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FINAL WORKSHOP FOR THE ROADMAP ON
**EU-INDIA COLLABORATION
ON SUSTAINABLE BIOFUELS
FOR AVIATION AND
MARITIME TRANSPORT**

21 & 22 AUGUST, 2023

New Delhi



BACKGROUND NOTE

The decarbonisation of aviation and maritime transport depends on the use of sustainable biofuels. Solutions based on hydrogen and synfuels, will feature in the fuel mix, but biofuels from biomass will play a significant role in the decarbonization of aviation and maritime transport, now and until 2050.

The issue is becoming increasingly urgent. The production of sustainable biofuels needs to rapidly increase so that aviation and maritime transport can respond to the demands being placed on them right now by regulators and by their clients for whom international transport by air and sea accounts for a large part of their overall CO₂ emissions.

Sustainable biofuels fall into 3 main categories, namely G2, G3 and G4, depending on the nature of the feedstocks from which they are derived. G3 and G4 technologies are in an early development phase. They are far from being commercially available and continue to be an important area for future research and development. Many mature and market-ready G2 biofuel solutions already exist. These are derived from agricultural and urban waste streams, as well as from non-food crops grown on marginal lands, which do not impact food production systems.

Despite the availability of G2 biofuel technologies, and the readiness of the private sector in both the EU and Europe to invest in G2 biofuel supply chains, the adoption of G2 biofuel solutions is not progressing at a rate that will allow aviation, maritime transport and the businesses that use their services to achieve their increasingly urgent climate and energy goals.

The reasons for this are known. The most urgent issues are systemic in nature and arise from the fact that the energy transition is not a simple substitution of fossil fuels with sustainable alternatives. It requires the development of entire new supply chains, with 10s if not 100s of thousands of actors in rural and urban communities. Transformation on this scale requires innovative forms of finance for rural communities and cities, the embedding of biofuel production in the circular economy of feed, fertilizer, and green chemical production, as well as the skilling and capacity development of large numbers of actors in both the public and private sectors.

The roadmap for EU-India cooperation on biofuels from biomass focuses mainly on the work that needs to be done to eliminate barriers that are currently blocking progress on G2 biofuel production, to create an environment in which the private sector investors and technology providers can more fully play their role in the decarbonisation of the global aviation and maritime sectors, enabled by the social transformation of rural and urban communities.

DAY 1: MONDAY, AUGUST 21

MORNING MEETING

Briefing of breakout session reporters and moderators

Registration - 12:30 IST

Lunch Break - 13:00 IST

AFTERNOON PLENARY SESSION: 14:00 - 17:30 IST, 10:30 - 14:00 CET

OPENING REMARKS:
14:00 - 15:30 IST,
10:30AM - 12:00 CET

The Director General of TERI, New Delhi
The EU Ambassador to India
The Science Counsellor at the EU Delegation in New Delhi;
and Various representatives of EU Member States.

WATCH INAUGURAL:

<https://youtu.be/SBKjyQnfzNQ>

PRESENTATIONS:
16:00 - 17:30 IST, 12:30 - 14:00 CET

International outlook on the role of biofuels in the decarbonisation of maritime transport.

International outlook on the role of biofuels in the decarbonisation of Aviation transport.

From the Maritime and Aviation industry, as well as from oil companies and refinery technology providers and investors.

Introduction to the overall goal of the conference and housekeeping rules for breakout sessions.

EVENING

Dinner is offered for all participants at a nearby venue. It is suggested that the groups stay together for the evening meal and discussion the main messages they want to get across on day 2. This is an opportunity to influence the final version of the roadmap.



DETAILED AGENDA

DAY 1: MONDAY, AUGUST 21

WATCH INAUGURAL:

<https://youtu.be/SBKjyQnfzNQ>

- **14:00 IST, 10:30 CET | Dr Vibha Dhawan**, Director General of The Energy and Resource Institute (TERI), India
- **14:10 IST, 10:40 CET | Mr Pierrick Fillon Ashida**, Head Science - First Counselor, Delegation of the European Union to India
- **14:20 IST, 10:50 CET | Dr Patrick Crehan**, CKA Brussels, on Biofuel Roadmap
- **14:30 IST, 11:00 CET | Mr Sourabh Mukherjee**, Executive Vice President of TATA Projects Ltd, India (online)
- **14:40 IST, 11:10 CET | Dr Sangita Katsure**, Head - Energy, Environment & Forest Decision Unit, Department of Biotechnology (DBT) India - on MI and upcoming bilateral and EU-India calls
- **14:50 IST, 11:20 CET | Mr Yogesh Suri**, Senior Advisor, NITI Aayog, (Invited, Confirmation awaited)
- **15:00 IST, 11:30 CET | Mr Shekhar Kulkarni**, Director, Centre for High Technology (CHT) Ministry of Petroleum and Natural Gas (MoP&NG), Govt of India-on 2G Ethanol
- **15:10 IST, 11:40 CET | Dr Piyali Das**, Senior Fellow, TERI, India-on Green Fuel in Maritime Transport, Challenges and Collaboration Opportunities for India

Q+A Introduction Session: 15:20 - 15:30 IST, 11:50 - 12:00 CET

COFFEE BREAK - 15:30 - 16:00 IST, 12:00 - 12:30 CET

- **16:00 IST, 12:30 CET | Mr Csaba de Csiky** from ENERSAVE Capital in Luxembourg on the role of innovative finance
- **16:10 IST, 12:40 CET | Ms Nina Fenton**, European Investment Bank (EIB), Head of Regional Representation, South Asia
- **16:20 IST, 12:50 CET | Mr Sushil Singla**, Principal Resident Commissioner, Government of Himachal Pradesh, India
- **16:30 IST, 13:00 CET | Mr Madhvendra Singh**, CEO of Gujarat Maritime Cluster, with a maritime POV on reporting
- **16:40 IST, 13:10 CET | Mr Prarthana Borah**, Director, Carbon Disclosure Project (CDP), India
- **16:50 IST, 13:20 CET | Ms Elena Benedetti**, Head, Fundraising, Technology Transfer & Innovation, ICGEB Trieste, on the challenge of scaling adoption of technologies

Q+A Pitch Session: - 17:00 - 17:20 IST, 13:30 - 13:50 CET

- **17:20 - 17:40 IST, 13:50 - 14:10 CET | Dr Patrick Crehan**: Key ideas day 1 and overall goals of day 2
- **17:40 IST, 14:10 CET | Mr Seppo Nurmi**, Chargé/Deputy Ambassador, Delegation of the European Union to India

END OF OPENING PLENARY SESSIONS: 17:50 IST, 14:20 CET

AT 5TH FLOOR TERI - PEOPLE RELAX & WALK TO DINNER: 18:00 IST, 14:30 CET

DAY 2: TUESDAY, AUGUST 22

REGISTRATION - 09:30 IST

MORNING 4 PARALLEL BREAKOUT SESSIONS

All participants assemble at Amaltas Hall in IHC at 10 AM IST for a short briefing. Each breakout session will have its own room and will take place in a hybrid format. The groups are selected and briefed in advance. They are provided with the draft roadmap document and a challenge paper which will provide the focus for each session. The meetings are highly structured and designed to enrich the roadmap by addressing specific questions related to future EU-India cooperation. These will address the challenges from an EU-India and international perspective.

The work of each session will be facilitated by a moderator and a rapporteur. Based on the discussions of the breakout sessions, the moderators and a rapporteur will prepare short presentations for the final plenary sessions on the morning of day 2.

THE FOUR PARALLEL SESSIONS ARE AS FOLLOWS: **10:30 - 13:30 IST, 07:00 - 10:00 CET**

Parallel Session 1 – Feedstock Production Moderator: Mr Csaba de Csiky Rapporteur: Dr Patrick Crehan	The organization of feedstock production in rural and urban areas. This is currently being held back by a lack of appropriate forms of finance adapted to the needs of rural communities and urban administration.
Parallel Session 2 – Reporting Moderator: Mr R R Rashmi Rapporteur: Ms Arpita Pandey	The development of transparent low-cost ESG, CO2 and Natural Capital reporting systems that provide regulators, investors, and consumers with the reassurance they need on sustainability.
Parallel Session 3 – Circular Economy Moderator: Ms Elena Benedetti Rapporteur: Ms Trinayana Kaushik	The embedding of biofuel production system in the circular bioeconomy, to improve the commercial viability of biofuel production systems, based on revenues from fertilizer, feed and green chemistry, also needed to replace the non-fuel fraction of the barrel of oil.
Parallel Session 4 – Social Transformation Moderator(s): Ms. Margareta Nikolovska & Dr Amit Kumar Thakur Rapporteur: Ms Rashmi Murali	Enabling social transformation based on networking, skills and capacity building of entrepreneurs, investors, planners, and change agents in public administration.

LUNCH BREAK - 13:30 - 14:30 IST, 10:00 - 11:00 CET

AFTERNOON PLENARY - 14:30 - 17:30 IST, 11:00 - 14:00 CET

WATCH VALEDICTORY:

<https://youtu.be/9-LPE4ZZqg8>

- The EU science counsellor and other high delegates open the final session.
- The EU expert summarizes the purpose of the morning meeting.
- The reporters from the day 1 breakout sessions present their results.
- Final remarks on the completion of the roadmap and steps towards execution. These include words from program managers on the kind of instruments that may be most appropriate for roadmap execution, which includes instruments such as the Framework Partnership Alliances, Joint Undertakings, Technology platforms and ERASMUS networks.
- Final words of thanks from the EU and Indian high-level representatives.