

2024 | Year of Opportunity for Sustainable Fuels & Chemicals

Renewable Energy Institute : Bioenergy for Net Zero

18 January 2024

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2024 | Countries supportive of biofuels are hosting major international events



- Opportunity for bio-based industries to showcase success and vision for the future
- Opportunity to strengthen the role of alternative, low emissions fuels & chemicals in national approaches energy security and climate change mitigation

Brazil G20 Presidency | Sustainable Fuels front and center

G20 Energy Transition Working Group

For 2024, the main themes of the G20 ETWG will be:

1. Accelerating Financing for Energy Transitions, especially in Emerging Markets and Developing Economies
2. Social Dimension of the Energy Transition
 - *Accelerating the Clean Cooking Transition*
3. Innovative Perspectives on Sustainable Fuels



Brazil G20 Presidency | Bioeconomy Initiative

Sherpa Track

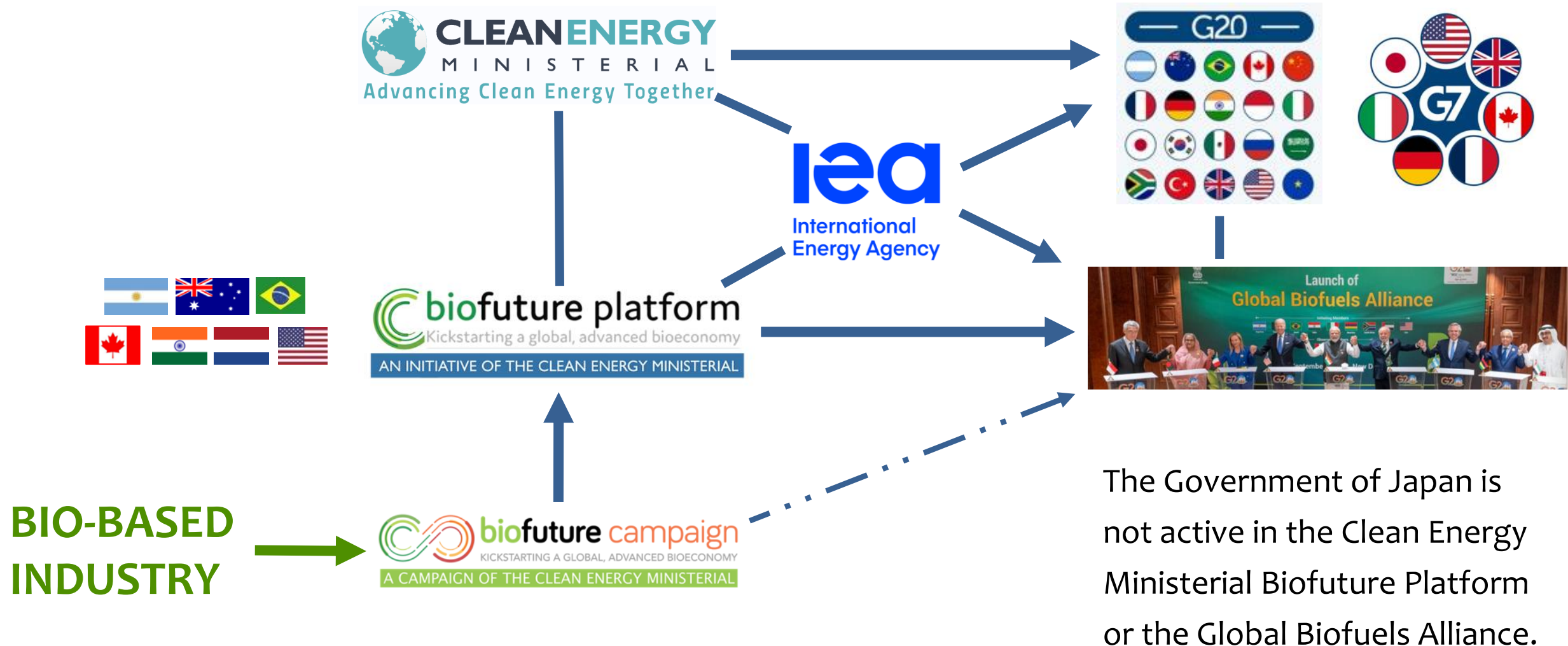
The **Bioeconomy Initiative** has three topics:

1. Science, technology and innovation;
2. Sustainable use of biodiversity; and
3. Role of the bioeconomy in promoting sustainable development.

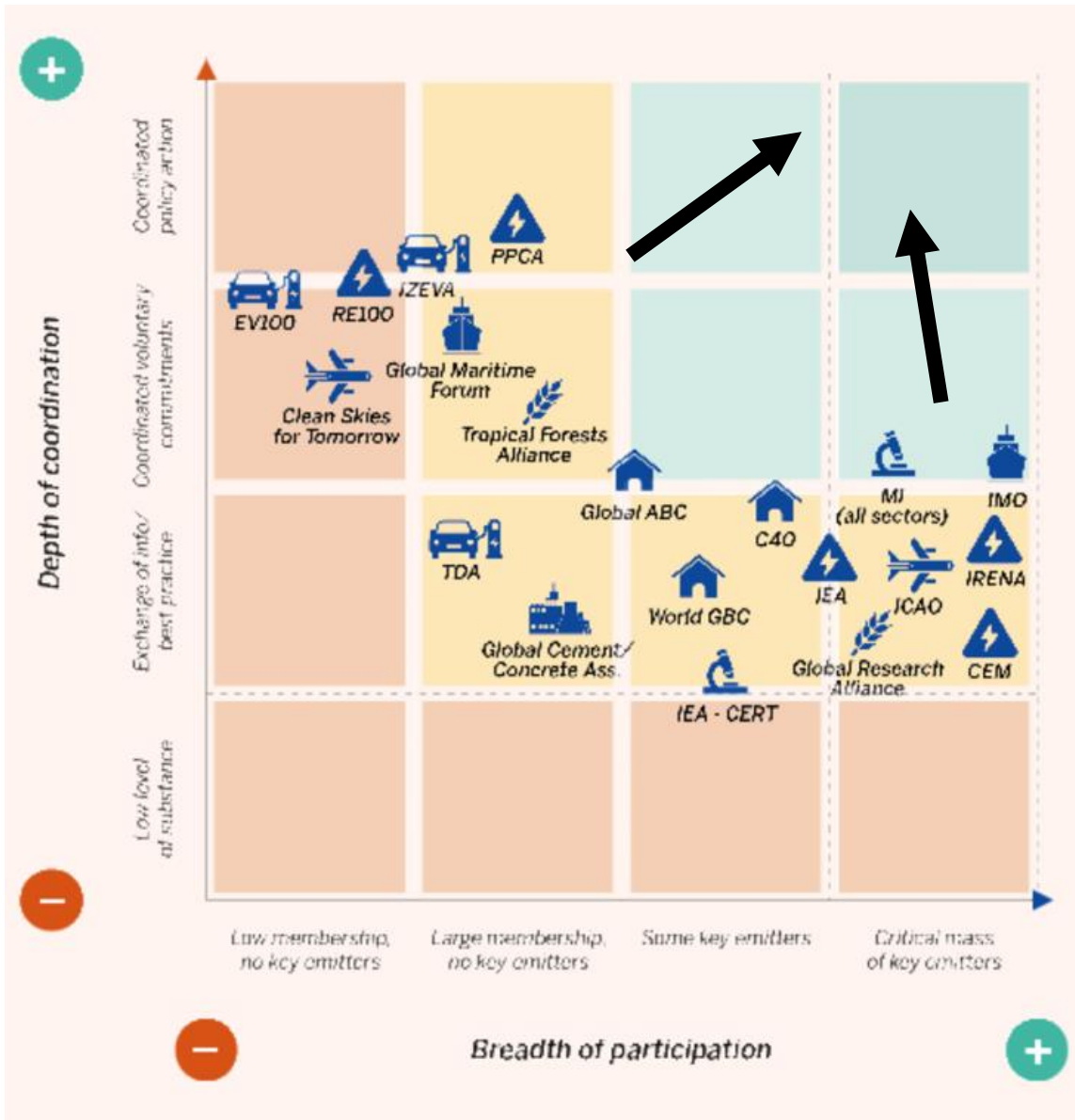


- Bioeconomy includes various economic activities such as agriculture, forestry, fishing, food, bioenergy, and biotechnology.
- Brazil is promoting the discussion on Bioeconomy at the G20 to build a common understanding and the definition of high-level principles on the issue.

Assisting Brazil to accelerate sustainable fuel production and use



EDUCATION & PARTNERSHIP FORMATION

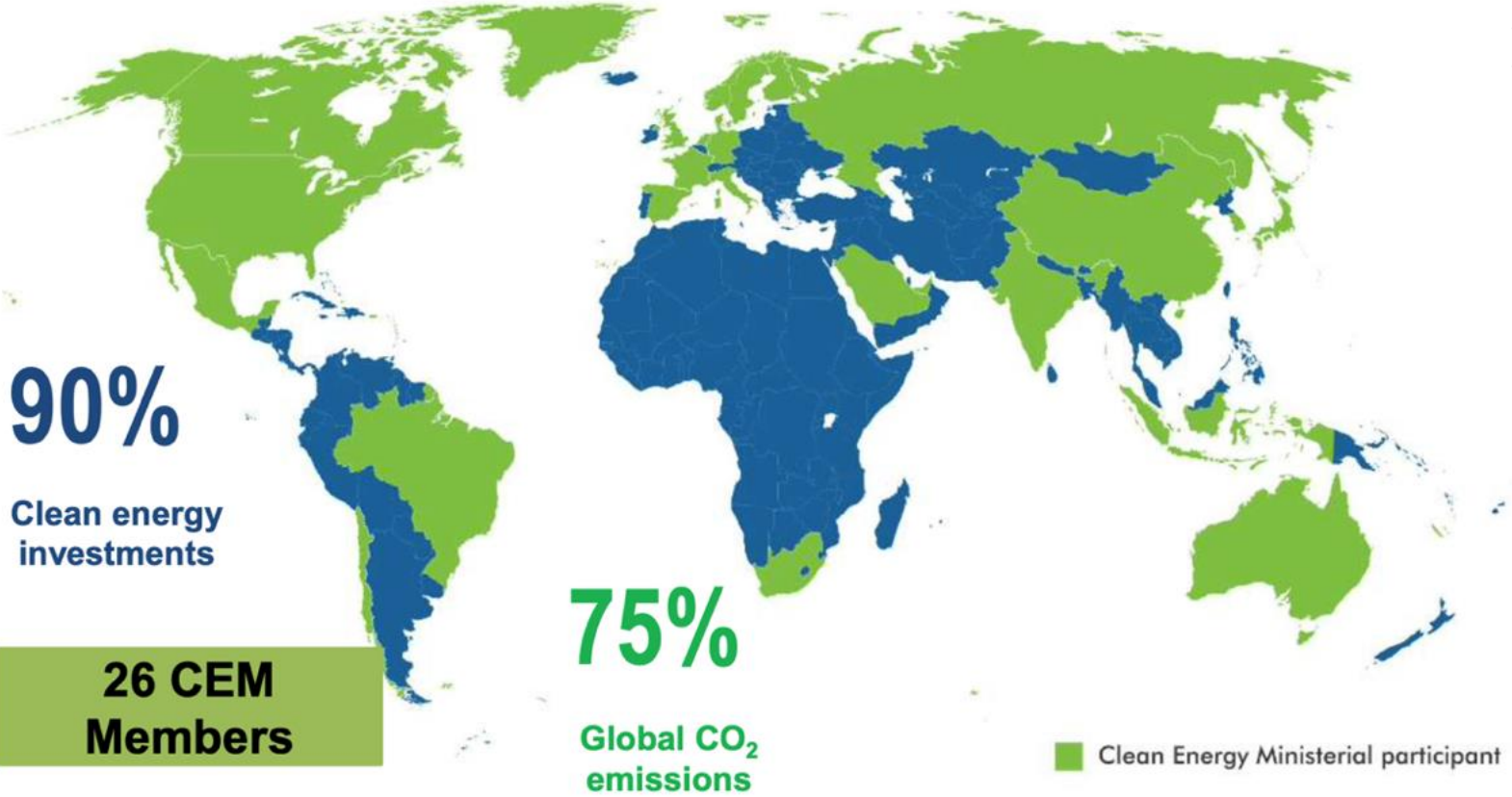


High-Level International Processes can be more than just talk-shops




The Bioeconomy is beginning to meet Climate Realpolitik via

- Obligatory and voluntary carbon markets
- Cross-border carbon tax mechanisms
- Translating ICAO and IMO frameworks into practical regulations that de-risk investment
- Assisting new actors in this space, like WEF and GMF, to re-invent the wheel less

CLEAN ENERGY MINISTERIAL | Overview



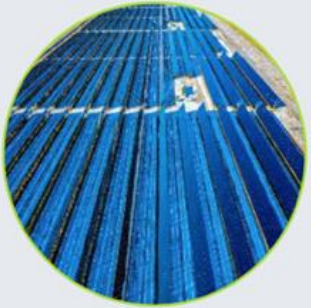
Energy ministers meet annually to

-  Exchange of knowledge, insights, and best practices
-  Collaborate through networks and partnerships
-  Coordinate actions within and across sectors

CLEAN ENERGY MINISTERIAL | Country-led Initiatives & Campaigns

CEM Biofuture Platform enables country-lead action on the global bioeconomy

CEM Biofuture Campaign drives industry engagement with the CEM and Biofuture Platform



POWER

- 21 Century Power Partnership
- Power System Flexibility
- Nuclear Innovation
- Flexible Nuclear
- International Smart Grid Action Network
- Regional and Global Energy Interconnection



TRANSPORT

- Electric Vehicles
- EV30@30
- Global Commercial Vehicles Drive to Zero



INDUSTRY

- Carbon Capture, Utilization, and Storage
- **(NEW)** Industrial Deep Decarbonisation
- **(NEW)** Green Public Procurement campaign (IDDI)



BUILDINGS

- Super-efficient Appliance and Equipment Deployment (SEAD)



CROSS-SECTORAL

- Hydrogen Initiative
- Global Ports Hydrogen Coalition
- Biofuture Platform
- **(NEW)** Biofuture Campaign



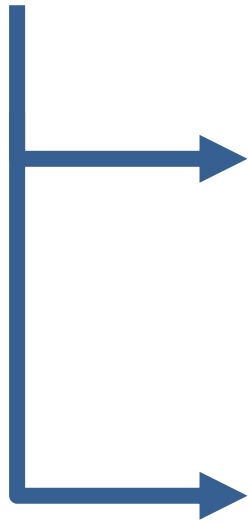
ENABLING ENVIRONMENT

- **(NEW)** Empowering People
- Clean Energy Education and Empowerment
- Equal by 30
- Long-Term Energy Scenarios
- Investment and Finance
- Clean Energy Solutions Center

CEM BIOFUTURE PLATFORM INITIATIVE | ORGANIZATION



-
-
- CCUS
- Hydrogen
- EV
- LTES
- Equal by 30
-
-



WORKSTREAMS: BIOMASS QUANTIFICATION & SUSTAINABILITY, POLICY, BIOPRODUCTS, FINANCE



INDUSTRY+

Lead Countries



CEM Biofuture Campaign | Membership



G7 & G20 Bioeconomy Advocacy Ecosystem

The Biofuture Platform is the CEM Initiative that enables de-fossilization with sustainable bio-based products



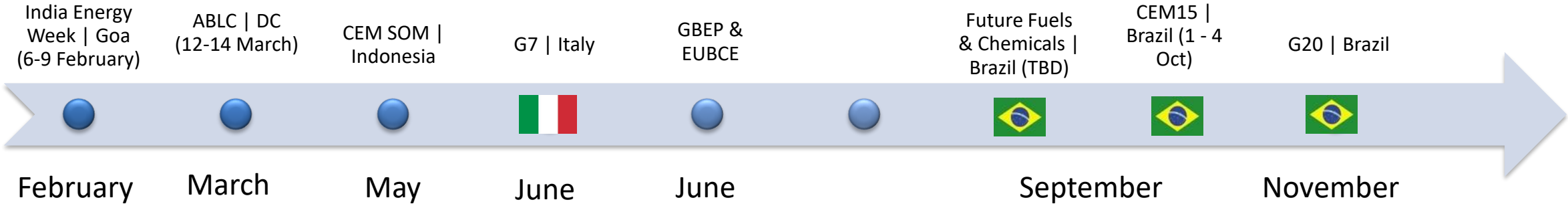
**BIO-BASED
INDUSTRY**



The Biofuture Campaign enables Industry participation in the CEM Biofuture Platform Initiative.

2024 | Showcase Future Fuels & Chemicals to the G7 and G20

Working with partners to produce a series of impactful events culminating in a Future Fuels & Chemicals Summit in Brazil



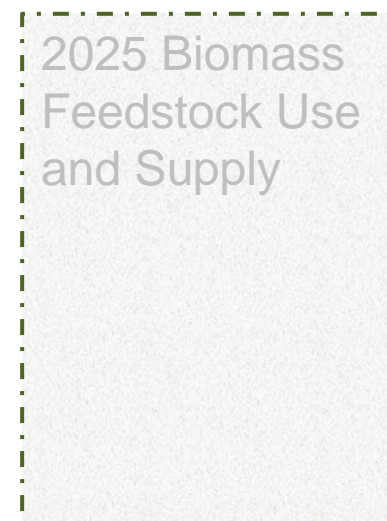
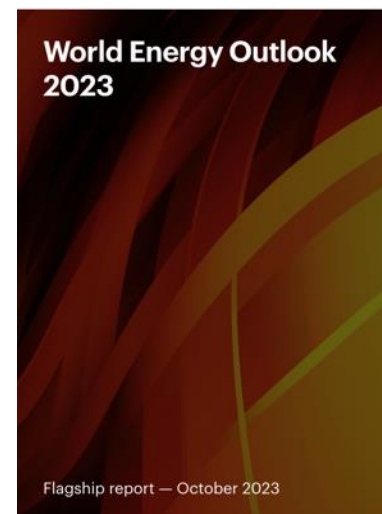
2024 Biofuture Deliverable | Develop an Annual Feedstock Use and Supply Report

Challenge

The absence of an internationally accepted benchmark report on biomass feedstocks fosters uncertainty regarding feedstock availability in the minds of investors and policymakers and reduces their interest in the sector

Mission

- **Annually** compile and distribute best-in-class data and analysis of biomass feedstock Use and Supply
- Serve as a transparent and **trusted data and knowledge resource** for policymakers
- **Clarify** the availability of sustainable biomass feedstocks for diverse applications



2024 Biofuture Deliverable | Develop Annual Feedstock Use and Supply Report

TASKS

Scope of work, terms of reference, budget

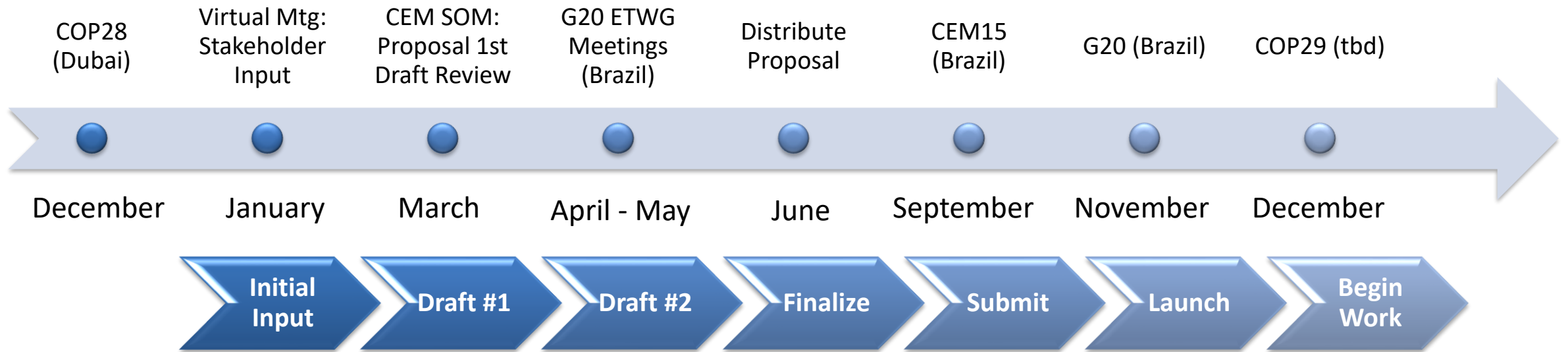
Fundraising plan

Country data requests and/or support

Mapping of international processes and data sources

Proposals for report "host" (e.g., IEA, GBEP, FAO, etc)

REPORTING DEVELOPMENT | Timeline & Overview



- Virtual workshop in Q1 2024 will encourage diverse stakeholders to address the Scope of Work, Mode of Action, Budget, etc.
- CEM SOM session to review 1st draft of the proposal
- G20 ETWG meetings will allow for G20 feedback
- Proposal to be shared in June with participating CEM Biofuture Countries for acceptance and launch at CEM15 in September

2024 Biofuture Deliverable | Support IEA Mapping of LCA-based Policy

Challenge

- Obligatory and voluntary markets are using LCA – based policies in more and more sectors, but little effort is being made to ensure inter-operability.
- Diverse reporting and operational requirements is creating challenges for Industry

Mission

- The IEA will study how LCA is used by policymakers across the world
- Describe the growing heterogeneity of LCA-based policies and the challenges created for Industry
- First step towards enabling greater inter-operability across jurisdictions



GLOBAL BIOFUELS ALLIANCE | Launched September 2023 & Developing in 2024



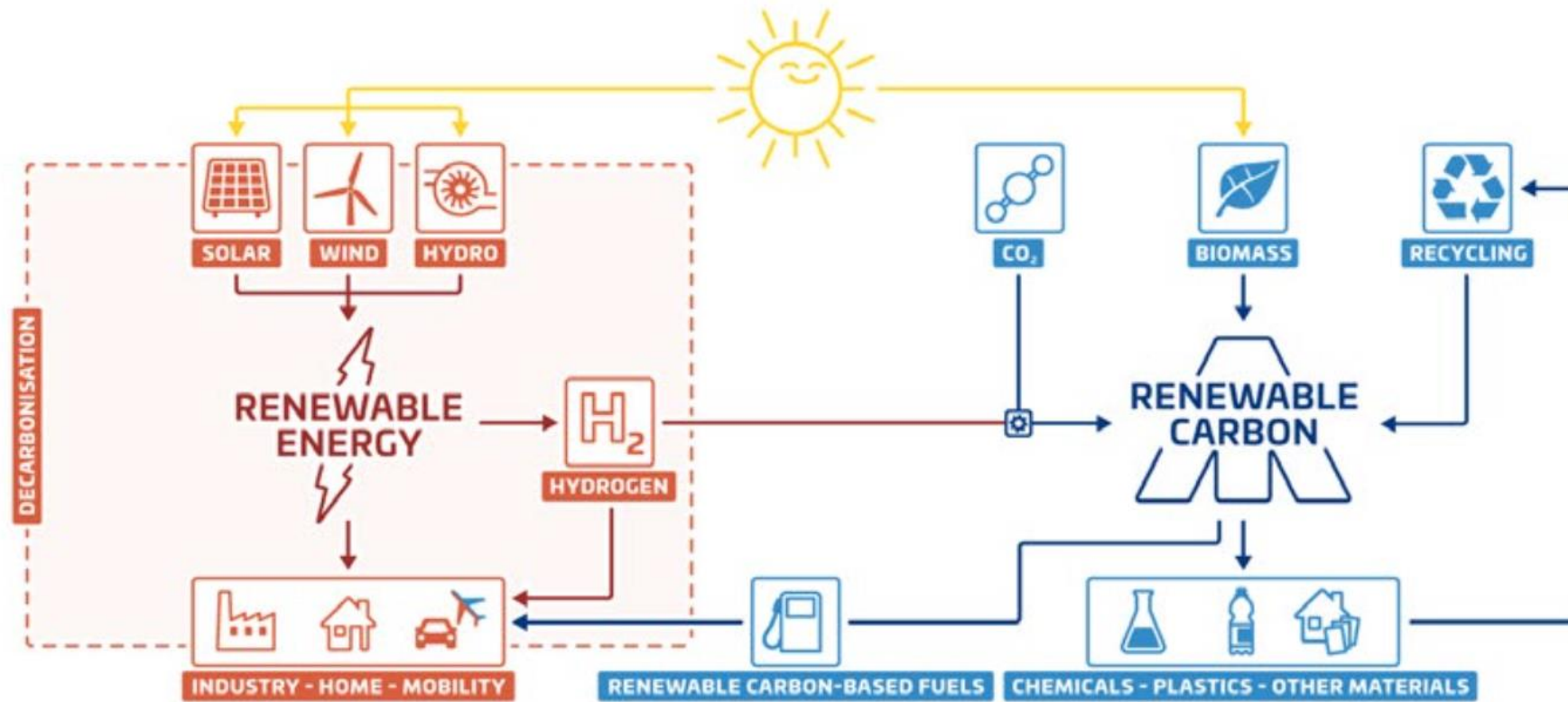
The Global Biofuels Alliance intends to scale-up biofuels production and use by

- Spearheading technological innovations
- Promoting sustainable biofuel use
- Establishing robust standards and certifications
- Creating a centralized knowledge repository and an expert hub



Looking ahead . . . Future of Fuels and Chemicals by linking E-Fuels and Biofuels

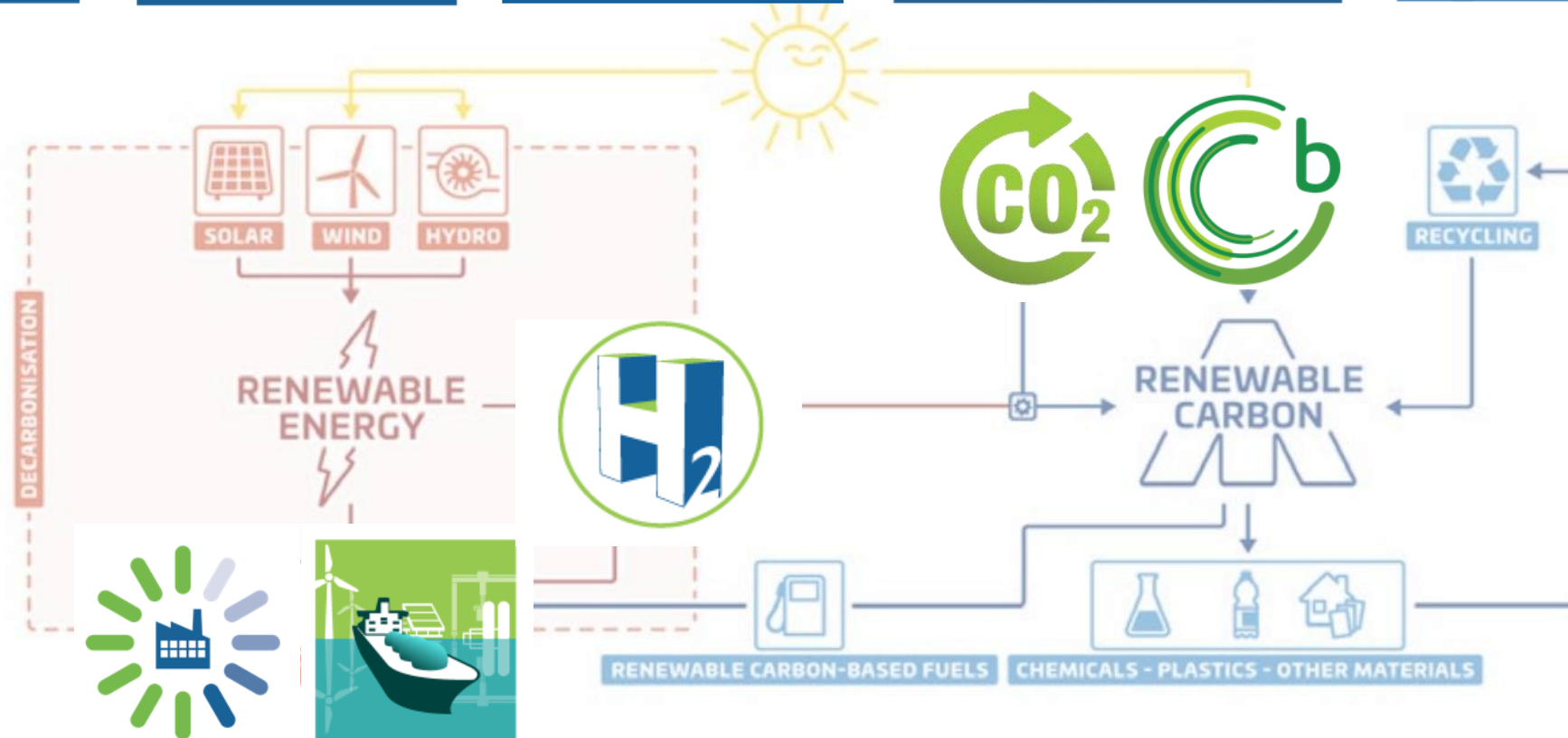
Renewable Energy and Renewable Carbon for a Sustainable Future



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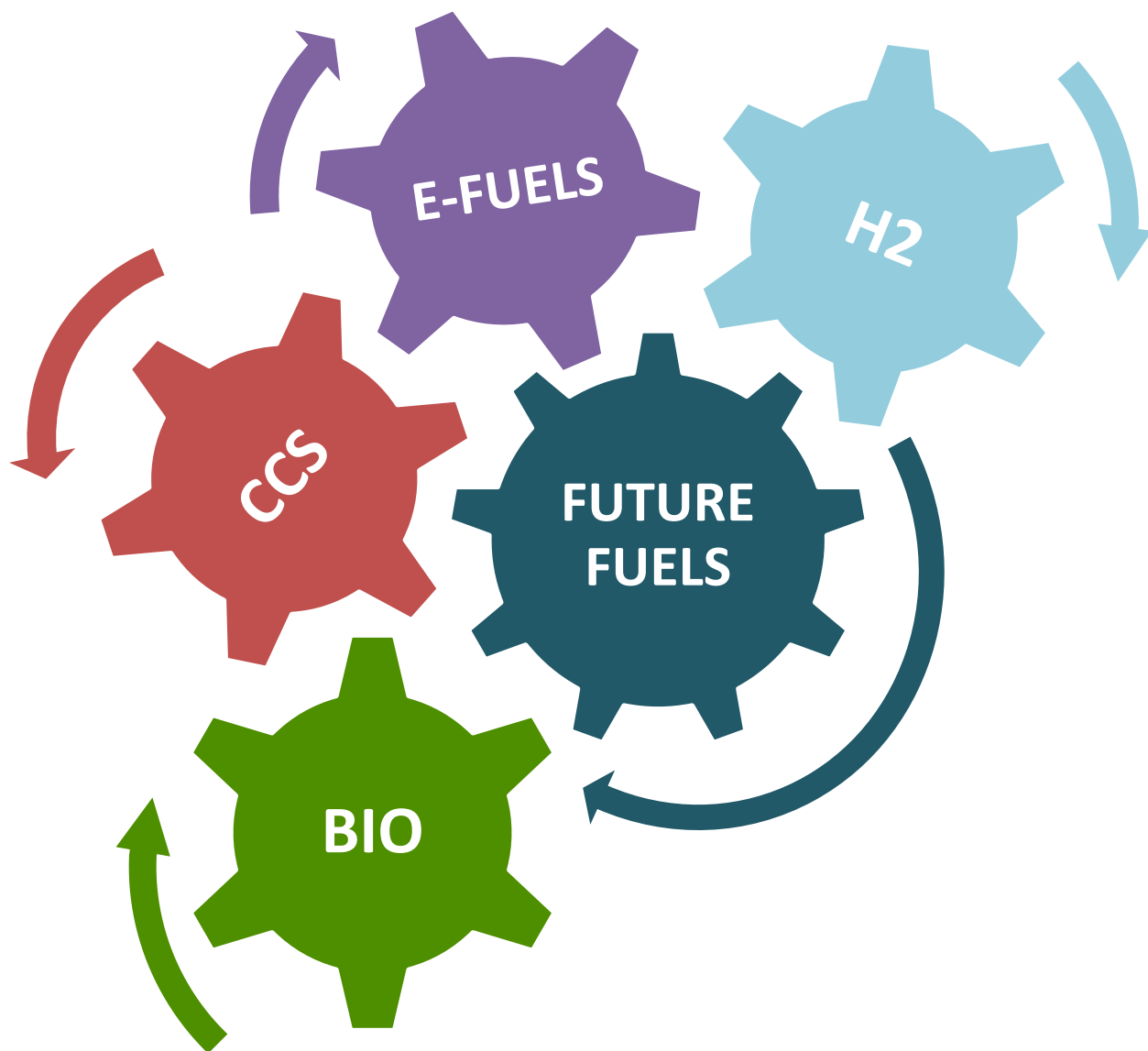
Existing Clean Energy Ministerial Initiatives can enable clean fuels . . .
 . . . but would benefit from greater coordination . . .



Borrowed/Modified from



CEM Future Fuels Accelerator | Driving collaboration across CEM Initiatives



- FFA is NOT a new Initiative . . .
- FFA to be a coordination function within the CEM Secretariat.
- COP28 Side Event held 02 Dec . . .



CEM FUTURE FUELS ACCELERATOR

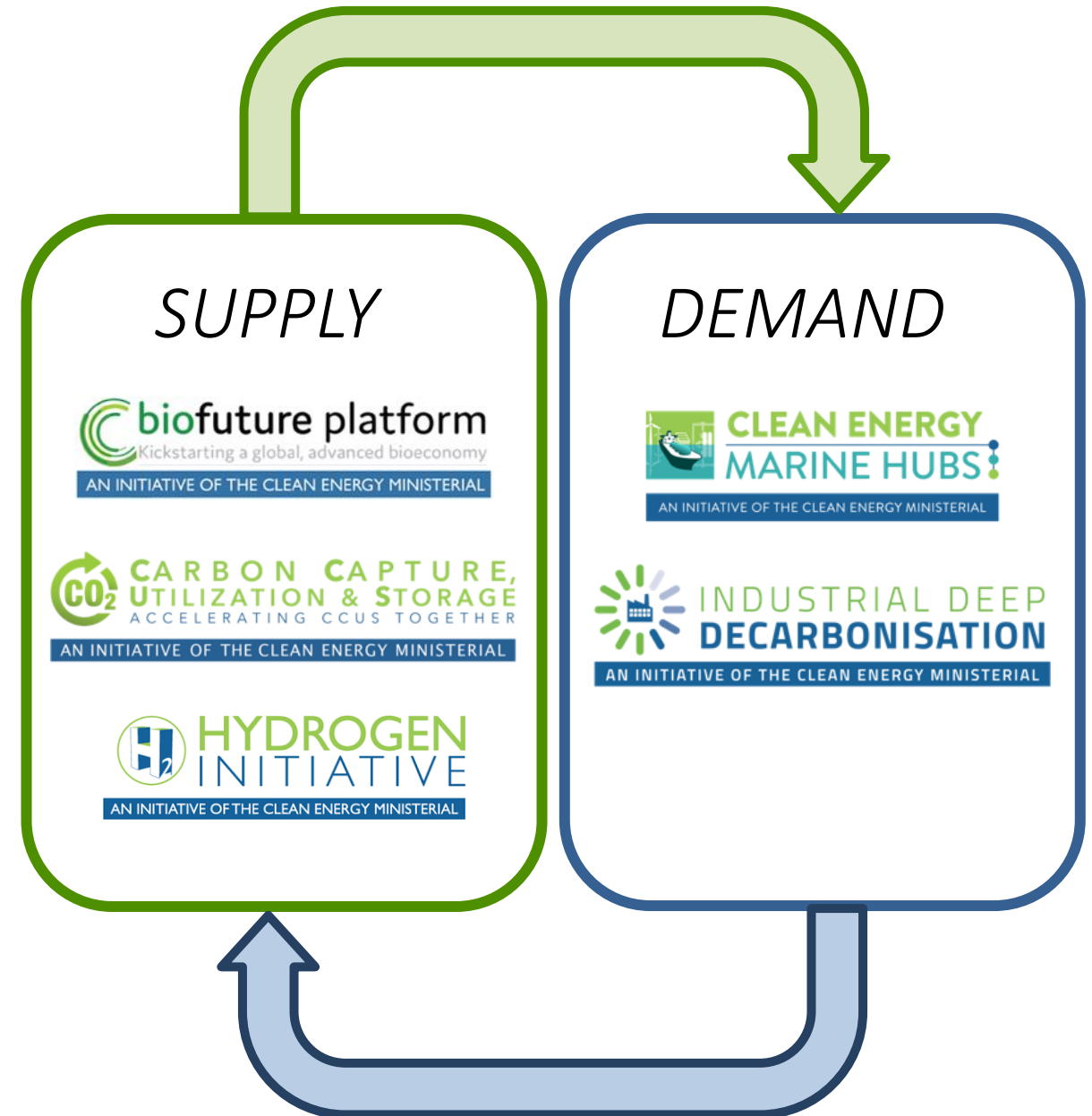
MISSION

Enable coordination and collaboration between CEM e-fuel, biofuel, and carbon capture related initiatives to accelerate

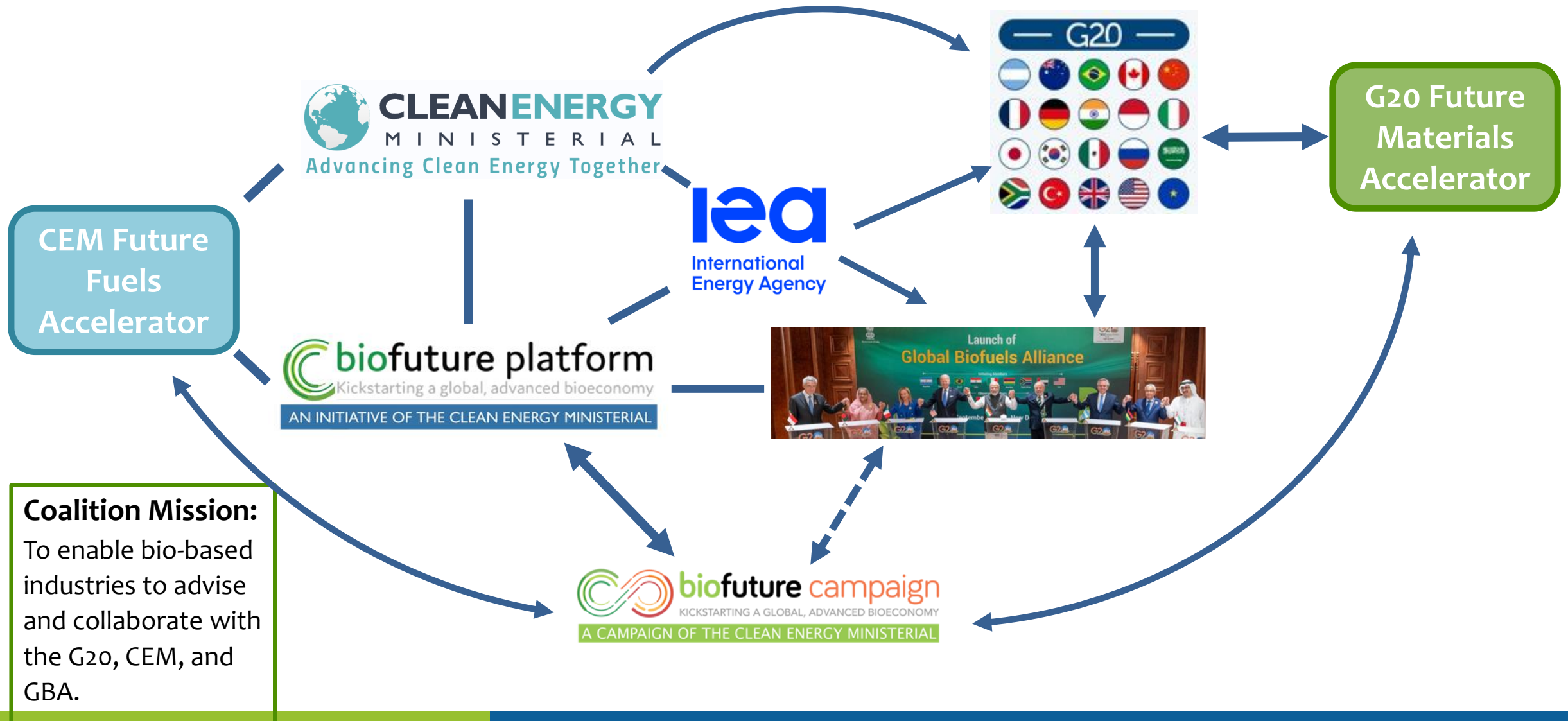
- Government leadership
- Connecting demand and supply
- Project development
- Building or re-purposing infrastructure for production and distribution

The CEM FFA covers demand from hard-to-abate sectors in Industry and Maritime but is missing Aviation.

There are existing entities that we could partner with to cover SAF demand, such as ICAO, ATAG, SABA or WEF/CST.

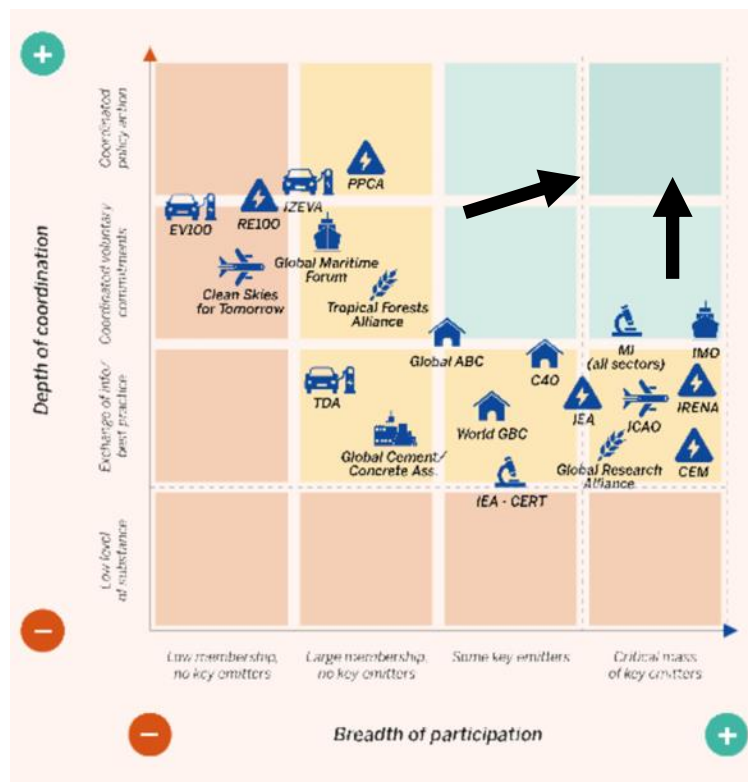


Creating engagement platforms for Sustainable Molecules



THANK YOU

Assembling the Net Zero Circular Economy



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2024 Biofuture Calendar

January

February

India Energy Week (Goa | 6 – 9)
Carnival (Rio de Janeiro | 9 – 17)
G20 ETWG I (Virtual | 18 – 19)

March

ABLC (DC | 13 - 15)

April

G7 Environment WG (Turin | tbd)
G20 ETWG II (Brasilia | 15 – 16)
World Future Energy Summit (Abu Dhabi | 16 – 18)

May

CEM Senior Official's Meeting (Indonesia)
IEA Summit on Clean Cooking in Africa (Paris | 14 May)
G20 ETWG III (Belo Horizonte | 26 – 29)

June

G7 Summit (Italy | 13 – 15)
GBEP Bioenergy Week (Rome | 17 – 21)
EUBCE (Marseille | 24 – 27)

July

August

September

UNGA (NYC | 10 – 24)
Climate Week (NYC | 17 – 24)
CEM15/MI-9 (Foz do Iguaçu | 23 – 26)
G20 ETWG IV (Foz do Iguaçu | 24 – 25)
G20 ETWG Ministerial (Foz do Iguaçu | 27)

October

ABLC Next (San Francisco | tbd)
BBEST (São Paulo | 22 – 24)

November

COP29 (Azerbaijan | 11 – 24)
G20 Summit (Rio de Janeiro | 18 - 19)

December