



FY2019 Business Briefing (NTT DATA's Digital Strategy)

December 10, 2019
NTT DATA Corporation

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Notes

- ※ Descriptions and predictions in this document are based on the current information and may change due to domestic and international economy, trend in the information service industry, development of new services and technologies. Therefore, our Group will not guarantee its certainty.
- ※ Services and products described in this document are a registered trademark or trademark of NTT DATA CORPORATION and each of other companies.

Part 1: “Strategy 1” of Mid-Term Management Plan - Overview

Masanori Suzuki

Head of Strategy Office and Senior Vice President



Masanori Suzuki
Head of Strategy Office
and
Senior Vice President

■ Career History

- April 1988** **Joined NTT DATA Communications Systems Corporation**
- August 1998** **The Company's name was changed to NTT DATA Corporation**
- July 2003** **Head of Financial System Sector**
- May 2004** **Head of Regional Banking System Sector**
- April 2008** **Head of BeSTA Planning Section, General Banking Business Unit, Regional Banking System Sector**
- July 2009** **Head of First Banking Section, First Regional Banking Business Unit, Second Financial Sector**
- June 2012** **Head of New Business Planning Headquarters**
- October 2012** **Head of New Business Planning Headquarters, Second Financial Sector**
- April 2013** **Head of First Banking Division and Head of Planning Department, Second Financial Sector**
- July 2015** **Head of Business Strategy Department, Financial Segment**
- June 2016** **Head of Second Financial Sector and Senior Vice President**
- June 2019** **Head of Strategy Office and Senior Vice President (current post)**

1. Global 3rd Stage Overview and Positioning of Current Mid-Term Management Plan

Global 3rd Stage Overview

Around FY2025

3

Global 3rd Stage

Expand Trusted Brand

Global Top 5

FY2018

2

Global 2nd Stage

Recognized Global Brand

FY2016

1

Global 1st Stage

Increased Global Coverage



Vision for the Global 3rd Stage

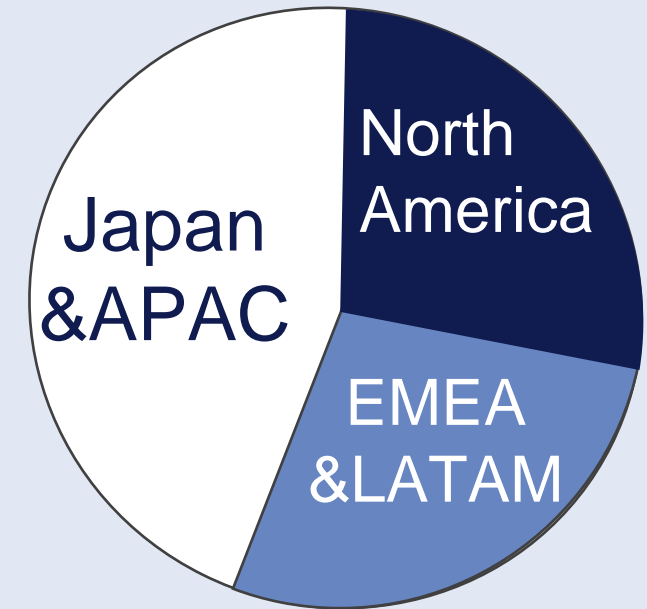
▶ **Global TOP 5**

▶ **Well-balanced portfolio**

of net sales in Japan & APAC, North America, and EMEA & LATAM

▶ Increasing the number of clients from whom NTT DATA earns annual net sales of over 5 billion yen

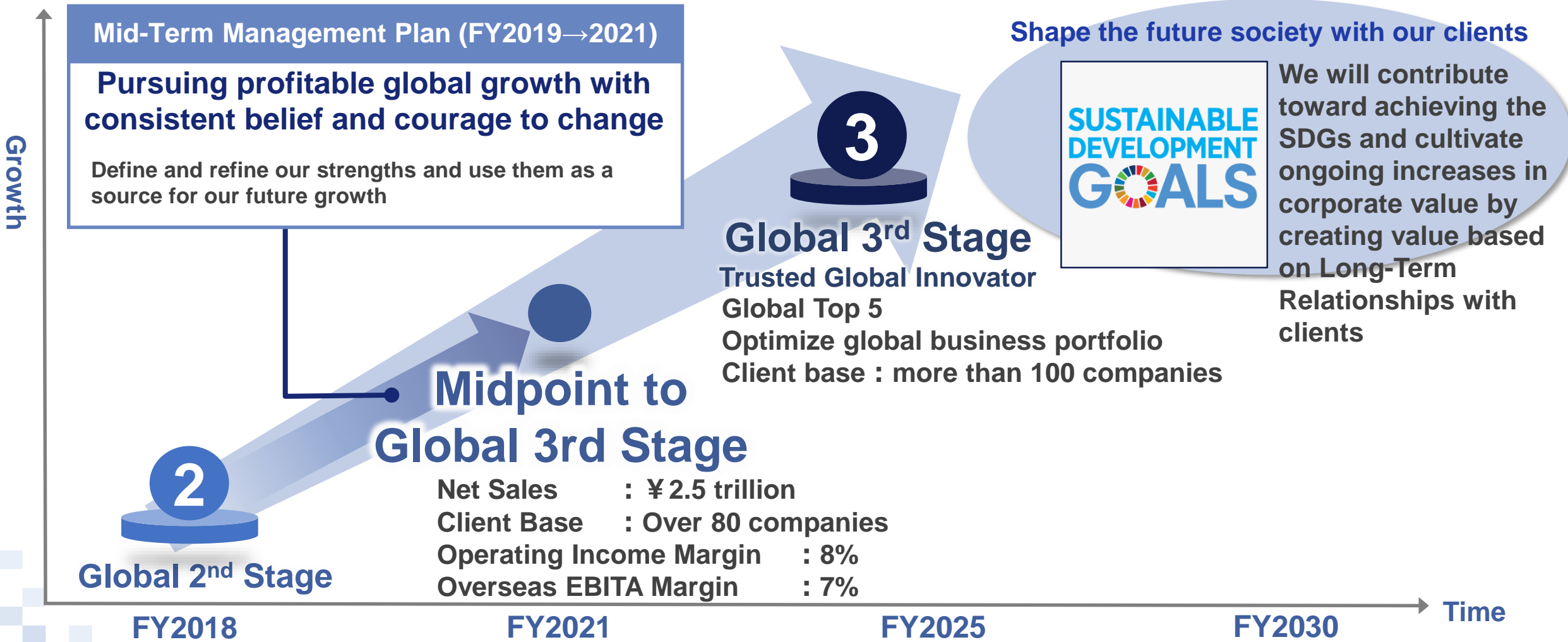
70 ⇒ More than 100 companies



Positioning of Current Mid-Term Management Plan

Corporate Philosophy

The NTT DATA Group uses information technology to create new paradigms and values, which help contribute to a more affluent and harmonious society.



Overview of Mid-Term Management Plan

Profitable global growth

Growth

Earnings

COURAGE TO CHANGE

Transformation

Synergy

CONSISTENT BELIEF

Corporate Philosophy

NTT DATA uses information technology to create new paradigms and values, which help contribute to a more affluent and harmonious society.

Long-Term Relationships

Overview of Mid-Term Management Plan

Profitable global growth

Growth

Earnings

COURAGE TO CHANGE

Transformation

Synergy

**Pursue profitable global growth with
courage to change underpinned by
consistent belief**

NTT DATA uses information technology to create new paradigms and values, which help contribute to a more affluent and harmonious society.

Relationships

Maximize value for our clients

Further accelerate digital transformation

Maximize global synergy



Strategy 1

Expand global digital offerings



Strategy 2

Deliver greater value to clients based on regional needs



Strategy 3

Unleash our employees' potential that maximize organizational strengths

Maximize value for our clients

Further accelerate digital transformation

Maximize global synergy



Strategy 1

Expand global digital offerings



Strategy 2

Deliver greater value to clients based on regional needs

Strategy 1 as a key to further accelerate digital transformation and maximize global synergy

2. Overview of Strategy 1 (Expand Global Digital Offerings)

Maximize value for our clients

Further accelerate digital transformation

Maximize global synergy



Strategy 1

Expand global digital offerings



Strategy 2

Deliver greater value to clients based on regional needs



Strategy 3

Unleash our employees' potential that maximize organizational strengths



Build our strengths & improve how we compete

Accelerate global synergy by creating strong offerings backed by aggressive investment for focus areas, and deliver them along with proactive marketing and leveraging technology





Build our strengths & improve how we compete

Accelerate global synergy by creating strong offerings backed by aggressive investment for focus areas, and deliver them along with proactive marketing and leveraging technology



Established Global Industries Teams to strengthen collaboration
Respond to complex client requirements

Global Industries & Accounts



Global Offerings

Japan, North America, EMEA & LATAM, China & APAC

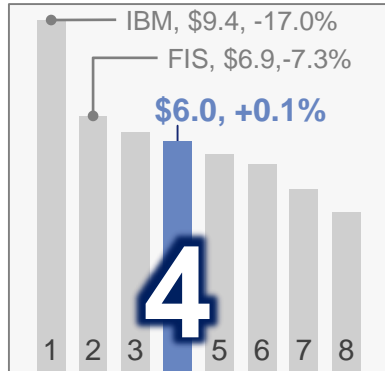
Collaboration - Global One Team

Accelerate Global Marketing ~Strengthen global collaboration~

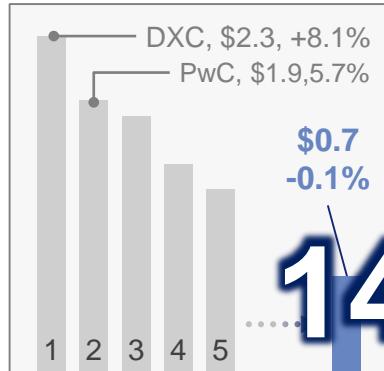
Win leading positions in the fields where we have a competitive advantage.
 Aim for Global Top 5 for All NTT DATA

2018 Market Share - IT Services

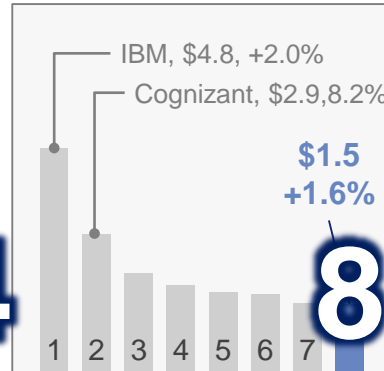
Rev in 2018 (US\$B), Rev growth in 2017-18



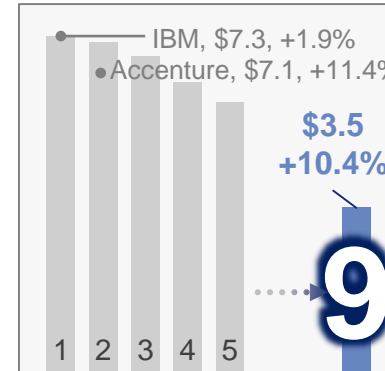
Finance



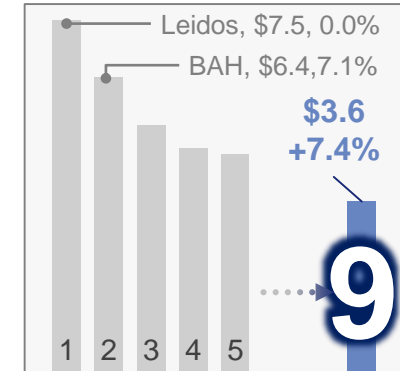
Healthcare



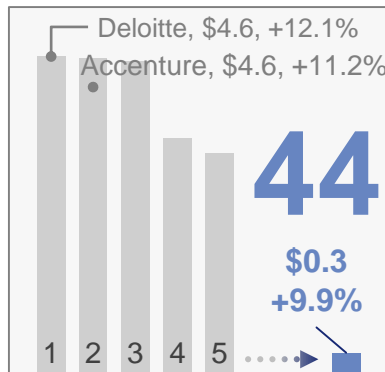
Insurance



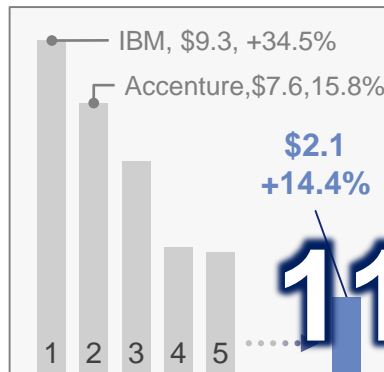
Manufacturing



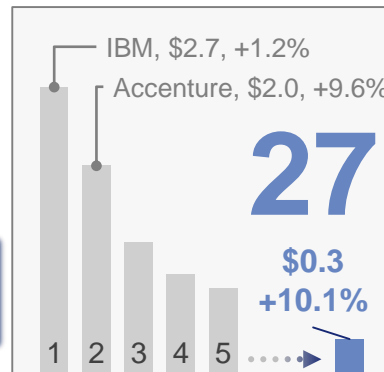
Public



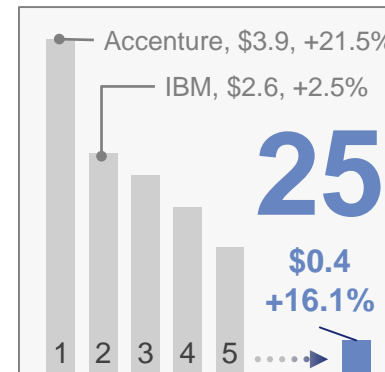
Retail



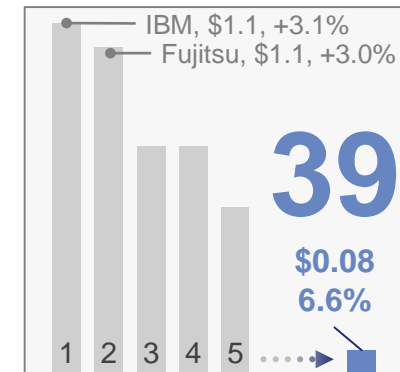
Teleco/Media



Transportation



Utility



Wholesale

Graphs are created by NTT DATA based on Gartner Research. Source : Gartner, Market Share: IT Services, 2018, Dean Blackmore et al., 8 April 2019
 Finance : Banking & Securities, Healthcare : Healthcare Providers, Insurance : Insurance, Manufacturing : Manufacturing & Natural Resources, Public : Government, Retail : Retail, Teleco/Media : Communications, Media & Services, Transportation : Transportation, Utility : Utilities, Wholesale : Wholesale Trade

Accelerate Global Marketing ~Strengthen global collaboration~

Formed One Teams for global industries and developing strategies



North America

EMEA & LATAM

China & APAC

Japan



Develop strategies across the globe

- Marketing strategy
- Account strategy
- Offering strategy

Global One Team

Companies of EMEA and India collaborated to win back a lost order for updating a large-scale core system of a leading global reinsurance company

Order lost

2017

Lost order for application maintenance project

Vendor at the time was not doing well

Proposed recovery plan through group collaboration

NTT DATA Germany
NTT DATA Services India
intelligence Poland, etc.

Reversed and won the order

- 41% cost reduction
- Won order for core system update
- Also won back part of maintenance project



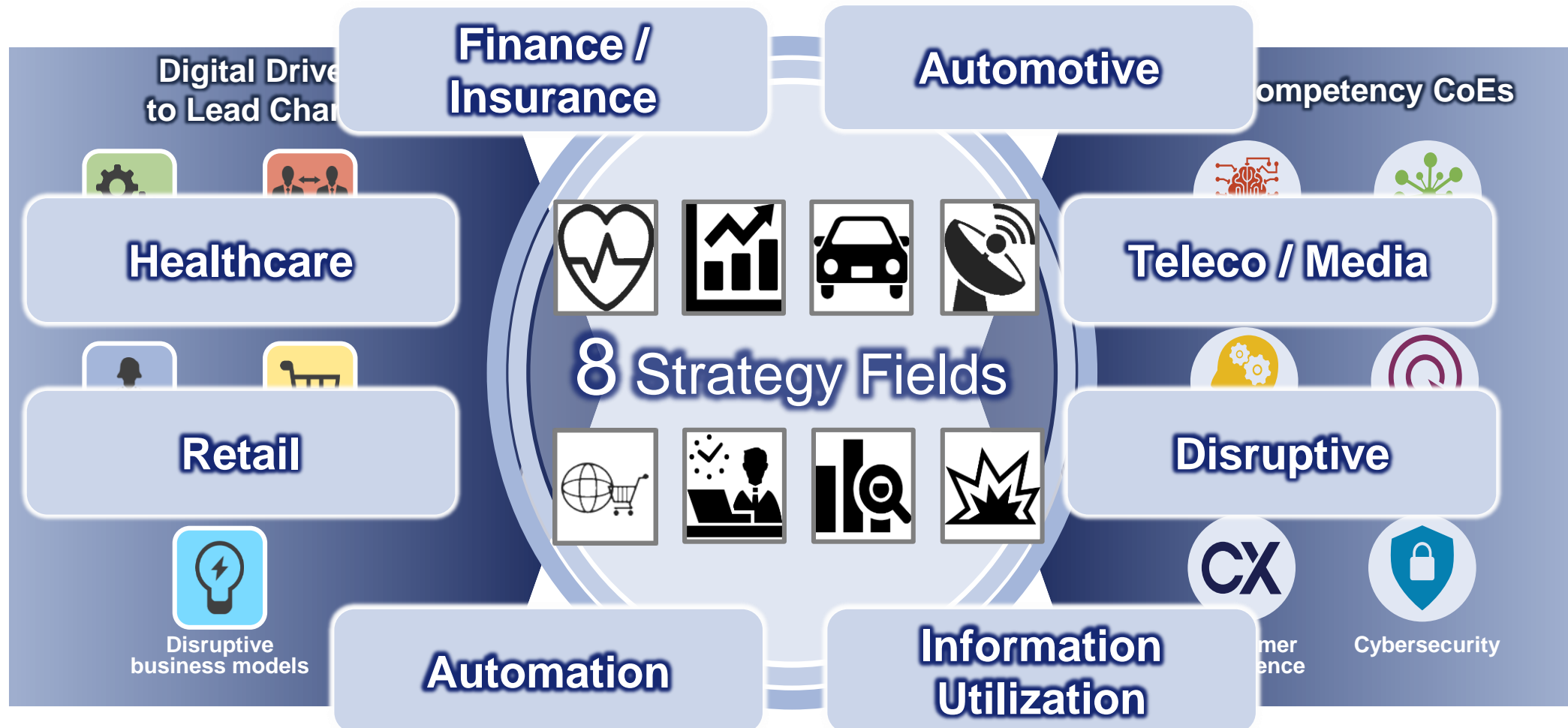


Build our strengths & improve how we compete

Accelerate global synergy by creating strong offerings backed by aggressive investment for focus areas, and deliver them along with proactive marketing and leveraging technology



Focus on 8 fields to strengthen capabilities & build solutions





Build our strengths & improve how we compete

Accelerate global synergy by creating strong offerings backed by aggressive investment for focus areas, and deliver them along with proactive marketing and leveraging technology



Accelerate global utilization Gather & utilize knowledge in advanced technologies

Block Chain



Ranked as a **“Leader”**

Design



Ranked as a **“Leader”**

Use case: **80** projects

Center of Excellence

DevOps



Number of projects uses
Altemista Cloud: **172**

AI

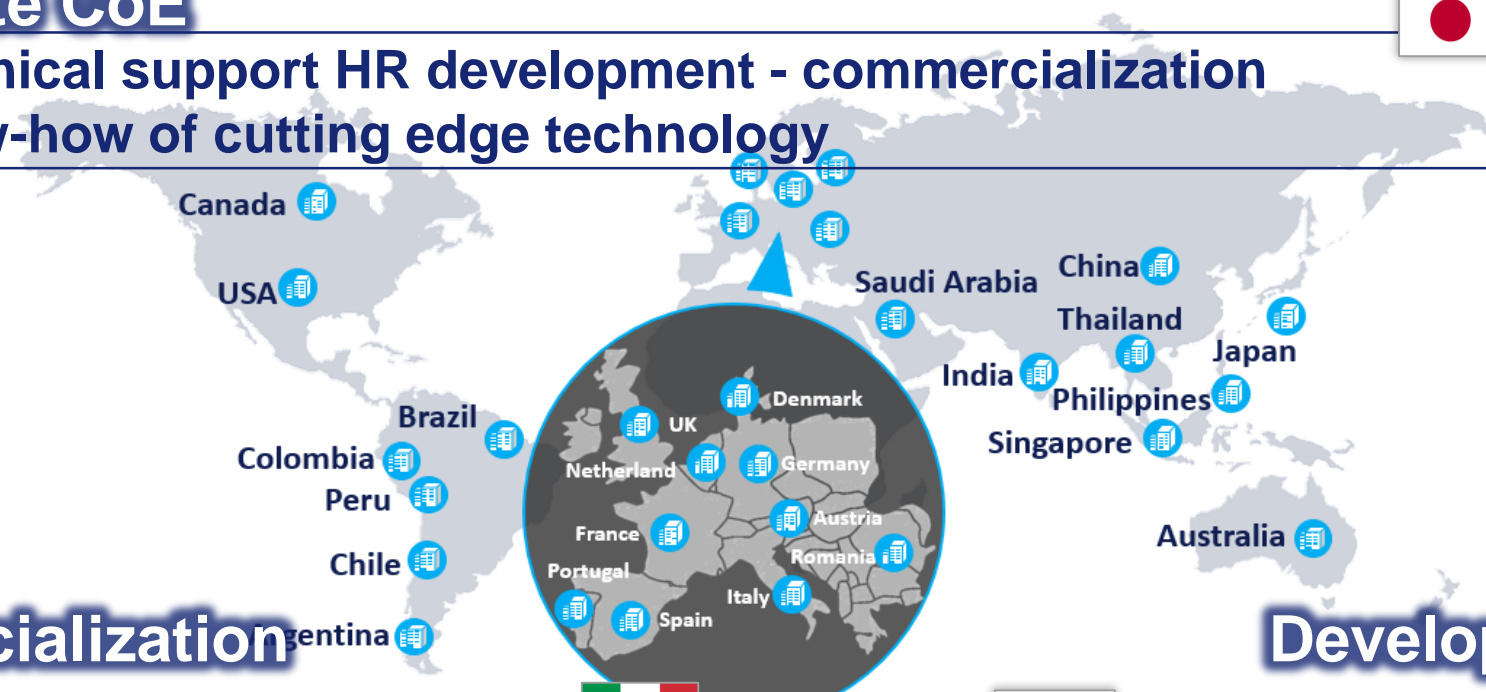


Newly Established
2019

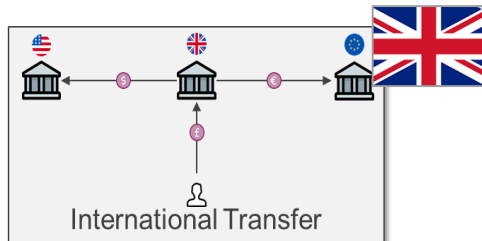
Established team of 300+ professionals from 24 countries and regions World's 1st commercialized blockchain technology

Promote CoE

Technical support HR development - commercialization
Know-how of cutting edge technology



Commercialization



ABI Lab
Tecnologia utile
Spunta:
Italian Banking Project

Trade Platform

Develop PoC

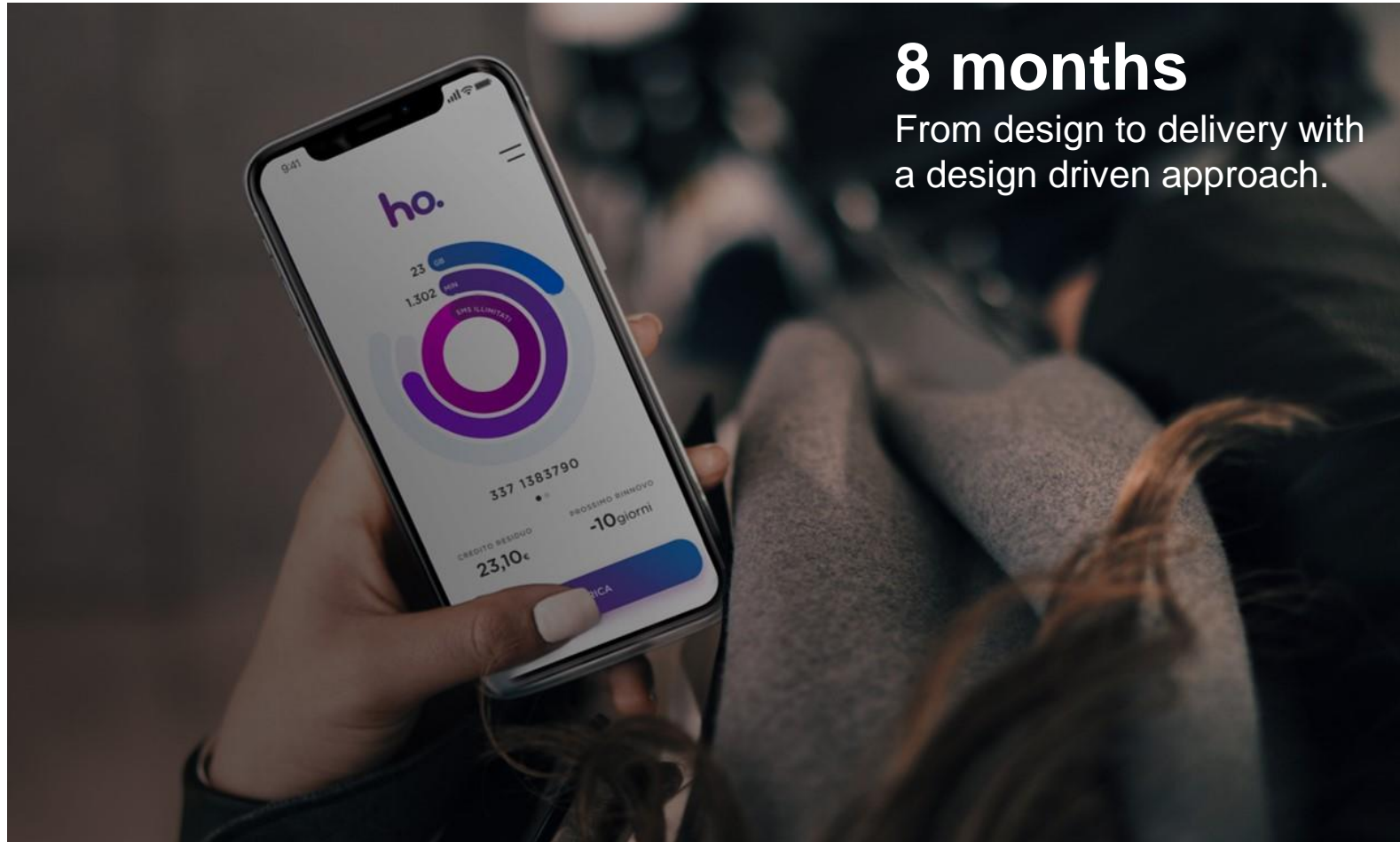
LACCHAIN
Multi Sector
National Consortiums

Established team of 450+ professionals from 8 countries
Share design expertise with each other to accelerate customer DX



Example of Design CoE

In a short period of only 8 months launched service of Vodafone Italia's second brand ho



Part 2: Digital Strategy Office's (DSO) Efforts

Yutaka Sasaki

Senior Vice President

※Leader of digital strategy at DSO since 2017



Yutaka Sasaki

Senior Vice President

**※Leader of the digital strategy
at DSO since 2017**

■ Career History

- April 1990** **Joined NTT DATA Communications Systems Corporation**
- August 1998** **The Company's name was changed to NTT DATA Corporation**
- April 2003** **Head of Enterprise System Sector**
- July 2008** **Head of Enterprise Business Promotion Department**
- July 2009** **Head of Global IT Services Business Promotion Department**
- October 2010** **Head of Logistics Services Sector**
- November 2011** **Head of Planning Promotion Department, manufacturing Business Sector**
- April 2012** **Head of KIRIN Business Division, Fourth Enterprise Sector**
- July 2015** **Head of KIRIN Business Division, Manufacturing IT Innovation Sector**
- June 2016** **Head of Business Solutions Sector and Senior Vice President**
- June 2018** **Head of Manufacturing IT Innovation Sector and Senior Vice President**

1. DSO Overview

DSO's Mission and Roles

- In July 2017, NTT DATA established DSO, an office for promoting the company's digital business in preparation for the expansion of the digital business market.

Mission

Vitalize digital-related activities and grow the digital-related business rapidly by narrowing the gap between NTT DATA's business and technologies and increasing the speed



Roles

- ① Establish digital strategy of NTT DATA Group and promote digital investments based on it
- ② Understanding forward-looking efforts in the digital business within the NTT DATA Group

DSO 3 Planks

- In order to enable NTT DATA to make a leap forward as a leading company in the digital field, DSO promotes activities with “3 Planks” of making digital investments with clients, global alliance, and developing digital talents.

Digital Leading Company

1 Direct Investments

- Co-investments with clients
- Corporate funding for strategic digital initiatives

2 Strategic Partnerships

- Collaborate with Universities, Ventures and IT Giants
- Digital business models (DSO Silicon Valley)

3 Talent Transformation

- Enhance digital business skills
- Become a destination for ‘digital natives’

2 . Example of DSO Efforts

Direct Investments

- For the first plank of “Direct Investments,” it is important to make co-investments and speedily promote projects with them.

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Direct Investments Focus Areas

➤ In consideration of the market environment, the technology trend, and the areas of NTT DATA Group's strengths, we determined eight strategy fields to focus on/invest in and examined investment projects for each field.

Trend Survey

Market Trend

Technology Trend
w/ Technology Foresight

8 Strategy Fields

Automotive

BFSI

Healthcare

Telco / Media

Retail

BPO Automation

Data Utilization

Disruptive innovation

Our Strengths

Global Industry Ranking

Key Clients, Business Model

Focus Technology (DFAs)

Case 1: Insurance ~Global Insurance Digital Platform~

Integrate insurance solutions of each overseas company on a common foundation to build a microservices architecture, develop a platform that can be deployed in the global market quickly at a low cost, and enhance the deployment in North America, South America and EMEA

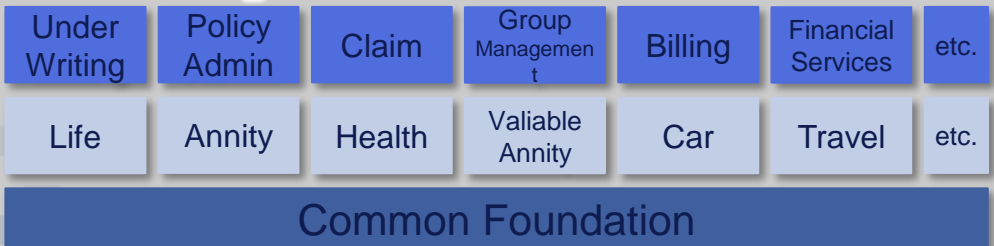
Overseas companies' solutions/external services



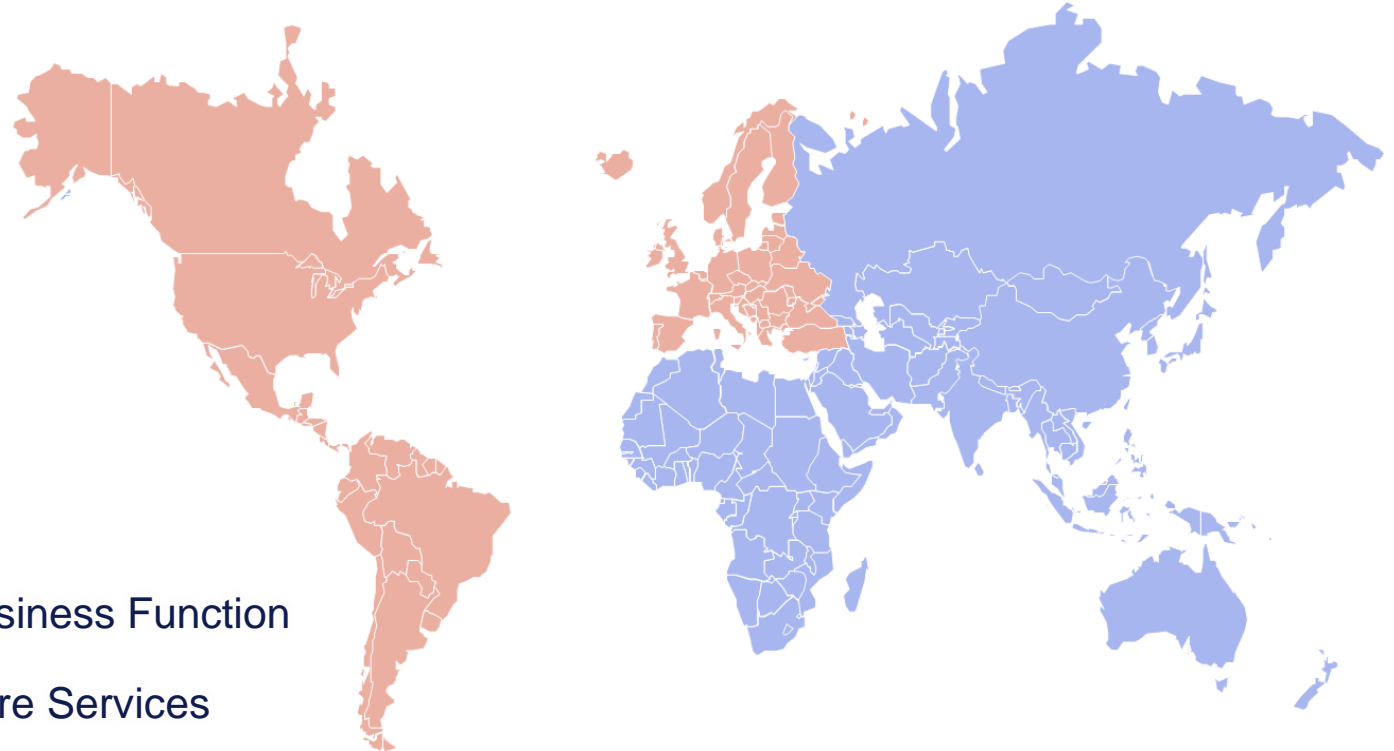
Integrating solutions on a common foundations



Building a microservices architecture



Enhancing the deployment in North America, South America and EMEA

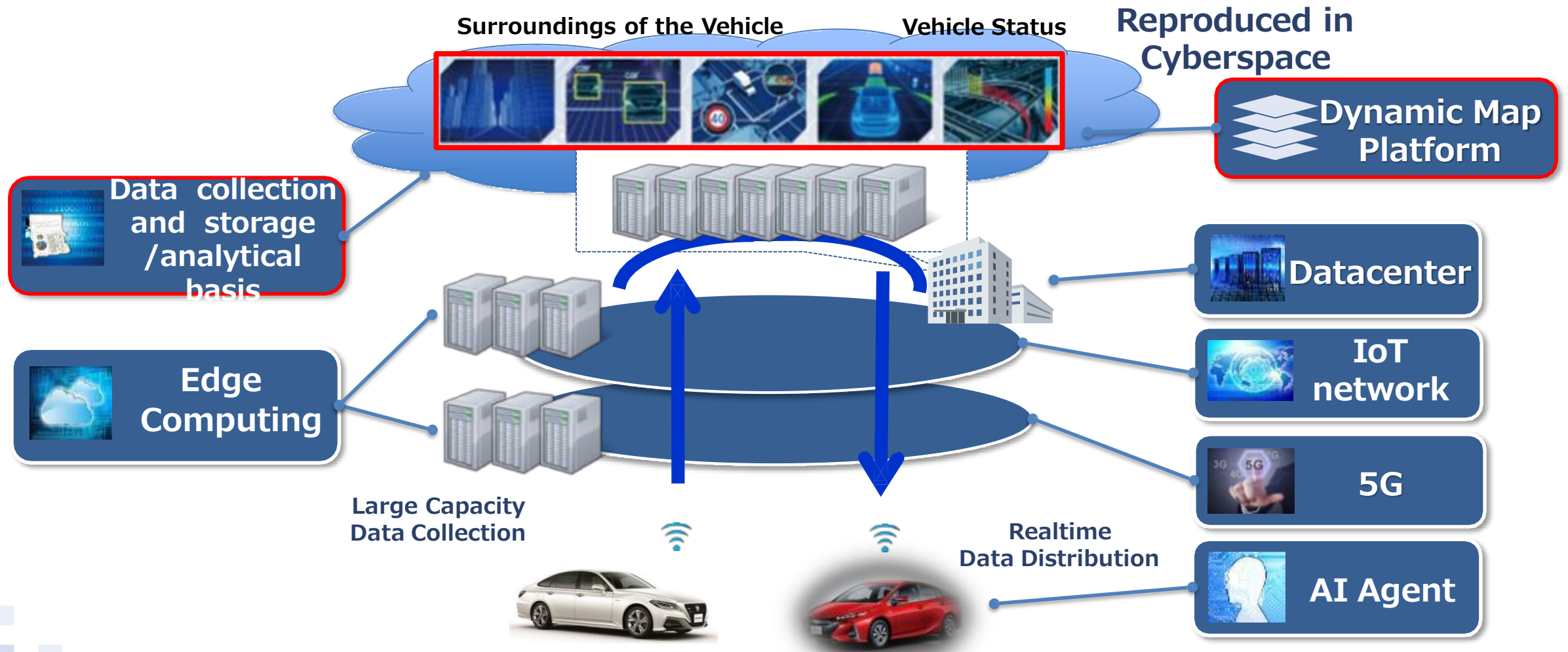


Business Function

Core Services

Case 2: Automotive ~Connected Car~

In order to realize a connected car and self-driving platform, we have developed a platform for collecting CAN and sensor data from vehicles and a dynamic map/space-time data management technology that reproduce the data in a spatio-temporal manner.



Case 3: Retail ~Global CX Hub~

Create new ways to gather & utilize data by digitizing real stores.

Then, we integrated these data with online data to achieve digital marketing PDCA based on more accurate understanding of customers.

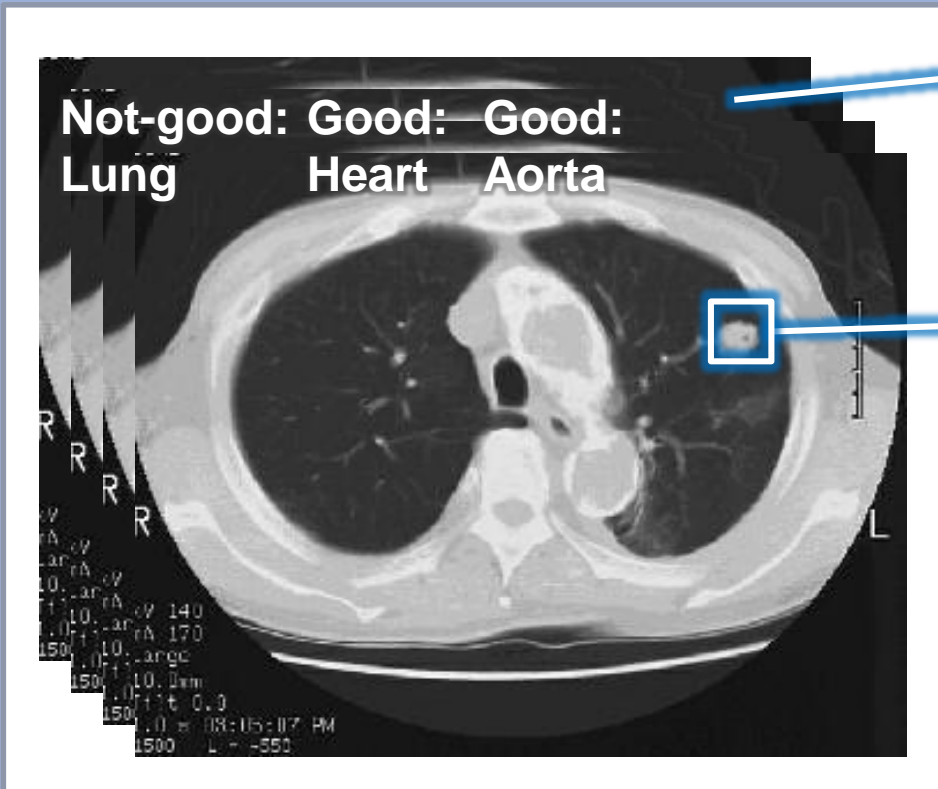


Sept.2019 - started cash register free store “Catch&Go” service to retail industry

- **Supporting digitalization of brick-and-mortar stores, leveraging know how of omnichannel and EC site**
- **Streamlining store operations by reducing labor costs, etc.**
- **Capturing opportunity to increase sales by understanding movements and actions of consumers inside the stores through data**

Case 4 : Healthcare ~Diagnostic Imaging × AI~

Developing AI diagnostic imaging solution to reduce the time for diagnosis and prevent overlooking diseases. In the PoC conducted this fiscal year, its effectiveness in actual practices of diagnosing kidney cancer was verified.



A: Abnormality Detection Algorithm

Detect abnormalities in each organ

B: Location Algorithm

Locate abnormalities in organ

Demonstration experiments were conducted with University of Miyazaki from March to August 2019. It was confirmed that the system has high detection accuracy, especially for the detection of renal cancer. A PoC for verifying the effect of reducing doctors' workload in actual diagnostic practices is scheduled in FY2020.

AI Diagnostic Imaging

Strategic Partnerships

- For the second plank of “Strategic Partnerships,” it is important to collaborate with a wide range of partners from start-ups and universities to IT giants in the digital business field which is evolving exponentially.

Digital Leading Company

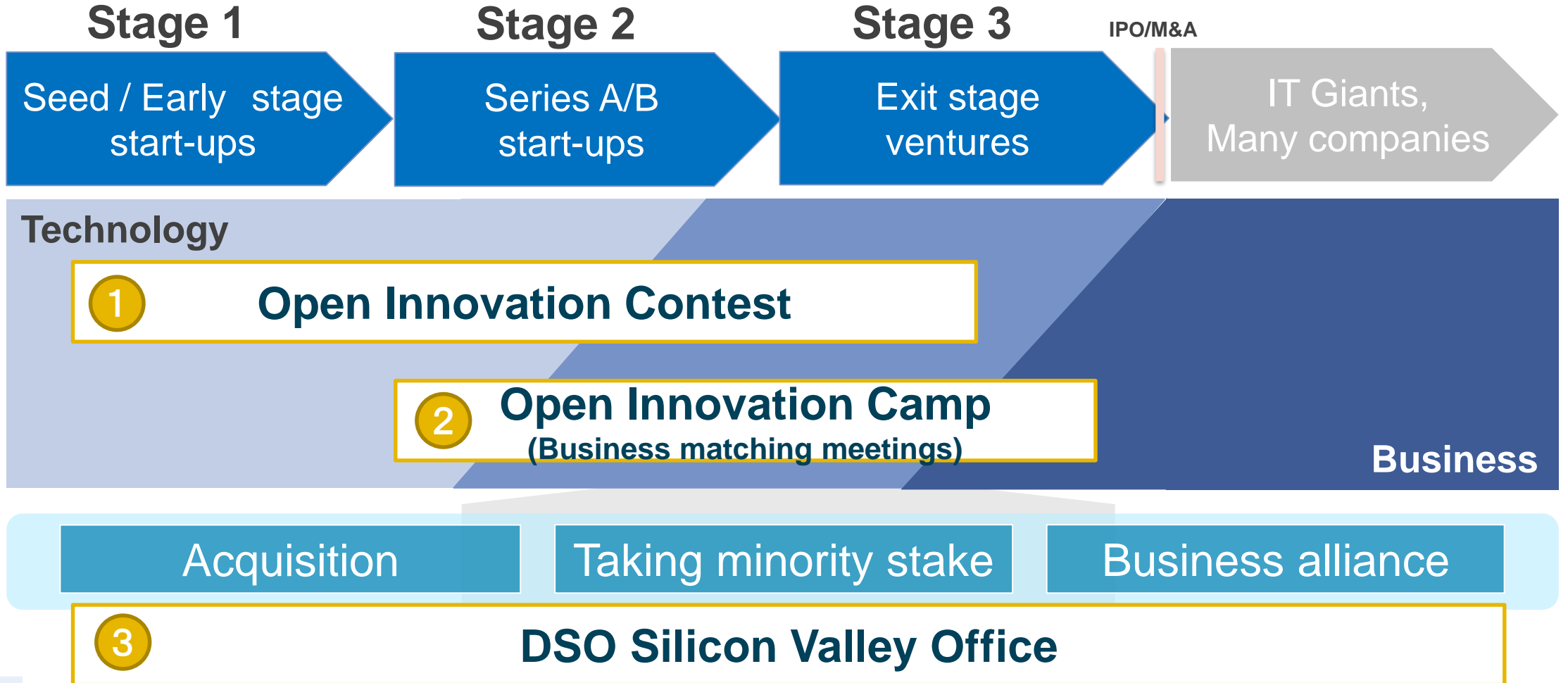
- 1 Direct Investments
- Co-investments with clients
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- 3 Talent Transformation
- Enhance digital business skills
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Strategic Partnerships: Development of Global Partnerships

- In order to expand the digital business, it is necessary to accelerate the move toward a global alliance.
- ① Open Innovation Contest ② Open Innovation Camp ③ Establishment of DSO Silicon Valley Office



① Open Innovation Contest (“From the Port of Toyosu” and Business Contest)

Through “From the Port of Toyosu” and a business contest, we aim to create new businesses that would lead to a “Win-Win-Win” situation for start-ups, NTT DATA’s clients (major companies), and NTT DATA.



“From the Port of Toyosu”[®] regular meeting (once a month)



- Presentation by start-ups
 - Panel discussions
 - Meetings to exchange opinions
- Participated by more than 100 people, including clients

Business contest (once a year)



- “Let’s change the world together”
- NTT DATA seeks proposals for businesses related to the company’s solution themes that may change the world
 - Themes:
 - Healthcare/life science, finance/insurance/payments
 - automotive/IoT, RPA/back office,
 - store counter/digital marketing, data distribution, and
 - responses to disruptive social innovation

① Open Innovation Contest











(Open Innovation Contest - held in 16 cities for this fiscal year)



Winners from all regions will gather in Tokyo to attend the Grande Finale on January 24

① Open Innovation Contest (List of Commercialized Proposals of Open Innovation)

About 10 collaborative projects have been launched from activities of the open innovation forum “From the Port of Toyosu” and global innovation contests

| | | |
|-----------------------|---|---|
| Platform linkage type |  iRidge | Recommendation marketing utilizing CAFIS Presh by linking with the general payment service “CAFIS” |
| |  Sassor | IoT electricity management service by linking with an IoT energy platform “ECONO-CREA” |
| |  Fintech companies like Money Forward | Fintech service through the API connection with an online banking platform “ANSER” |
| |  Payke | Inbound marketing utilizing CAFIS Attendant by linking with a general payment service “CAFIS” |
| |  Modiface (TechPower) | Killer application on the “Kendo Daiichi” application platform of the Dai-ichi Life Insurance Company to enhance health |
| Disruptive type |  Japan Medical Data Center | Adding functions to the “Kenko Daiichi” application platform of the Dai-ichi Life Insurance Company to enhance health |
| |  Daon | “Polariify,” a biometric identification platform developed by a joint venture with Sumitomo Mitsui Financial Group |
| |  Unerry | PoC for real-time marketing utilizing beacon-based location information |
| |  MarkLogic | Expansion of next-generation database business utilizing structured and unstructured data |
| |  Social Coin | A platform for solving social issues utilizing AI technologies |

② Open Innovation Camp

Defining missing pieces, creating tailored plans to meet the needs of fields/sectors, involving heads of divisions who can make prompt decisions on resource investments, holding camps in advanced regions of the field, and judging the appropriateness of forming an alliance.



② Open Innovation Camp Examples

- **Setting themes in line with business issues of each field and examining collaboration for creating mid- to long-term businesses by individually holding interviews start-ups in locations based in the cities of the world where innovation is advanced (held in Silicon Valley, Boston, and London this fiscal year)**

| FY2019 Target fields | Themes (Missing Piece) |
|----------------------|--|
| Field 1 (Healthcare) | Projecting future healthcare and identifying enhancement points of offerings |
| Field 2 (Banking) | Examining new technologies for the next-generation banking business |
| Field 3 (Automotive) | Examining new technologies for realizing smart cities and self-driving car society |

Example of the new business

- Based on this initiative, a partnership agreement was closed with Data Robot providing a machine-learning platform (1H/2017)
- The platform was introduced in more than 30 client companies as of the 1H/2019 and NTT DATA received the DataRobot Partner Award (Best DataScientist / Best Biz-Dev).



③ DSO in Silicon Valley

Established DSO in Silicon Valley in April 2019 to enhance and accelerate the promotion of the structure for gathering alliance-related information
Analyzed the gap between “As-Is” and “To-Be” in the digital business for each industrial field and closed partnership agreements strategically.

AS-IS Understanding

Partnership Possibilities

Innovative Business Models



Mark Fulgham
Head of
DSO Silicon Valley

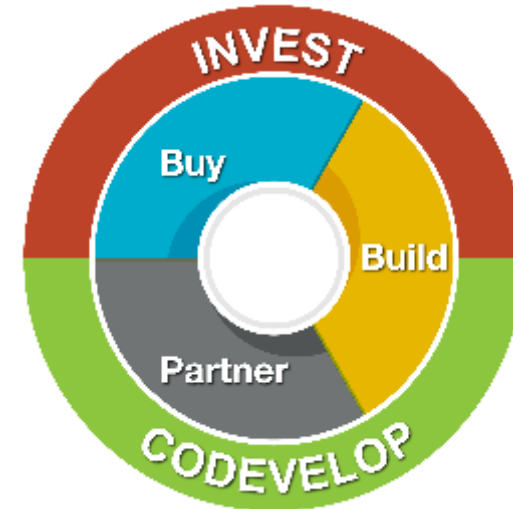
Digital Business Gap Analysis



Unique partnerships



Go To Market Optimization

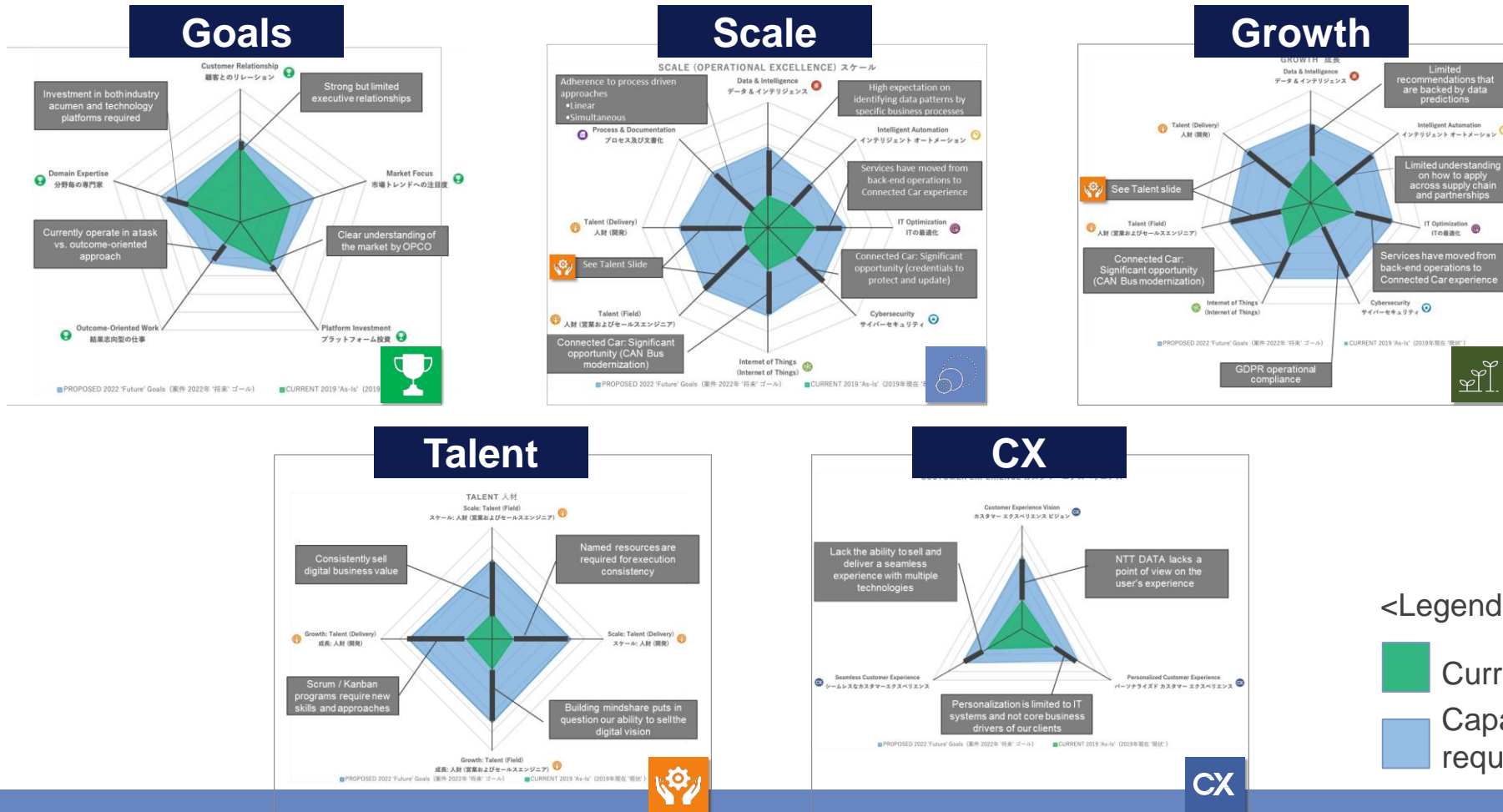


③ DSO in Silicon Valley

- Conducting gap analysis based on interviews with players in each field to “visualize” NTT DATA’s capabilities.
- Examining a strategic partnership based on identified gap.



Example : DSO #3 –Automotive



Talent Transformation

- For the third plank of “Talent Transformation,” we will promote transformation of human resources into digital talents in collaboration with HR Headquarters.

Digital Leading Company

1 Direct Investments

- Co-investments with clients
- Corporate funding for strategic digital initiatives

2 Strategic Partnerships

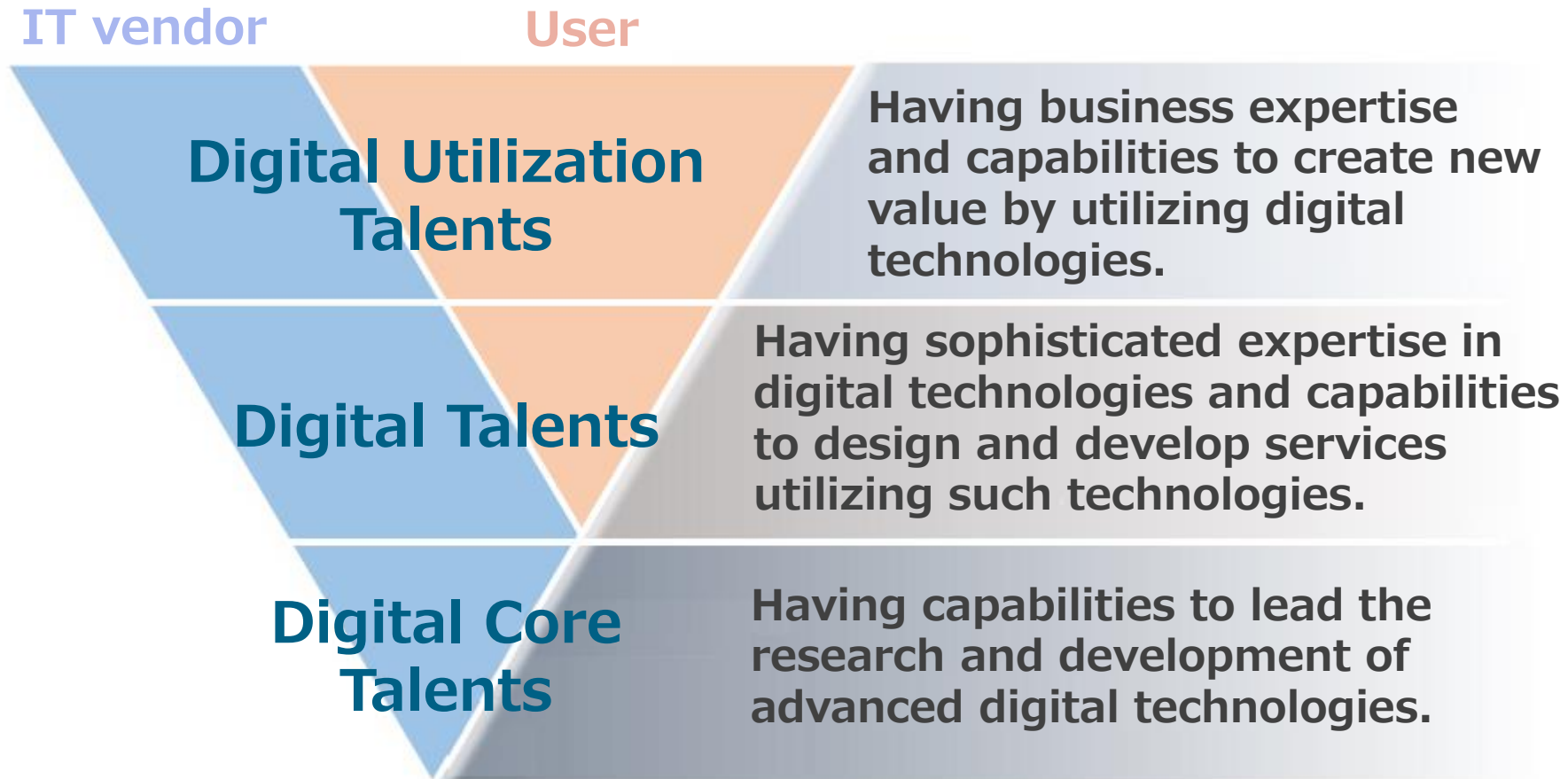
- Collaborate with Universities, Ventures and IT Giants
- Digital business models (DSO Silicon Valley)

3 Talent Transformation

- Enhance digital business skills
- Become a destination for ‘digital natives’

NTT DATA's Definition of Digital Talents

- NTT DATA defines three types of digital talents and strengthens the efforts to develop human resources.



We promote measures and system reforms to unleash employees' potential

Increase Employee Engagement

Enhance Digital & Global Capabilities

Digital Boot Camp

Digital Assignment Program

Global Talent Training Course

Design Systems Focusing on Talents

Enhance Hiring/ADP System
(Advanced Professional)

TG System
(Technical Grade)

Add P-CDP Talent Type

Corporate Culture/
Awareness Change

Self-Innovation Time

Case Study: “Harmonic Innovation Week,” a Workshop Initiated in Italy to Create Businesses

As part of DSO’s efforts to develop digital talents, NTT DATA Italy hosted an event for creating businesses. Employees from NTT DATA Group, client companies, accelerators, and start-ups participated in the event to co-create ideas.

Lectures and workshops were held in a village in Southern Italy with a concept of envisaging businesses in the future based on social and human nature.

Day 1-2 INSPIRING SESSIONS

- ✓ Input of issues from speeches, panel discussions, and presentations by start-ups.
- ✓ Forming eight teams of five people playing different roles.

Day 3-4 WORKSHOPS

- ✓ Each group provided ideas for the issues and developed a prototype.
- ✓ Shared progress with the guests, including local residents.

Day 5 INNOVATION FESTIVAL

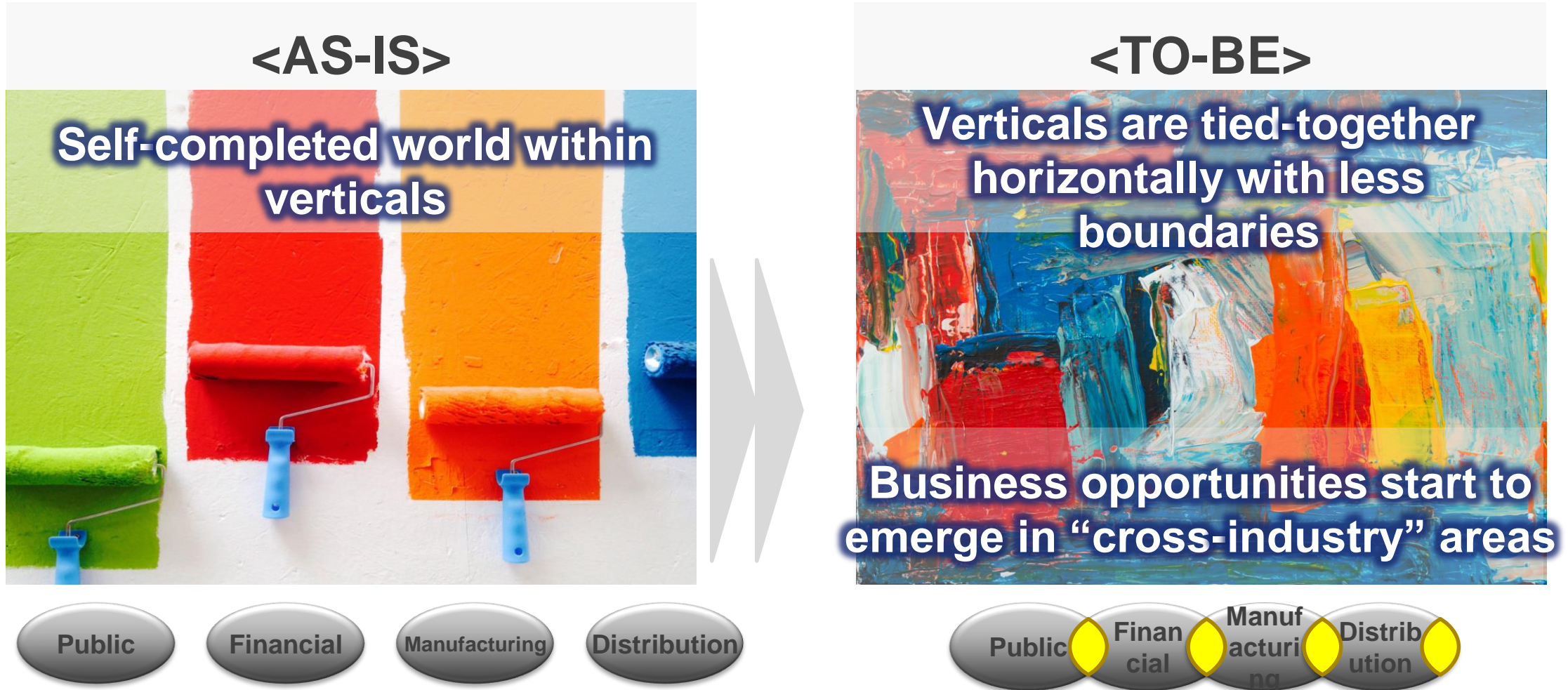
- ✓ Each group presented the results of their discussions.
- ✓ Feedback and reviews from experts.



3. Future Outlook

Creation of Cross-Industry Business

- In the digital era, all industries have become rapidly tied together, which started to generate new business opportunities in “cross-industry” areas outside the existing industries.



Case 1: Supply Chain Finance for Manufacturers and Financial Companies

By sharing the supply chain information of iQuattro with financial institutions, enabling them to extend loans secured by information on commercial flows and logistics to companies belonging to a supply chain in order to improve cash flow and balance sheets.

Keywords

Key technology

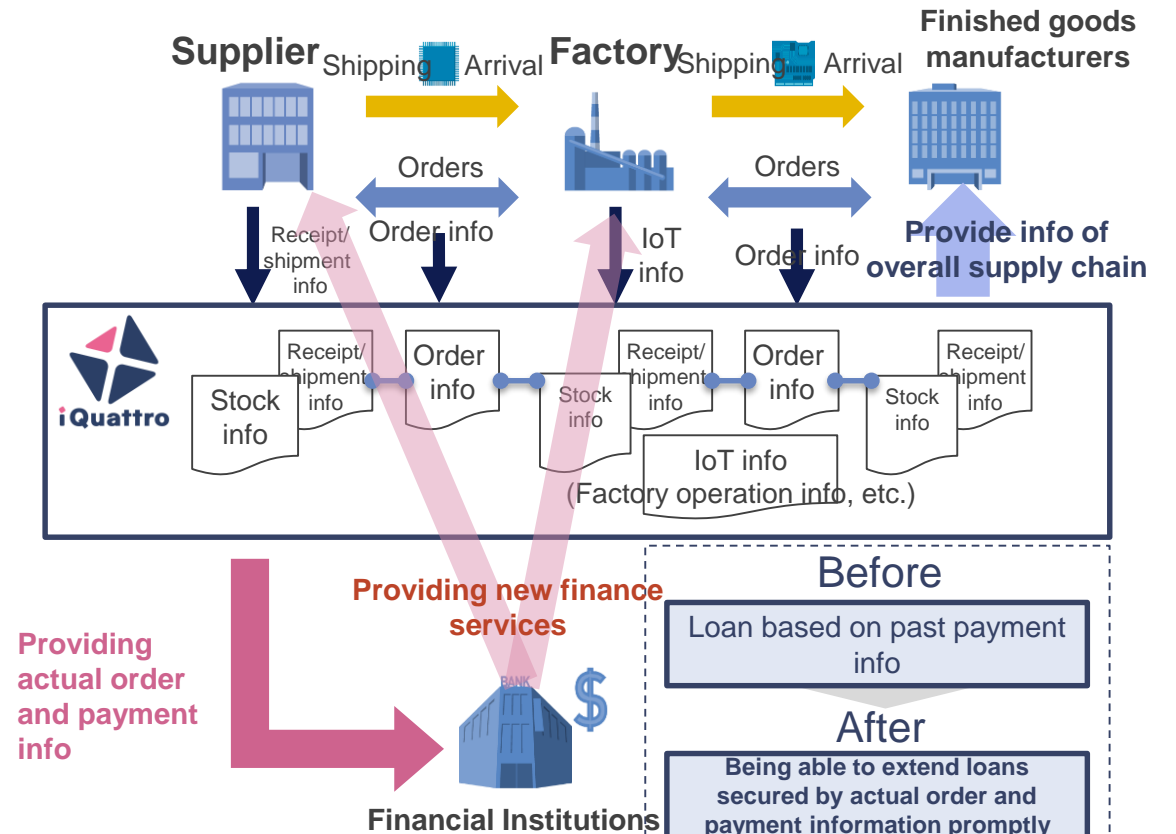
IoT, Blockchain

Target

Manufacturers Financial Institutions

Targeting **Aiming to find new borrowers**
Smart Supply Chain of loans under a new
finance scheme

Service Overview



Case 2: Marketing Using NeuroAI

With NeuroAI, which provides a quantitative assessment of the creativity of an advertisement, companies can see whether the intent of the advertisement has been conveyed to the consumers properly by comparing the “contents recognized by the brain” and the “intent of the advertisement.”

Keywords

Key technology

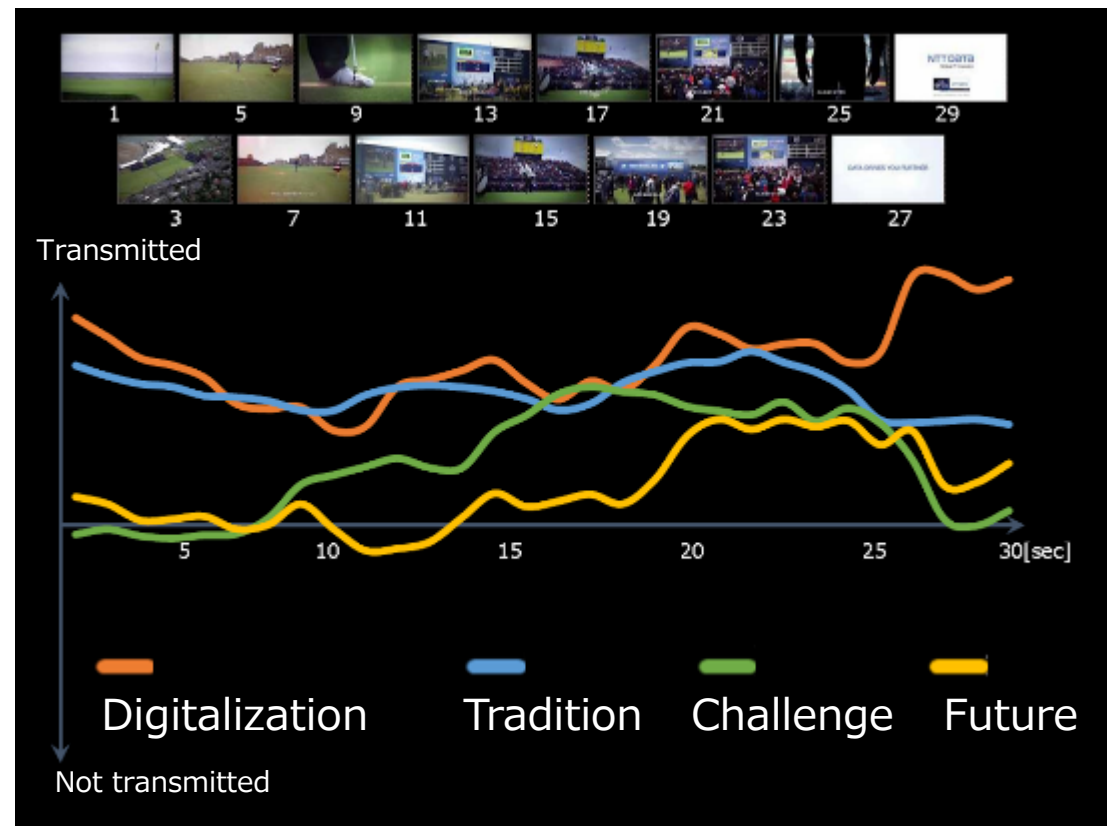
AI, Neuroscience

Target

Advertisement X
Consumers



Service Overviews



Case 3: Information Bank (PDS Providers)

Improving convenience of everyday life by voluntarily depositing personal data at an information bank to be provided/distributed to companies using data, saving time and effort when applying for services of private and public entities

Keywords

Key technology

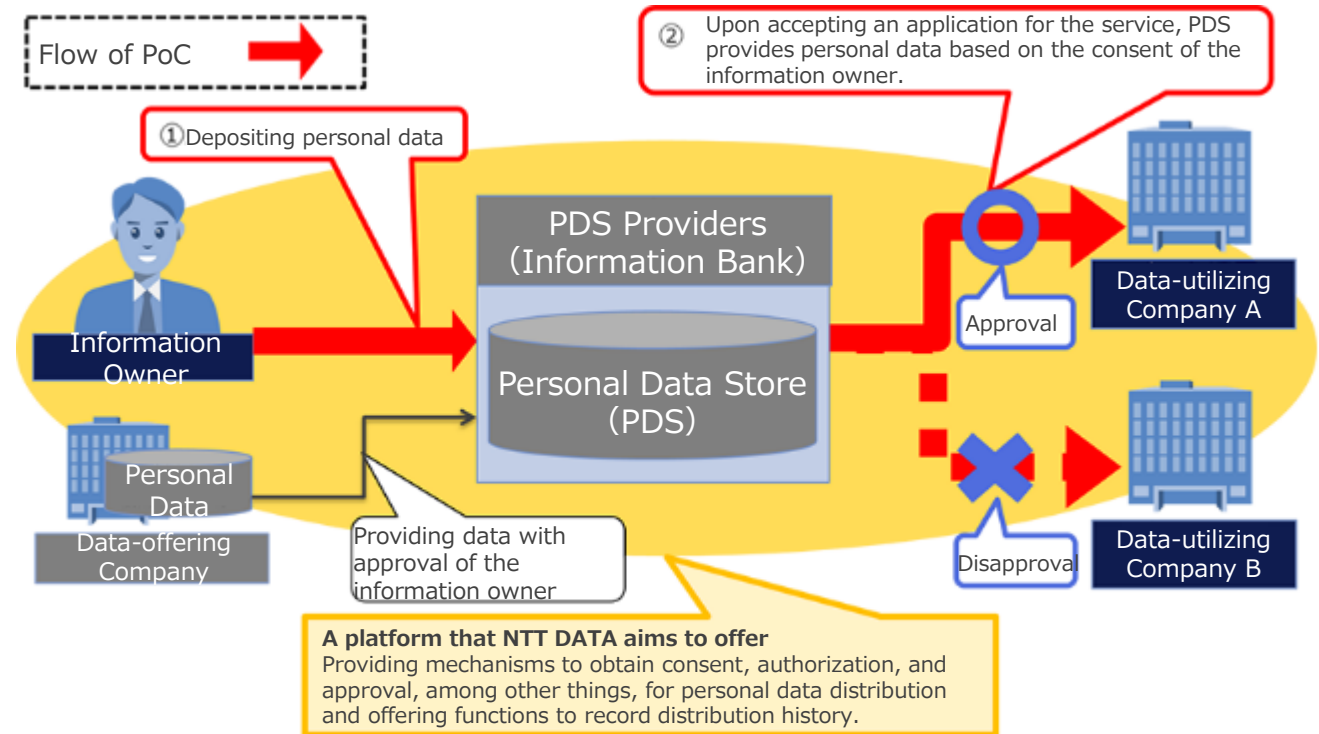
Security

Target

All entities,
including public
agencies that need
personal data



Service Overview





NTT DATA

Trusted Global Innovator