

FOR IMMEDIATE RELEASE

August 15, 2019

## Dentsu and TUMSAT to Conduct Self-Driving Land/Water-Linked Multimodal MaaS Demonstration Field Test in Tokyo in Early September

Dentsu Inc. (Head Office: Minato-ku, Tokyo; President & CEO: Toshihiro Yamamoto) and Tokyo University of Marine Science and Technology (Campus: Minato-ku, Tokyo; President: Toshio Takeuchi; hereinafter "TUMSAT") will jointly conduct a demonstration test focused on self-driving land/water-linked multimodal<sup>1</sup> MaaS<sup>2</sup> combining land transport methods, including last one mile transportation<sup>3</sup>, with water transport methods. This demonstration will take place in the Tokyo area at the beginning of September 2019.

### Concept



Under the theme of improving the experience value of travel via automated transport MaaS, this demonstration field test will utilize land MaaS service, a maritime autonomous surface ship developed by TUMSAT and various Dentsu solutions<sup>4</sup>. Envisioning a future society where autonomous driving technologies have spread to land, sea and air, this test will explore land/water-linked multimodal possibilities for use in the future development of services by connecting each type of transport method, making travel time enjoyable and comfortable, and examining methods and issues aimed at effective utilization and enhanced experience value during transport.

In light of the results of this test, as well as demonstration tests and other activities conducted last year, Dentsu will develop a service package in collaboration with related parties that effectively link various solutions that will be offered throughout Japan and overseas. Going forward, through tests held in western Japan and other areas later this year, we will promote the use of MaaS by linking water transportation with other means of transportation used as part of daily commuting and sightseeing, with plans to develop solutions related to travel times and information distribution.

For an overview of the demonstration test, please see below.

### ■ Overview of the Demonstration Test

- Aim:
  - To conduct a technology demonstration as an experimental test assuming MaaS will be used in the near future when multimodal transportation by land/sea/air is expected to be realized. The results will be made public through roundtable discussions to spur societal interest in this field. We will promote the spread of multimodal MaaS and autonomous driving technologies, which are expected to begin full-fledged use from 2020 onward, and contribute to the resolution of traffic issues in Japan and overseas.
- Participants:
  - Shimizu laboratory, Faculty of Marine Technology, Tokyo University of Marine Science and Technology (TUMSAT) (<https://www.kaiyodai.ac.jp/english/>)
  - MONET Technologies Inc. (<https://www.monet-technologies.com/> : Japanese only)
  - Dentsu Inc. (<http://www.dentsu.com/>)
- Support: Ministry of Land, Infrastructure, Transport and Tourism (In progress)
- Cooperation: Urban Waterfront Development Partners (SUITOSOZO.org) (<https://www.suitosozo.org/> : Japanese only)

### Demonstration Test (Plan)

Date: Wednesday, September 4 and Thursday, September 5, 2019

Location: Kaigan area, Minato-ku, Tokyo

Method: Demonstrate and test sea/land multimodal MaaS as follows.

- Water transportation (ship): Maritime autonomous surface ship *Raicho I* (provided by TUMSAT)
- Land transportation: transportation hailing platform (provided by MONET Technologies Inc.)
- Water transportation management: Marina usage management system Triangle Connect™ (provided by Dentsu)

Note: Participation in the demonstration test is limited to relevant parties in accordance with laws and regulations.

### General Discussion (Plan)

Date: 3 p.m.–4:30 p.m., Thursday, September 5, 2019

Location: Tokyo area

- Details:
1. Lecture by Etsuro Shimizu, Professor, TUMSAT: "On the Possibility of Land/Water Multimodal Transportation Using Autonomous Driving Technologies—Future Prospects Based on Demonstration Results—" (provisional title)
  2. Lecture by officials from Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism
  3. Questions and answers

Attendance: Free participation, free of charge

Note: Details on how to register for this discussion will be posted on Suitown Tokyo (<https://www.suitown.jp/en/>) on August 20, 2019. Content may be subject to change. Please note that, due to venue limitations, there may not be enough space for everyone who applies.

- Notes:
1. Last one mile transportation: Travel over the final section of a route to a destination from train station to home, train station to office, etc. Here it is meant to indicate the section from office/train station to the marina.
  2. Multimodal: Refers to a pattern of transport combining multiple moving vehicles, or modes. Here it is meant to indicate a pattern combining water transportation and land transportation.
  3. MaaS (Mobility as a Service): Here, this is meant to indicate the concept of viewing transportation as a combined and integrated service for users rather than simply a method, such as providing the optimum transport method for transportation needs from the departure point to the destination seamlessly using one application.
  4. Various solutions developed by Dentsu (including PCT patent pending items):
    - Marina usage management system Triangle Connect™  
A system that manages the acceptance and availability of marina usage reservations for multiple landing sites and supports operations and settlement in line with usage conditions and various rules specific to each landing site. Operating in Tokyo in conjunction with ticket sales and coastal-related information sites that specialize in marine vessel tickets, there are plans to expand this system as a solution to promote information collaboration required for MaaS involving water transportation going forward.
    - Transportation Vessel Information Distribution System  
Information distribution system for self-driving vessels (land/sea/air) currently under development. In light of MaaS characteristics, this system provides a variety of information for travelers to move comfortably. We aim to commercialize this system by the end of fiscal 2020.

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Contact:

Media-related enquiries: Shusaku Kannan

Executive Communications Director

Corporate Communications Division

Telephone: +81(3) 6216-8042

E-mail: [s.kannan@dentsu.co.jp](mailto:s.kannan@dentsu.co.jp)

Business-related enquiries: Hakubun So

Business Development & Activation Division

Mobility Project Team

E-mail: [mobility@dentsu.co.jp](mailto:mobility@dentsu.co.jp)