## FOR IMMEDIATE RELEASE

## Hitachi's cutting-edge technologies to be available for prototyping with customers in a new open-laboratory

Promoting Social Innovation Business through a new collaborative creation space



Interior view of the open-laboratory

(From left: Open automation, System modernizing, Security operation laboratories)

**Tokyo, November 30, 2016** --- Hitachi, Ltd. (TSE: 6501, Hitachi) today announced the establishment of an open-laboratory within the Yokohama Research Laboratory (YRL) to conduct prototyping and proof-of-value with customers – a part of the collaborative creation process – to realize open innovation. Operation will begin from December 2016. The open-laboratory is composed of three laboratories to develop new application technologies for specific business areas, and two laboratories to develop platform technologies that cut across different business areas, and it is equipped with cutting-edge technologies and development environments for the respective fields. Through collaborative creation in the open-laboratory, Hitachi will develop advanced technologies to resolve challenges in society, and thus promote the expansion of Social Innovation Business.

Hitachi is promoting collaborative creation whereby the challenges faced by customers are shared and innovative solutions to resolve those issues are created together. In October 2015, a co-creation space was opened within the Global Center for Social Innovation – Tokyo, located in Akasaka, to promote collaborative creation based on NEXPERIENCE – a systematized customer collaborative creation process with unique methodologies, tools, and spaces to foster the collaborative creation process using design thinking in the process of customer co-creation.

In the collaborative creation space, co-creation is conducted from upstream including the discovery of future business opportunities and analysis of management issues. In contrast, the newly established open-laboratory will conduct prototyping of application or platform technologies and verify value once the business or the challenge has been specified. The open-laboratory is composed of five laboratories: (a) Open Automation, (b) System Modernizing, (c) Transportation Analytics, (d) Data Analytics Platform, and (e) Security Operation, and is equipped with cutting-edge technologies such as artificial intelligence, analytics, robotics, IoT and security and development environments necessary for the respective fields, enabling customers to experience first-hand the benefit of Hitachi's cutting-edge technologies, as well as being able to jointly pursue its integration into actual systems and operations. Hitachi will pursue technology development in applications and platforms contributing to the creation of future-oriented innovations including the resolution of future societal issues by prototyping and verifying value together with co-creation partners.

As well as resolving the challenges faced by customers or society, the cutting-edge technologies and innovations developed at the open-laboratory will be integrated on Hitachi's IoT platform "Lumada" with the aim of providing them to a range of customers.

## **■**Outline of the open-laboratory

Open-laboratory	Collaborative creation details
Open Automation (From December 2016)	A MONOZUKURI environment of the future providing both information technology (IT) such as supply chain simulation as well as operational technology (OT) such as work-anomaly detection and robotics. Visions for future MONOZUKURI will be co-created with industrial customers through MONOZUKURI in which humans, things, facilities and process are connected to each other.
System  Modernizing  (From December  2016)	An environment to accurately "scan" and grasp specifications and usage of current IT systems, and efficiently test the quality of new systems being considered. Specifications for the next-generation system with newly-added functions can be quickly co-created based on "scan" results.
Transportation Analytics (From April 2017 - tentative)	A simulated environment for transportation systems such as railway, bus, trucks and private vehicles. Visions for future transportation systems will be co-created with transport-related customers through technologies for data analytics, artificial intelligence, simulation and system collaboration that enable the rapid validation required when integrating and optimizing various tasks such as timetable scheduling, traffic management, operational control, maintenance, etc. for railways.
Data Analytics Platform (From April 2017 - tentative)	An environment equipped with cutting-edge data processing & analytics, artificial intelligence, open-source software (OSS) and DevOps (development & operations) to experience the benefits of IoT data utilization. Solutions to technical challenges in data utilization are co-created with customers using actual data.
Security Operation (From December 2016)	An environment to visualize the potential security threats in customer systems and experience the effectiveness of countermeasures using cutting-edge IoT-era security technologies such as data analytics, artificial intelligence and simulation, applying know-how related to the secure operation of large-scale systems. Security measures with high cost performance are co-created to resolve customers' security-related challenges.

## About Hitachi, Ltd.

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, delivers innovations that answer society's challenges. The company's consolidated revenues for fiscal 2015 (ended March 31, 2016) totaled 10,034.3 billion yen (\$88.8 billion). The Hitachi Group is a global leader in the Social Innovation Business, and it has approximately 335,000 employees worldwide. Through collaborative creation, Hitachi is providing solutions to customers in a broad range of sectors, including Power / Energy, Industry / Distribution / Water, Urban Development, and Finance / Government & Public / Healthcare.

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