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# Clean energy innovation policy and support

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International  
Energy Agency

Emerging market and developing economies would account for over 40% of the world's energy investment to shift the world on to a 1.5°C pathway.

The world cannot tackle climate change without appropriate technology solutions for all regions.

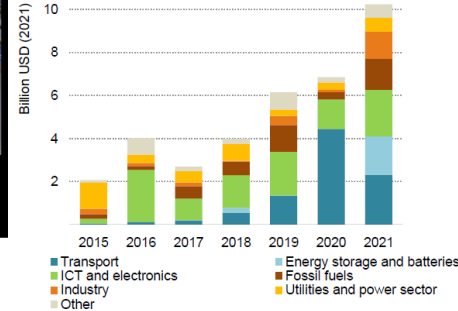
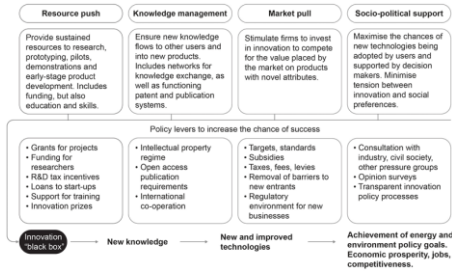
Emerging economies' energy innovation capacities lag advanced economies: 91% of patenting for low-carbon energy is from Europe, Japan, USA, Korea, China (2010-19).

If clean energy technologies become the growth engine for fast-growing economies to 2050, it will accelerate climate policy progress worldwide.

The effectiveness of international cooperation on clean energy technologies will determine the speed of energy transitions globally.

But we still don't know enough about what policies work in all contexts, the status of clean energy innovation around the world and the effective modes of cooperation.

# Four deliverable areas



## 1. Analytical frameworks to review energy technology innovation policies

*“How can innovation policies and data be reviewed and presented consistently?”*

## 2. Energy innovation policy knowledge-sharing events

*“How can countries learn better from each others’ experiences and from IEA analysis?”*

## 3. Measuring and mapping energy technology innovation

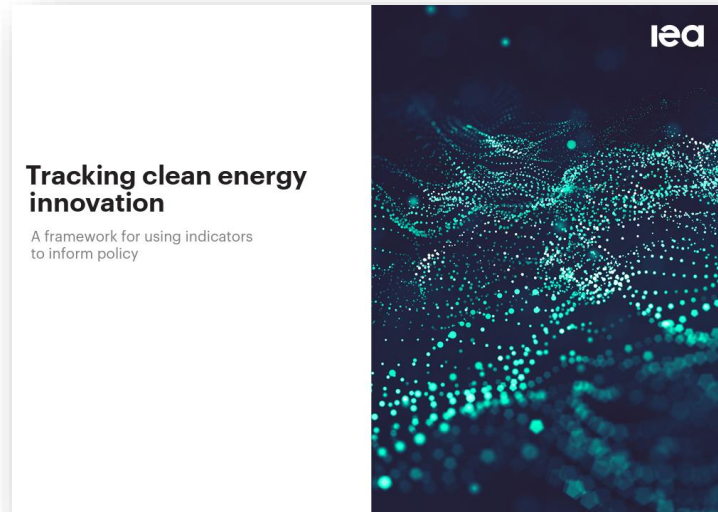
*“How can countries be helped to expand data coverage, range of metrics and data usage?”*

## 4. International energy technology partnerships and opportunities

*“Where are the opportunities to engage emerging economies in IEA networks more effectively?”*

# 1. Analytical frameworks

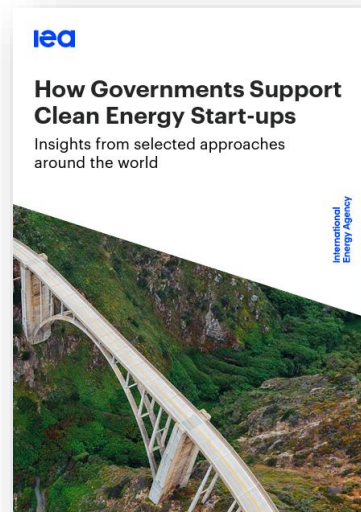
- Example WP5 output



- Example of country engagement
  - The output was designed to inform the Inova-e project in Brazil

## 2. Policy knowledge sharing

- Example WP5 output

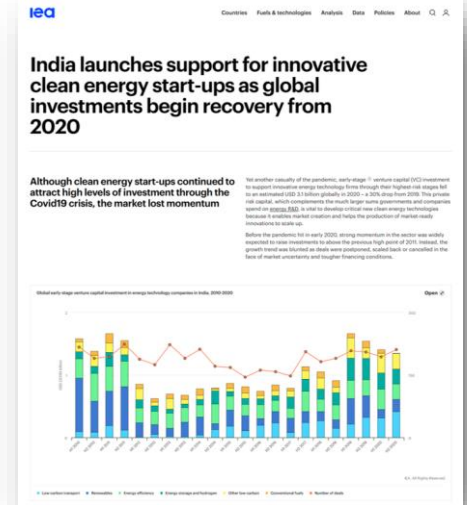


- Examples of country engagement

- Four workshops for sharing national policy experiences: Argentina, Brazil, Colombia, China, Ethiopia, India, Kazakhstan, Kenya, Mexico, Morocco, Nigeria, South Africa
- Bilateral calls between IEA and Brazilian electricity regulators (ANEEL) to discuss revision of Federal Law 9.991/2000 including expansion of scope to cover start-up investments

# 3. Measuring and mapping

- Example WP5 output

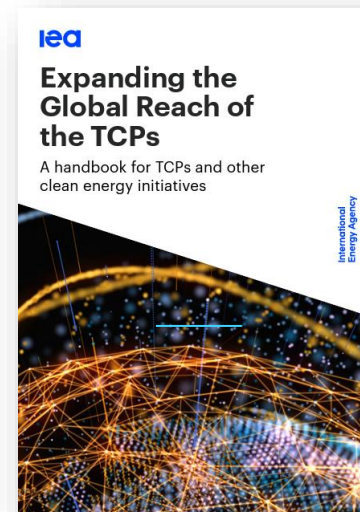


- Examples of country engagement

- Development of the report “Tracking clean energy innovation in the business sector: An overview” with and for EPE Brazil
- Meetings and presentations with Brazilian colleagues to inform the development of Inova-e
- Dialogue with India on data collection approaches (strong linkages with WP2)

## 4. Technology partnerships

- Example WP5 output



- Examples of country engagement

- China, Colombia, Mexico, South Africa and Thailand attended 2021 TCP Universal Meeting
- During the course of the CETEE project, Brazil joined TCP on Buildings and Communities; China joined TCPs on Hybrid and Electric Vehicles, Bioenergy, Spherical Tori, Stellarator-Heliotron and Hydrogen; India joined TCP on Wind; Malaysia joined TCP on Hydropower

**Thiago Barral**

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A view on clean energy innovation in Brazil

