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July 22, 2024 AEON Co., Ltd. AEON KYUSHU Co., Ltd. Commercial Japan Partnership Technologies Corporation

## AEON and CJPT working to resolve logistics industry issues and achieve carbon neutrality at AEON Fukuoka XD<sup>\*1</sup>

AEON Co., Ltd. (AEON), AEON KYUSHU Co., Ltd. (AEON KYUSHU), AEON GLOBAL SCM Co., Ltd. (AEON GLOBAL SCM), and Commercial Japan Partnership Technologies Corporation (CJPT) will implement initiatives seeking to address social issues faced by the logistics industry and contribute to carbon neutrality at the new logistics center AEON Fukuoka XD.

AEON has been working on improving efficiency in each stage of distribution, from procurement to sales, with the aim of optimizing logistics. CJPT has been focusing on two pillars: logistics efficiency which it believes will not only solve logistics issues but also lead to immediate carbon neutrality and vehicle electrification.

AEON and CJPT started collaborating at AEON Global SCM's South Osaka RDC<sup>\*2</sup> from April 2021 as Phase 1. Combining the retail logistics expertise built up by AEON and the philosophy of TPS (Toyota Production System), the companies aimed to visualize and streamline the flow of goods, achieving improved loading efficiency through work improvement in the logistics center and optimal delivery utilizing real-time data. As a result, they achieved approximately 10% efficiency improvement in total truck mileage and a 10% reduction in CO2 emissions. Starting from September 2022 as Phase 2, in collaboration with AEON KYUSHU, the scope of activities has further expanded to include wholesalers and suppliers. This expansion has resulted in the streamlining of the entire supply chain from upstream to downstream through cross-industry initiatives.

As part of Phase 3, AEON and CJPT will strive to enhance the effectiveness of logistics efficiency by consolidating these initiatives at the new logistics center, AEON Fukuoka XD, which will commence full operation starting on July 24, 2024.Furthermore, by promoting "vehicle electrification," the companies aim to address logistics problems and achieve carbon neutrality, targeting a 35% reduction in CO2 emissions by 2030<sup>\*3</sup>. Specifically, "logistics operations automation" will be integrated into efforts to reduce overall travel distance through improvements both in operations within the logistics center and in optimal delivery. This will help reduce workload and enhance productivity. In addition, the companies will actively pursue the reduction of CO2 emissions through the introduction of fuel cell (FC) small trucks and other environmentally friendly vehicle technologies.

Moving forward, the companies will expand the initiatives throughout the entire supply chain, improving efficiency in procurement logistics through data integration with suppliers and utilizing double-trailer trucks and collaborative transportation for long-haul logistics. AEON and CJPT will take on the challenge of achieving carbon neutrality and addressing nationwide logistics problems, thereby contributing to society's overall logistics challenges.

## Concrete initiatives based on the new logistics center "AEON Fukuoka XD"

Categories	Initiatives	Target	reduction in CO <sub>2</sub> emissions
Logistics Efficiency Improvement	<ul> <li>Efficiency pursuit through integration of stores and logistics based on TPS philosophy</li> <li>Enhanced loading efficiency through improvements in logistics center operations</li> <li>Improvement of vehicle efficiency through logistics optimization</li> </ul>	10% reduction in total mileage	▲10%
	<ul> <li>Efficiency improvement through data/automation technology in logistics</li> <li>Efficiency improvement through optimal delivery planning utilizing real-time information</li> <li>Workload reduction and productivity improvement through automation and labor-saving equipment</li> </ul>	10% reduction in total I mileage 30% increase in shipping capacity	▲10%
Vehicle Electrification	<ul> <li>Reduction of CO<sub>2</sub> emissions through environmental and vehicle technologies</li> <li>Shift to fuel cell (FC) and electric vehicles</li> </ul>	15% of all vehicles	▲15%
Contribution to Local Communities	<ul> <li>Resolution of logistics problems</li> <li>Streamlining procurement logistics through information collaboration with suppliers</li> <li>Reducing waiting time through the implementation of a berth reservation system</li> <li>Resolving driver shortage through the utilization of double-trailer trucks and collaborative transportation in long-haul logistics</li> </ul>		

\*1: Cross Dock = A logistics facility with the function of temporarily receiving and quickly delivering goods to the appropriate location.

\*2: Regional Distribution Center = A logistics facility that stores fast-moving goods and supplies them to stores in the designated area through a cross-dock center in the designated area.

\*3: Submitted on October 22, 2021 - Japan's NDC (Nationally Determined Contribution) as determined by the national government.

> Overview of the new logistics center "AEON Fukuoka XD" (a comprehensive logistics center that

consolidates and integrates functions for ambient and cold storage)



Name: AEON Fukuoka XD

Location: 1-1-4 Minato Kashii, Higashi-ku, Fukuoka City, Fukuoka, Japan, T-LOGI Fukuoka Island City 1F-2F

Leased Area: 41,335.80 square meters

Improvement of work efficiency by incorporating TPS (Toyota Production System) philosophy



AEON and CJPT collaborating at the worksite



Efficiency improvement case

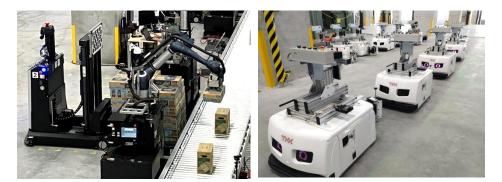
Automation of logistics operations through the introduction of automated equipment  $\geq$ 



Pallet automated warehouse



Depalletizing arm robot



Al remote Depalletizing arm robot Remote unmanned forklift AGF

Next-generation AGV (Automated Guided Vehicle) transportation system

Optimal delivery planning system (E-TOSS\*4) utilizing connected technology and real-time data.



Utilizing E-TOSS for dispatching



Image of Dispatch planning

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\*4 E-TOSS: Developed by Toyota Motor Corporation based on CJPT's concept.

## > FC small trucks



Hydrogen-powered fuel cell vehicles emit zero CO<sub>2</sub> during operation. Utilizing the Fukuoka Prefecture Fuel Cell Truck Introduction Promotion Project subsidy.