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Mitsui O.S.K. Lines, Ltd. MOL Ferry Co., Ltd. Euglena Co., Ltd.

Japan's 1st Sea Trial of Large Ferry with Renewable diesel fuel ~ Taking a Step Toward Zero GHG Emissions ~

TOKYO—Mitsui O.S.K. Lines, Ltd. (MOL; President & CEO: Takeshi Hashimoto; Headquarters: Minato-ku, Tokyo), Euglena Co., Ltd. (Euglena; President: Mitsuru Izumo; Headquarters: Minato-ku, Tokyo), and MOL Ferry Co., Ltd. (MOL Ferry; President: Naotoshi Omoto; Headquarters: Chiyoda-ku, Tokyo) today announced the completion of a sea trial of the MOL Ferry-owned/operated ferry *Sunflower Shiretoko* using renewable diesel fuel marketed by Euglena. The sea trial took place in the Port of Oarai in Ibaraki Prefecture.



From left: Oarai-machi mascot "Araippe," MOL Ferry Chief Engineer Mori and Captain Moriguchi, Euglena Executive Officer and Chief Energy Company Korehiro Odate, MOL Ferry President Naotoshi Omoto, MOL Executive Officer Osamu Sakurada, Oarai Town Mayor Yutaka Kunii, Ibaraki Coast Guard, Guard Station GM Mr. Morimoto, and Ibaraki Port Authority Corporation Managing Director Mr. Ozawa

The renewable diesel fuel used for the sea trial is made from biomass, and can be used without changing the specifications of conventional diesel-powered marine engines. It

complies with SOx regulations ^{*1} because, unlike the heavy fuel oil in general use today, it contains no sulfur, a major component of air pollution from internal combustion engines. In addition, this biofuel emits CO₂ at the combustion stage, but the biomass feedstock absorbs CO₂ by photosynthesis in the growth process, so it is expected to achieve a carbon neutral state—essentially net zero CO₂ emissions when it is used.

A special guest at a ceremony for the sea trial was Oarai Town Mayor Yutaka Kunii, who had encouraging words for the sea trial team: "I'm happy that such an advanced project is being conducted in our town. We would like to firmly set our vision for the future and move ahead together."

The MOL Group set a target of achieving net zero greenhouse gas (GHG) emissions in "MOL Group Environmental Vision 2.1" ^{*2}, which laid out the group's approach to global environmental issues. Among its initiatives, the group supports for Euglena's GREEN OIL JAPAN ^{*3} declaration, which aims to promote Japan's nationwide shift toward biofuel, and this sea trial was a key element of that.

MOL and Euglena are working to reduce the maritime industry's environmental impact and realize a sustainable global society, while moving ahead with environment-friendly activities.

*1 SOx regulations: Regulations on the sulfur content of bunker oil used in the ocean shipping industry. Starting in 2020, stricter regulation reduced the maximum allowable sulfur content from 3.5% to 0.5%.

*2 MOL Group Environmental Vision 2.1 https://mol.disclosure.site/en/themes/101

*3 With "GREEN OIL JAPAN" declaration, Euglena invites the cooperating companies and organizations (transportation, food and beverage, local governments, etc.) that use biofuels, supply feedstocks, and promote the wider use of biofuels together. For details, visit its "GREEN OIL JAPAN" declaration website: https://www.euglena.jp/en/businessrd/energy/greenoiljapan/

<About Mitsui O.S.K. Lines, Ltd.>

Founded in 1884, this multimodal ocean shipping group company operates one of the world's largest fleets, with over 800 vessels. It supports people's lives and industries around the world through safe, reliable transportation of various commodities such as resources, energy, raw materials, and finished products. In addition, the company is active in the ferry business through MOL Ferry and Ferry Sunflower Limited, coastal RoRo vessel operation, tugboat service, warehousing, maritime consulting, real estate, and cruise ship operation. https://www.mol.co.jp/en/index.html

<About MOL Ferry Co., Ltd.>

Established in 2001. The company has expanded its route network connecting the Tokyo metropolitan area and Hokkaido/Kyushu with nine large ferries and coastal RoRo ships. The company promotes ocean transport of unmanned trailers as a leader in Japan's Modal Shift. In addition, it engages not only in ocean shipping, but also in sea and shore multimodal transport services including land transport, optimizing its customers' transport and logistics. Its "Casual Cruise" services make it easy for passengers to enjoy

sea travel, and the company operates the only ferry route connecting the Tokyo metropolitan area and Hokkaido. <u>https://www.sunflower.co.jp/en/</u>

<About Euglena Co., Ltd.>

Euglena achieved the world's first outdoor mass cultivation technology for the edible *Euglena* (microalgae *Midorimushi*) in 2005. The company not only develops and markets foods and cosmetic products that adopt microalgae *Euglena* and *Chlorella*, but also produces and develops biofuels and offers genetic analysis service. In addition, it launched the "euglena GENKI program" in 2014, delivering nutrient-rich *Euglena* cookies to children in Bangladesh and expanded the program to include the group's entire product lineup starting in April 2019. It was listed on the Tokyo Stock Exchange (TSE) Mothers in December 2012. In December 2014, it began trading on the First Section of the TSE. Euglena Co. develops its businesses under the philosophy of "Sustainability First." <u>https://www.euglena.jp/en/</u>



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