



ACCELERATING LOW-CARBON TRANSITIONS EVERYWHERE

THE ROLE OF POLICY AND TECHNOLOGY COOPERATION

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- International collaboration initiatives: Mission Innovation
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INTRODUCTION

THE CASE FOR INTERNATIONAL COOPERATION



GLOBALLY CONNECTED

All economic sectors and systems are globally connected and so are the actors within those (policymakers, firms, consumers, etc.)



TIME IS RUNNING OUT

To avoid dangerous climate change impacts we need to go faster and significantly accelerate the pace of the transition.



SHARED CHALLENGES

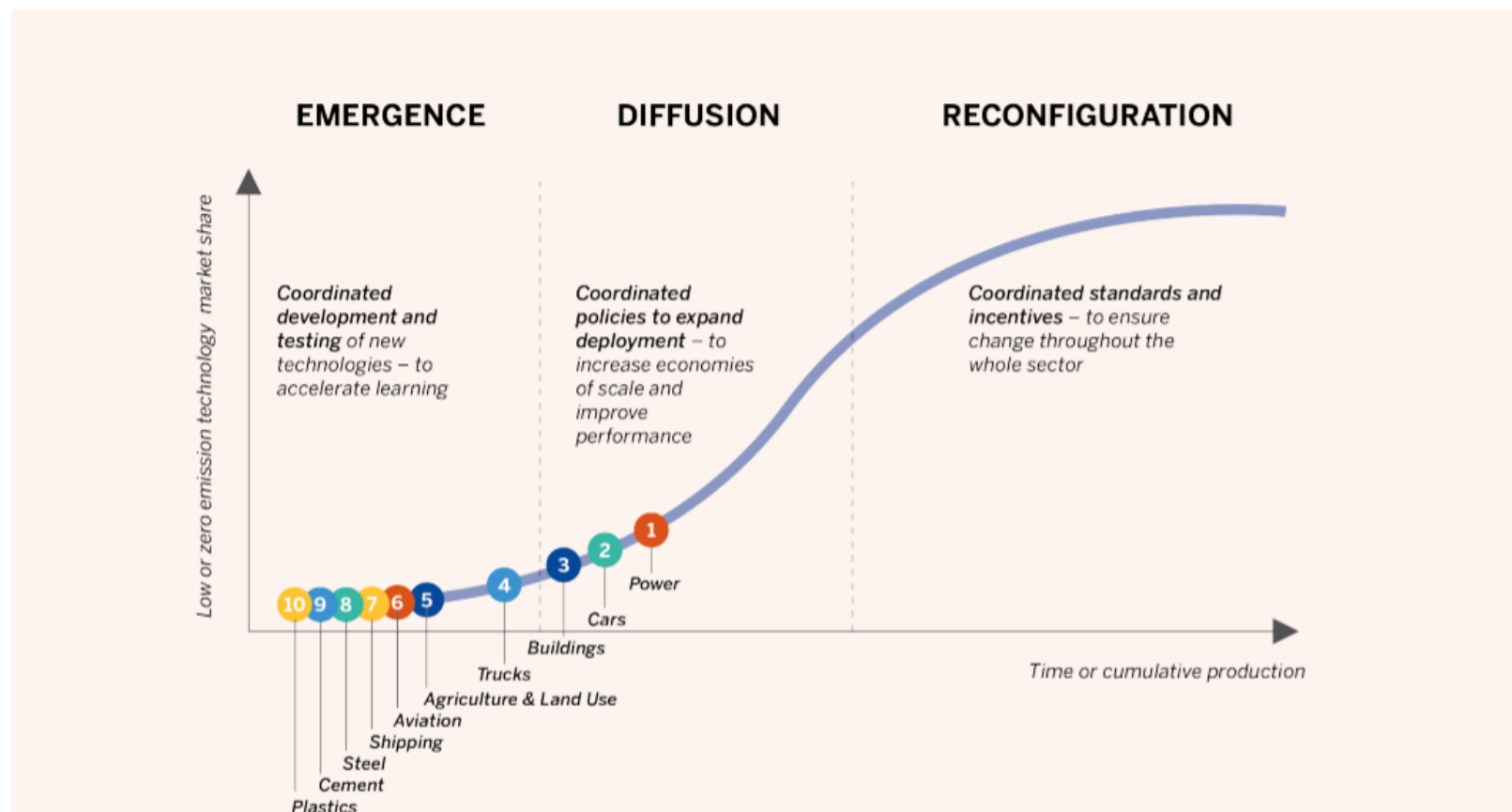
Countries all over the world face similar challenges in responding to climate change, calling for global solutions.

COORDINATED INTERNATIONAL ACTION WITHIN SECTORS

Can accelerate the development and diffusion of new technologies, and reshape sectors by:

1. **Accelerating learning** helps identify viable technologies more quickly
2. **Increasing incentives to invest** through market creation policies and economies of scale
3. **Levelling playing fields** removes risks and increases rewards for first-movers

FIGURE 1: PROGRESS OF SECTORS' LOW CARBON TRANSITIONS, AND PRIORITIES FOR COORDINATED INTERNATIONAL ACTION



Source: Victor, D.G., Geels, F.W. and Sharpe, S., 2019 Accelerating the Low Carbon Transition: The Case for Stronger, More Targeted and Coordinated International Action



INTERNATIONAL INITIATIVES TO ACCELERATE THE TRANSITION

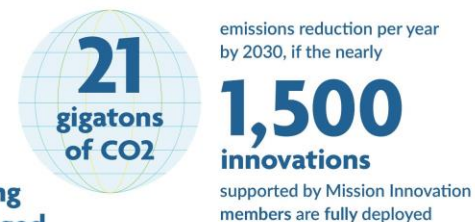
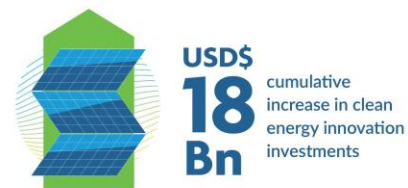
CLEAN ENERGY RD&D: MISSION INNOVATION

Mission Innovation is the main global initiative addressing clean energy innovation through action-oriented cooperation.

It brings together governments, public authorities, corporates, investors and academia to enable widely affordable clean energy globally.

Members represent over 90% of global public investments in clean energy innovation.

Since Mission Innovation's launch at COP21 in 2015:



185,400 Innovators



involved in **62** on **4** Events Continents

MI MISSIONS – new public-private innovation alliances that will catalyse global action behind ambitious and inspirational innovation goals that will lead to tipping points in the cost and scale of clean energy solutions.

Develop, test and demonstrate innovative solutions that address barriers in three key areas:

- Affordable and Reliable VRE Technologies
- System Flexibility and Market Design
- Data and Digitalisation for System Integration

Key activities:

- Develop demonstration projects and pilots
- Share knowledge, best practices and know-how
- Increase the level of investments in R&D activities



Goal

To demonstrate that by 2030 power systems in different geographies and climates are able to effectively integrate up to 100% variable renewable energies in their generation mix and maintain a cost-efficient, secure and resilient system.

Co-leads



Partners



nationalgrid

areti enel

IRENA
International Renewable Energy Agency

alperia



BUILDING CAPACITY FOR A NET-ZERO WORLD

UK PACT



UK Partnering for Accelerated Climate Transitions (UK PACT)

- funded by the **UK Government**
- A **£12million** capacity-building fund to support countries across Asia, Africa and Latin America
- supports countries to implement and increase their ambitions for carbon **emissions reductions** in line with their Nationally Determined Contributions (NDCs)



Greening financial systems supports target countries across Asia and Latin America to mainstream climate-related financial risks and opportunities in order to accelerate the low-carbon transition and enable a green recovery.

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Electrifying urban mobility aims to advance more equitable, accessible and cleaner transport systems in target Asian countries, with a focus on electric vehicles.

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Clean energy transitions promotes new renewable energy policies, the transition of energy infrastructure and ensures energy security.

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Nature-based solutions supports economic alternatives that limit deforestation, and promote uptake of silvopastoral, agroforestry and regenerative agricultural systems.

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<https://www.ukpact.co.uk/green-recovery-challenge-fund>



Reliable Efficient and Sustainable mini-grids for rural infrastructure development in Kenya

The University of Edinburgh
Kenya

CATEGORY: Clean energy transition

This project aims to i) design, develop and perform limited-scale validation of “Kenyan-tailored” concept of multi-vector mini-grids and ii) expand existing UK-Kenya links and establish new collaborations and opportunities for capacity building, skills exchange, and research.



Action Plan for Electrification of Two-Wheelers in Jakarta

ITDP Institute for Transportation & Development Policy
Indonesia

CATEGORY: Electrifying urban mobility

The project will work with the Jakarta Transport Agency and the Ministry of Transport to develop a comprehensive road map and timetable for electrifying ride-hailing motorcycles in Greater Jakarta.



LATEST FROM GLASGOW

GLASGOW BREAKTHROUGHS

- **Power:** Clean power is the most affordable and reliable option for all countries to meet their power needs efficiently by 2030.
- **Road Transport:** Zero emission vehicles are the new normal and accessible, affordable, and sustainable in all regions by 2030.
- **Steel:** Near-zero emission steel is the preferred choice in global markets, with efficient use and near-zero emission steel production established and growing in every region by 2030.
- **Hydrogen:** Affordable renewable and low carbon hydrogen is globally available by 2030.
- **Agriculture:** Climate-resilient, sustainable agriculture is the most attractive and widely adopted option for farmers everywhere by 2030.



**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY

02.11.2021

COP26 WORLD LEADERS SUMMIT- STATEMENT ON THE BREAKTHROUGH AGENDA

<https://ukcop26.org/cop26-world-leaders-summit-statement-on-the-breakthrough-agenda/>

**TO MAKE CLEAN POWER
THE MOST AFFORDABLE
AND RELIABLE OPTION
FOR ALL COUNTRIES
BY 2030**



Leading initiatives for international collaboration:

- Breakthrough Energy Catalyst
- C40 Cities' Clean Energy Network
- Clean Energy Ministerial
- Mission Innovation
- RE100, led by Climate Group in partnership with CDP
- Global Power System Transformation Consortium
- International Smart Grid Action Network
-

Global metrics:

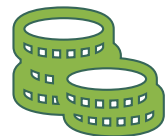
1. Annual capacity additions of clean energy (on grid and distributed), including as a share of global total electricity generation.
2. Investments in both the research, development and demonstration and deployment of clean power, enabling technology, and grids, including as a share of total power investment globally.
3. Evidence that power systems can integrate very high levels of variable renewable energy (including up to 100%) in different geographies and climates whilst maintaining a cost-efficient, secure and resilient system.
4. Rate of annual energy efficiency improvement (including for key products sold globally).
5. Relative cost, affordability and accessibility of clean power technologies (compared to alternatives).

TO CONCLUDE

The transition to a net-zero future does not rely just on the action of “a few” leaders. Policy and technology cooperation can greatly accelerate the transition everywhere through:



Coordinated learning & capacity-building



Coordinated investment & assistance



Coordinated political commitments & targets



Q&A



THANK YOU