

[World-first international hydrogen transport]  
Successfully linking up a circular hydrogen supply chain

Advanced Hydrogen Energy Chain Association for Technology Development (AHEAD)

AHEAD has been awarded a grant from the New Energy and Industrial Technology Development Organization of Japan (NEDO) in support of the "Demonstration Project for a Hydrogen Energy Supply Chain Utilizing the Organic Chemical Hydride Method" project, while the dehydrogenation plant at the Keihin Refinery of TOA OIL CO., LTD., located on the Kawasaki City waterfront, has entered into stable operation to separate off hydrogen and toluene from methylcyclohexane (MCH) produced in Brunei Darussalam. \*1

This event marks a significant milestone in the "Demonstration Project for a Hydrogen Energy Supply Chain Utilizing the Organic Chemical Hydride Method", for it has realized the world's first international hydrogen supply chain by connecting the hydrogen supply chain between Brunei Darussalam and Japan through a series of processes including MCH production in Brunei, maritime MCH transport, and dehydrogenation of MCH in Japan. The commencement of global hydrogen supply chain operation is a notable step toward the realization of CO2-free "Hydrogen Society".

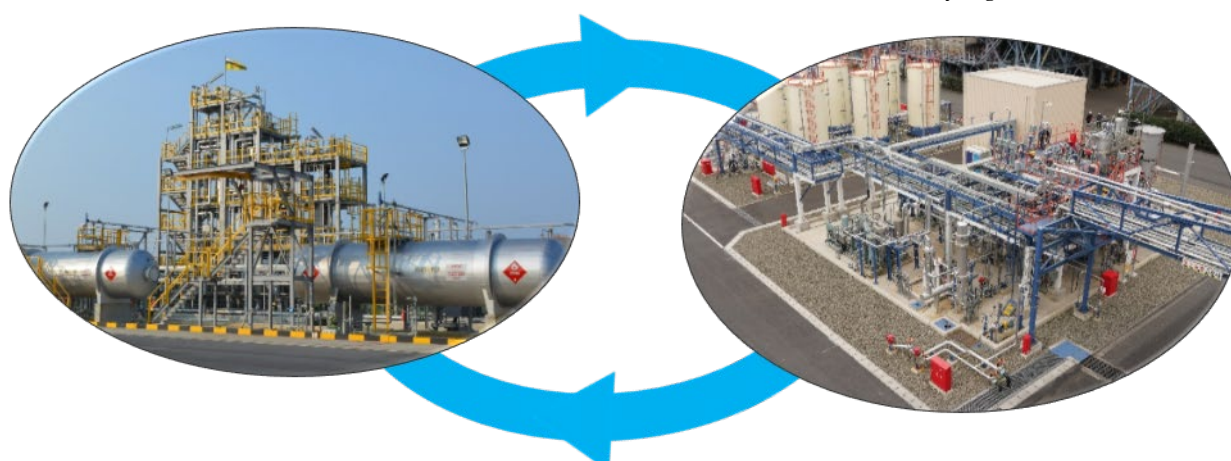
Going forward, AHEAD will team up with partner companies including Chiyoda Corporation, Mitsubishi Corporation, Mitsui & Co. and Nippon Yusen Kabushiki Kaisha to confirm the effectiveness of international hydrogen transportation through a project to demonstrate a hydrogen supply chain in operation. We will also acquire a range of data at our plants in Japan and Brunei and focus on research themes with the practical application of the organic chemical hydride method in mind and with the aim to establish a commercial hydrogen supply chain business in future.

In response to the recently declared state of emergency, AHEAD is striving to prevent any significant delay to research and development, while also taking measures to mitigate the risk of infectious disease by undertaking some of our work by telecommuting.

We appreciate your continued support.

【 Brunei Hydrogen Production & Hydrogenation Plant】

【 Kawasaki Dehydrogenation Plant】



\*1 Toluene separated from MCH will be returned to Brunei Darussalam, where it is integrated again with hydrogen and transformed back into MCH. The toluene will be repeatedly used as a means of transporting hydrogen in the future hydrogen supply chain.

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#### **Inquiry Contact Details**

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