

About NH Foods Group's DX Efforts

■ ■ ■ NH Foods Ltd. IR-DAY ■ ■ ■

2022/1/14

NH Foods Ltd.

Executive Officer and General Manager, Corporate Planning Department

Hirohide Fujiwara



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Nipponham Group Vision 2030



1. Achieving NH Foods Group Medium-Term Management Plan 2023 and DX
2. Connect Projects
3. Examples of DX Efforts

1. Achieving NH Foods Group Medium-term Management Plan 2023 and DX

Positioning of Medium-term Management Plan 2023 and DX Efforts



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Processed Foods
Business Division

Fresh Meats
Business Division

Overseas
Business Division

New Business and
Baseball Club Business

Business strategies

Management policy 1 Shift to a sustainable business model with profitability

Strengthen procurement /
sales capabilities

Establish a muscular manufacturing
profit structure from a company-wide
optimization perspective

Expand business from a
marketing perspective

Clarify the functions of each
company and improve competitiveness

Management policy 2 Establish a growth model for Overseas Business

Formulate and implement growth strategies focused on promising areas

- (1) Strengthen sales of processed food products in Japan and overseas
- (2) Develop processed food products and fresh meats for Japan / strengthen their supply system

Management policy 3 Provide new value through new products and services

New Businesses (1) Entertainment, (2) Wellness, (3) Ethical

Establish the Baseball Club Business

Functional strategies

Management policy 4 Strengthen corporate functions to achieve the Vision

DX Promotion

Formulate company-wide strategies and
strengthen promotion functions

Strengthen R&D functions

Strengthen human resource management

Cross departmental promotion strategies

Activate cross-business
comprehensive strength

Accelerate new business launches

Use the Hokkaido Project to contribute to the
main business and regional development

Strategically develop corporate
communication

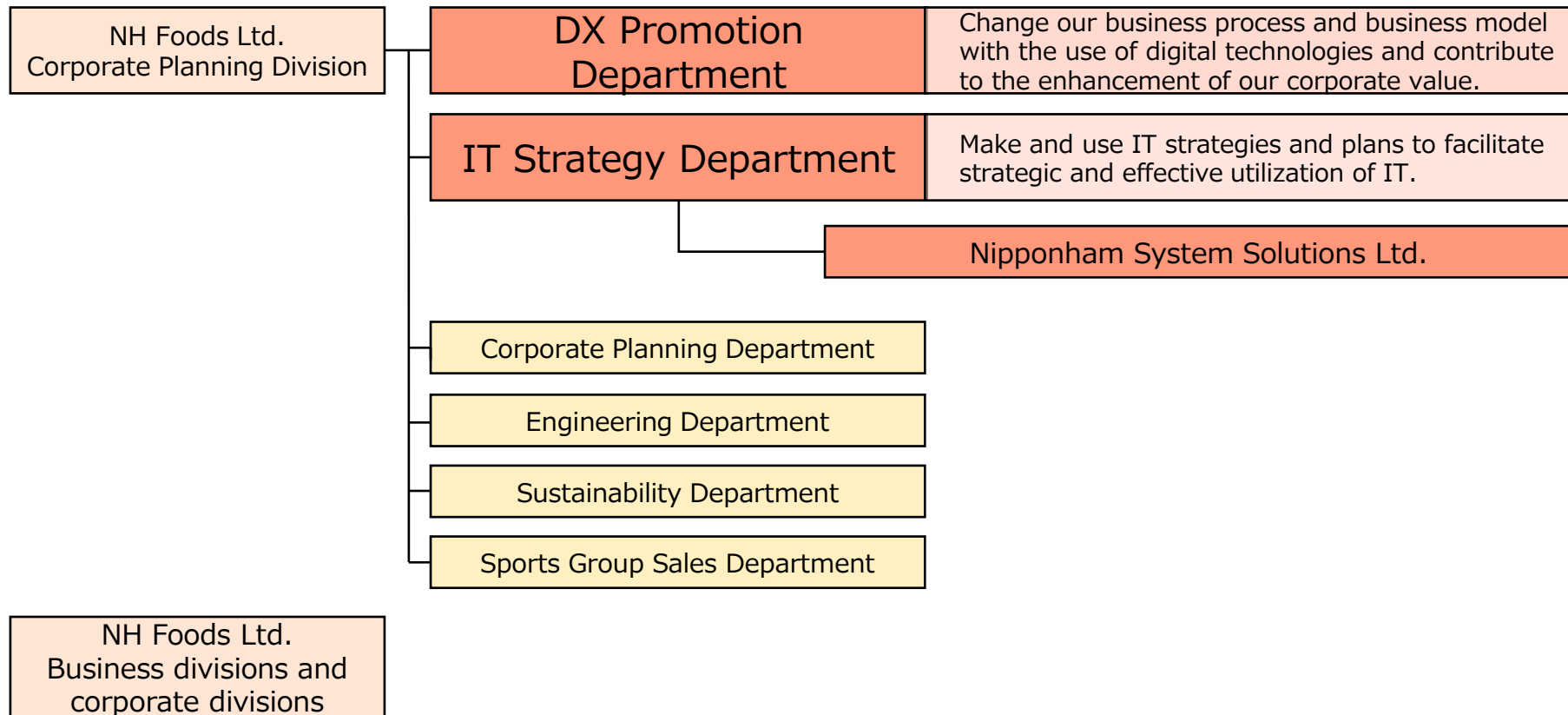
No. 1 management with a high level of quality and corporate governance

Organizational Framework for DX Promotion



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NH Foods Group's Concept of DX



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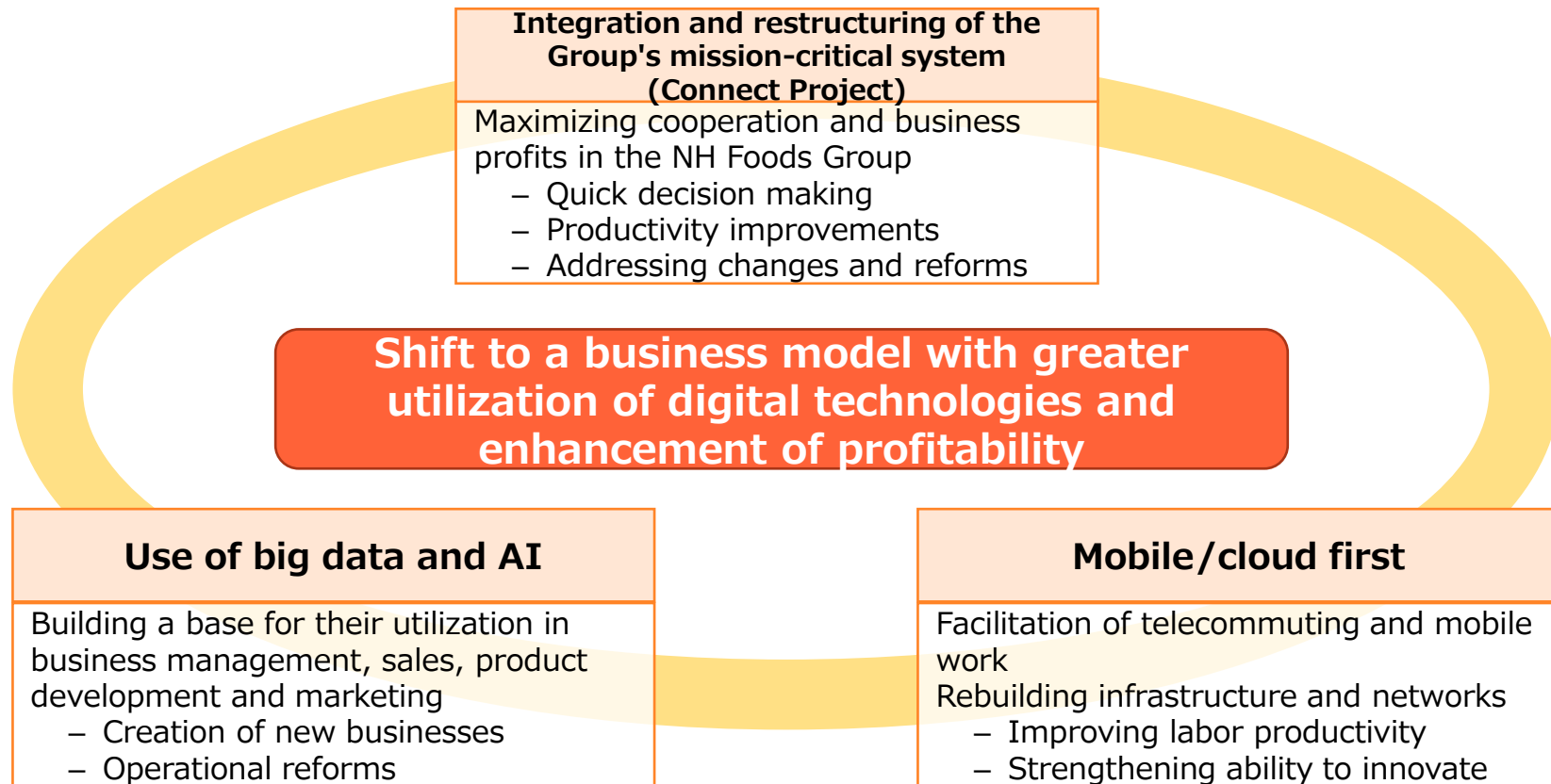


Diagram of NH Foods Group's DX Efforts



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Research Technology development	Production Breeding	Procurement	Packing Processing	Manufacturing	Supply and demand Distribution	Marketing Product development	Corporate and company-wide
Innovation	Smart stockbreeding	Group's central purchasing	Smart factory		Company-wide optimization	Data-driven workstyle reform	

Creation of new businesses and operational reform

Maximization of cooperation and business profit in the NH Foods Group

Serving for diverse workstyles

Use of big data, AI and IoT

Speeding up	Smart pig farming	Automatic procurement	Automation of raw material selection and inspection	Automated warehouse	ID-POS analysis	SSC/BPO
Improvement in accuracy	Smart chicken farming	Price prediction	Remote monitoring and control	Supply-demand adjustment	Product development	Quality assurance and research
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Development of new materials	Standardization of know-how	Process integration	Traceability	External collaboration		

Reform and standardization of the company-wide mission-critical system [Connect]

Mobile- and cloud-first

Rebuilding a network (compatible with mobile/telecommuting) and reinforcing security

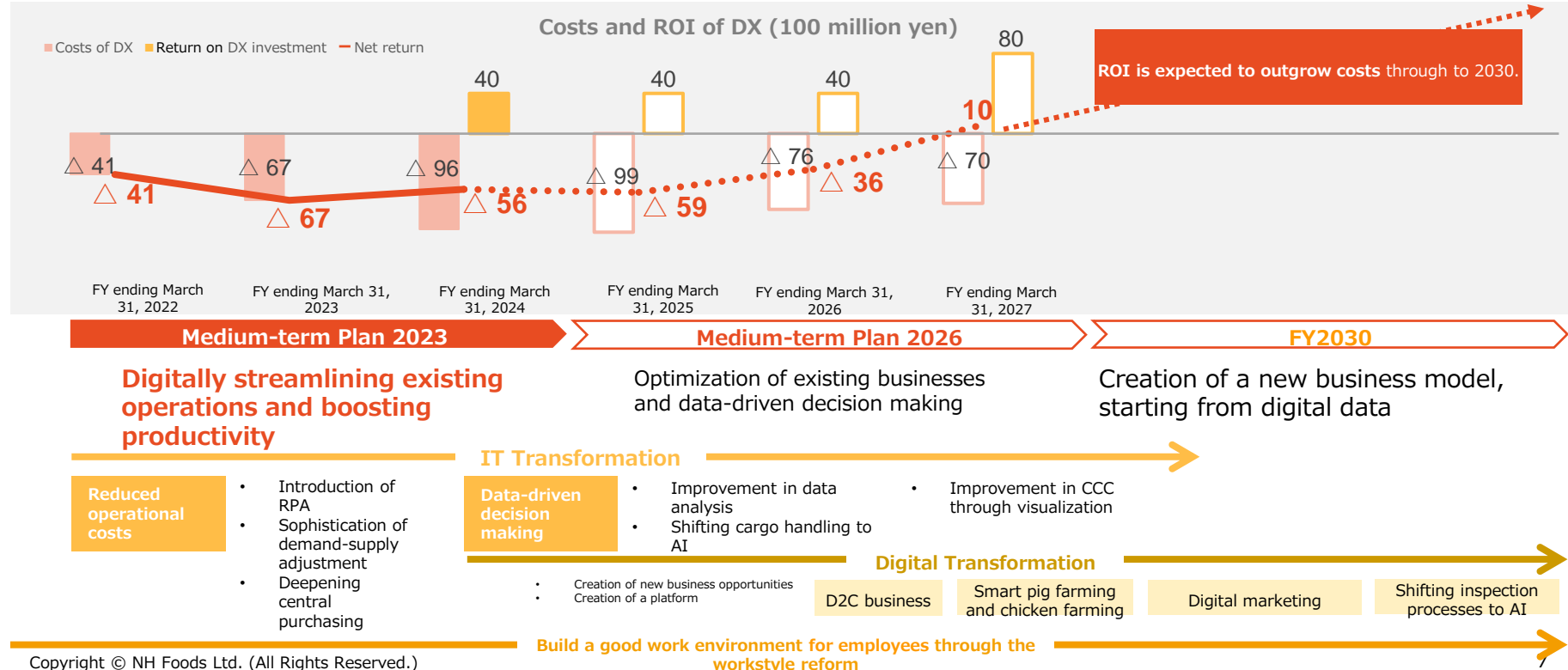
Human capital development (improvement in IT literacy, development and securement of DX specialists)

Customers and business partners



Management Policy: Reforming a Business Model with the Use of DX

Streamline and boost productivity of existing businesses using DX, and speed up new business launches. Establish in ten years a business model for food services and customer value through digital technologies.



Development of Human Resources in DX and IT



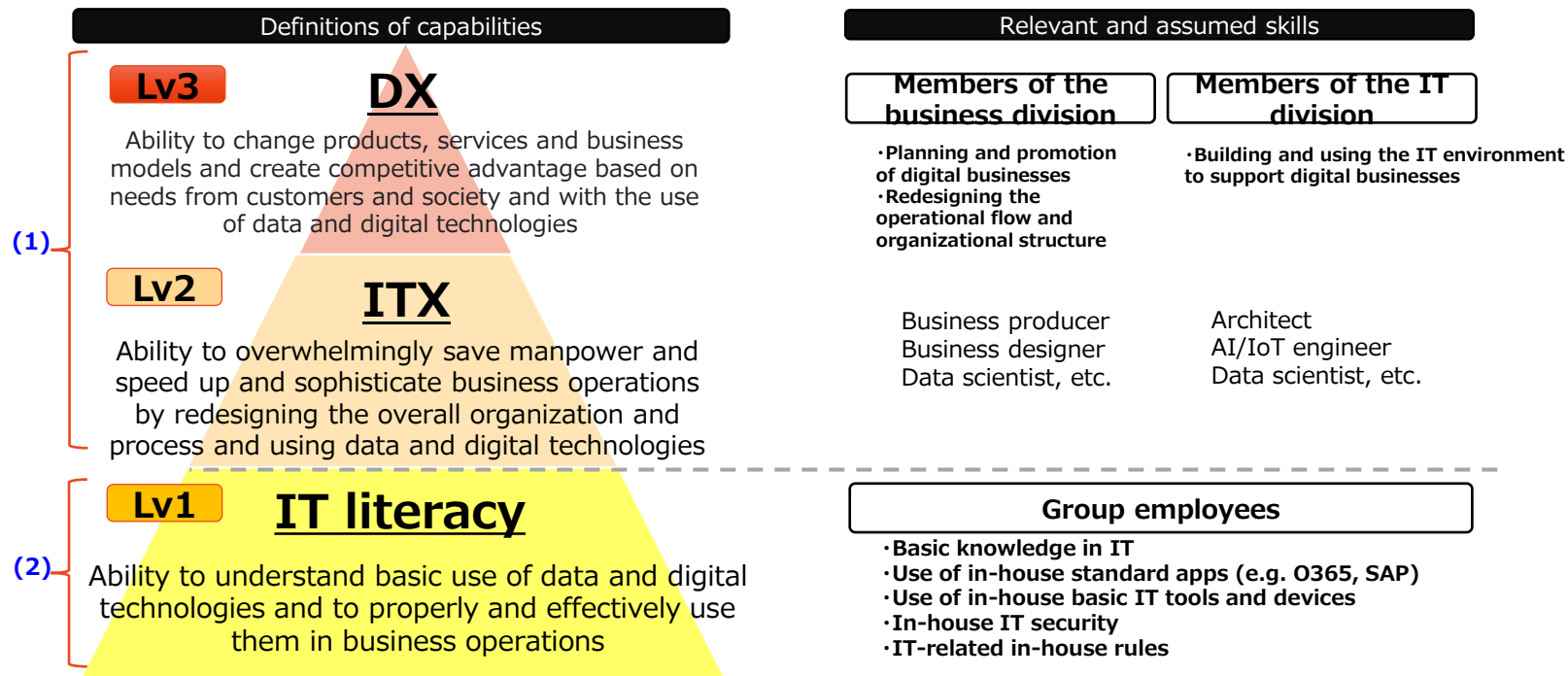
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Develop IT skills in all areas of business with an aim to facilitate adaptation to the ever-changing IT environment and to create impact.

(1) Define the human capital that helps to achieve NH Foods Group DX/ITX and formulate a plan for developing and acquiring such human capital.

(2) Implement measures for improvement in IT literacy to create impact from IT.



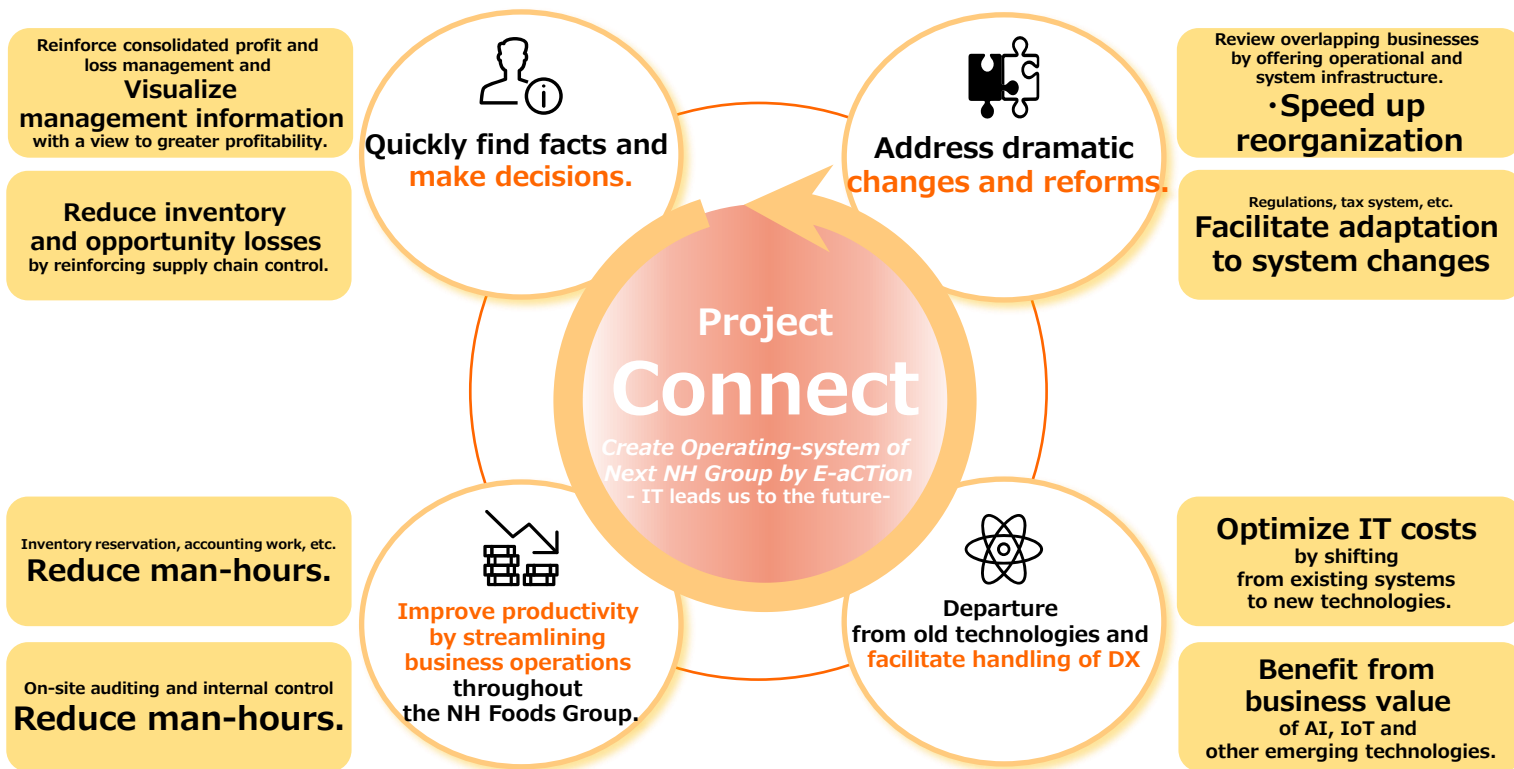
2. Connect Project

Background and Objectives of the Connect Project



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Solidify the common operational and system infrastructure to support the NH Foods Group's long-term growth for the next 10 - 20 years.

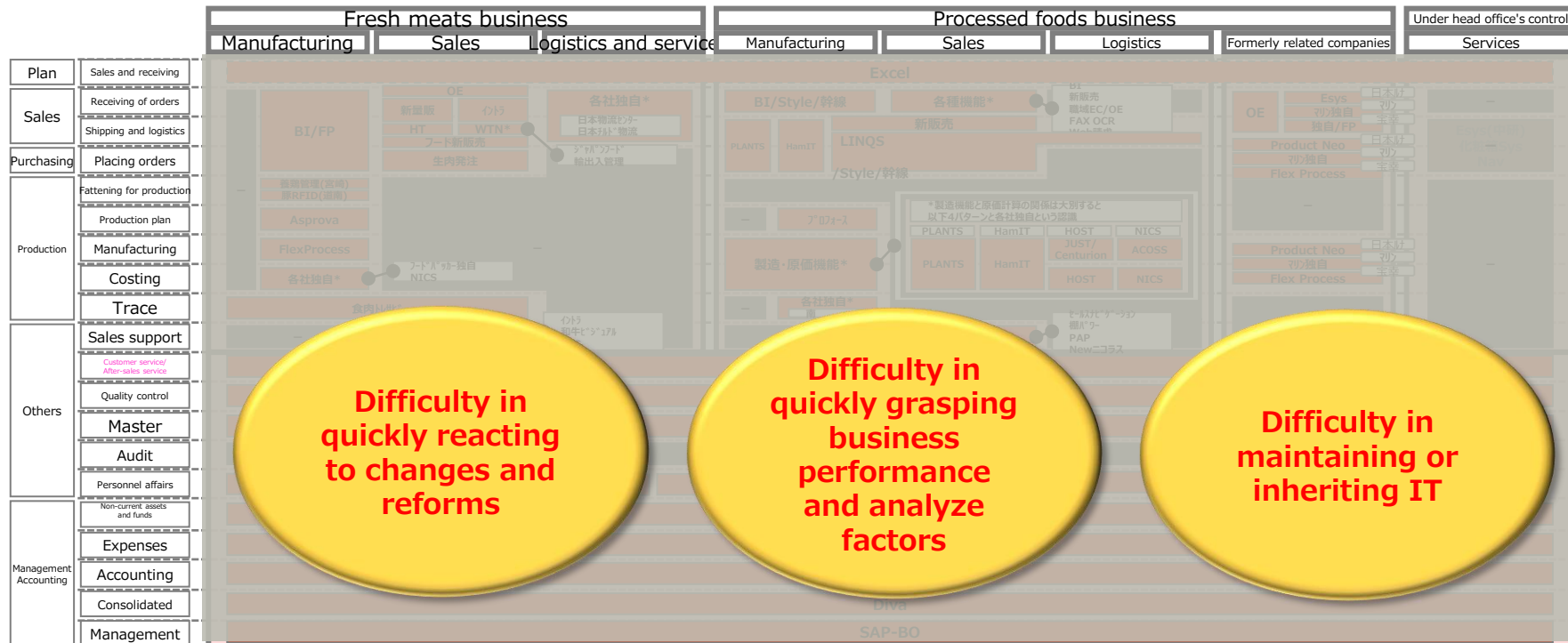
Connect: Major Points of Reform (App Map) (Current Facts)



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The NH Foods Group's operational system is standardized in terms of accounting and quality assurance. But our systems in the production, manufacturing, sales and logistics have been developed with the use of an optimal and traditional system in each of the businesses.



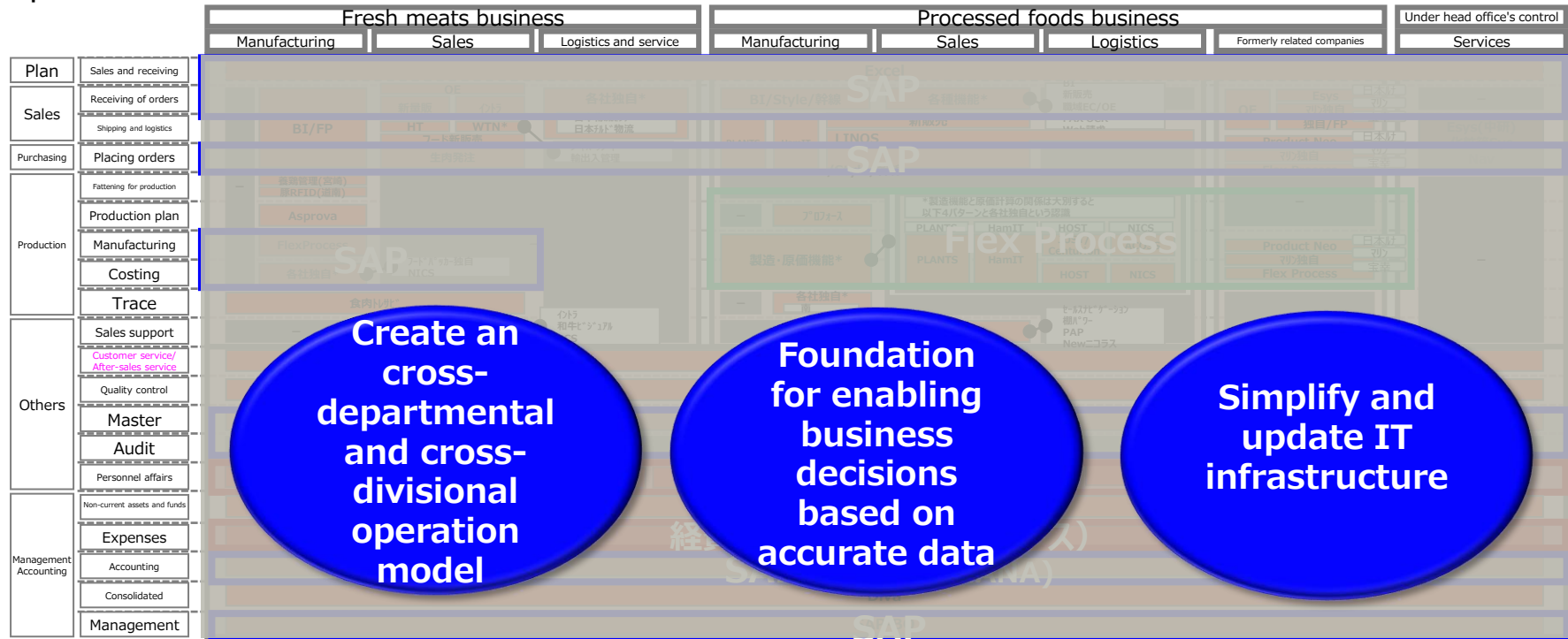
Connect: Major Points of Reform (App Map) (After Reform)



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Rebuild the new mission-critical operation system on the basis of SAP, with the exception of certain systems of production, personnel affairs and quality assurance, for the purpose of overall optimization.



Connect: Major Points of Reform (Action Plan)



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Management control	<ul style="list-style-type: none">• Sophisticate the NH Foods Group's performance management and analysis<ul style="list-style-type: none">- Dividing the multiplication of focus into operational functions, products and business partners- Sophistication of monthly performance management and analysis
Master administration	<ul style="list-style-type: none">• Control of product-name and business-partner masters, which enable analysis of data across the NH Foods Group<ul style="list-style-type: none">- Formulation of Group-wide rules in accordance with our business characteristics (granularity of product name management and common management items)- Organization, process and system for master control
SCM	<ul style="list-style-type: none">• Supply-demand adjustment for optimizing production and inventory (processing business)<ul style="list-style-type: none">- Supply-demand adjustment on the assumption of forecasts- Establishing a supply-demand organization• Simplifying transactions within the same corporation to facilitate adaptation to changes and reforms
Accounting and finance	<ul style="list-style-type: none">• Standardizing and centralizing execution work and shift to high-value added work<ul style="list-style-type: none">- Standardizing the Group's accounting and finance regulations- Centralizing and externalizing accounting and settlement of accounts• Renovating the expense settlement system
IT Infrastructure	<ul style="list-style-type: none">• Shifting the system to a cloud with which it is easy to follow business reforms and DX promotion• Standardizing the system infrastructure and centralizing system operation
Overseas	<ul style="list-style-type: none">• Introduction of SAP to priority companies with an aim of internal control and quickly grasping business conditions<ul style="list-style-type: none">- Data linkage with local systems- We are considering the introduction of SAP to three Thai-based companies and Day-Lee Foods, Inc.

Connect: Rollout Plan



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2022

Renovate accounting systems of all companies of the NH Foods Group in Japan.

2023

Processed Foods Business Division
Rebuild operational systems for master, sales, purchasing, etc.

2024

Fresh Meats Business Division
Rebuild operational systems for master, sales, purchasing, etc.



- Facilitate linkage within a supply chain
- Revitalization of cross-departmental and cross-divisional business activities builds a new business model

3. Examples of DXEfforts

AI-based Inventory Reservation for Processing and Handling of Fresh Meat Cargoes



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AI-based Inventory Allocation (Processing Business)



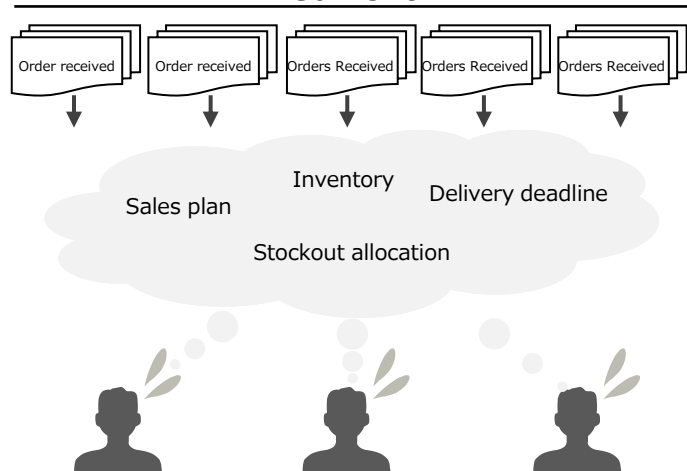
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Aim of inventory allocation

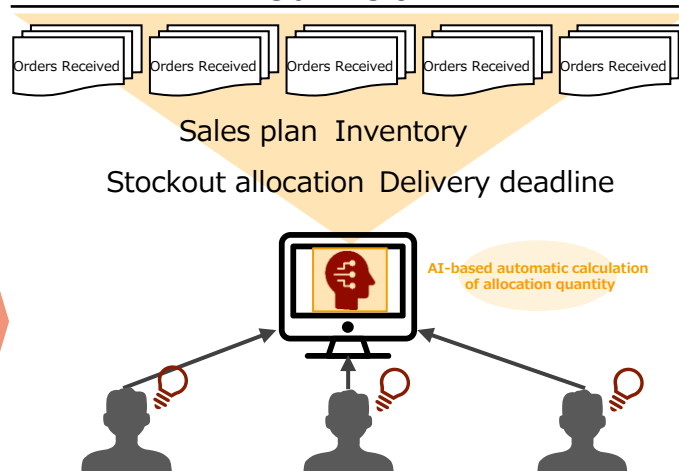
- Pursue AI-based streamlining of business operations, greater accuracy of inventory allocation and standardization of operations. **Appropriate the time saved by the automation of inventory allocation, to value-added operations.**

Current



- Allocation quantity** with consideration of securement of inventory for the following day and after **has room for improvement.**
- We have no standardized rules for decisions on reservation quantity and thus **depend on experience and discretion of a person in charge**
- Involves extensive manual labor** to visually check inventory and orders received and adjust inventory allocation

Our vision



- Calculate recommended value for allocation quantity** with consideration of securement of inventory for the following day and after.
- Standardize rules for decisions on allocation quantity and **equalize work throughout the center.**
- Automatically calculate allocation patterns and **reduce burdens of manual work**

PoC (proof of concept)
(First half of FY2021)

Pilot introduction
(Second half of FY2021)

Gradual implementation and rollout
(FY2022 - 2023)

Improvement in work accuracy

Standardization of operations

Improvement in business process efficiency

Chance loss

Loss of waste

AI-based Handling of Fresh Meat Cargoes (Fresh Meats Business)



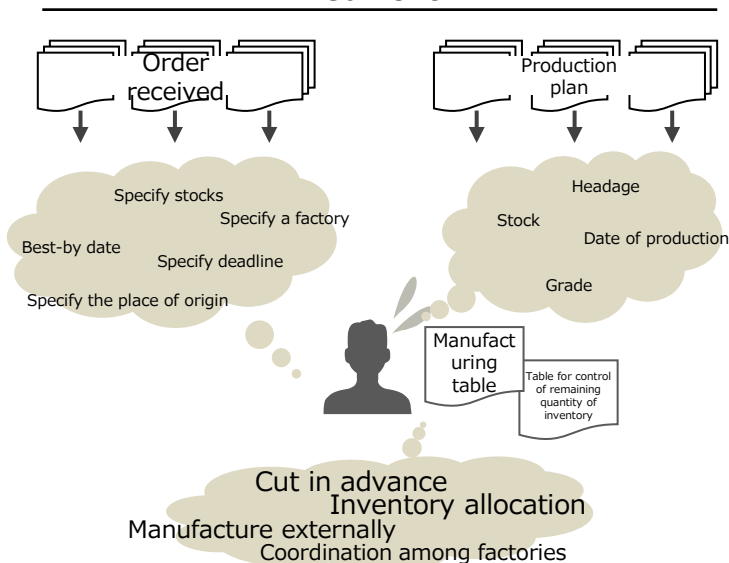
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Aim of AI-based cargo handling

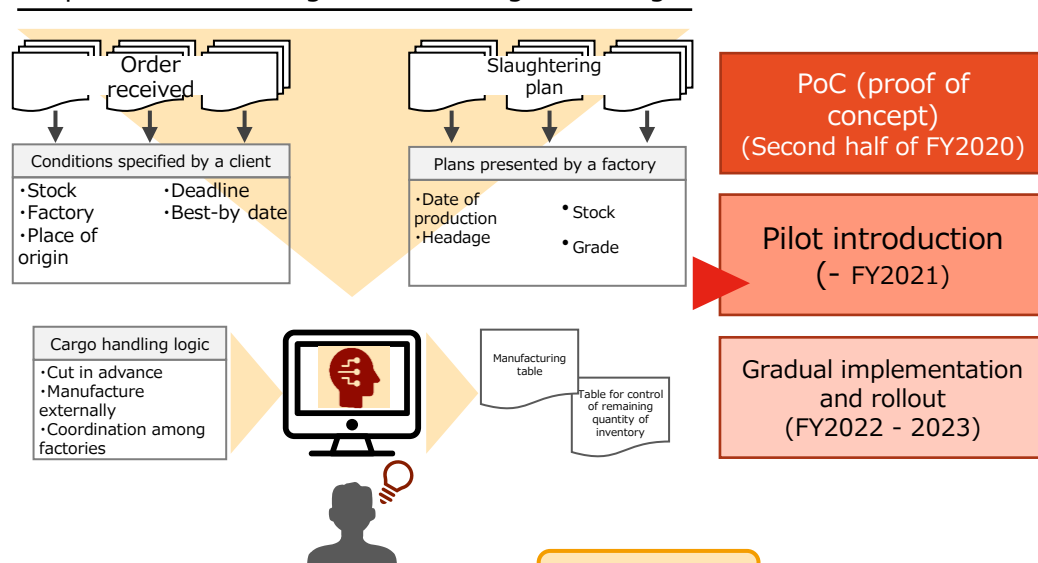
Pursue AI-based streamlining of business operations, greater accuracy of cargo handling and standardization of operations.

Current

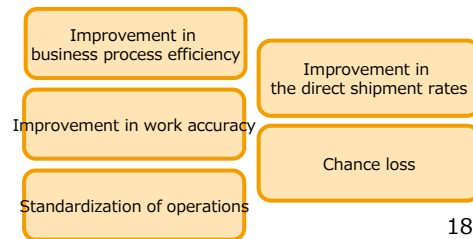


- Manually implement cargo handling work (creation of manufacturing requests) based on conditions specified by clients and production plans.

Operations involving AI-based cargo handling



- Incorporating **restrictions** and **cargo handling logic** into AI in advance enables **automatic** cargo handling based on order receipt data and the production plan



About Smart Pig Farming



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Smart Pig Farming (1)



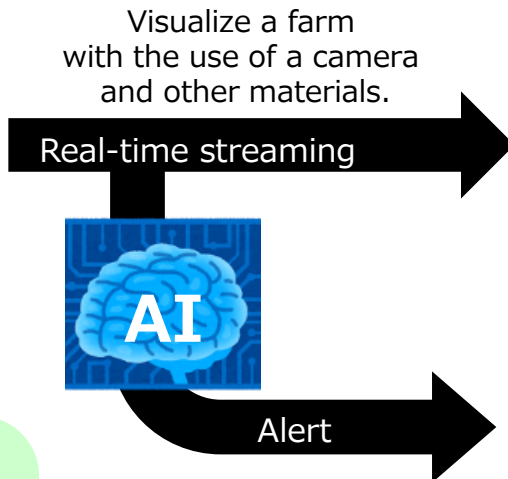
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NH Foods and IT companies collaborate in the **development of a smart pig farming system.**



Develop farms within the NH Foods Group for use as model farms.



Remote monitoring and healthcare



Streamlined work
Quick handling of troubles

Integration

Livestock



DX

- Reduce wasteful practices and also reduce labor load in a farm.
- Automated pass-fail determination maintains the "quality" of work.
- **Boost profitability** through performance improvement.

In FY2021, complete the development of the AI system and start a demonstration test in a farm.

Smart Pig Farming (2)



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Estrus detection system



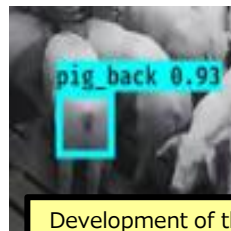
A video indicates the probability of estrus (%) per sow.



- Development of this technology has been completed and a patent is pending.
- Demonstration tests are underway in the farms within the NH Foods Group.

Develop an AI system based on experienced workers' skills

Body weight estimation system



Development of this technology has been completed and a patent is pending.

A system for detection of poor physical condition



CO₂



Technological development underway

Develop an estrus detection function (- FY2020)

Perform a demonstration test of the estrus detection function and verify its accuracy. (- FY2021)

Commercialize and roll out the estrus detection function. (FY2022 -)

*More functions will gradually be added subsequently.



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