

13 January 2022

Marubeni Corporation

Tryangle Inc.

Mitsui E&amp;S Shipbuilding Co., Ltd.

City of Yokosuka

Completion of a Joint Technological Development Programme for the Demonstration of Unmanned Ships

A consortium consisting of Marubeni Corporation (hereinafter, “Marubeni”), Tryangle Inc. (hereinafter, “Tryangle”), Mitsui E&S Shipbuilding Co., Ltd. (hereinafter, “Mitsui E&S Shipbuilding”), and the City of Yokosuka applied to and secured a place in the “Joint Technological Development Programme for the Demonstration of Unmanned Ships - MEGURI2040” led by The Nippon Foundation in February 2020, and have conducted a pilot project in Yokosuka City with the aim to establish the technology for autonomous ship operations (hereinafter, “Proof of Concept”). On this occasion, the Proof of Concept was successfully completed in a voyage route between New-Mikasa Pier and Sarushima Island in Yokosuka City, in which the ship operations, including berthing, were fully automated using an existing small-sized passenger boat\*.

Through this Proof of Concept, the autonomous ship technology, which was applied by Mitsui E&S Shipbuilding on an existing small-sized passenger boat owned and operated by Tryangle, achieved fully autonomous ship operations including unberthing, navigation, collision avoidance and berthing\*. Implementation of this autonomous ship technology from this Proof of Concept, is expected to reduce the workload of the ship crew while enhancing operational safety.

Marubeni, Tryangle, Mitsui E&S Shipbuilding, and the City of Yokosuka are aiming to use this technology and experience to effectively help contribute to a safe and sustainable society.

(\*) The autonomous operation was conducted with the ship crew onboard to ensure safety while complying with laws and regulations.

<Photos of the Proof of Concept>



Tryangle-owned small passenger boat.



(Photos by The Nippon Foundation)

Left to right :

Marubeni Corporation, Kosuke Takechi, Executive Officer, Chief Operating Officer, Aerospace & Ship Div.

The Nippon Foundation, Mitsuyuki Unno, Executive Director

Tryangle Inc., Takahiro Suzuki, Representative Director

Mitsui E&S Shipbuilding Co., Ltd., Isamu Funatsu, President and CEO, Representative Director

City of Yokosuka, Hiroyuki Yamaguchi, Director-General, Economic Department

<Related News Release>

12 June 2020 “Joint Technological Development Programme for the Demonstration of Unmanned Ships”

<https://www.marubeni.com/en/news/2020/release/20200612E.pdf>