

MISSION INNOVATION

Tracking Progress – Measuring Impact

COP23 – 15th November 2017

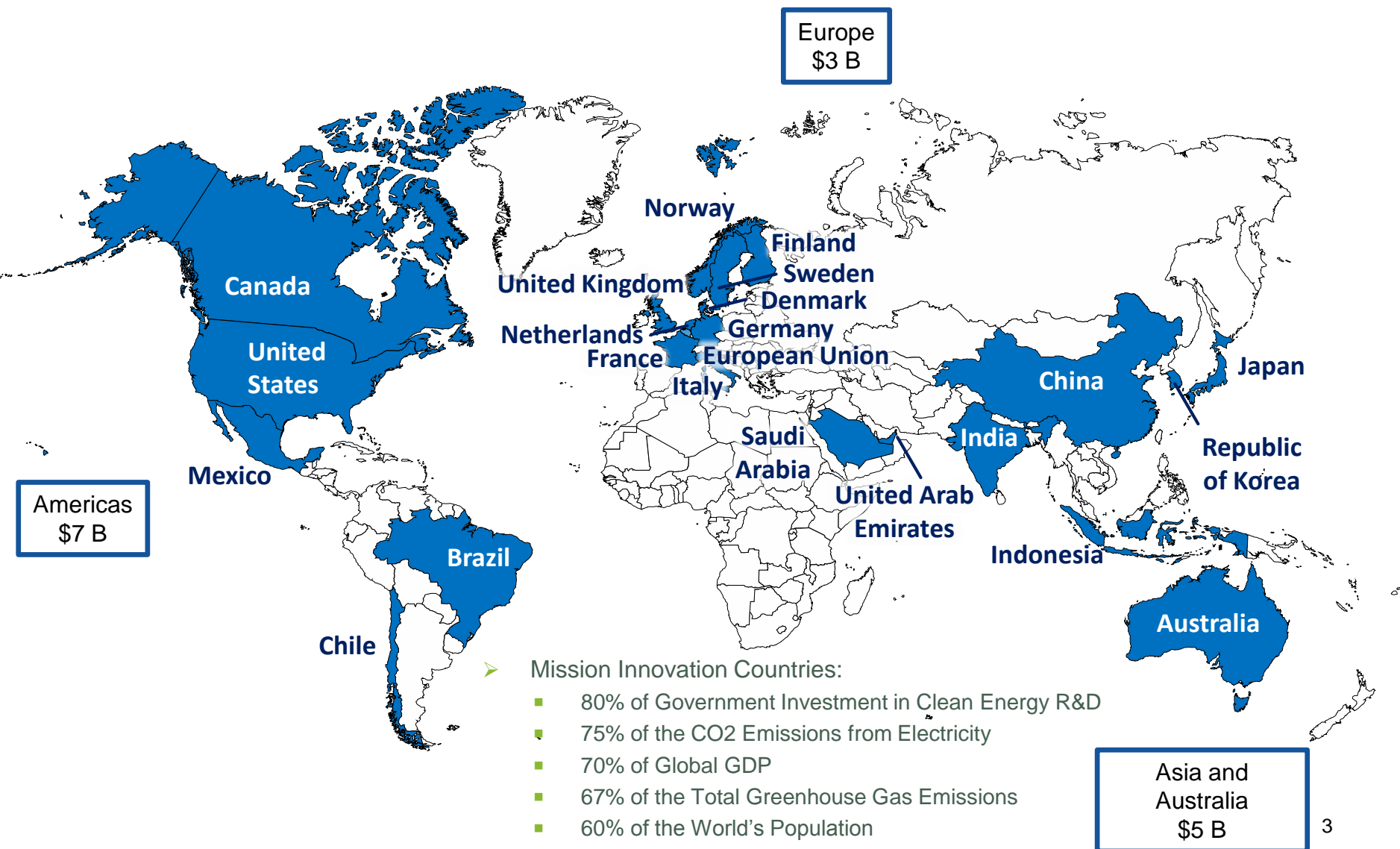
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Mission Innovation's Aims & Objectives

- Mission Innovation (MI) is a global initiative of 22 countries and the European Union seeking to **strengthen international clean energy RD&D** in order to **dramatically accelerate clean energy innovation** with the goal of **making clean energy widely affordable**.
- As part of the initiative, participating countries have **committed to seek to double their governments' clean energy research and development (R&D) investments over five years**, while **encouraging greater levels of private sector investment** in transformative clean energy technologies.
- These additional resources will dramatically accelerate the availability of the advanced technologies that will define a future global energy mix that is clean, affordable, and reliable.



22 Countries & EU



Our Mission Statement:

In support of economic growth, energy access and security, and an urgent and lasting global response to climate change, **our mission is to accelerate the pace of clean energy innovation** to achieve performance breakthroughs and cost reductions **to provide widely affordable and reliable clean energy solutions** that will revolutionize energy systems throughout the world over the next two decades and beyond.

The MI Action plan defined 4 objectives:

1. A substantial **boost in public-sector investment** in clean energy R&D at the national level of MI members;
2. **Increased private sector engagement and investment** in energy innovation, particularly in key Innovation Challenges;
3. **Many new or strengthened** voluntary **cross-border networks and partnerships** on energy innovation, greater engagement from innovators, and accelerated progress in addressing specific Innovation Challenges;
4. **Greater awareness** amongst MI members and the wider clean energy community of the transformational potential of energy innovation, the progress being made, and the remaining critical clean energy innovation gaps and opportunities.

- World needs innovation to achieve and go beyond Paris commitments
- Crucial to understand what progress is being made – can't afford to be doing the wrong things.
- MI members investing \$15bn pa and that will rise significantly by 2021.
- Individually and collectively we want to know:
 - Are we making progress – are clean energy technologies improving, are we on track to where we need to be?
 - Are our actions are having impact – are we doing the right things or do we need to try something different?
 - Need to show we are making progress / having an impact – if we are to sustain support (financial and effort).
- Tracking Progress – can see ways of doing that – but gathering robust data is tricky.
- Measuring our impact – hard – maybe not too worried about attribution.

Initial ideas on MI KPIs

- **Objective 1: A substantial boost in public-sector investment**
 - a. Total public sector clean energy RD&D expenditure globally
 - b. Number of clean energy innovation projects started since 2015
 - c. Number of countries with a clean energy innovation strategy
- **Objective 2: Increased private sector engagement and investment**
 - a. Total private sector investment in clean energy RD&D
 - b. Total Investment in clean energy innovation from new funds with linkages to MI
 - c. Impact case studies of companies benefiting from increased MI funding
- **Objective 3: Many new or strengthened cross-border networks and partnerships**
 - a. Number and type of clean energy innovation partnerships between MI members since 2015
 - b. Number of public-private partnerships since 2015
- **Objective 4: Greater awareness of clean energy innovations potential**
 - a. Number people who read and open MI newsletter articles
 - b. Number of academic papers published related to clean energy innovation
- **Overall MI Progress**
 - a. Performance characteristics for leading edge examples of specific clean energy technology

Next Steps

- MI members see Tracking Progress and Measuring Impact as critical
- Need a shared effort to enhance our understanding
- MI would like to bring together experts and organisations to develop a shared approach
- Different aspects can be owned by different teams
- We are looking for ideas and partners to assist.

Mission Innovation's Challenges

- As part of Mission Innovation, the UK led the development of 7 global 'innovation challenges' launched at COP22. Work plans for these challenges were announced at the recent Mission Innovation Ministerial in Beijing. The Challenges are:
 1. **Smart Grids** – to enable future grids that are powered by affordable, reliable, decentralised renewable electricity systems;
 2. **Off-Grid Access to Electricity** – to develop systems that enable off-grid households and communities to access affordable and reliable renewable electricity;
 3. **Carbon Capture** – to enable near-zero carbon dioxide (CO₂) emissions from power plants and carbon intensive industries;
 4. **Sustainable Biofuels** – to develop ways to produce, at scale, widely affordable, advanced biofuels for transportation and industrial applications;
 5. **Converting Sunlight** – to discover affordable ways to convert sunlight into storable solar fuels;
 6. **Clean Energy Materials** – to accelerate the exploration, discovery, and use of new high-performance, low-cost clean energy materials; and
 7. **Affordable Heating and Cooling of Buildings** – to make low-carbon heating and cooling affordable for everyone (*the UK is co-leading this challenge with the European Commission and the United Arab Emirates*)

Objectives for the Innovation Challenges

1. To build an improved and **shared understanding** of what is **needed** to address the Challenge and **what success looks like** (define specific, measurable targets and track progress towards them)
2. To **identify key gaps and opportunities** not sufficiently addressed by current activities.
3. To **promote opportunities to researchers, innovators and investors** in-order to build support and excitement around them and boost engagement;
4. To **strengthen and expand collaboration** between key partners (government-government, researcher-researcher, public-private etc).