

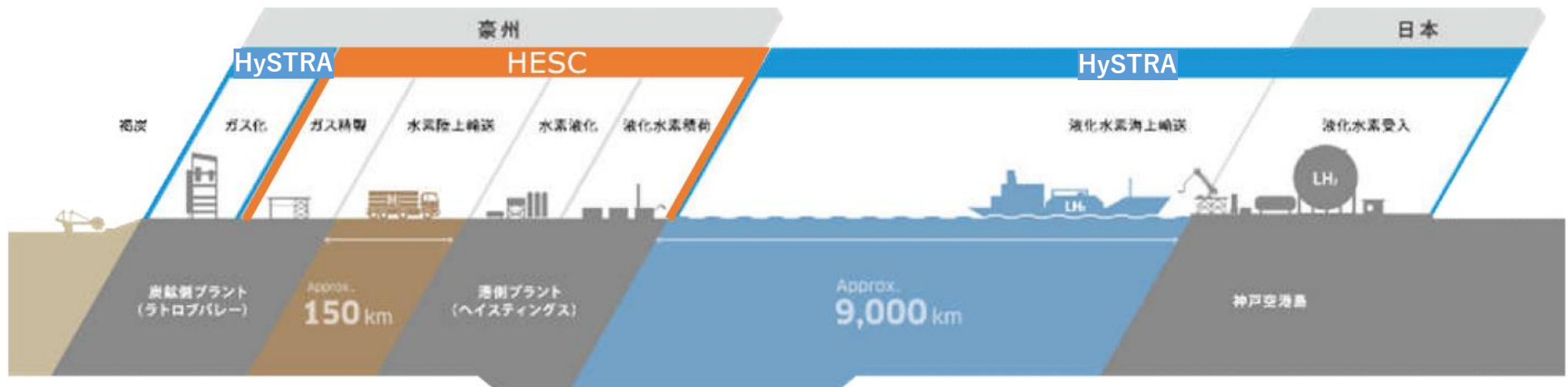
"HySTRA", developing technologies for CO2-free Hydrogen Energy Supply Chain

Organization
HySTRA

Launched time
February 2016

Overview

- HySTRA is working towards creating a CO2 free hydrogen energy supply chain comprised of hydrogen production effectively utilizing brown coal, transportation, storage and utilisation of hydrogen, and establishing and demonstrating the technologies to commercialise the supply chain around 2030.



HySTRA

HySTRA (CO2-free Hydrogen Energy Supply-chain Technology Research Association)

Members: Kawasaki Heavy Industries, Ltd., Iwatani Corporation, Electric Power Development Co., Ltd. (J-POWER), Shell Japan Limited, Marubeni Corporation, ENEOS Corporation, Kawasaki Kisen Kaisha, Ltd. ("K" LINE)

Note: HESC(Hydrogen Energy Supply Chain): Kawasaki Heavy Industries, Ltd., Iwatani Corporation, Electric Power Development Co., Ltd. (J-POWER), Marubeni Corporation, Sumitomo Corporation, AGL Energy Ltd.

"HySTRA", developing technologies for CO2-free Hydrogen Energy Supply Chain

Barriers on developing the innovation

- In order to establish an international supply chain for hydrogen, it is necessary to develop technologies that include safety and affordability, and also to gain the qualification of off-takers and financial institutions by demonstrating these technologies.
- However, development risk is high due to the large capital investment in gasification and refining facilities, transport vessels, and receiving terminals, as well as the long time required for commercialization.

Success factors to overcome the above barriers

- Each company has been developing hydrogen technologies from a long-term perspective, and the Japanese government has been strategically promoting its industrialization and penetration.
- Under these circumstances, the Ministry of Economy, Trade and Industry (METI) and NEDO have taken budgetary measures (subsidies), and the HySTRA companies have made investment decisions based on the importance of long-term social issues.

Future action plan

- The supply chain demonstration will be completed by the end of FY2022 (additional demonstrations are under consideration).
- Each company is expected to contribute to the realization of a hydrogen society by utilizing the technologies and know-how acquired through the demonstration.

