



International
Energy Agency

Secure • Sustainable • Together

Tracking progress of renewable energy uptake

Dr. Ute Collier

Renewable Energy Division

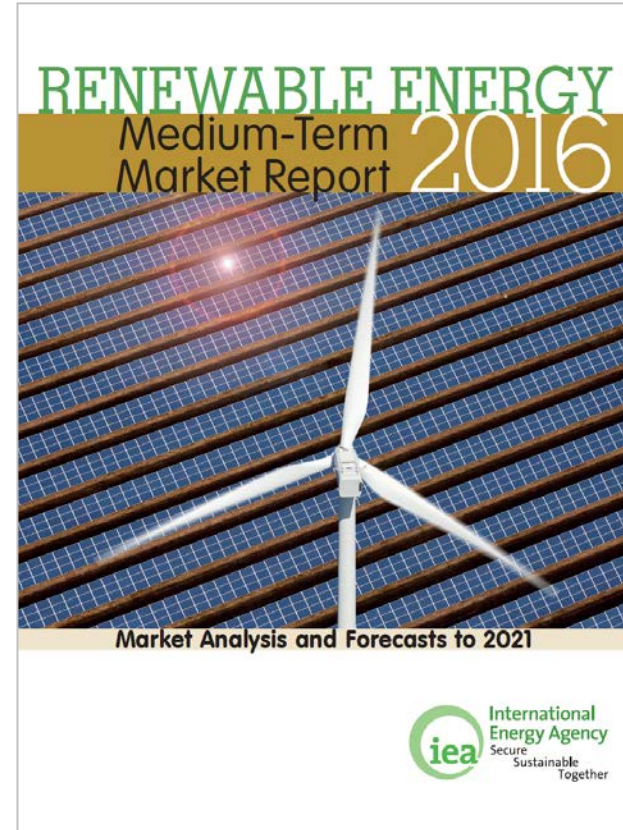
7th International Forum on energy for sustainable development

Baku, 20 Oct 2016

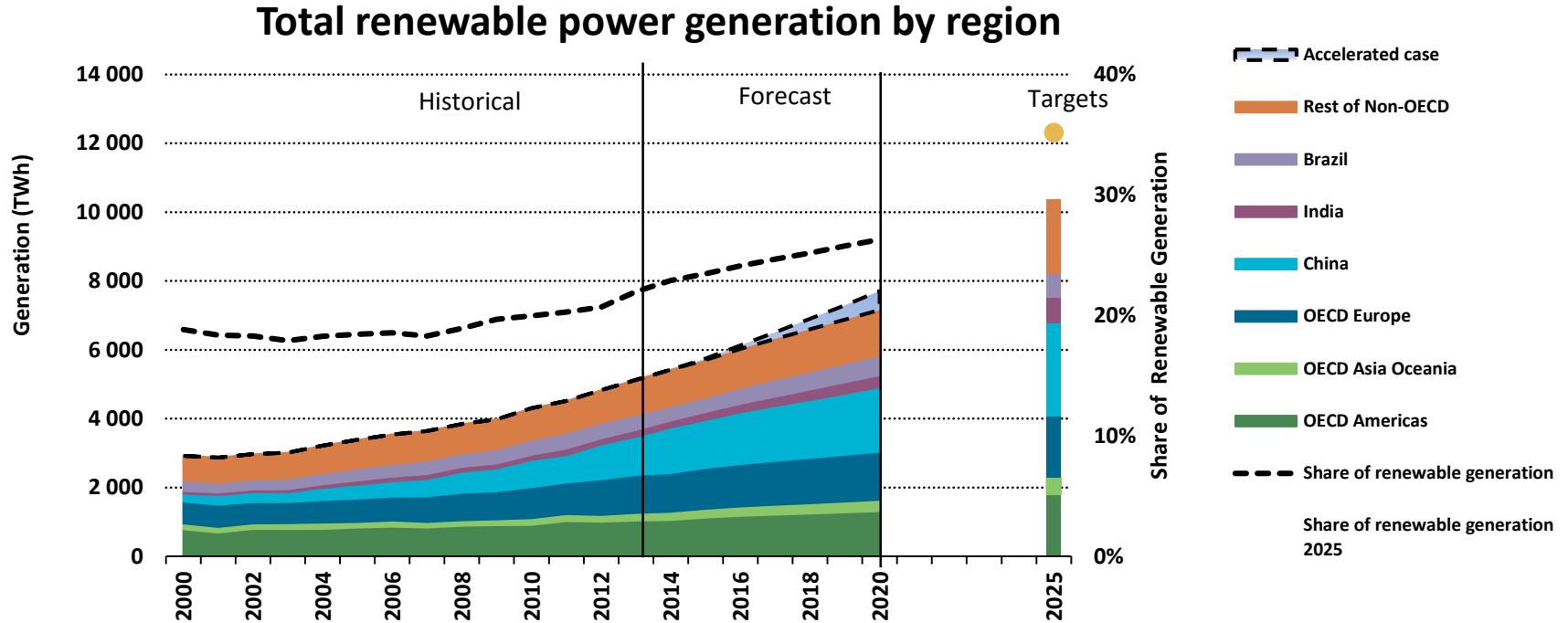
Key IEA tracking publications

Tracking Clean Energy Progress 2016

Energy Technology Perspectives 2016 Excerpt
IEA Input to the Clean Energy Ministerial



Good progress on renewable power

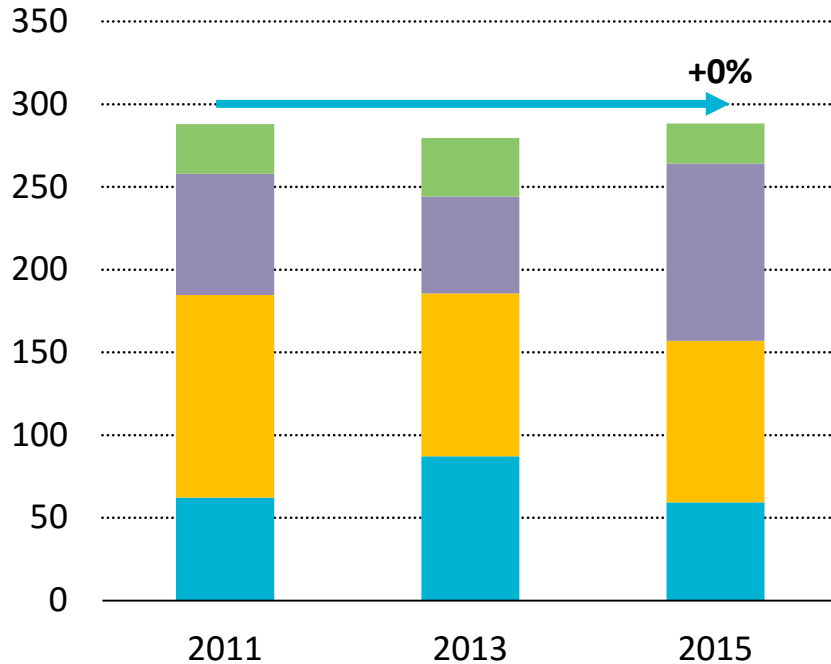


Renewable power capacity grew at its fastest pace in 2015 but further action is needed to put power on track with the 2DS target.

Tracking renewable power investment

Global renewable power investment

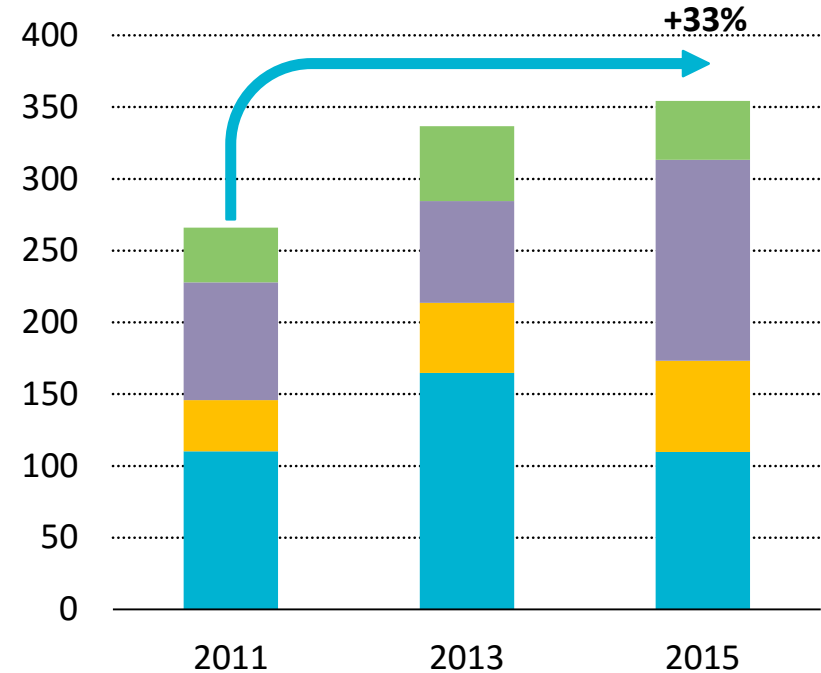
USD (2015) billion



■ Hydropower ■ Solar PV ■ Wind ■ Other renewables

Expected generation from investment

TWh

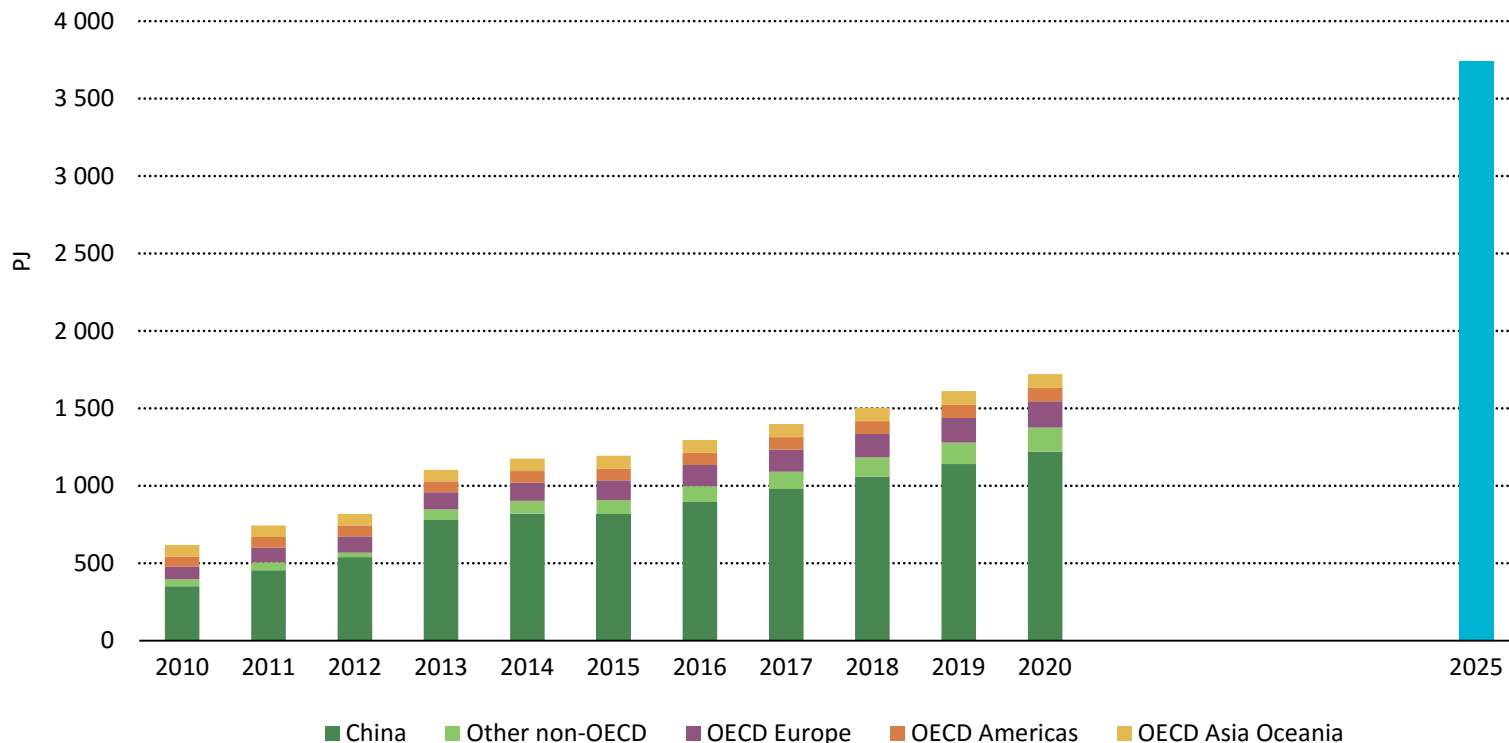


+33%

Renewables capacity additions in 2015 will generate more electricity per year than the UK; Wind capacity surged by 35% on improved economics & record offshore growth

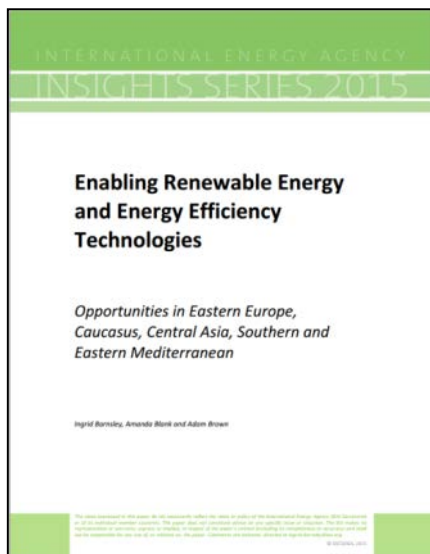
But it's not just about power

Solar thermal by region

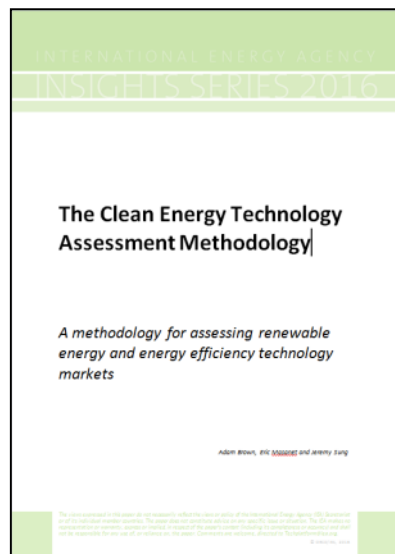


Heat accounts for 54% of global energy consumption but data is poor. Need to put more emphasis on tracking heat.

- **Generally good data for power renewables in EU/North America but less so for rest of UNECE**
- **Heat data very poor – very few countries have good data on heat demand and on renewables deployment**
- **Biofuels data – generally good where there is production (& mandates)**



Policy paper
(June 2015)

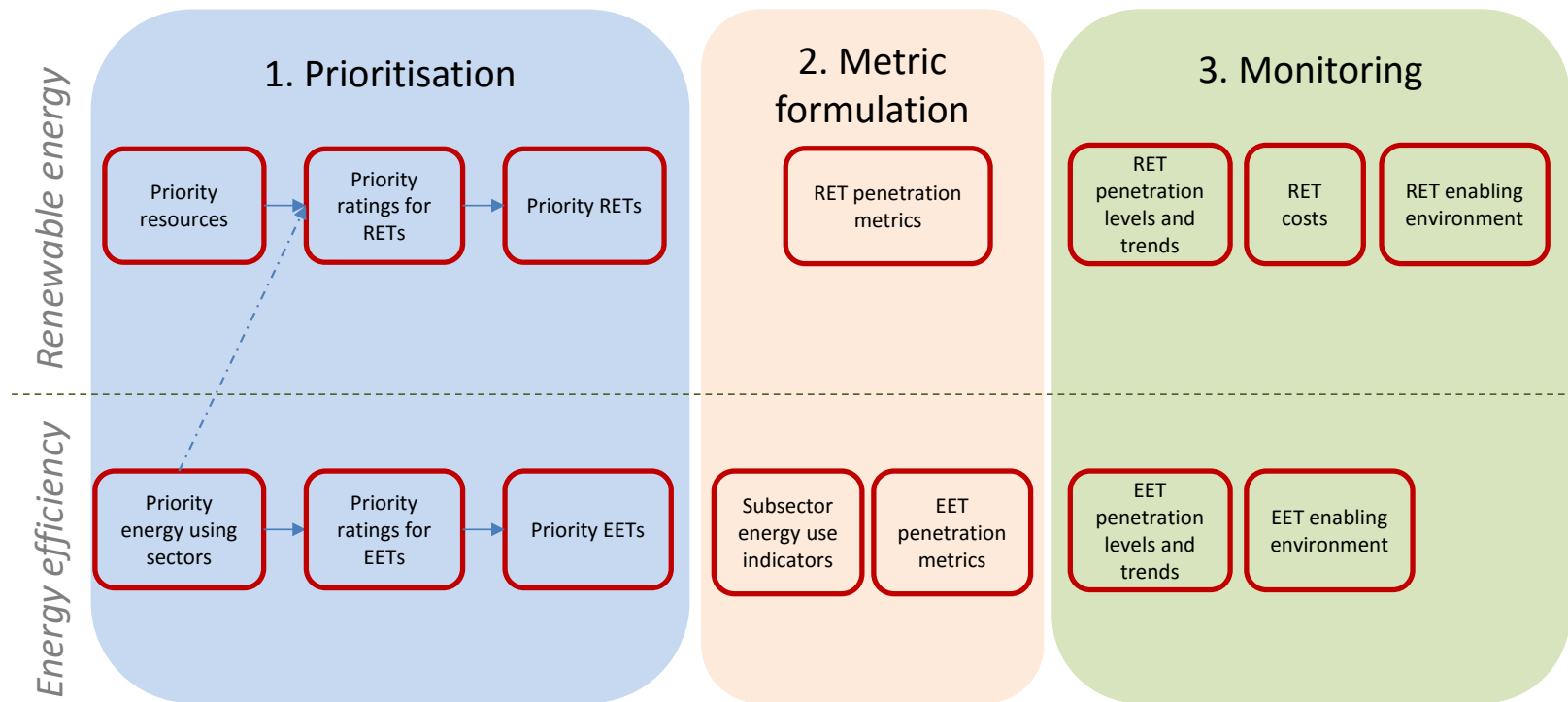


Methodology paper
(June 2016)



Pilot studies: Belarus, Morocco & Kazakhstan
(June - July 2016)

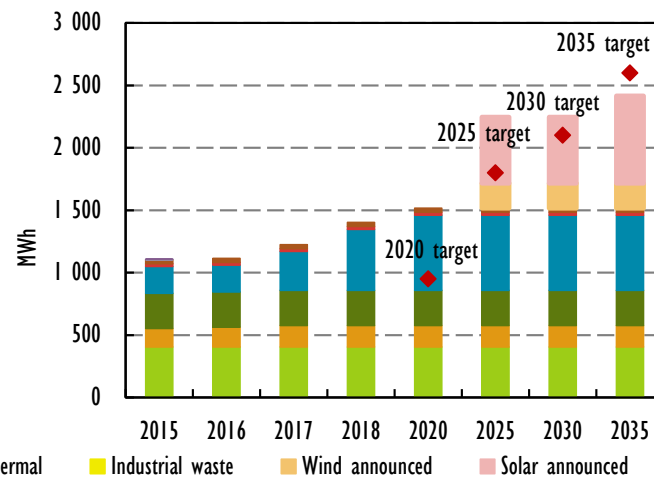
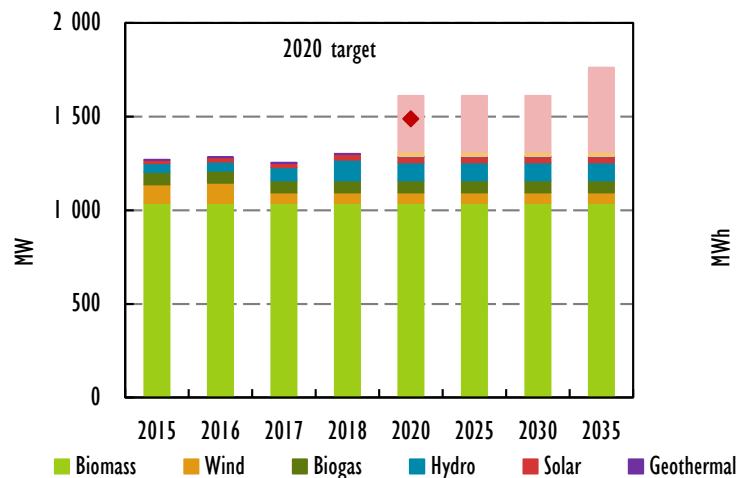
■ A 3-step process:



Monitoring progress towards targets

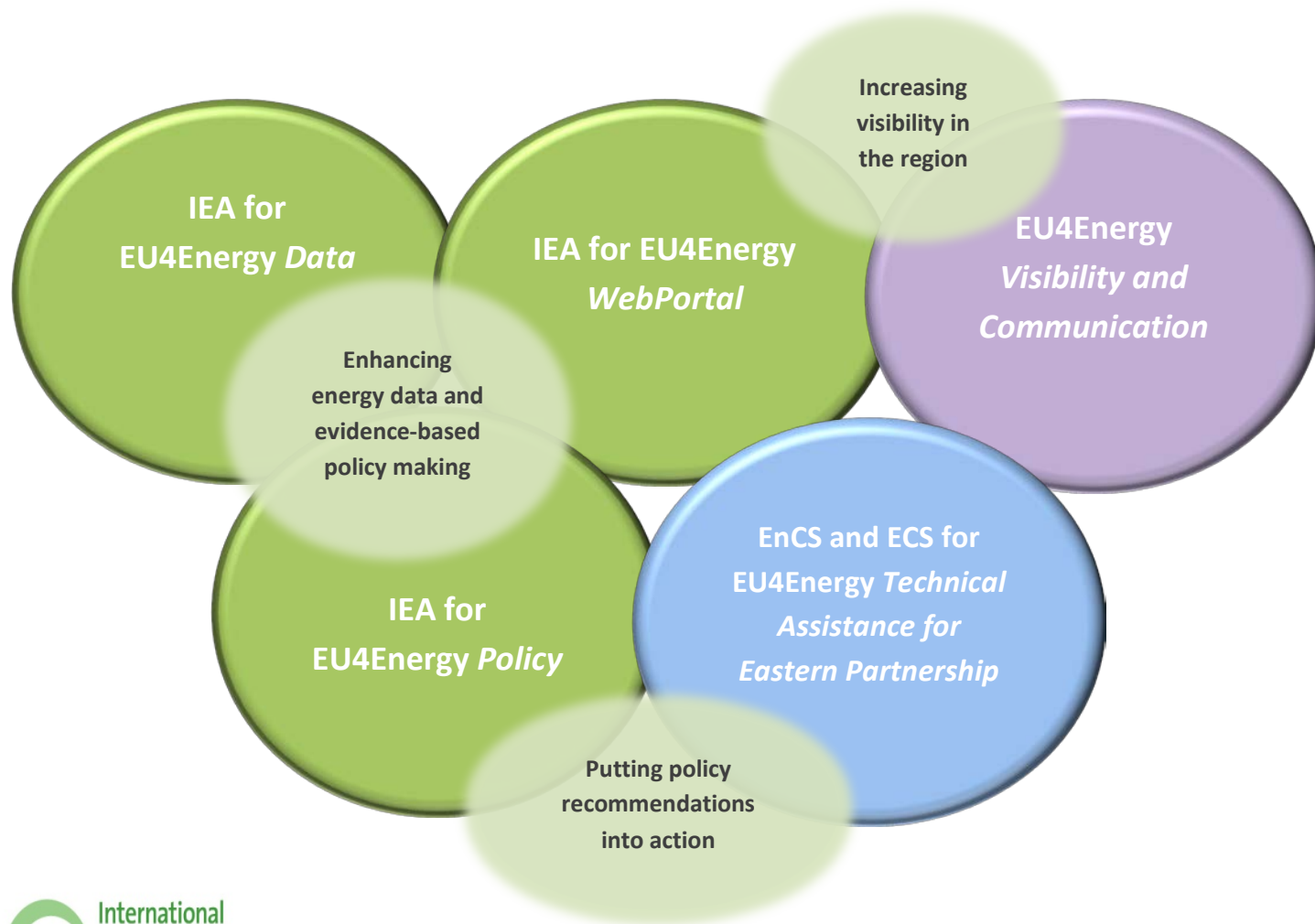
- Attainable targets
 - Technology neutral
 - 9% of total energy supply from renewables by 2035;
 - 2.6 TWh electricity generation from renewables generation by 2035;

Tracking progress toward renewable electricity capacity and generation targets, 2015-35



- **CETAM: Ready to be applied elsewhere**
- **Variation across the pilot countries:**
 - Data quality
 - Ambition to deploy clean energy technologies
 - Some stronger on EE (e.g. Belarus) other on RE (Morocco)
- **Energy efficiency technologies: Much harder to measure and monitor than renewables – data from audits, etc is key.**
- **Even where it is difficult to apply, using CETAM can help identify data collection gaps.**

EU4Energy programme framework



**Armenia,
Azerbaijan,
Belarus,
Georgia,
Kazakhstan,
Kyrgyzstan,
Moldova,
Tajikistan,
Turkmenistan,
Ukraine
Uzbekistan**

IEA for EU4Energy Programme Aims

- **EU4Energy Programme aims at assisting participating countries in:**
 - *Developing robust energy policies and measures:*
 - Transition from policy taking to policy making
 - Developing mechanisms for tracking progress for implementation
 - Promote visibility and data transparency
 - *Enhance energy security options by:*
 - Maximising use of indigenous sources of energy including energy efficiency gains potential
 - Encouraging energy related investments by fostering solid policy base
 - Promoting energy related research, development and deployment (RD&D)