



Symposium on Developing Green Hydrogen Economy Technology Solutions from Germany

VDMA India





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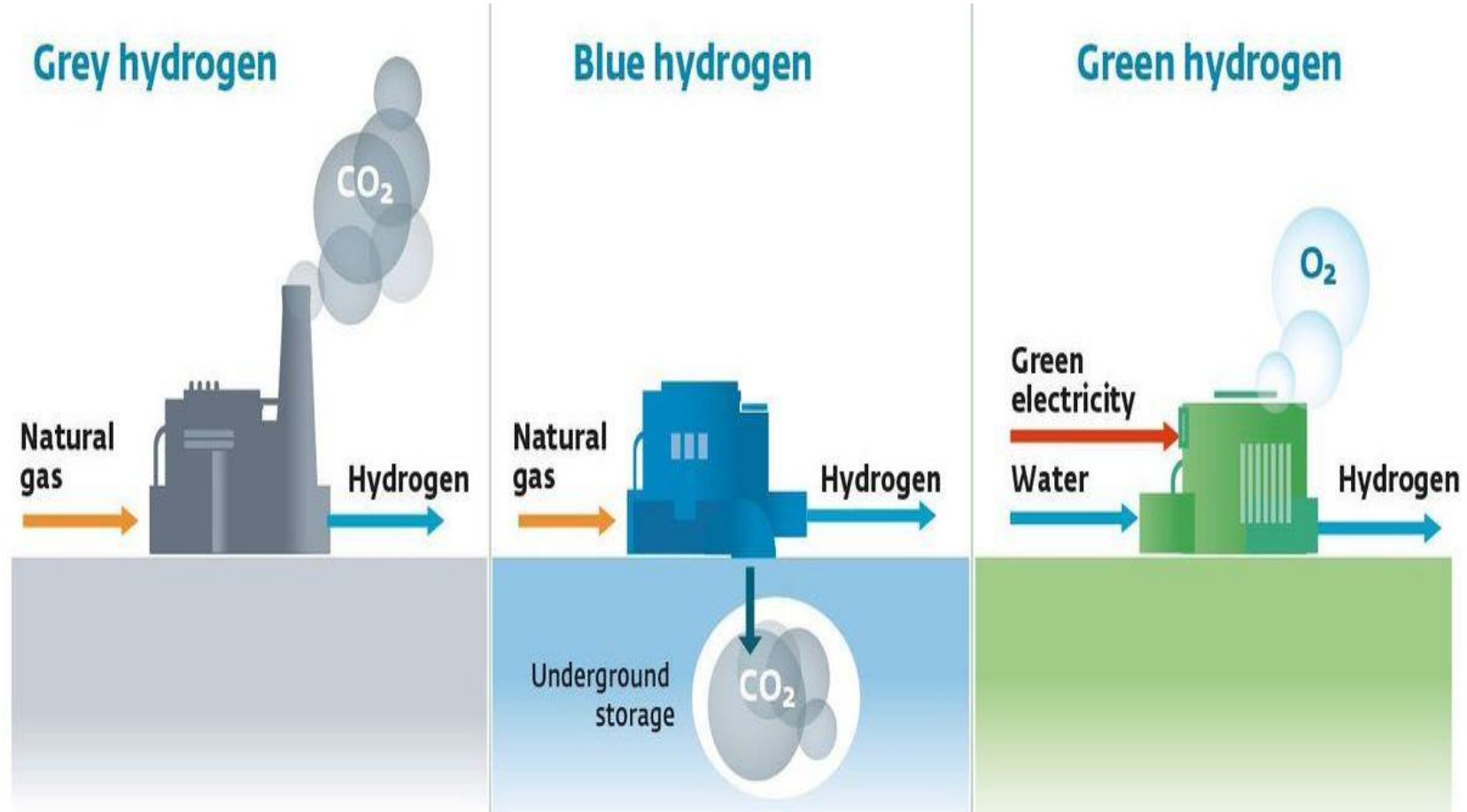
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Green Hydrogen – An Overview



Green hydrogen refers to hydrogen produced through a process that uses renewable energy sources, such as wind, solar, or hydroelectric power, to power the electrolysis of water. The electrolysis process involves splitting water molecules (H_2O) into hydrogen (H_2) and oxygen (O_2), without generating carbon emissions.

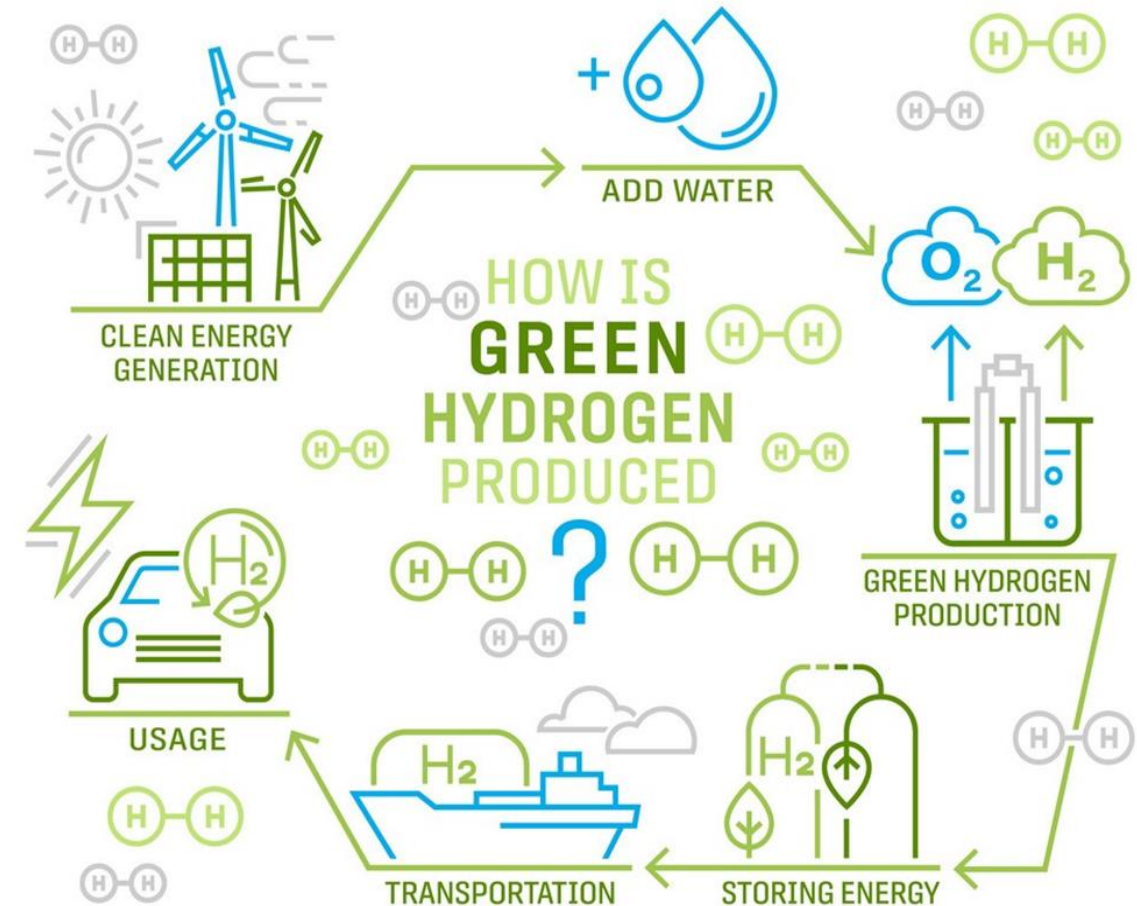
- Global Consensus toward Net Zero is the biggest growth driver
- Global Hydrogen demand will grow by 400% - 2050
- Around 43 countries have set up strategic roadmaps for Hydrogen
- Hydrogen is considered an energy currency



The Key Steps in Green Hydrogen Production



- » Electrolysis - Renewable electricity (from sources like solar or wind power) powers an electrolyzer, which splits water into hydrogen and oxygen. The process separates hydrogen from water, generating 'green' hydrogen without producing greenhouse gases or other harmful emissions.
- » Renewable Energy Sources - The renewable energy sources used for electrolysis are crucial in making the overall process environmentally friendly. By utilizing solar, wind, or hydroelectric power, the entire hydrogen production cycle becomes sustainable and emission-free.



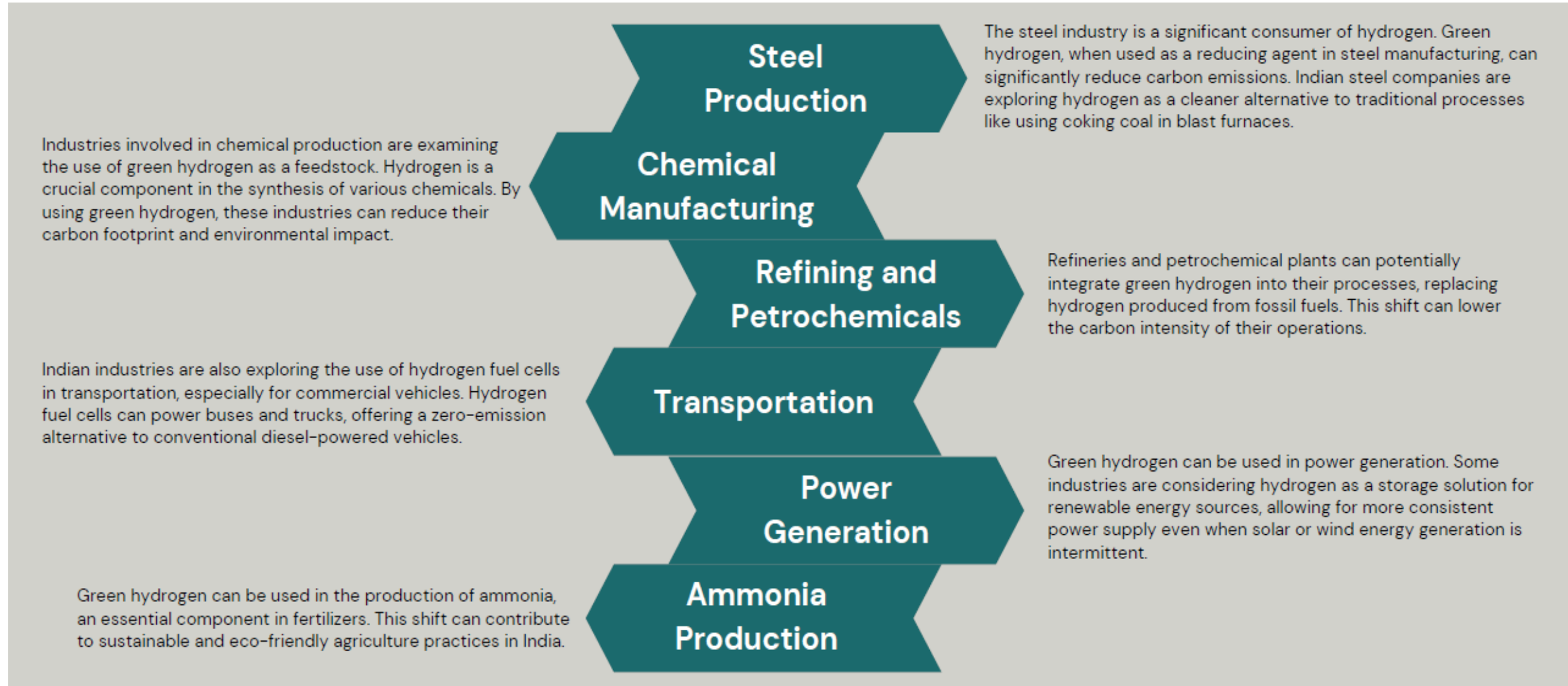
Background- Green Hydrogen in India



Hydrogen can be utilized for long-duration storage of renewable energy, replacement of fossil fuels in industry, clean transportation, and potentially also for decentralized power generation, aviation, and marine transport.

<p>Novel applications in heavy industry and long-distance transport account for less than 0.1% of hydrogen demand, whereas they account for one-third of global hydrogen demand by 2030 in the Net Zero Emissions by 2050 (NZE) Scenario.</p>	<p>The demand for hydrogen reached an estimated 87 million metric tons (MT) in 2020, and is expected to grow to 500–680 million MT by 2050.</p>
<p>According to the IEA, the hydrogen production through electrolysis which costs around USD 10.3 per kg is 5 times higher than that of conventional technologies which cost around USD 1.5-2.3 per kg.</p>	<p>The hydrogen generation market in India is projected to reach \$21.9 billion by 2030, at a compound annual growth rate (CAGR) of 11.1 per cent between 2023 to 2030, according to a recent report.</p>

Green Hydrogen in Indian Industrial Use

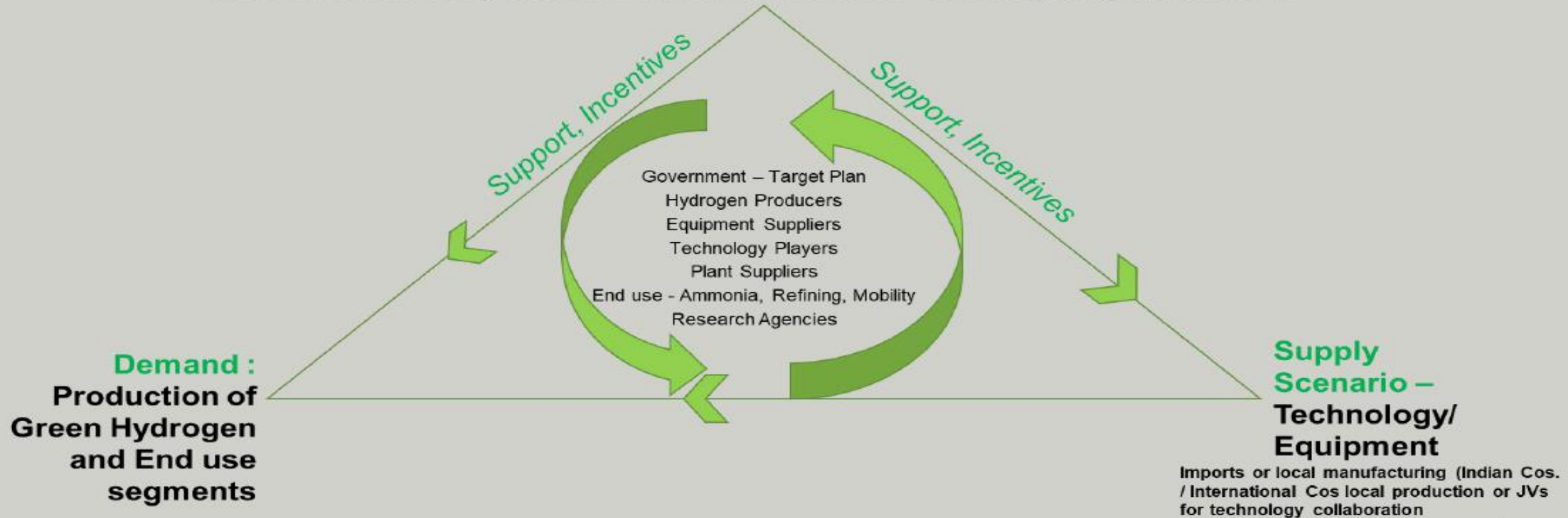


National Green Hydrogen mission – Policy Intervention



Target of production of 5 million tonnes of Green hydrogen by 2030
Hydrogen Ecosystem - Policy | Demand | Supply - Technology Providers

Government Policy and Intervention - National Green Hydrogen mission



National Green Hydrogen mission – Key Ingredients



Components of the Green Hydrogen Mission

Facilitating demand creation through exports and domestic utilization

Strategic Interventions for Green Hydrogen Transition (SIGHT) programme to support domestic manufacturing of electrolysers and production of Green Hydrogen

Pilot Projects for green steel, mobility, shipping, decentralized energy applications, hydrogen production from biomass, hydrogen storage, etc.

Development of Green Hydrogen Hubs

Support for infrastructure developments

Establishing a robust framework of regulations and standards

Research & Development programme

Skill development programme

Public awareness and outreach programme



New Delhi/National Capital Region (NCR) –

- » Major end users/ producers from Power, Refinery, Fertilizer
- » Chemical & Petrochemical
- » Energy
- » Automobile

Prominent Producers in New Delhi/ NCR Region

- » **NTPC** (<https://www.ntpc.co.in/>)
- » **IOCL** (<https://iocl.com/>)
BPCL (<https://www.bharatpetroleum.in/>)
HPCL (<https://www.hindustanpetroleum.com/>)
- » **ONGC** (<https://ongcindia.com/>)
- » **GAIL** (<https://www.gailonline.com/>)
- » **SAIL** (<https://www.sail.co.in/en/home>)

Topics

- » Green Hydrogen – Sustainable alternate energy source?
- » Green Hydrogen – Future Technology
- » Policy support for capacity building
- » Regulations and Standards of Green Hydrogen
- » Benefits of Green Hydrogen
- » Technology adaptation and solution by the VDMA members
- » Increasing Production through Green Hydrogen

Event information



Date	29 August 2024	
City	New Delhi	
Host	» VDMA India	
Venue	Any star category centrally located hotel	
Speakers	» Key note speakers from Industry » German Consulate » VDMA members from Germany & India	
Audience	» Industry / OEM » Policy maker » Govt organisations/ Public Sector Undertaking (PSU) » Research institution	
Main elements	» Key note speech » Technical presentations by members » B2B » Networking	
Expected participation	~ 75-80	

Tentative program schedule



09:00 - 10:00	Registration
10:00 - 10:45	Inaugural session – welcome address, Speech from Chief Guest, Speech from VDMA Frankfurt
10:45 - 11:00	TEA/COFEE BREAK
11:00 - 11:25	Presentation from VDMA Members in Germany
11:25 - 11:50	Presentation from VDMA Members in Germany
11:50 - 12:15	Presentation from VDMA Member in India
12:15 - 12:40	Presentation from VDMA member in India
12:40 - 13:05	Presentation from VDMA member in India
13:05 - 13:15	Q &A
13:15 - 14:15	NETWORKING LUNCH
14:15 - 14:40	Presentation from VDMA member in India
14:40 - 15:05	Presentation from VDMA member in India
15:05 - 15:30	Presentation from VDMA member in India
15:30 - 15:45	Q&A session
15:45 - 15:50	Concluding Remarks
15:50 onwards	Networking Tea/ Coffee

Commercial proposal (1/2)



Presentation Charge:

€1000 / Rs, 90,000 + 18% GST (Member)

€1200 / Rs, 1,10,000 + 18% GST (**Non Member**)

***Subjected to participation of min 7 companies as speakers**

Payment:

100% advance

Benefits:

- » Speaker slot
- » Brand promotion
- » Networking with the leading industry
- » Media coverage
- » Table top for B2B interaction
- » Access to the contact details of attendees after the event

Commercial Proposal (2/2)



Inclusion

- » Banquet charges
- » Stage set up
- » Audio visual
- » Organising B2B meetings at Symposium venue
- » VDMA Service charges & travel expenses

Exclusion:

- » International & domestic travel fare
- » Lodging & boarding expenses. VDMA would offer a special discounted hotel rate for which payment to be made directly by guest
- » Airport transfer
- » All personal expenses

Deliverables from VDMA India



- » Complete event organization in New Delhi
- » Making list of relevant companies from data base
- » Ensuring quality attendance (Approx 75-80 participants)
- » Sending the e-invite
- » Event branding through social media
- » Follow up
- » Coordination with venue
- » Support for Hotel reservation
- » Reconfirmation of participants
- » Event Moderation
- » Compilation of final list of attendees
- » Media coverage

Deadline for participation



Please send the filled in application form/ confirmation latest by **14th June 2024**

Please send us the topic and name of the speaker by ...**28th June 2024**



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Herzlichen Dank
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für Ihre Aufmerksamkeit!