To realize services that make supply chains more efficient through sharing and utilizing logistics/commodity distribution data, from the upstream to downstream sectors, and across corporate and industrial boundaries

The entire supply chain (SC) will be optimized, new industries and added values using data from the logistics/commodity distribution sectors will be created, and the labor shortage and low productivity problems faced by these sectors will be solved. Taking into account collaborations with existing security-related efforts, as well as efforts towards the digitizing of intra-port logistics information, the logistics/commodity distribution data held by various domestic and overseas participants within the SC will be visualized using innovative technologies, and an open, secure data infrastructure, shared and utilized for its optimization, will be developed. Although current efforts are limited to individual companies/industries, a logistics/commodity distribution environment that (i) strengthens the vertical and horizontal connectivity between participants within the SC, (ii) creates features such as on-demand capabilities and traceability, (iii) maintains a high logistical quality level, (iv) secures various options for shippers and consumers, simultaneously, and (v) encourages innovation (e.g., new services and technologies), will be realized.

(TA) Technologies relevant to the logistics/commercial distribution data platform.

By the end of the fiscal year 2020, a prototype of the (vertical) logistics/commercial distribution data platform, where the SC is integrated from the upstream to downstream sectors, will be developed, expanded, and upgraded for individual industries, with technologies relevant to the establishment of the data infrastructure being developed in parallel. By the end of the fiscal year 2022, a (horizontal) logistics/commercial distribution data platform, where logistics functions are integrated among industries, will be developed. Moreover, a logistics/commercial distribution data platform that incorporates the outcomes of R&D on elementary technologies will be upgraded, and business activities will be improved using these data infrastructures, amongst others.

(B) Automated data collection technologies contributing to labor-saving and automation.

To automatically gather as-yet-uncollected information and feed it to the logistics/commercial distribution data platform, technologies that automatically collect various data on traceability, load factor, stowage, etc., will be developed. By the end of the fiscal year 2020, the R&D topics will be narrowed down, and the actual R&D will commence, by the end of the fiscal year 2022, and experimental demonstrations (in collaboration with the logistics/commercial distribution data platform [R&D Topic A]) will be carried out.
Past Milestones and Anticipated Outcomes

Realization of Society 5.0
Through the building of the logistics/commercial distribution data platform, the aim is to create a human-centered society in which people can have comfortable and active high-quality lives by integrating cyber space and physical space in high-level, the concept of "Society 5.0," to achieve both economic development and solutions to social issues such as the shortage of logistics and commercial distribution personnel.

Industrial aspect
The labor shortage will be solved and the financial strength of companies will be improved by optimally allocating inventory and logistics resources (e.g., freight vehicles and logistics facilities), and furthermore, the creation of new business models that utilize the logistics/commercial distribution data platform will be promoted. In addition, the aim is to increase labor productivity in the logistics sector by 30%.

Aspect of systems, etc
About the standardization of the logistics/commercial distribution data, surveys will be conducted in Japan and abroad with the aim of standardizing these data across the global supply chain. Also, regarding the standardization of exteriors and slips, etc., work together with the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and other relevant ministries and agencies.

Cooperation with local governments
Work with a wide range of municipalities and other organizations to ensure that the system can be used not only in urban areas, but also in depopulated areas where the population is declining significantly.

Social aspect
By sharing and utilizing logistics data beyond the boundaries of individual companies, limited resources will be utilized effectively and the situation where goods cannot be transported, which may become a social issue, will be addressed. In addition, from a global perspective, the aim is to contribute to easing traffic jams, reducing CO2 emissions and energy consumption, swiftly responding to the rapid supply and demand imbalance in the event of a pandemic, and automating and labor-saving in logistics operations to adapt to the "with corona" era.

Technological aspect
Regarding the development of the logistics/commercial distribution data platform, the aim is to establish security technology to enable data providers to offer data with a sense of security, and conversion technology to extract existing individually managed data and make it mutually available. Moreover, the aim is to establish automatic data collection technology to precisely capture information on each item at each stage in the supply chain.

Exit Strategies

✓ The interaction between the automated data collection technologies that contribute to laborsaving and automation, and the logistics/commodity distribution data infrastructure, will be confirmed by experimental demonstrations, and its implementation in businesses will be promoted.

✓ The data comprising the infrastructure, where possible, will be made available, thereby encouraging use of such data - in combination with other data - in academic institutions such as universities and venture businesses, further promoting (i) the cultivation of young researchers, (ii) the creation of new industries, and (iii) the securement of logistics during disasters, all via the use of the logistical/commodity distribution data. The data infrastructure and its uses will also be promoted in other Asian countries.