Castrol signs Memorandum of Understanding with ITOCHU and ITOCHU Techno-Solutions to accelerate adoption of liquid cooling solutions for data centres in Japan

Castrol (Lubricants UK Limited, bp group; Global President of Thermal Management & Data Centres: Peter Huang) has signed a Memorandum of Understanding (MOU) with Itochu Corporation (Head office: Minato-ku, Tokyo; President & COO: Keita Ishii) and ITOCHU Techno-Solutions Corporation (Head office: Minato-ku, Tokyo; President & CEO: Tatsushi Shingu) to promote the adoption of liquid cooling solutions for data centres in Japan.

Under the MOU, **Castrol** will provide data centre cooling fluids and related technical services, while **Itochu** will support market development, commercial pathways and supply from an energy-centered standpoint. **ITOCHU Techno-Solutions Corporation**, one of Japan's leading system integrators, will deliver end-to-end solutions spanning design, implementation and operations.

Across the globe, the rapid adoption of generative AI and high-performance computing is driving up electricity demand and concentrating unprecedented heat loads in data centres, placing cooling capabilities under significant strain. This global shift is now reshaping Japan as well, where operators are moving beyond air-only approaches to accommodate higher rack densities while aligning with national priorities such as improving end-use efficiency and smoothing demand. In this context, liquid cooling—using electrically insulating fluids—offers a practical solution to remove heat at its source, reduce energy devoted specifically to cooling, increase compute density within existing footprints, and ease the burden on central air-conditioning systems.

Through this collaboration, **Castrol** will contribute its high-flash-point cooling fluids and lifecycle services—including fluid testing, preventive maintenance and training. These will be combined with **ITOCHU Techno-Solutions Corporation's** systems integration capabilities and **Itochu's** energy-domain expertise and customer network to establish practical deployment models that balance safety, energy efficiency and reliability.

The collaboration also encompasses knowledge-sharing with ecosystem partners, pilot deployments and customer education in Japan, supporting staged, pragmatic transitions—including hybrid environments combining air and liquid cooling—and building a pathway for future regional roll-out.

About Castrol Thermal Management
Castrol's Thermal Management business focuses on thermal management solutions for data centers and energy storage. With four technical centers around the world, the business covers markets including the US, Europe, the Middle East, China, Australia and Southeast Asia. Leveraging its advanced and innovative technologies and close collaboration with global business partners, Castrol has developed Castrol ON data centre cooling fluids to meet the escalating cooling needs in artificial intelligence (AI), machine learning (ML) and other applications in cloud computing, enabling optimal performance throughout the entire lifecycle of data centers. To learn more about Castrol's data centre liquid cooling solutions, please visit the Castrol Global Customer Hub.

About Castrol
Castrol, one of the world's leading lubricant brands, has a proud heritage of innovation and fueling the dreams of pioneers. Its passion for performance, combined with a philosophy of working in partnership, has enabled Castrol to develop lubricants and greases that have been at the heart of numerous technological feats on land, air, sea, and space for over 125 years. Castrol is part of the bp group and serves customers and consumers in the automotive, marine, industrial and energy sectors. Its branded products are recognised globally for innovation and high performance through our commitment to premium quality and cutting-edge technology. For more information, please visit: www.castrol.com.

About Itochu Corporation
Itochu Corporation is a leading global trading and investment company, conducting business across more than 60 countries worldwide. As one of Japan's distinguished "Sogo Shosha"—general trading companies uniquely positioned to integrate trading, logistics, and investment on a global scale—Itochu supports the growth and development of a wide array of industries, including energy, IT and digital sectors, textiles, food, and machinery.

In pursuit of a sustainable society, Itochu is dedicated to actively promoting environmental stewardship and the dissemination of energy-saving technologies. In recent years, the company has focused on energy-efficient solutions including liquid cooling technologies, aiming to contribute to the sustainable evolution of global infrastructure.

Guided by the "Sampo Yoshi" philosophy—creating value that benefits all stakeholders—Itochu aspires to generate new value in partnership with a diverse range of collaborators around the world.

About ITOCHU Techno-Solutions Corporation
ITOCHU Techno-Solutions Corporation is a comprehensive IT services company that partners with its customers. ITOCHU Techno-Solutions provides total support, from consulting to design, development and construction, and operational and maintenance support. By combining advanced technologies such as AI, security, data analysis, cloud computing, we contribute to customers' digital transformation (DX) and the resolution of social issues.