



Yamato Group Research Institute Concludes Memorandum concerning Efforts on Physical Internet in Japan with Georgia Institute of Technology with an Aim to Realize a Sustainable Japanese Society through Logistics

Yamato Group Research Institute (Headquarters: Minato Ward, Tokyo; Representative: Makoto Kigawa; hereinafter referred to as "Yamato Group Research Institute") concluded a memorandum concerning the construction of an innovative logistics system in Japan through Physical Internet with the Physical Internet Center at Georgia Institute of Technology in the U.S. (hereinafter referred to as "Georgia Tech") on September 3, 2019.

1. Background and Purpose

These days, labor shortage in the logistics industry including a lack of drivers is said to be a significant social issue in Japan. The gravity of the problem is increasing every year and measures need to be taken as soon as possible. Furthermore, urgent actions from the industry as a whole including the public and private sectors to address the issue are needed on top of measures of individual companies.

Meanwhile, the issue is becoming more serious not only in Japan but also in Europe and the U.S. There are also cases in which many trucks with a low load-to-truck ratio are running, though CO₂ that causes global warming should be reduced. In North America, Europe and Asia, a concept called "Physical Internet" is being researched as a solution to the issue. This is an innovative logistics system realizing a sustainable society through the sharing of transport space occupied by trucks, etc. and storage space at warehouses among logistics companies and the improvement of capacity utilization as well as the reduction of fuel consumption and environmental burden. In Europe, there is a goal to achieve zero emissions (*) by 2050 and Physical Internet is positioned as one of the means for achieving the goal.

Yamato Group Research Institute and Georgia Tech, an advanced research institute and home to the leading researcher of Physical Internet, Professor Benoit Montreuil, have concluded a memorandum with an aim to solve urgent issues in Japanese logistics through industry-wide collaboration. They aim to raise awareness the concept of Physical Internet in Japan as well as to construct an innovative system in the logistics industry.

* Zero emission

Engine, motor, mechanism, or other energy source that emits no waste products that pollute the environment or disrupt the climate

2. Content of Memorandum

The following two points are the main content of the memorandum concluded between both organizations at this time.

- (1) Yamato Group Research Institute will provide Georgia Tech with information on the actual status of logistics issues which are growing in severity in Japan, and Georgia Tech will provide Yamato Group Research Institute with knowledge on Physical Internet.
- (2) Yamato Group Research Institute will send information based on the knowledge gained from Georgia Tech to stakeholders involved in Japanese logistics.

3. Future Outlook

Yamato Group Research Institute will establish a specialized internal organization to conduct research on Physical Internet, and launch a study group on logistics issues within this fiscal year in cooperation with the industry, government and academia. The organization will understand the issues of those in need of logistics services and the

providers of logistics services, and conduct research for clarifying the objectives of issue resolution and activities promoting system design and construction of a Physical Internet based on the circumstances of Japanese logistics.

[Reference] Signing Ceremony



Left: Georgia Institute of Technology Physical Internet Center Professor Benoit Montreuil Right: Yamato Group Research Institute Chairman Makoto Kigawa

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[Reference]

■ About Georgia Tech

Georgia Tech is a state university established in 1885 in Atlanta, Georgia, in the U.S. It is one of the most renowned technological institutes in the U.S., consistently ranked among the top schools in almost all fields of engineering. The H. Milton Stewart School of Industrial & Systems Engineering, to which the Physical Internet Center belongs, has been ranked as the top graduate school in the U.S. in operations research by U.S. News & World Report for years.

■ About Yamato Group Research Institute

Yamato Group Research Institute was established on April 1, 2016, as part of a project commemorating the 100th anniversary of Yamato Group in 2019. It aims to solve social issues through further evolution and development of logistics and contribute to the realization of an affluent society. It conducts research and surveys beyond Yamato Group's existing business scope while promoting open innovation such as proactive cross-industrial cooperation and industry-academia-government collaboration.

Website: http://www.yamato-soken.or.jp/