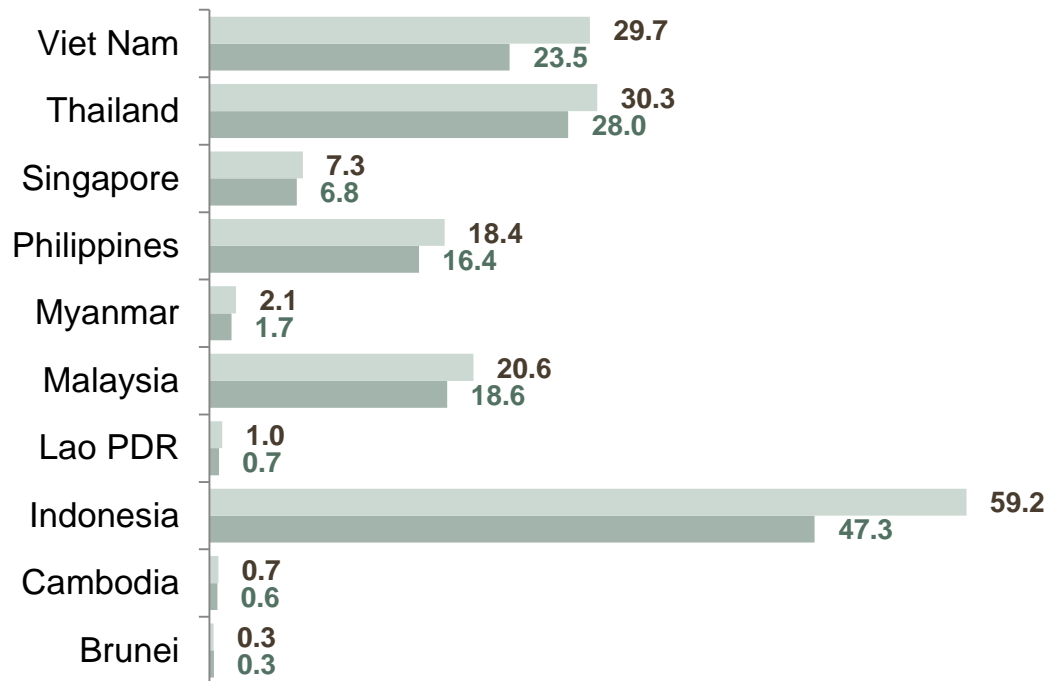
Associates:

- 10 ASEAN ministries in charge of energy (EE&C SSN Focal Points);
Underwriters Laboratories, CLASP

Growing Energy Demand



Estimated Household Annual Electricity Consumption (TWh) in ASEAN, 2007



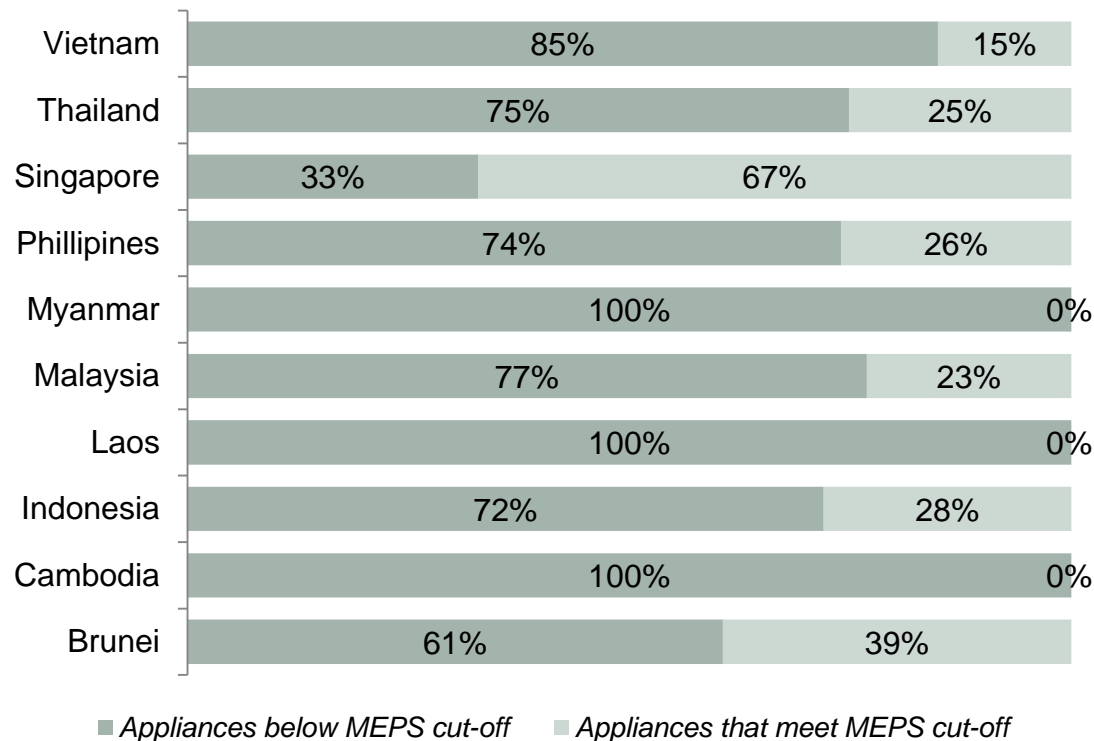
- Household electricity consumption in ASEAN estimated at **144,038 GWh** in 2007
- Air-conditioners account for about **50%** or more in Singapore, Brunei, Philippines and Thailand

Source: UNEP/ICA 2010

Huge Energy Saving Potential



Electricity Consumption by Air-conditioners, 2010

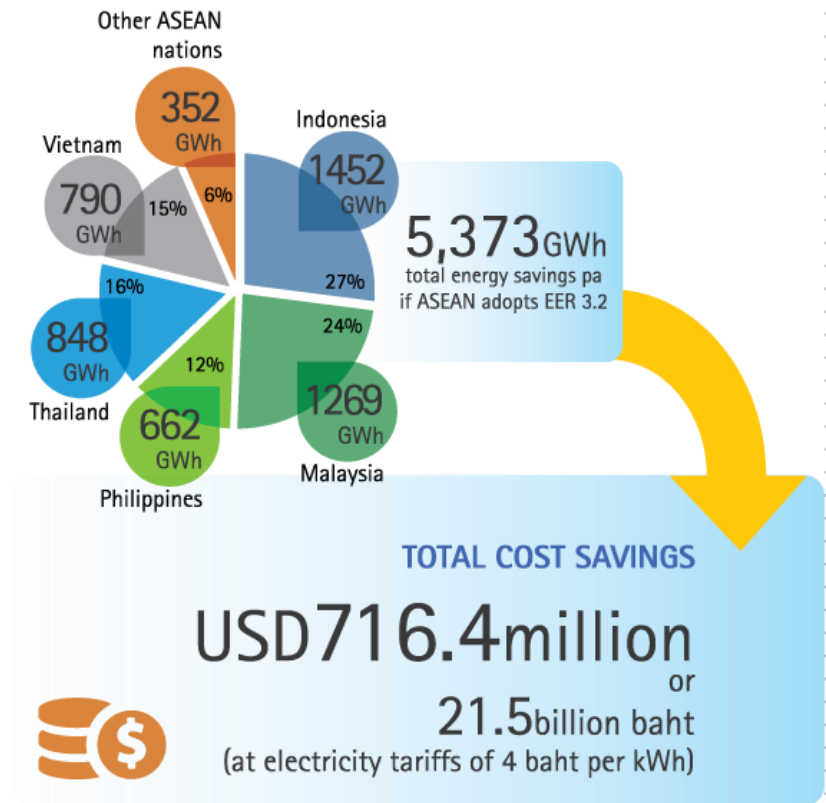


- Huge energy saving potential due to low penetration rate of higher efficient air-conditioners
- ASEAN Economic Community: momentum to harmonize standards to remove non-tariff barriers to trade

Huge Energy Saving Potential



- Total energy savings in ASEAN per annum amount to 5,373 GWh
- Assuming 4 baht per kWh tariff, total energy savings is 21.5 billion baht



ASEAN Community



ASEAN Charter

Political and
Stability
Community

ASEAN Community

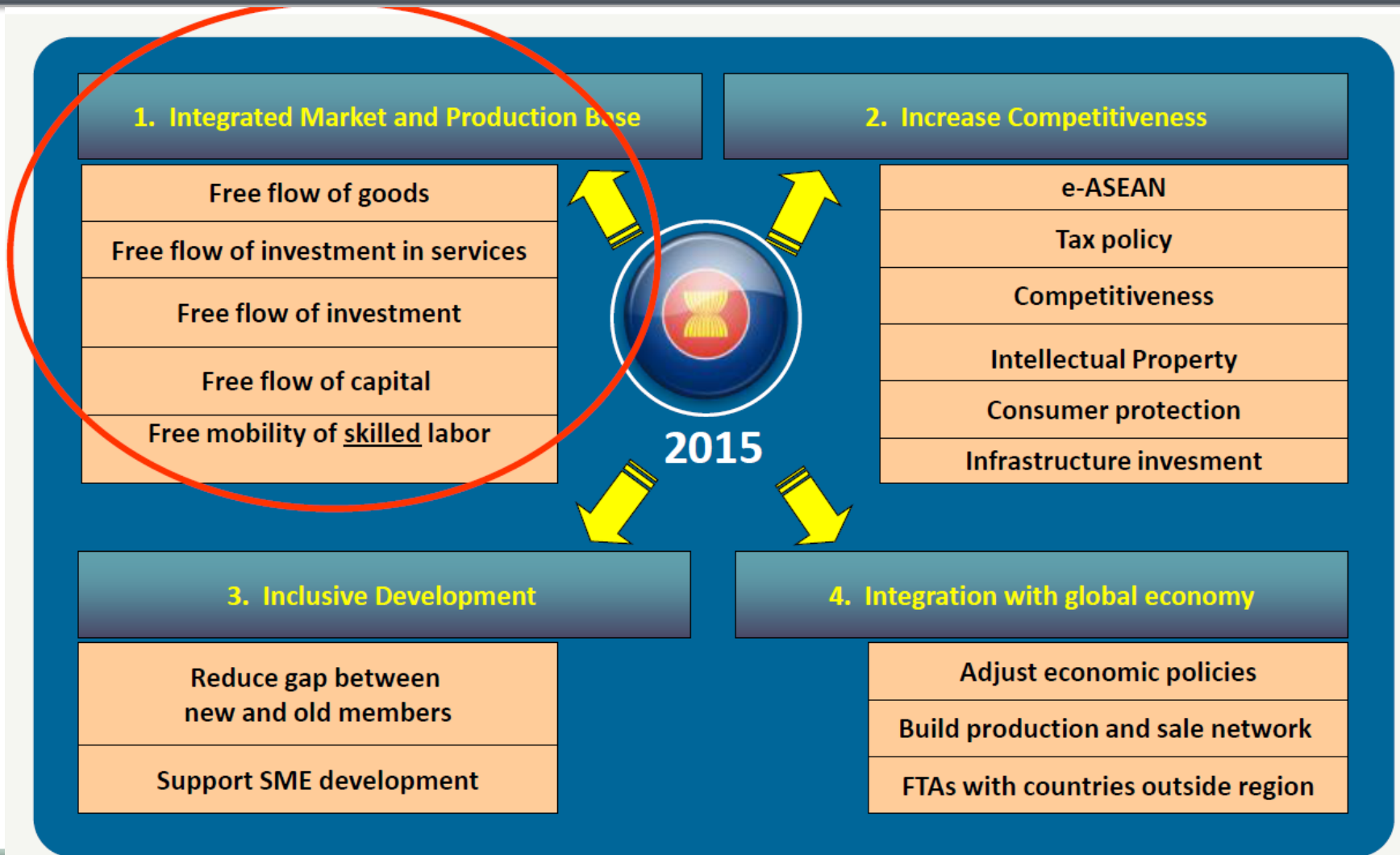
Economic
Community

Social and
Cultural Community

- In 2003, ASEAN leaders signed the Bali Concord II to establish ASEAN Community in 2020
- In 2007, ASEAN Leaders signed the Sebu Concord ASEAN Community in 2015
- In 2007, ASEAN Economic Ministers ratified the [AEC Blueprint](#) which is a work plan to establish the (ASEAN Economic Community : AEC)
- In Nov 2007, ASEAN Leaders signed the "[ASEAN Charter](#)" and the workplan to establish the AEC และ to confirm commitment to establish AEC by 2015

One Vision, One Identity, One Community

ASEAN Economic Community (AEC) Framework



ASEAN EE MRA and ASEAN Agreement on harmonization of EEE Regulatory Regime (AHEEERR)



- ASEAN EE MRA signed in April, 2002
 - *Acceptance of Labs test Reports;*
 - *Acceptance of Certificates of Certification Bodies.*
- ASEAN Agreement on Harmonization of EEE Regulatory Regime (AHEEERR)
 - *Signed in December 2005;*
 - *Effective on January 1, 2011*

Challenges



- Disparity in economic and social development
- Reaching consensus
- Institutional setup/capability
- Availability of market data
- Availability of technical resources
- Communications

Program Objectives



Reduction in the electricity consumption from the residential sector

Reduced emissions of greenhouse gases

Removal of non-tariff barriers to trade within ASEAN; enhance regional market integration

Increase market share of high efficiency air-conditioners

- Harmonize test methods and energy efficiency evaluation standards
- Harmonize Minimum Energy Performance Standards (MEPS)
- Change consumer purchasing attitudes

Work Packages



WP1: Establishment of ASEAN SHINE

WP2: Harmonize standards for testing methods (Co-funded by APEC)

WP3: Recommend MEPS, HEPS and develop regional policy roadmap

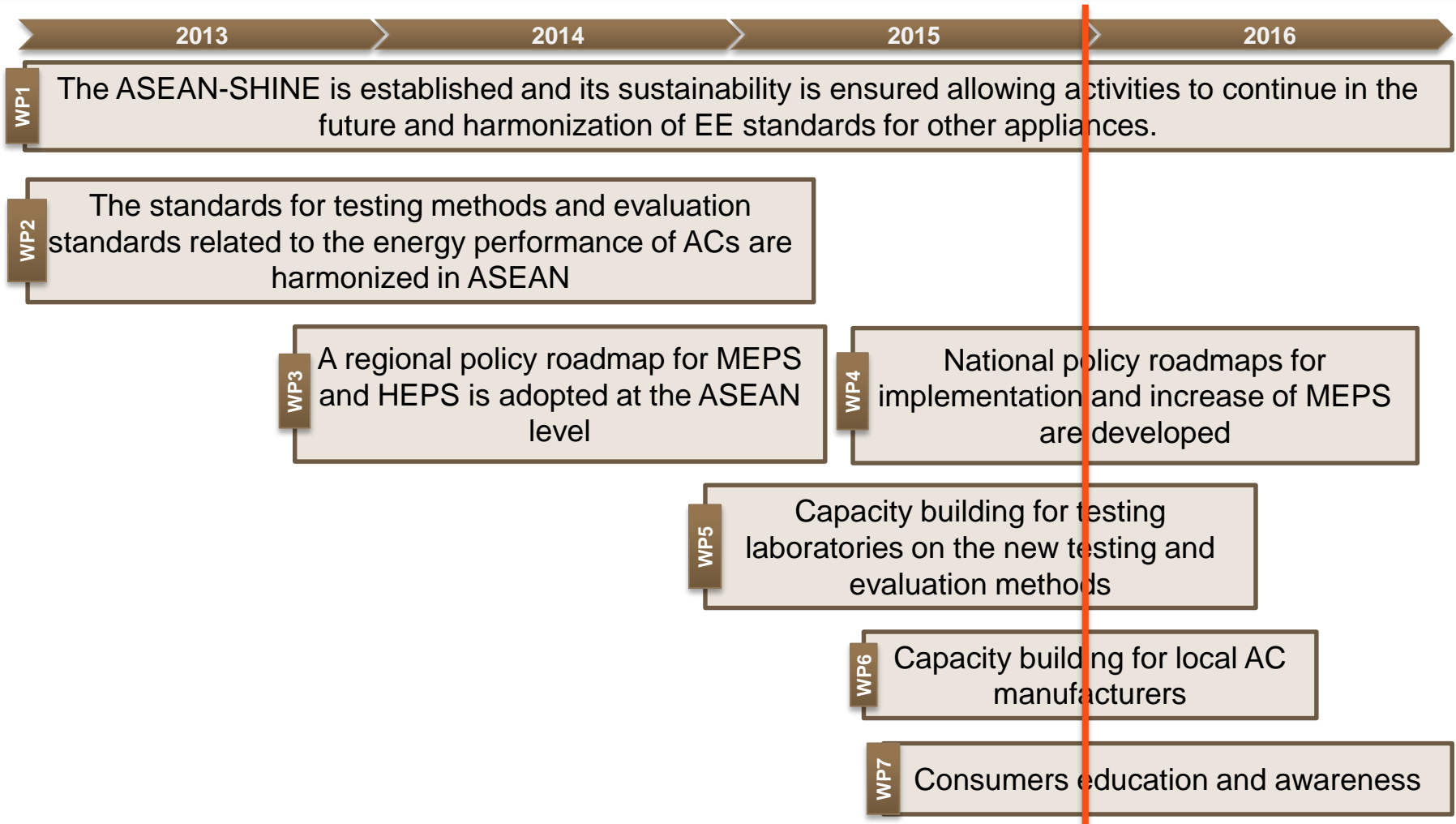
WP4: Develop national policy roadmaps for MEPS and HEPS

WP5: Capacity building for testing laboratories

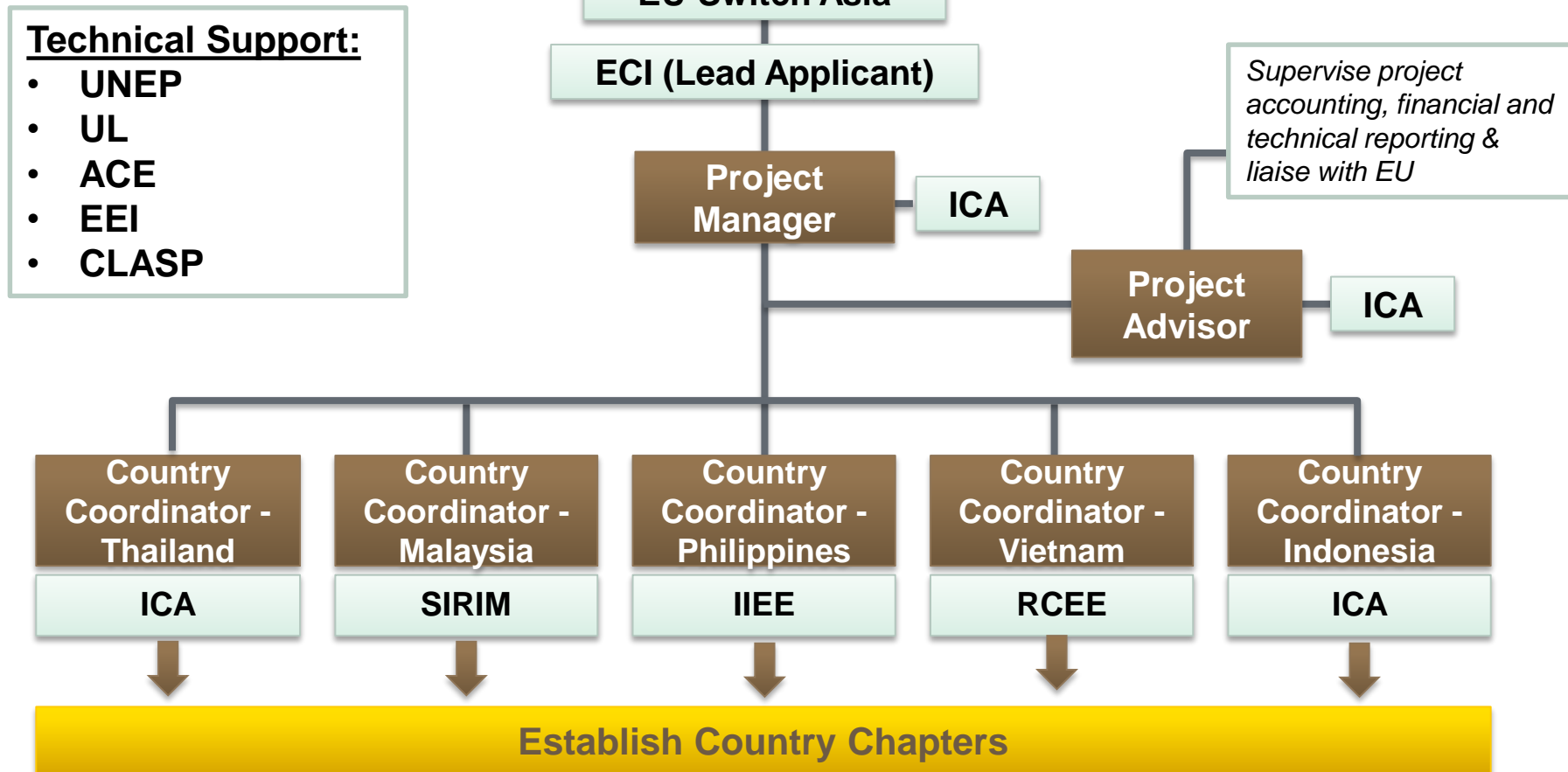
WP6: Capacity building for AC manufacturers

WP7: Consumer awareness

Logical Framework



Project Structure

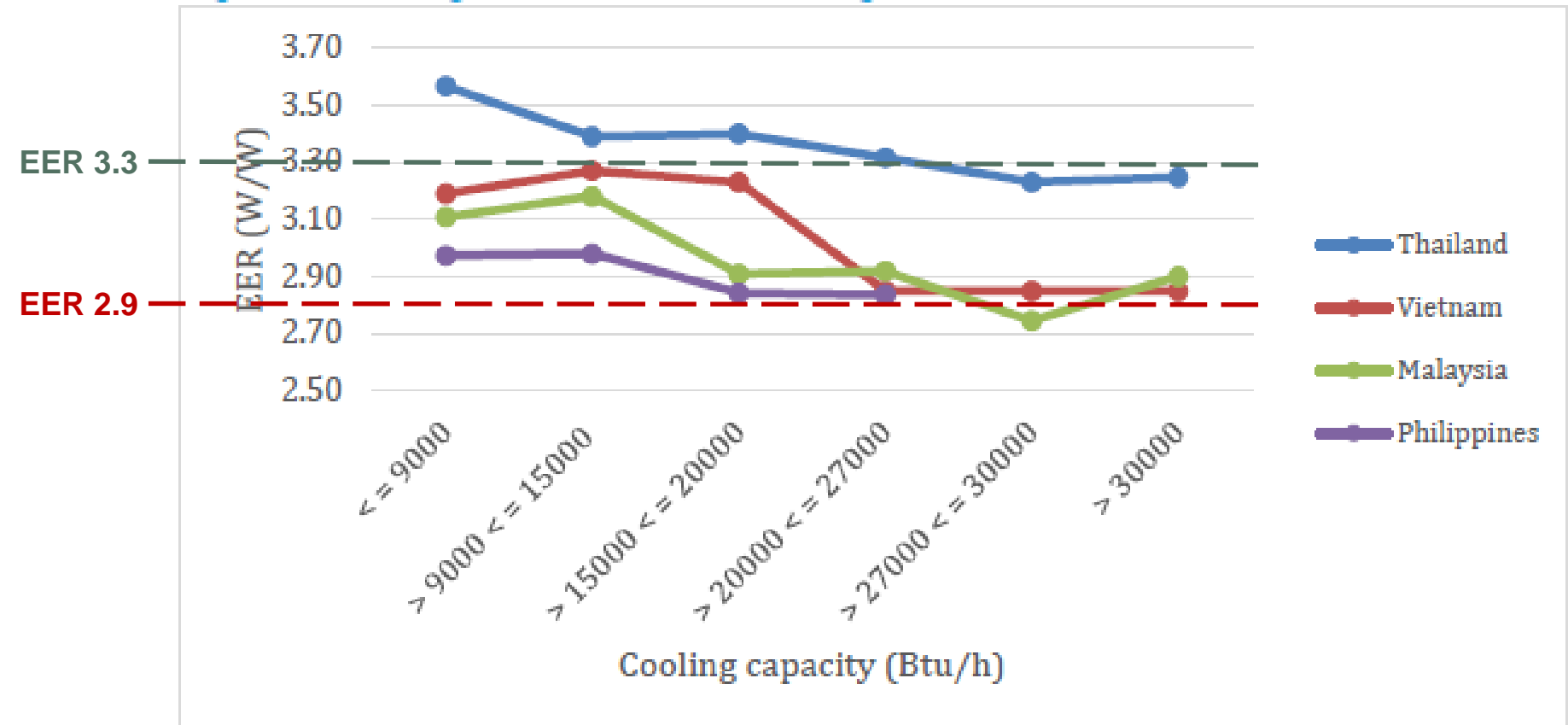


Components

1. Harmonization of Testing Methods
2. Harmonization of Evaluation Methods
3. Harmonization of MEPS
4. Testing Infrastructure
5. Mutual Recognition Agreement (MRA)
6. Establishment of MV&E Network

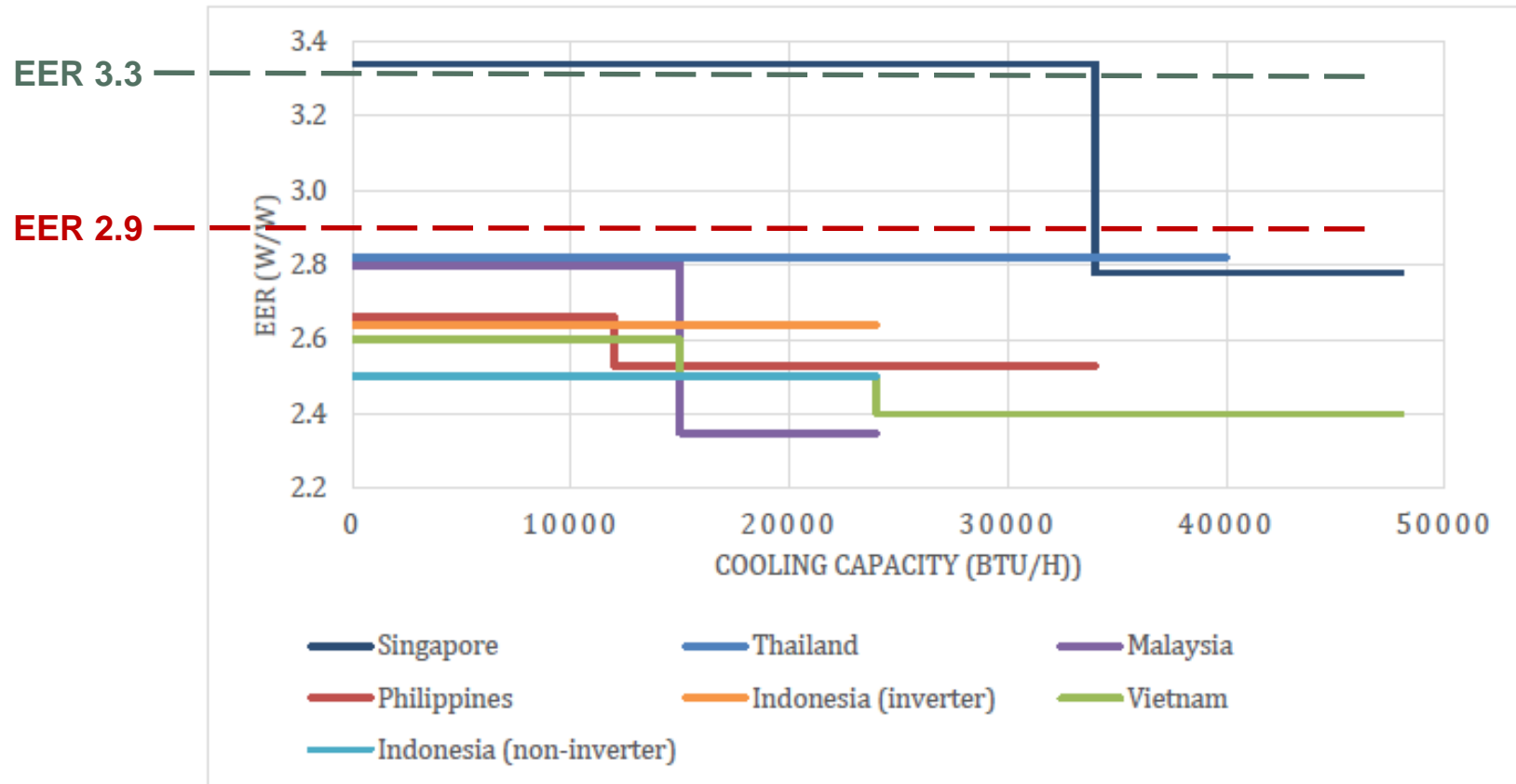
Harmonization of MEPS

Figure 2: Average EERs of ACs in the region¹⁵



Harmonization of MEPS

Figure 3: MEPS stringency and coverage (cooling capacity) in ASEAN economies for single split ACs



ASEAN-SHINE – Beyond 2016



- **Platform for energy efficiency regulations, policies, standards**
- **Expansion of harmonization initiatives**
 - Lighting – implementation of en.lighten
 - Refrigerator, electric fan, water pump, etc.
 - Transformer, electric motor
- **Partnerships and funding for sustainability of platform**
 - Long-term self-sustainability

Thank you

For more information, please contact *Bek Chee Jin*, bek.cheejin@copperalliance.asia

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