

## Hydrogen Insights: Global project funnel gains momentum across value chain

Momentum continues to grow in hydrogen: +35% announced investments from May 2022 to January 2023, bringing total large-scale projects to over 1,000.



The global hydrogen economy remains robust and growing from the project pipeline to deployment, according to an analysis of more than 1,000 projects published today by the Hydrogen Council.

*Hydrogen Insights 2023*, the latest update on the global hydrogen economy from the Hydrogen Council and McKinsey & Company, highlights strong growth across the project funnel with total investments increasing by 35% from May 2022 to January 2023. 9% of total investments have reached final investment decision (FID), up by 30% since May 2022.

The report tracks 1,040 projects globally representing \$320 billion in direct investment between now and 2030, up from \$240 billion. Approximately half of projects are focused on large-scale industrial applications, with the next largest segment (20%) related to mobility. In mobility, more than 1000 refuelling stations are now in operation globally. Total announced electrolyzer capacity stands at 230

GW in 2030.

Momentum is spread globally, with Europe leading on announcements, while North America leads with committed investments (\$10 billion). Europe (\$7 billion) and China (\$5 billion) follow, with growth in China being the highest at more than 200%.

The industry is maturing during a time of strong headwinds which could slow deployment, including strained supply chains, labour shortage, energy performance contracting (EPC) capacity, increasing inflation and interest rates, and permitting delays.

Despite progress, committed projects lag behind targets. By 2030, an increase of more than twentyfold would be required to track toward net zero objectives. Resources and equipment needs remain critical to ensure deployment of clean hydrogen supply projects, prevent infrastructure bottlenecks, and enable hydrogen-ready end user plants.

"Taking action at the scale required is a learning journey for governments, industry and the public. Maintaining strong communication and relationships will help us to achieve our goals for the energy transition, together," said Yoshinori Kanehana, Chairman of Kawasaki Heavy Industries, Ltd. and Co-Chair of the Hydrogen Council.

Hydrogen Insights 2023 also takes a deep dive into North America, a region where there has been a 55% increase in announced investments since the previous Hydrogen Insights publication in September 2022. Production tax credits of up to \$3/kg available in the Inflation Reduction Act (IRA) could potentially help significantly accelerate clean hydrogen in the US with up to \$3/kg support.

"It's great to see ongoing momentum with hydrogen projects around the world. As we continue our quest to fight climate change, our focus needs to be on accelerating the action we take now," said Tom Linebarger, Executive Chairman and Chairman of the Board of Cummins Inc. and Co-Chair of the Hydrogen Council.

"North America has been a real engine of growth: it now accounts for 30% of committed funding and 70% of committed clean hydrogen production," said Bernd Heid, Senior Partner at McKinsey.

The full Hydrogen Insights 2023 report is available here.