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LIMITE

RECH

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MEETING DOCUMENT

From:	General Secretariat of the Council
To:	Delegations
Subject:	Debrief of the first Joint Ministerial of Mission Innovation and the Clean Energy on 21-23 September 2022 - powerPoint presentation

Delegations will find attached a powerPoint presentation on above-mentioned subject made by the Commission at the Research Working Party meeting on 13 October 2022.



DEBRIEF OF THE FIRST JOINT MINISTERIAL OF MISSION INNOVATION AND THE CLEAN ENERGY ON 21-23 SEPTEMBER 2022

Bruxelles, 13th of October



**MISSION
INNOVATION**



CLEAN ENERGY
MINISTERIAL

Advancing Clean Energy Together

AGENDA



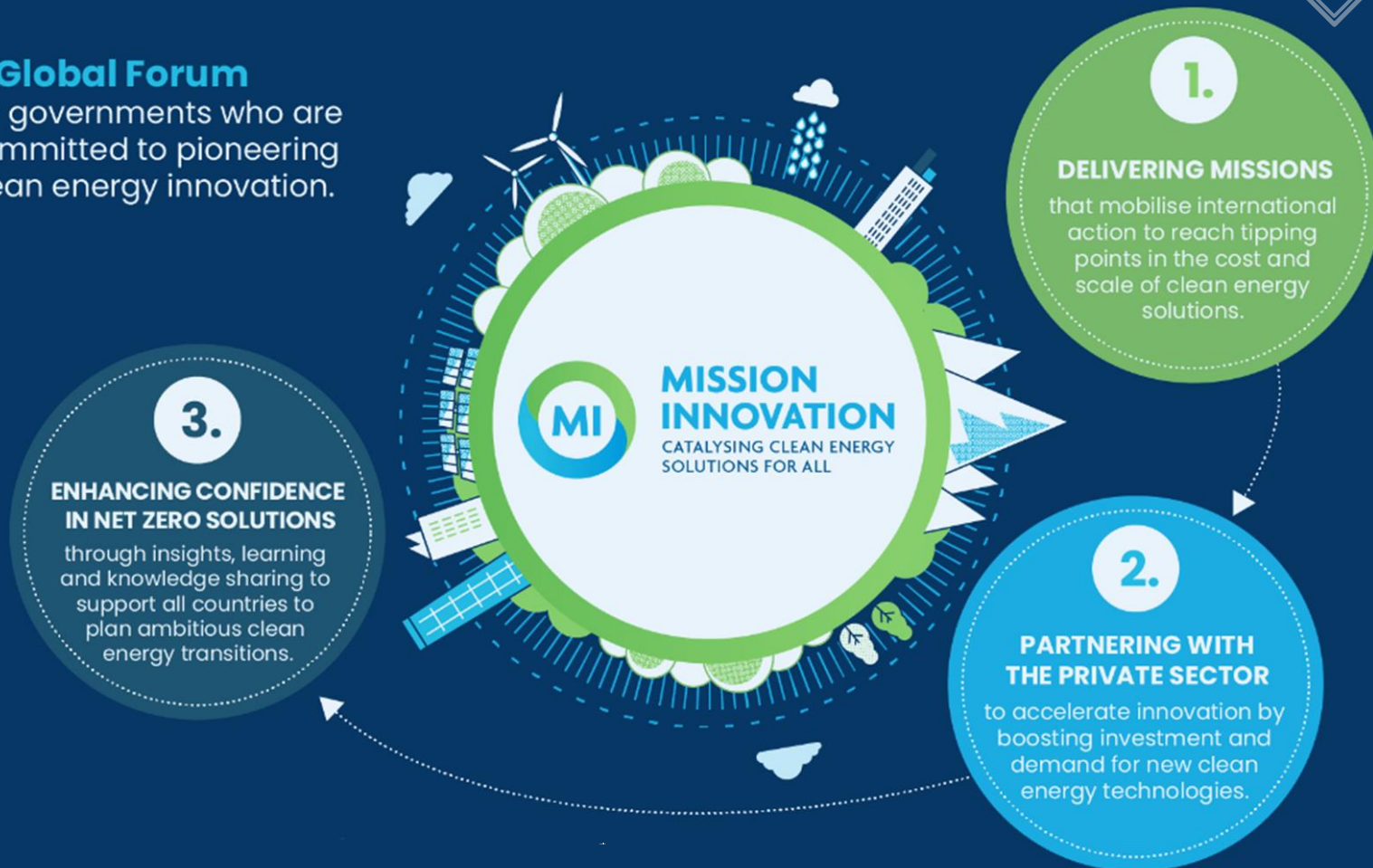
PUBLIC

- **INTRODUCTION:**
 - Short summary of Mission Innovation
 - Pittsburgh: the Global Clean Energy Action Forum
- **KEY ANNOUNCEMENTS AT THE GCEAF**
 - Key MI Missions announcements
 - Other MI announcements at GCEAF
 - CEM Announcements
- **THE BREAKTHROUGH AGENDA**

Mission Innovation (MI) is a global initiative, catalysing a decade of action and investment in research, development and demonstration to make clean energy affordable, attractive and accessible for all. This will accelerate progress towards the Paris Agreement goals and pathways to net zero.

A Global Forum

for governments who are committed to pioneering clean energy innovation.



MI MEMBERS AND PARTNERS

Mission Innovation is a global initiative of 23 countries and the European Commission (on behalf of the European Union).



Australia



Finland



Norway



Austria



France



South Korea



Brazil



Germany



Saudi Arabia



Canada



India



Spain



Chile



Italy



Sweden



China



Japan



United Arab
Emirates



Denmark



Morocco



United Kingdom



European Union



Netherlands



United States



MI HAS 7 MISSIONS



7 Missions to reach tipping points in the **cost and scale of solutions** for the most difficult decarbonisation challenges.



Zero-Emission
Shipping



Green Powered
Future



Clean Hydrogen



Carbon Dioxide
Removal



Urban Transitions



Net Zero Industries



Integrated
Biorefineries

Collaboration and investment through the Missions will tackle sectors responsible for over half of global greenhouse gas emissions, with **members projected to invest at least \$250bn in innovation by the end of the decade.**

PITTSBURGH: GLOBAL CLEAN ENERGY ACTION FORUM



KEY ANNOUNCEMENTS AT THE GCEAF

- To emphasize the **complementary and synergistic roles of MI and CEM** in the international clean energy architecture Ministers stressed that **INNOVATORS MUST WORK HAND-IN-HAND WITH DEPLOYERS OF CLEAN ENERGY**.
 - For this reason, CEM and MI must also **FOCUS ON DEMONSTRATING USE OF TECHNOLOGIES** in the form of hydrogen valleys, industrial decarbonization and sustainable transformation of cities, and the just transition.
- Members of CEM and MI also agreed to take **STEWARDSHIP OF THE BREAKTHROUGH AGENDA** as a first joint initiative, beginning with a pilot year, in the areas of **power, hydrogen, road transport and steel**.
- Responding to the **CLEAN ENERGY DEMONSTRATION CHALLENGE**, 16 countries committed USD 94 billion at GCEAF. **The Commission will contribute with over EUR 28 BILLION VIA HORIZON EUROPE, THE INNOVATION FUND AND INVESTEU**.
- MI welcomed **SPAIN AS A NEW MEMBER**; the next two Ministerials will take place in **INDIA** (2023) and in Brazil (2024);

KEY MI MISSIONS ANNOUNCEMENTS

- Identify **100 HYDROGEN VALLEY PROJECT IDEAS BY 2023** and launch the **Hydrogen Mission Label**; and support other non-MI countries and developing countries to create and deploy Hydrogen Valleys through the Clean Hydrogen Mission which DG RTD co-leads;
- Identify first **COHORT OF 50 CITIES** across the globe that will develop and test innovative strategies for reaching climate neutrality, the **launch of a Global Knowledge Exchange Centre** and the organization of an Innovation Summit for Cities, through the Urban Transition Mission which DG RTD co-leads
- Demonstrate what a **FULLY OPERATIONAL AND COMMERCIALY READY ZERO EMISSION REFUELING PORT** will look like, through the Zero Emissions Shipping Mission which we support
- Establish **FIVE CONTINENTAL DEMONSTRATORS** with up to 80% Variable Renewable Energy and launch the first calls under a new Multilateral Research Programme to tackle the identified innovation priorities under the Green Powered Future Mission, of which DG RTD a core member
- Launch of the **FIRST FLAGSHIP ACTIONS IN 2023** to develop new products and improve processes under the Integrated Biorefineries Mission of which DG RTD is a core member.



MI MISSIONS ANNOUNCEMENTS IN DETAIL (1)



Clean Hydrogen

CLEAN HYDROGEN MISSION, EC is co-lead

- Published the **Clean Hydrogen Mission Action Plan 2022-2024**, that will stimulate greater international cooperation on clean hydrogen technology and **achieve cost reduction** across the full value chain of clean hydrogen and to reach an end-to-end cost of \$2/kg H₂
- Announced a **sprint** to identify **100 CLEAN HYDROGEN VALLEYS BY 2024**
- Announced the **Hydrogen Exchange**, a new peer-learning network to accelerate the development of the hydrogen economy.
- Published an **International Report on Hydrogen RD&D Opportunities**



Net Zero Industries

NET-ZERO INDUSTRIES MISSION, EC IS A SUPPORT MEMBER

- **Launch of the Net Zero Industries Mission** a coalition of 8 Mission Innovation member countries (AUS, AUT, UK, GER, CHN, CAN, FIN, EU) led by Austria and Australia
- Released **joint innovation roadmap** for the next 10 years kick-starting its implementation phase



Carbon Dioxide Removal

CARBON DIOXIDE REMOVAL MISSION

- Announced the **Carbon Dioxide Removal Coalition** to launch pilot and demonstration projects



Zero-Emission Shipping

ZERO-EMISSIONS SHIPPING MISSION

- Published the Zero-Emission Shipping Mission **Action Plan 2022-2025**
- Launched the **Blueprint for Future Ports program** to demonstrate what a fully operational and commercially ready Zero Emission refueling port will look like

MI MISSIONS ANNOUNCEMENTS IN DETAIL (2)

URBAN TRANSITIONS MISSION, EC is co-lead

- Published the Urban Transitions Mission **Action Plan 2022-2030**
- Announced the setup of a **Global Knowledge Exchange Centre** on emissions reduction pathways for urban environments
- Launched an **OPEN CALL FOR CITIES TO JOIN THE URBAN TRANSITIONS MISSION CITY COHORT**
- Announced **MIcall 22** to support transnational research and/or innovation projects addressing urban challenges
- Published a **Mayoral statement of needs** calling for accelerated and coordinated interventions to address the scale and urgency of the challenge faced by local leaders



Urban Transitions

INTEGRATED BIOREFINERIES MISSION

- Published Integrated Biorefineries **Innovation Roadmap**



Integrated
Biorefineries

GREEN POWERED FUTURE MISSION

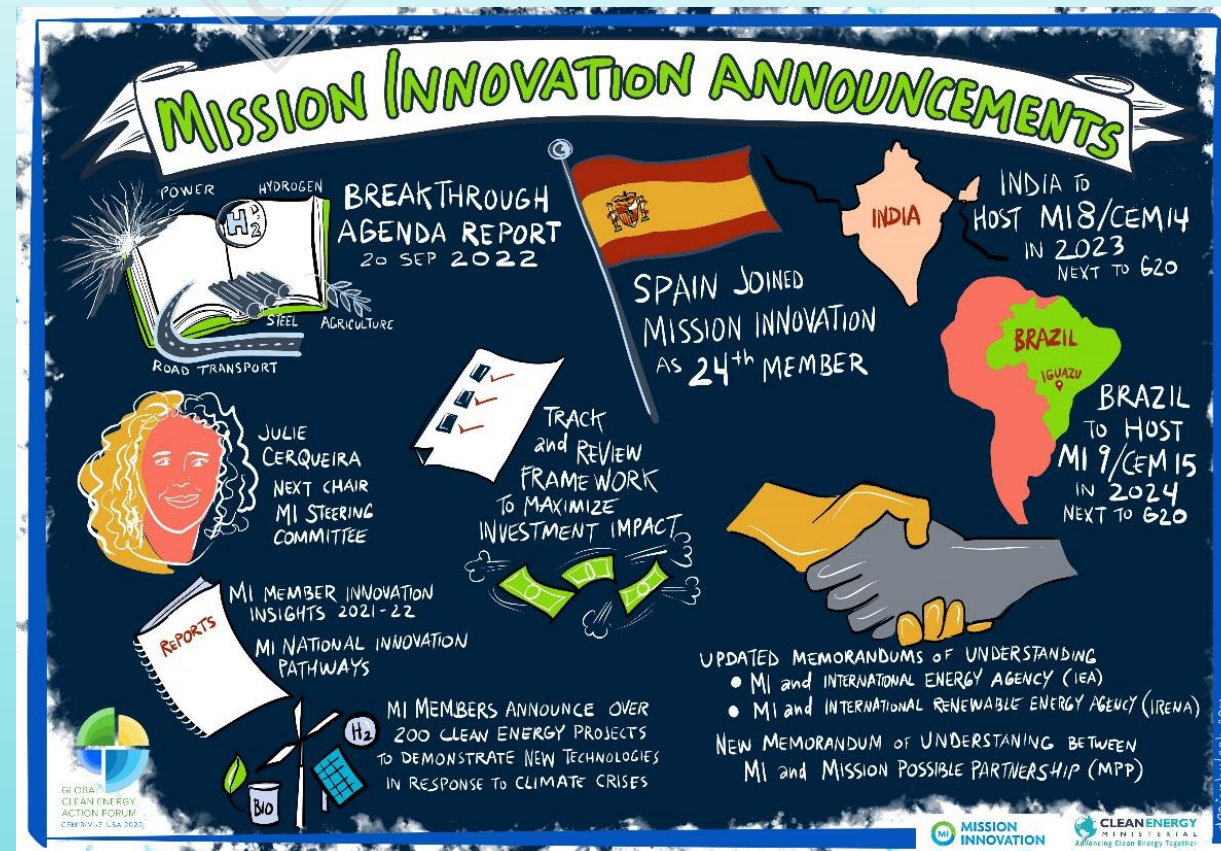
- Published the Green Powered Future Mission **Action Plan 2022-2024**
- Announced a sprint to establish **five continental demonstrators** of up to 80% Variable Renewable Energy by 2024
- Announced a new **multilateral research programme** to tackle the 20 most urgent innovation priorities to achieve the Mission goal
- Signed a **Memorandum of Understanding with ISGAN** to strengthen the ongoing collaboration



Green Powered
Future

OTHER MI ANNOUNCEMENTS AT GCEAF

- Mission Innovation Ministers endorsed a **TRACK AND REVIEW FRAMEWORK** setting out actions to support countries in **maximising the impact of their innovation investments**
- Publication of **MI MEMBER INNOVATION INSIGHTS REPORT 2021-22**
- Publication of **MI NATIONAL INNOVATION PATHWAYS REPORT**
- Updated **Memoranda of Understanding** between Mission Innovation and the **INTERNATIONAL ENERGY AGENCY (IEA)**, the **INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA)** and the **MISSION POSSIBLE PARTNERSHIP (MPP)**



CEM ANNOUNCEMENTS

- Launch of a new “**TRANSFORMING SOLAR**” **workstream** to strengthen solar manufacturing capacity and supply chain
- New Report Maps out Key **LESSONS LEARNED FOR DECARBONISING THE POWER SECTOR**
- New members joined the CEM **Industrial Deep Decarbonisation Initiative (IDDI)**, a collaborative global platform that works on international data harmonisation, standards and green procurement regimes for industrial products.
- Leading countries, including Canada, Germany, India, and the UK announced a **GREEN PUBLIC PROCUREMENT PLEDGE** that sets **benchmarks for low-emission materials in public construction projects**.
- CEM **CCUS Initiative** member countries and Global Cement and Concrete Association announced a joint-collaboration declaration, aiming at helping cement industry implement 10 large-scale CCUS installations by 2030.
- **CLEAN ENERGY MARINE HUBS (CEMH)** will **accelerate the production, trade of low-carbon fuels for shipping around the world**. It will be a public-private platform for action among governments, shipping and ports, along with the finance sector to unlock untapped opportunities in marine infrastructure decarbonization.
- The **CEM HYDROGEN INITIATIVE** will continue to build international collaboration on hydrogen trade and standards.
- A new **CEM ACTION FUND** was set up to help turn the CEM community's ambitions into a reality. The Action Fund will **bring together funding from governments, philanthropies and the private sector to support ambitious, impactful projects across the clean energy spectrum**.

THE BREAKTHROUGH AGENDA

- **Launched at COP 26** by 45 world leaders representing **over 70% of GDP** to work together **to accelerate the development and deployment of clean energy technologies**, with the following 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.
- The **State of the Transition** report was launched at the GCEAF **assessing progress on emission reduction** in these key sectors with recommendations to strengthen collaboration between governments, business and civil society in areas such as common standards, technology R&D, reaching a level playing field for trade, and improving technical and financial assistance.
- Next step: **Launch of priority actions in each Breakthrough sector at COP 27.**

INFORMATION SOURCES



www.mission-innovation.net



@MICleanEnergyRD



[Mission- Innovation](#)

Social media for the Pittsburgh event:

#GCEAF #CEM13MI7 #Pittsburgh #CleanEnergy
#Energy #Innovation

BACKGROUND – PARTICIPATION IN MI/CEM/BA *

