Keidanren
Policy & Action

Logistics in the Age of Society 5.0
—Hi-Tech-Driven Innovations and Advances in Globalization—
Overview

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Keidanren

I. Introduction

1. Keidanren is working to bring about the creation of Society 5.0, a new society that balances economic growth with the solution of social challenges by harnessing IoT, Big Data, AI, robotics, and other innovative technologies. It has advocated "Society 5.0 for SDGs" and promoted the achievement of individual targets with cutting-edge technologies. Logistics is a good fit for many of the innovative technologies championed by the Society 5.0 vision, and one of the industries considered most likely to achieve innovations through the utilization of data. To pave the way to Society 5.0, it is essential that the logistics industry—as a valuable element of social infrastructure—be guided by a perspective geared toward the proactive adoption of cutting-edge technologies with comprehensive enhancements in supply chain efficiency and sophistication.
2. Logistics in Japan faces an array of pressures, from the rapid growth of e-commerce and supply chain globalization to an aging, dwindling workforce, decaying infrastructure, inadequate processing capacity, and the task of responding to global environmental problems, large-scale disasters, and other social issues. Boosting this industry's competitiveness at home and abroad will be key to assuring the sustainability of logistics networks with an eye to future Japanese economic growth and ensuring that Japanese logistics enterprises maintain their world-class performance.
3. Moving to leverage the latest technologies will enable the logistics industry to improve its work environment and appeal as well as develop stronger logistics networks within and outside Japan. Furthermore, leading Japanese logistics businesses can be expected to excel on the global stage.

II. Logistics in the Age of Society 5.0—Looking Ahead to 2030

1. Logistics innovations driven by BPR and cutting-edge technologies

Coordination	Sharing	Labor saving	Creating value	Social contributions
Improved logistics visibility with **RFID** and other IoT technologies, **total supply chain coordination and optimization** through real-time information-sharing	**Matching** logistics business resources with the needs of shippers; **sharing and joint use** of pallets, containers, and reusable shipping cartons	Labor- and energy-saving logistics processes with **autonomous vehicles and cargo ships**, **robots,** etc.	Creation of new value through **discovery of customers' potential needs and coordination with production and sales**	Reduced environmental impact with **next-generation vehicles** (EVs, FCVs, etc.) and **LNG-fueled ships**; rapid acquisition of disaster information with **IoT, drones**, etc.

2. The Logistics Industry in 2030

(1) Boost to industrial appeal with improved work environments (2) Evolution into industry with large-scale equipment (3) Development of seamless, global supply chains

III. Roadmap to Achievement

1. Cross-sectoral undertakings

	2020	2025	2030
(1) Private-sector efforts	Undertake logistics re-engineering and inter-business partnerships Implement appropriate investments in ICT	Maintain and develop logistics networks	
(2) Government efforts	Promote Comprehensive Logistics Policy Outline Form inter-agency and departmental frameworks Formulate future vision for transportation system	Stress utilization of high tech and globalization of logistics in next and future Comprehensive Logistics Policy Outline Promote action through inter-agency and departmental coordination Promote strategic infrastructure development	Develop necessary systems and infrastructure
(3) Public-private efforts	Seek understanding and cooperation from consignors and consignees, including consumers Formulate grand design for utilization of logistics data Undertake logistics data rule-making, standardization, and R&D Promote logistics data acquisition, distribution, and sharing Strengthen international coordination (with rule-making, standardization, etc.); ensure cyber security	Achieve sustainable logistics with cooperation from consignors and consignees	Facilitate utilization of logistics data in Japan and abroad

2. Field-specific undertakings

	2020	2025	2030
(1) Inter-business data sharing and cargo shipping visualization	Digitize all logistics-related documentation Implement RFID and other IoT technologies across society	Digitize all inter-business data transmissions	Realize cargo tracking with RFID and other IoT tools, real-time data sharing with integrated supply chain platforms
(2) Sharing of logistics resources	Support joint shipping arrangements Standardize pallets and reusable shipping cartons Promote home delivery locker installation and use	Expand joint shipping arrangements through development and utilization of Shipment Matching Platforms Promote sharing and joint use of pallets and reusable shipping cartons Implement shared use of home delivery lockers	Diversify "last one mile" shipping
(3) Roadway-community logistics innovations	Study future transport systems Introduce robots and other automation at logistics facilities (through deregulation, etc.)	Undertake trials and development for implementation of expressway convoys Develop necessary systems and infrastructure for autonomous vehicle- and convoy-based shipment	Undertake trials and development for autonomous vehicle-based shipments on roads other than expressways
(4) Seaport, rail, and airport logistics innovations	Alleviate congestion at seaports, and function-specific redevelopment of related facilities Undertake R&D and standard-setting aimed at facilitating automated ship piloting and implementation of IoT tools Promote IT for rail and air cargo transport	Implement IT at seaport facilities	Achieve seamless sea, rail, and air cargo transport operations
(5) Promotion of logistics globalization	Upgrade NACCS and implement blockchain-based Trade Information Sharing Platform Improve trade procedures Support infrastructure development, human resources training, and the development of statistics in emerging economies	Digitize all trade-related procedures Achieve seamless global logistics operations	
(6) Work-style reforms and human resources training in the logistics field	Support operations with wearable devices, etc. Extend appropriate compensation for trucking services	Implement automation utilizing autonomous vehicles and cargo ships, robots, etc. Create large-scale trucking businesses through consolidation	Create logistics workplaces that are more accommodating to many workers including women and senior citizens
(7) Response to global environmental problems and large-scale disasters	Develop environment for commercial utilization of next-generation vehicles (EVs, FCVs, etc.) and LNG-fueled ships Realize IoT-based real-time sharing of disaster-related data	Promote more widespread use of environmentally friendlier shipping modalities	
(8) Handling of Tokyo Olympics and Paralympics	Promote management of transportation demand through public-private frameworks	Adopt the use of autonomous vehicles and drones, flexibly manage Tokyo Port Container Terminal operations, and strengthen coordination with all operations at ports of Keihin area	

IV. Conclusion

The creation of Society 5.0 will boost the appeal and competitiveness of Japan's logistics industry and eventually lead to the achievement of related SDGs.