



How to create the Biofuture?

*Articulating the policy means to accelerate
sustainable bioenergy deployment*

**3rd EU-India Conference on Advanced Biofuels
Wash. DC, Oct 14th, 2020**

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Ministry of Foreign Affairs - BRAZIL

Video



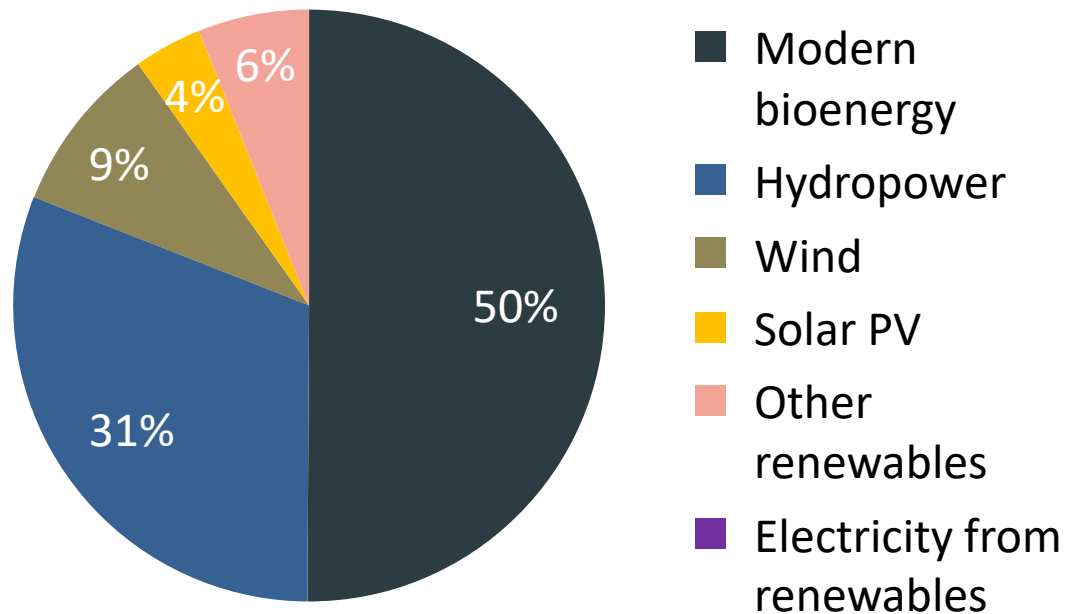


Renewables 2018

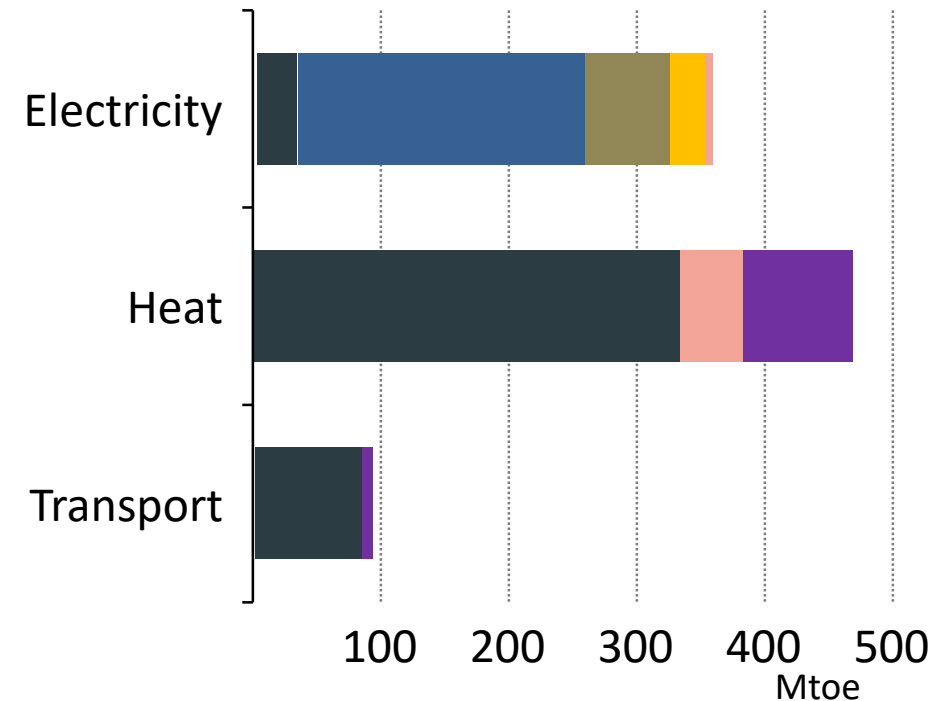
Analysis and Forecasts to 2023 – A focus on sustainable bioenergy

Modern bioenergy: the overlooked giant of renewables

Total final energy consumption from renewables, 2017



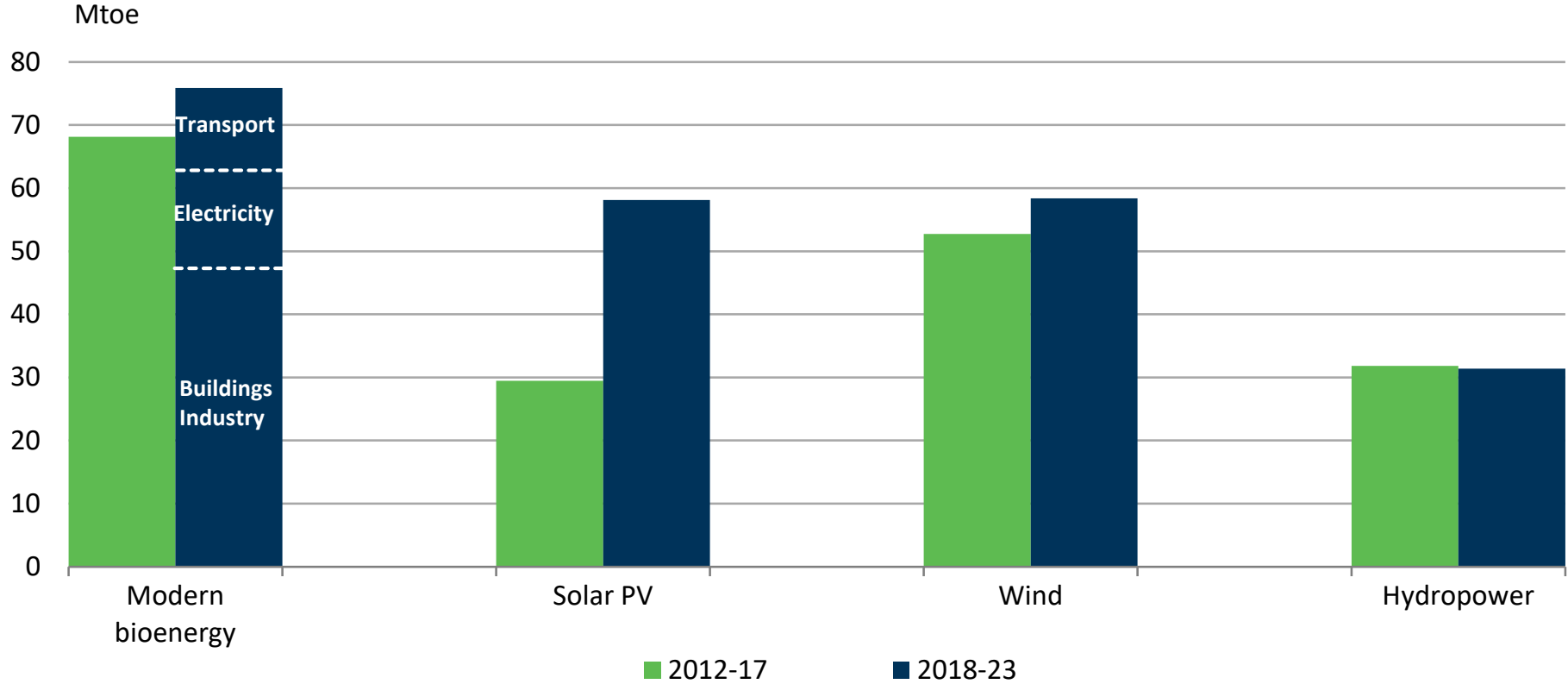
Total final energy consumption from renewables by sector, 2017



Modern bioenergy is the only renewable source that can provide electricity, direct heat and transport fuels. Two thirds of modern bioenergy heat is used in industry

Modern bioenergy set to lead renewables growth

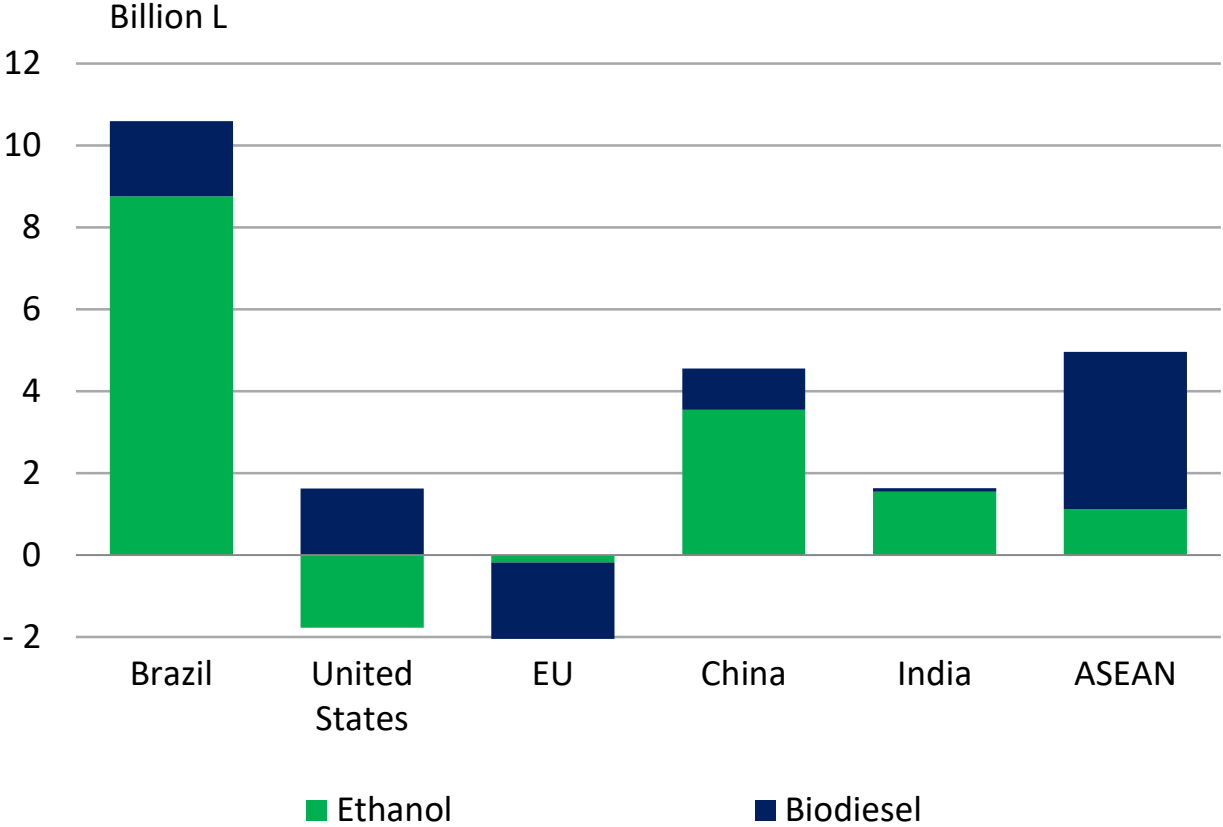
Total energy consumption growth of renewables over 2012-23



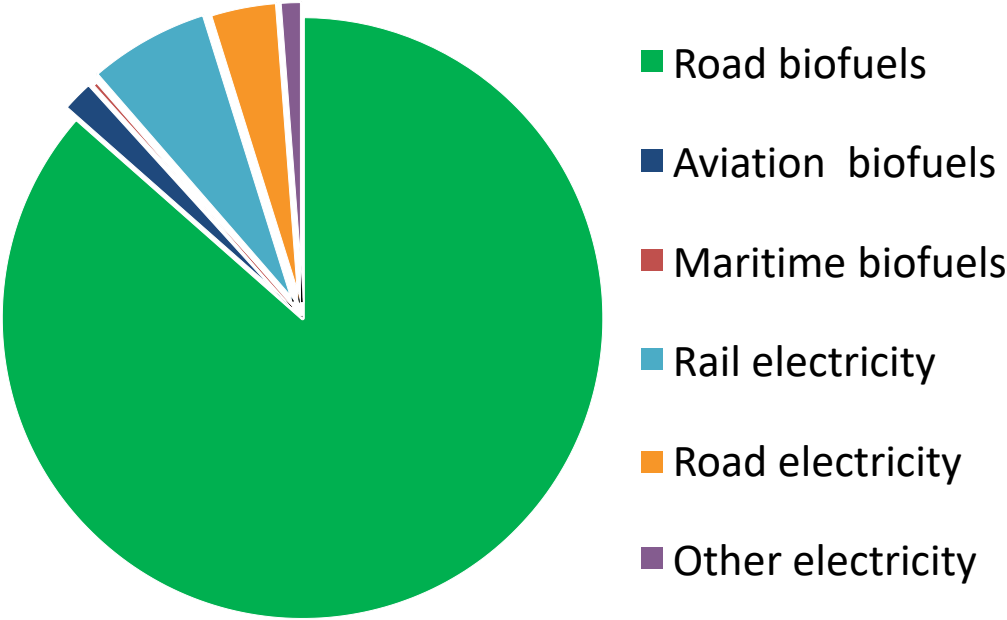
Total renewable energy consumption is expected to increase by almost 30% over 2018-2023, covering 40% of global energy demand growth

Asia and Latin America dominate biofuel production growth

Biofuel production growth 2018-23



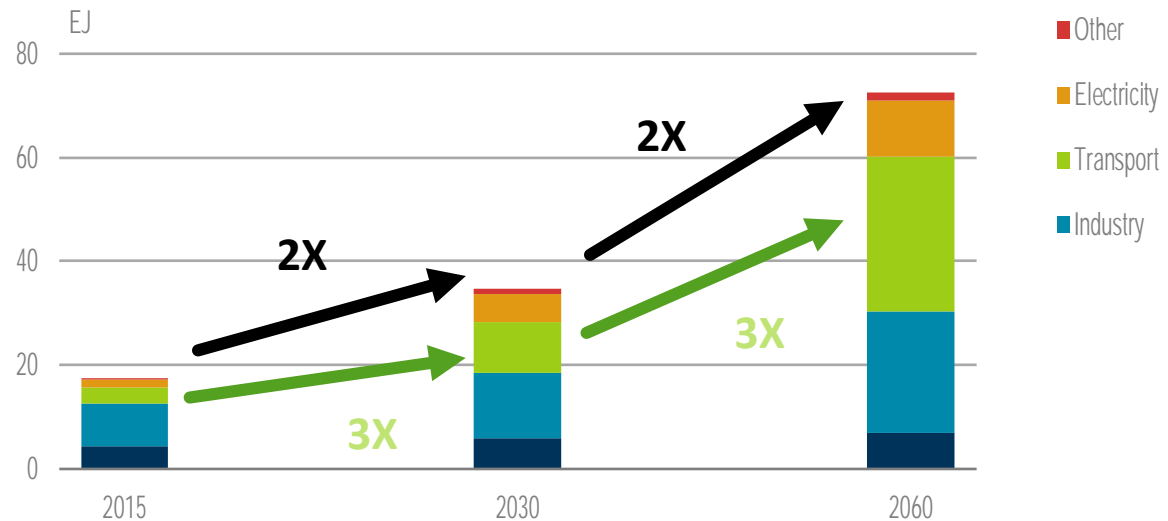
Renewables consumption in transport in 2023



Biofuels production grows by 16% led by Asia and Brazil; EVs electricity consumption triples, with renewables providing 30% of demand from electrified transport by 2023

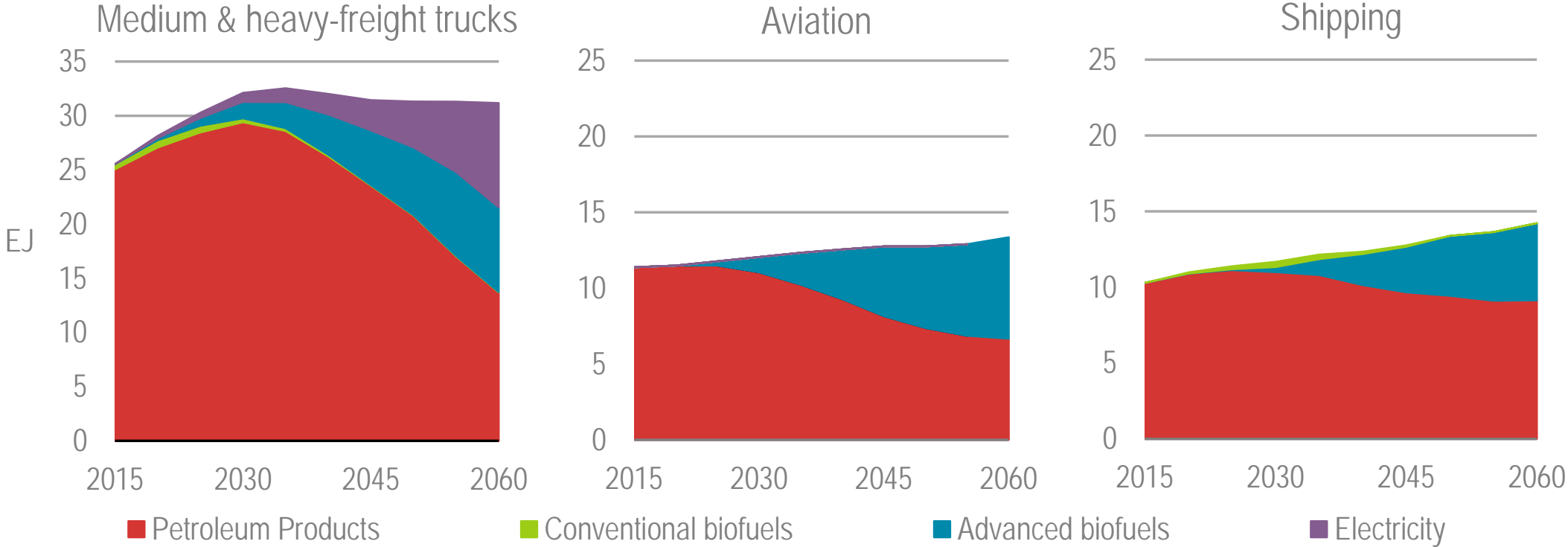
The role of the sustainable low carbon bioeconomy in a 2° world

- ▶ Bioenergy plays essential role in low carbon development scenarios from IEA, IRENA, IPCC
- ▶ 17% cumulative carbon savings by 2060 in IEA's 2DS
- ▶ Even more important role in ambitious scenarios with BECCS (IPCC 1.5° Report)
- ▶ By 2060, projections require ~71 EJ of modern bioenergy globally (from 18 EJ today)
- ▶ Bioproducts support biorefining feasibility, enable circular economy



Advanced biofuels needed to decarbonise transport in the long-term

Final energy consumption by fuel in long-haul transport modes in the 2DS (2015-60)



Innovation in advanced bioenergy technologies is needed to utilize the vast untapped and sustainable resource potential from waste and non-food feedstocks

The Biofuture Platform



Argentina • Brazil • Canada • China • Denmark • Egypt • Finland • France
India • Indonesia • Italy • Morocco • Mozambique • Netherlands • Paraguay
Philippines • Sweden • United Kingdom • United States • Uruguay

Mandate given by the Biofuture Platform's 20 countries

- ▶ Promote international collaboration and dialogue between policy makers, industry, academia, and other stakeholders;
- ▶ Facilitate an enabling environment for the sustainable low carbon bioeconomy and related investments.
- ▶ Promote R&D in the field and share analysis, policy practices and information on R&D activities and needs
- ▶ Discuss how to effectively evaluate, share and promote sustainable practices for the production of biomass and the entire value chain.

biofuture SUMMIT 17



- Flagship Biofuture Platform event
- Held in São Paulo (24-25 October 2017)
- More than 300 delegates from 28 countries
- Government policy-makers from countries like Brazil, Canada, Finland, India, Italy, UK and the US debated policies and programmes for bioenergy and the bioeconomy,
- California's LCFS, Brazil's RenovaBio, Canada's Clean Fuel Standard, the US's 1 Billion Ton Bioeconomy Vision and more
- The Summit's deliberations fed into the Biofuture Vision Declaration



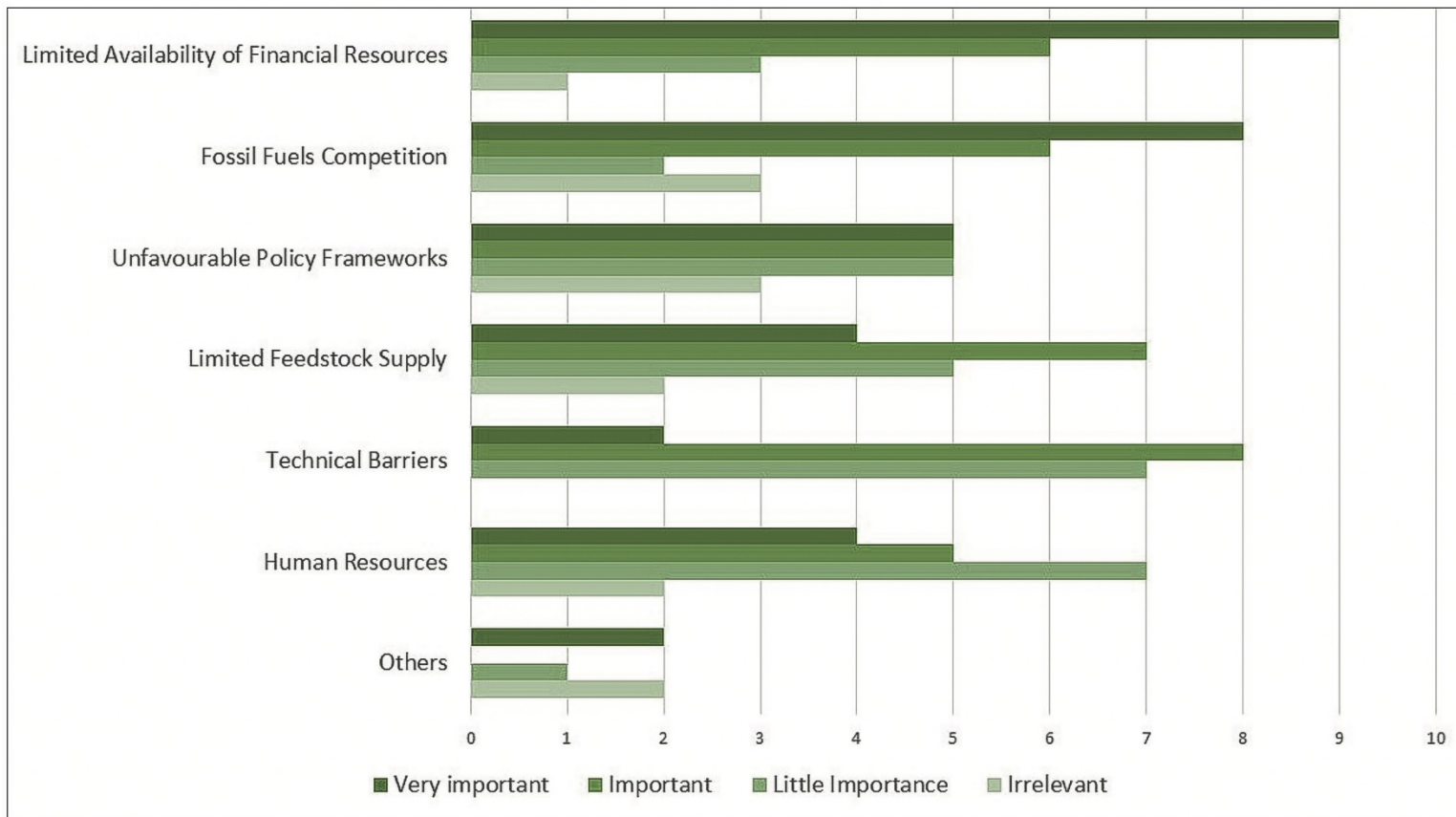
The next phase: IEA designated to become Biofuture Platform's Facilitator, replacing interim role of Brazil:

“Creating the Biofuture” Report: What’s Inside

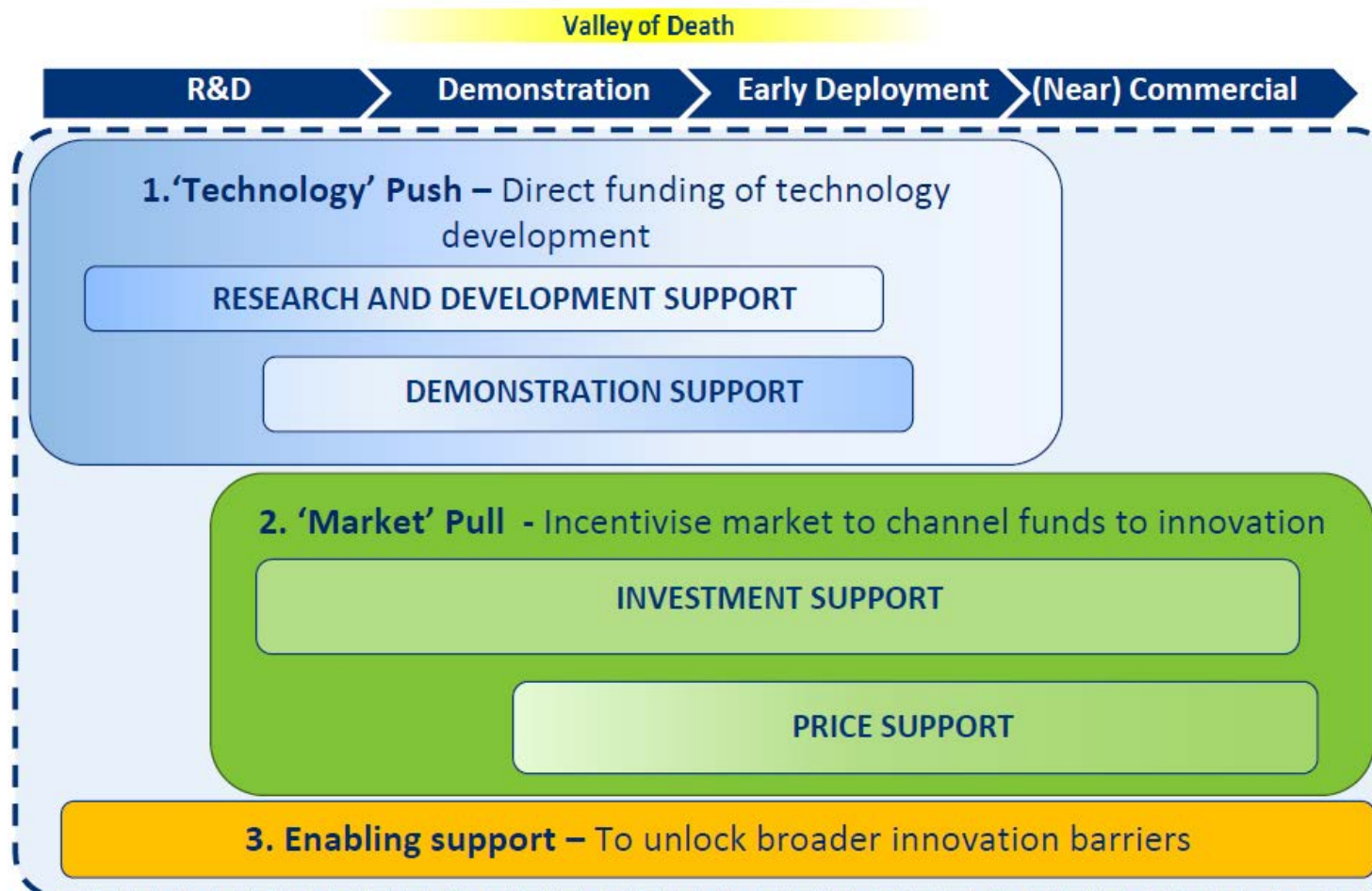
1. The role of the sustainable low carbon bioeconomy in a 2 degree world
2. Data and information on production and consumption of biofuels and bioproducts;
3. State of play of advanced biorefineries
4. Survey and diagnosis of barriers to growth
5. Survey and analysis of current national policies
6. Lessons: Push policies and pull policies are both necessary as part of a comprehensive enabling framework



Lack of finance, competitiveness, unfavorable policy frameworks, and limited feedstock supply are four main barriers to faster bioeconomy growth



Three key innovation policy families: technology push, market pull and enabling support



Key lesson: a complete policy package needed to enable sustainable bioeconomy scaleup

- ▶ **Lesson 1:** the sustainable low carbon bioeconomy has to be policy driven at this stage to overcome barriers to growth and reach competitive scale
- ▶ **Lesson 2:** A complete policy package is recommended to create an enabling environment; isolated measures are probably not enough.

Key lesson: a complete policy package needed to enable sustainable bioeconomy scaleup

- ▶ **Lesson 3:** A comprehensive strategy should be based on clear targets and an analysis of local potential pathways, and include:
 - ▶ technology and innovation support (technology push);
 - ▶ market demand support and incentives (market pull)
 - ▶ ties to sustainability measures and carbon lifecycle assessments;
 - ▶ strong financial instruments designed to enable the development of the bioeconomy, leveraging green finance.

What's next? A collective effort of international initiatives to provide common goods to countries

Policy debate, country ownership, advanced bioeconomy



Sustainability, capacity building, cooperation



Agricultural and biomass practices



Scientific and Technical collaboration



1. Policy guidance and
The Biofuture
2. Appropriate financing mechanisms
help articulate a
concerted effort
sustainability approach
by countries and
stakeholders
4. Reinforced technical and technological cooperation



Energy analysis, knowledge



Renewable energy deployment, development cooperation



Research and innovation promotion, collaboration



Private sector link



Finance, green bonds

WHAT COULD BE THIS COMMON GOOD COMPOSED OF?

1. Policy guidance and convergence
2. Appropriate financing mechanisms
3. A working sustainability governance and understanding
4. Technical and technological cooperation

First product on the roadmap: the creation of a dynamic Bioeconomy Policy Blueprint tailored to each country's realities and priorities.

**You are
invited:
Biofuture
Summit II and
BBEST 2020**

www.bbest-biofuture.org

March 30th - April 1st, 2020

São Paulo, Brazil



BBEST 2020
BRAZILIAN BIOENERGY SCIENCE
& TECHNOLOGY CONFERENCE



bioENERGY
INNOVATION

MARCH 30TH TO APRIL 1ST 2020
SÃO PAULO | SP | BRAZIL