# Global Green Hydrogen Startup Challenge

ISA in partnership with ADB, under the G20 2023 India Presidency has created a virtual 'Green Hydrogen Innovation Centre' (https://isa-ghic.org/). This Centre of Excellence will support the production, utilization, and trade of green hydrogen (GH), besides providing a platform for knowledge sharing and building competency across the GH value chain. The GHIC will also provide opportunities to incubate Start-Ups, provide certified training, and host Expert Working Groups to support the scale-up of the GH ecosystem in member countries. The platform was launched at the Energy Transitions Ministerial Meeting (ETMM), and subsequently, was included in the G20 Leaders' Summit Delhi Declaration in September 2023.

**UNIQUE FEATURES OF GHIC**

**COUNTRY INSIGHTS**
*(Country-level announcements, missions and targets)*

**GREEN HYDROGEN COMMUNITY**
*(Live interactive platform for the community)*

**SKILL DEVELOPMENT**
*(Certified e-learning courses, podcasts, industry expert interview)*

**LIVE CHATBOT**
*(AI and ML supported robotic bot for quick support & address queries)*

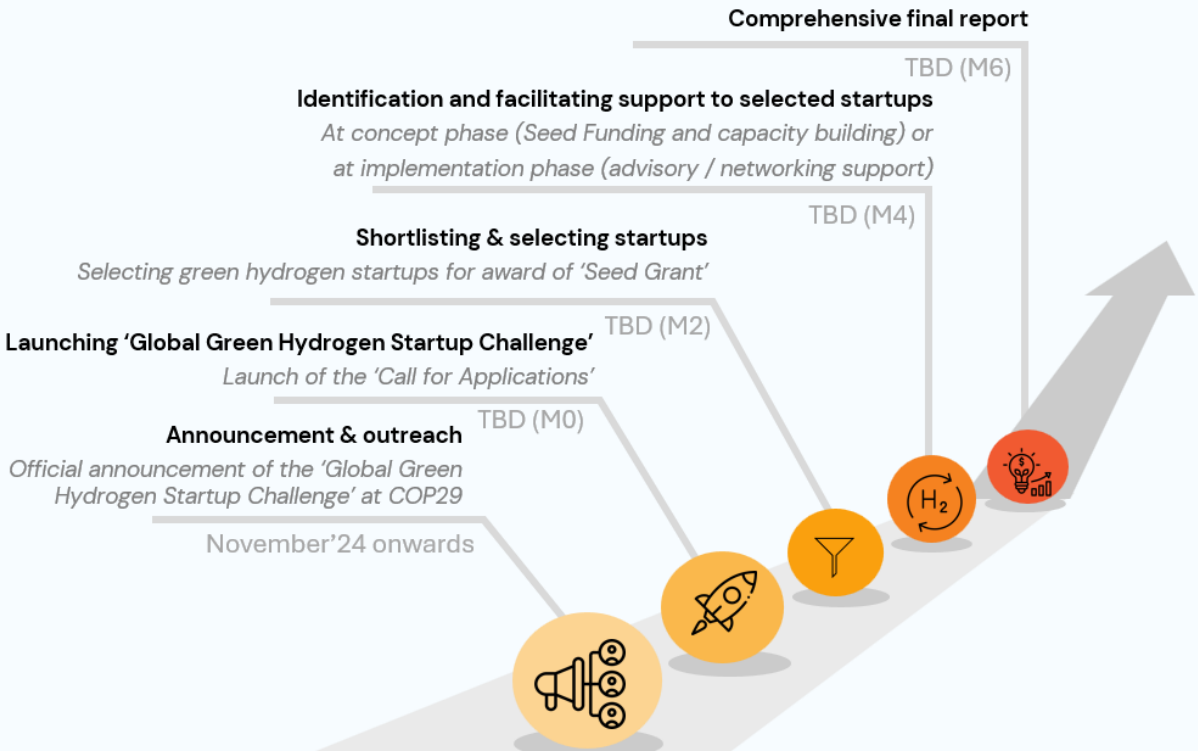
**GLOBAL STARTUP PROGRAM**
*(Platform to support startups and provide opportunities to connect with financiers)*

The objective of the 'Global Green Hydrogen Startup Challenge' is to identify and support green hydrogen startups engaged in developing innovative, scalable and commercially viable solutions within the **steel and transport** sectors. This initiative will serve as a global platform for these start-ups to incubate and grow.

The challenge will invite applications from eligible start-ups, and ~20 selected startups will receive seed grants along with strategic acceleration support.

| OBJECTIVE | TARGET SECTORS | IMPACT |
|---|---|---|
| To identify and support startups that offer innovative and scalable solutions in the green hydrogen sector | Steel and Transport | Serve as a global platform to support innovative green hydrogen startups |

## SCOPE AND TIMELINES

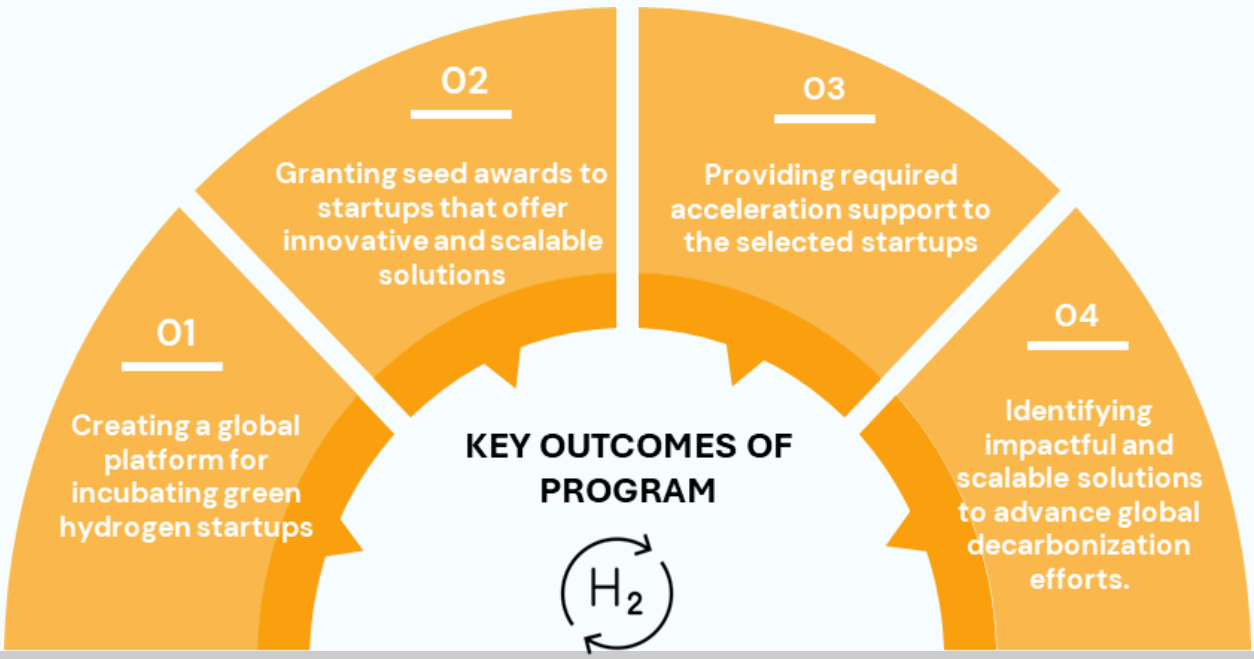


## WHAT ARE THE MAJOR GREEN HYDROGEN MARKET DRIVERS ?

- **GLOBAL GREEN HYDROGEN TARGETS AND INCENTIVES**
  - More than 50 National Green Hydrogen Strategies and Roadmaps have been announced.
  - Global target for electrolyzer capacity is ~ 140-150 GW by 2030 (IEA).
- **INCREASED INVESTMENTS**
  - Increasing public and private investments in green hydrogen technologies and infrastructure development.
  - Cumulative private sector commitments to green hydrogen projects amount to ~USD 300 billion, with an estimated total investment requirement of USD 1,200 billion by 2050 (IEA).
- **TECHNOLOGY ADVANCEMENT**
  - Advancements in electrolyzer efficiency and technological innovations in hydrogen production are anticipated to reduce the production costs of green hydrogen.

## WHY STEEL AND TRANSPORT SECTOR ?

| Steel Sector | | Transport Sector |
|---|---|---|
| ~7% of global energy sector $CO_2$ emission | EMISSION PROFILE | ~24% Global $CO_2$ emissions - fuel combustion |
| CAGR ~5% Current market growth till 2030 | SECTORAL GROWTH | CAGR ~8% Current market growth till 2032 |
| ~6 MMT By 2030 (projected by IEA) | HYDROGEN DEMAND | ~9 MMT By 2030 (projected by IEA) |
| Require 3% emission reduction per year by 2030 (IEA) | DECARBONISATION NEED | Require ~50% emission reduction by 2050 (IEA) |





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