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Green Hydrogen Organisation, Fortescue and Trovio Complete Landmark Digital Fuel Certificate Pilot for Ammonia Bunkering in Rotterdam

Rotterdam, Netherlands — In a significant milestone for the green fuel economy, the Green Hydrogen Organisation (GH2), in collaboration with Trovio and Fortescue, has successfully completed the issuance of the world's first digital fuel certificate for an ammonia-to-ship transfer. The transaction involved the Fortescue Green Pioneer, the first ocean-going dual-fuelled ammonia powered vessel, during a recent fuel transfer operation at the Port of Rotterdam.

The certificate—issued via Trovio's CorTenX registry platform—marks a breakthrough in the development of systems to trace and verify new marine fuels for the energy transition. Capturing immutable, granular data on the sustainability attributes of the fuel, including its origin, handling, and transfer specifics, the digital certificate provides auditable transparency and reinforces trust across the supply chain.

"This pilot proves how CorTenX can serve as the backbone for a scalable and interoperable registry system that empowers the green fuel transition," said Jon Deane, CEO of Trovio. "By digitising the fuel lifecycle and enabling automated compliance, we reduce friction, increase integrity, and accelerate global adoption of zero-emission fuels."

"Following the International Maritime Organization's groundbreaking agreement in April on mandatory emissions limits and GHG pricing for global shipping, green fuel producers have received an important signal to supply the industry," said Jonas Moberg, CEO of GH2. "It is essential that systems are put in place not only to capture the volumes but the key environmental attributes of fuels such as e-ammonia made from renewables. The recent pilot shows we are ready to record those attributes as soon as the fuels start being delivered to ships."

"This pilot marks a key step in scaling the infrastructure required for zero-emission fuels. As the first company to complete an ammonia-to-ship fuel transfer with full digital certification, Fortescue is not only advancing the physical deployment of green fuels but also setting new benchmarks for transparency and traceability," said Andrew Hoare, Fortescue's Head of Green Shipping. "Partnering with Trovio and GH2, we've demonstrated that digital registries like CorTenX can underpin robust, auditable verification of sustainability attributes—critical for regulatory alignment, stakeholder trust, and emissions accounting. This is about proving what's possible and accelerating what's necessary."

Beyond Physical Supply: Scaling Verification Infrastructure

While significant attention has been directed towards the engineering and safety protocols surrounding ammonia as a maritime fuel, this transaction highlights the critical role of digital infrastructure in enabling scale. The CorTenX platform records end-to-end supply chain data, including port and vessel details, transaction timestamp, and associated sustainability metrics put in place by regulators like the IMO, national governments or voluntary initiatives such as the Green Hydrogen Standard.

These data points are cryptographically secured and can be made available to the public as well as independent verifiers and auditors to satisfy third-party certification or regulatory compliance.

Further, CorTenX supports robust mass balance methodologies—enabling chain-of-custody tracking across multiple stakeholders, while also facilitating downstream emissions accounting and claims issuance for Scope 1 and Scope 3 emissions reductions.

Setting a New Standard

Trovio's CorTenX platform has been purpose-built to support environmental markets with a secure, interoperable, and API-first registry architecture. Already trusted by major governments and institutional partners, CorTenX enables the creation and management of uniquely serialised environmental assets, underpinned by fine-grained access control, real-time auditability, and regulatory-grade data integrity. This pilot not only validates the operational feasibility of ammonia as a viable marine fuel but also underscores the role of robust digital registries in bridging the gap between sustainability ambition and market implementation, particularly as the maritime sector moves towards a greener future over the coming years as recently highlighted at the IMO.

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About the Green Hydrogen Organisation

The Green Hydrogen Organisation (GH2) is an international non-profit foundation working to accelerate the production and use of green hydrogen globally. GH2 collaborates with governments, producers and financial institutions to promote key applications such as green fertilisers, shipping fuels and green iron and steel.

Founded in 2021, GH2 has established a presence in Geneva, London, Jakarta, Nairobi and Oslo. It serves as the secretariat for the Africa Green Hydrogen Alliance (AGHA), a government-led platform uniting ten African countries to drive regional cooperation on green hydrogen.

GH2 is a founding member of the Global Renewables Alliance (GRA).

Previous GH2 publications include *In Search of the Real Price of Blue Hydrogen* and *Green Fuel Producers are Ready to Provide 10% of Marine Fuels by 2030*.