Environmental & Social Solution Business

June 12, 2023

Kazuhiko Takeuchi, Senior Vice President
NEC Networks & System Integration Corporation
（TSE: NESIC, 1973)

Self Introduction

Kazuhiko Takeuchi

Senior Vice President, Member of the Board, and
Executive General Manager,
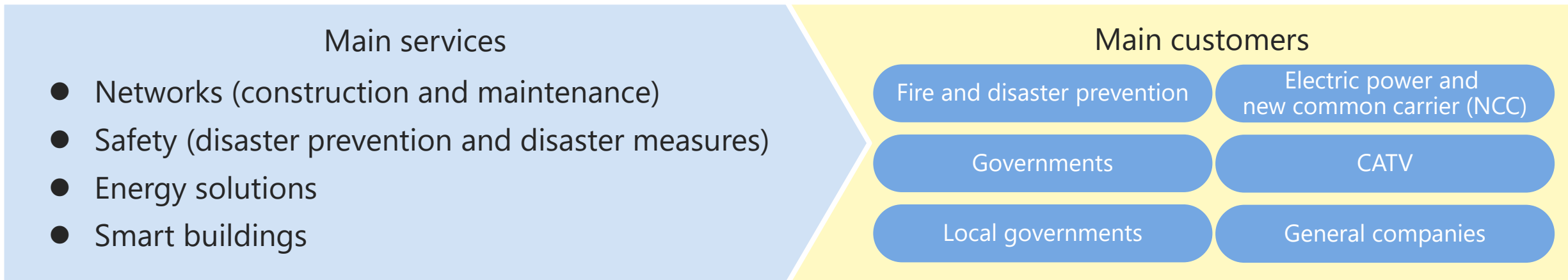Environmental & Social Solutions Business Unit

Career summary

- Joins the Company in 1985
- Successively held various responsible posts for sales/marketing, social infrastructure business and support service business.
- Assumed his current position in 2023 after the head of Network Solutions Business Unit

\Orchestrating a brighter world NEC

Overview of Environmental & Social Solutions Business

Operating businesses ranging from design and systems integration to support for social public infrastructure in Japan and beyond

Main services

- Networks (construction and maintenance)
- Safety (disaster prevention and disaster measures)
- Energy solutions
- Smart buildings

Main customers

Fire and disaster prevention	Electric power and new common carrier (NCC)
Governments	CATV
Local governments	General companies

Business strengths and characteristics

- Customer Base (approx. 4,000 companies)

- Nationwide construction and support service system

- Ability to propose solutions that combine business expertise with companywide assets

Orchestrating a brighter world NEC

Basic Strategy on Environmental & Social Solutions

<2024 Vision>
An area ICT orchestrator that serves broad markets in Japan and overseas

Community development
DX x Beyond 5G
x Nationwide business capabilities

1 Promote community-development business
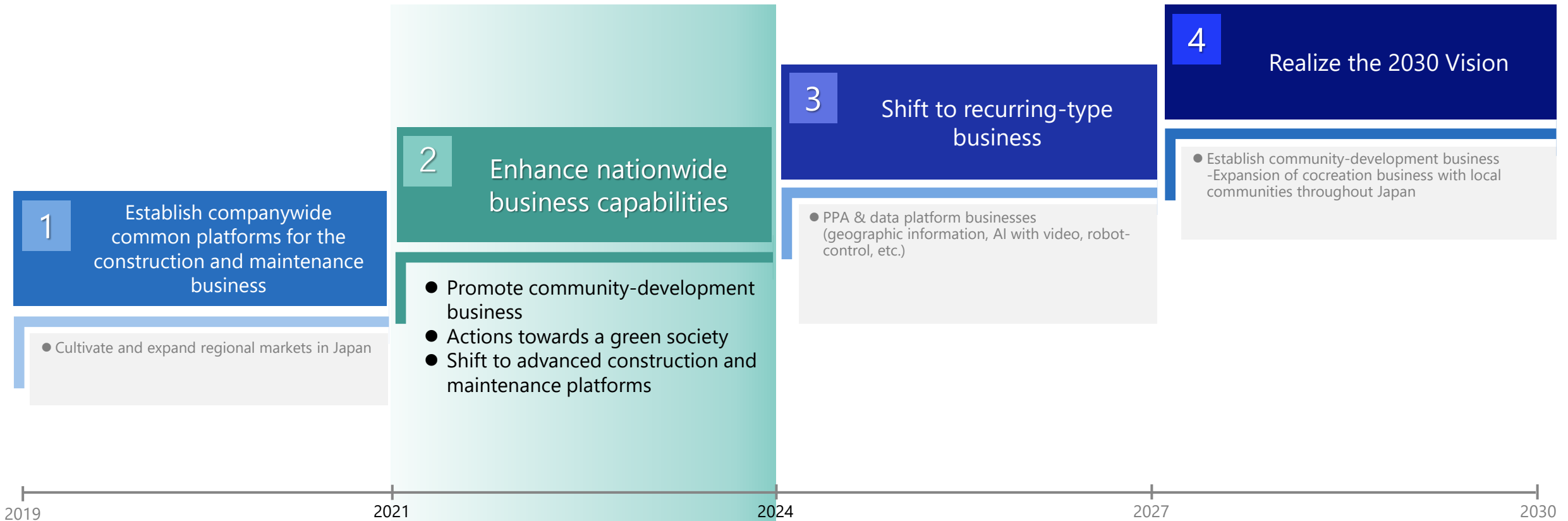
2 Step up actions towards a green society

3 Shift to advanced construction and maintenance platforms
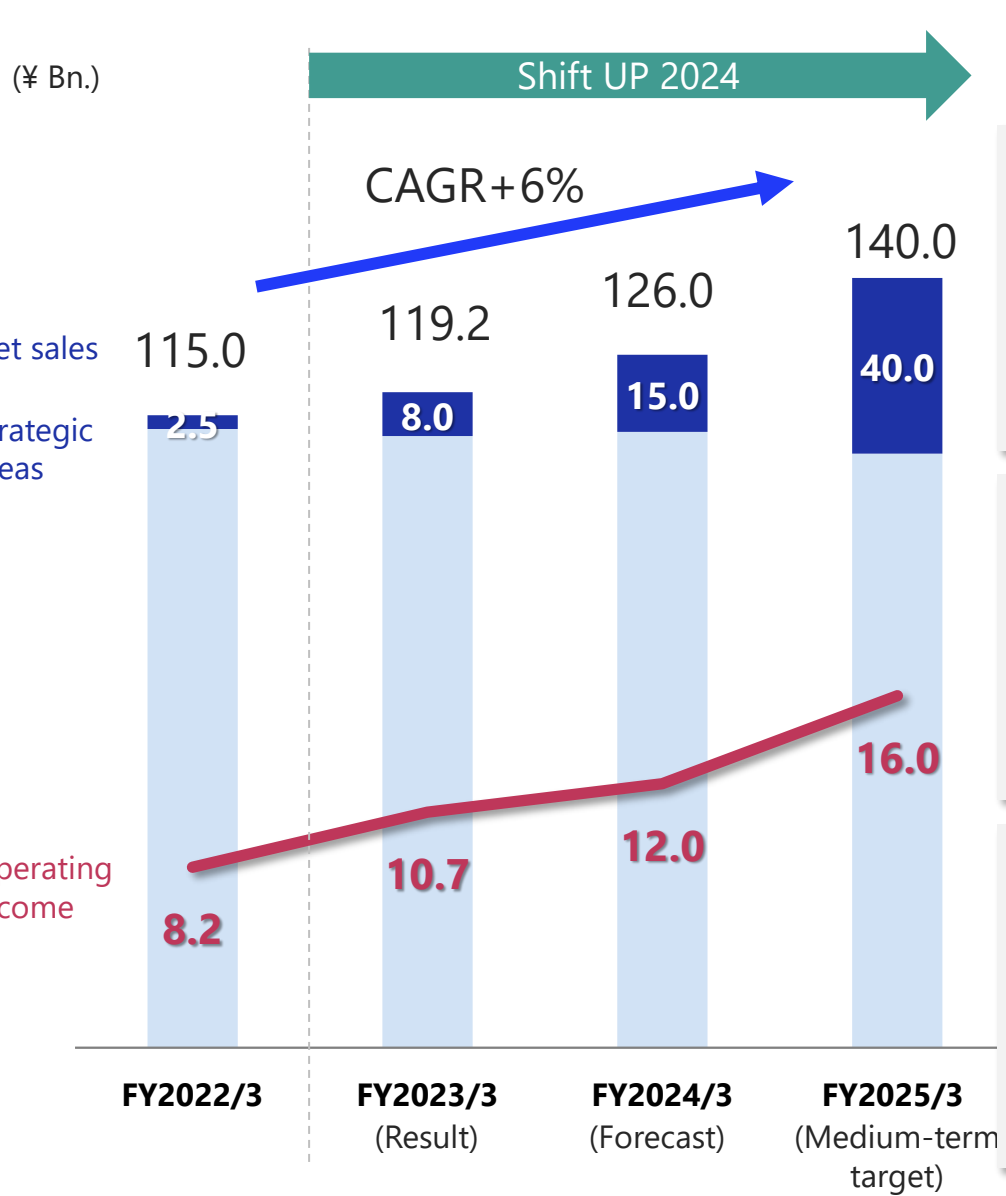
\Orchestrating a brighter world NEC

Growth Strategy

2030 Vision

A business operator for creating and developing safe and secure communities where people want to continue living, harnessing strengths in engineering and support, while serving local communities in harmony with the recycling society in Japan and abroad

4 Realize the 2030 Vision

3 Shift to recurring-type business

2 Enhance nationwide business capabilities

1 Establish companywide common platforms for the construction and maintenance business

- Establish community-development business -Expansion of cocreation business with local communities throughout Japan

- PPA & data platform businesses (geographic information, AI with video, robot-control, etc.)

- Promote community-development business
- Actions towards a green society
- Shift to advanced construction and maintenance platforms

- Cultivate and expand regional markets in Japan

2019   2021   2024   2027   2030

\Orchestrating a brighter world **NEC**

Medium-Term Management Plan and Progress of Results

(¥ Bn.)

Shift UP 2024

CAGR+6%

Net sales

115.0 → 119.2 → 126.0 → 140.0

Strategic areas: 2.5 → 8.0 → 15.0 → 40.0

Operating income: 8.2 → 10.7 → 12.0 → 16.0

| FY2022/3 | FY2023/3 (Result) | FY2024/3 (Forecast) | FY2025/3 (Medium-term target) |

	FY23/3 Net sales	FY25/3 Net sales
Key Strategy 1: Promote Community Development Projects	5 billion yen	20 billion yen
Together with local customers, create smart communities that are safe and secure (Digital Garden City)		
Key Strategy 2: Step Up Actions towards Green Society	3 billion yen	20 billion yen
Provide one-stop services for customers to achieve zero carbon emissions		
Key Strategy 3: Shift to Advanced Construction and Maintenance Platforms		
Enhance revenue by turning the construction work business into a recurring business. Improve business efficiency and boost competitiveness through DX		

\Orchestrating a brighter world NEC

Challenges to be Overcome for the Medium-term Management Plan

Achievements and challenges	✓ Steady progress in the expansion of strategic areas (target attainment rate: 100%) ✓ Further acceleration of profitability (target attainment rate: 86%)

Expand successful examples of FY2023/3 initiatives
Step up efforts in the area of high added-value to maximize profitability

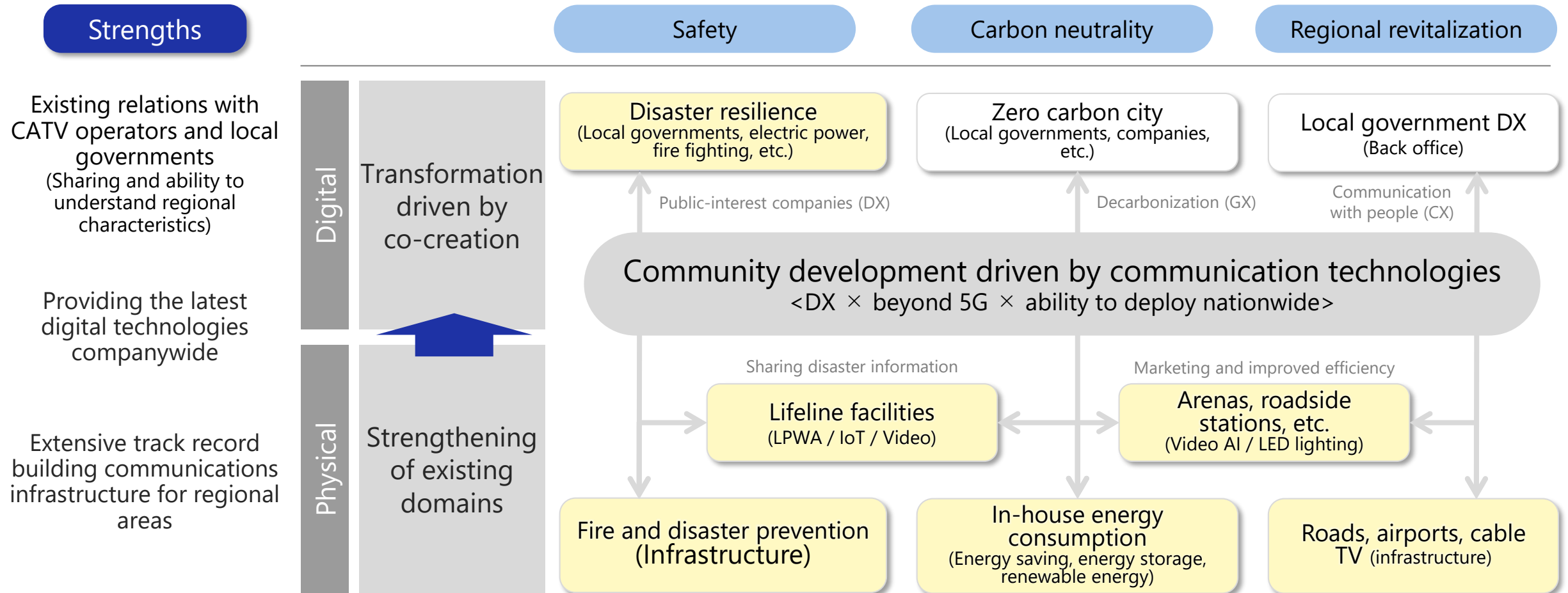| Focus domains	Community development	Expansion of the offering model and development leveraging the customer base
	Green	Rolling out expertise in self-implementation as a one-stop business Expanding revenue by enhancing unique solutions
Existing	Construction and maintenance	Shifting to solution provision business that leads to recurring business

\Orchestrating a brighter world NEC

Community Development Strategy

✓ Shift to highly unique businesses that coordinate existing businesses (real) with digital value
✓ Develop models from examples related to the Digital Garden City concept and roll them out to other municipalities

Strengths			**Safety**	**Carbon neutrality**	**Regional revitalization**

Existing relations with CATV operators and local governments
(Sharing and ability to understand regional characteristics)

Providing the latest digital technologies companywide

Extensive track record building communications infrastructure for regional areas

| Digital | Transformation driven by co-creation |
| Physical | Strengthening of existing domains |

Disaster resilience
(Local governments, electric power, fire fighting, etc.)

Zero carbon city
(Local governments, companies, etc.)

Local government DX
(Back office)

Public-interest companies (DX) Decarbonization (GX) Communication with people (CX)

Community development driven by communication technologies
<DX × beyond 5G × ability to deploy nationwide>

Sharing disaster information   Marketing and improved efficiency

Lifeline facilities
(LPWA / IoT / Video)

Arenas, roadside stations, etc.
(Video AI / LED lighting)

Fire and disaster prevention
(Infrastructure)

In-house energy consumption
(Energy saving, energy storage, renewable energy)

Roads, airports, cable TV (infrastructure)

\Orchestrating a brighter world NEC

Community Development Strategy (Examples)

✓ Service provision of disaster resilience map information system as common area platform
✓ Linking virtual spaces to multimedia disaster risk management offices

Strengths

Co-creation activities between business operators across industries

Ability to provide services for geographical information, video and data utilization infrastructure
(Extensive experience with power companies)

Fire fighting and disaster prevention business customer base and operating expertise

• Quickly restoring disaster-affected infrastructure within a region through the centralized sharing of disaster information

Geographical information / video / data utilization model
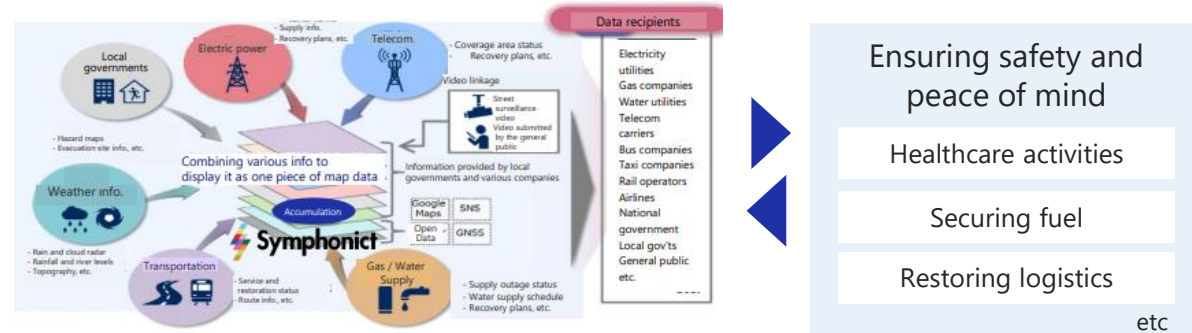
• Displaying multiple pieces of information in real-time
• Drastically improving the speed from ascertaining a situation to making decisions

Real & virtual disaster risk management office / BCP model
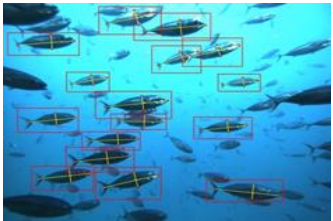

Real disaster risk management office

Virtual disaster risk management office

\Orchestrating a brighter world   **NEC**
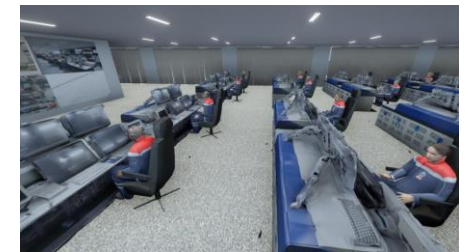
Community Development (Onshore Salmon Farm) Strategy

✓ By leveraging fisheries DX, rolling out aquaculture business with a low environmental impact as a franchise business model domestically and internationally

Strengths

- Achieve fisheries DX through collaboration between industry and academia
- Develop franchise model

2030

Target sales 30 billion yen* （Largest in Asia）
Develop a CO_2 emission reduction model for salmon production

* Including franchises

Global expansion
Take on the challenge of producing 10,000 tons

2024

2023

● Fuji/Katsuragawa
Factory land-based aquaculture facility begins operating

Franchise expansion and globalization

- ✓ The first franchise model in the fisheries industry
- ✓ Provision of systems that combine real and digital technologies
- ✓ Global rollout from NESIC's local subsidiaries

\Orchestrating a brighter world **NEC**

Strategy to Step Up Actions Towards a Green Society

✓ Provide one-stop services for customers to achieve carbon neutrality using our expertise in self-implementation
✓ Differentiation leveraging co-creation driven technology and product development as strengths

Expertise in self-implementation

- 100% reduction in CO2 emissions (Scope 1, Scope 2) (compared with FY2020/3 levels, by FY2031/3)

- Development of technologies through co-creation between industry and academia

Visualization
- Butics + Kloudspot

Streamlining for power consumption
- Immersion cooling
- Large specialized LED lighting
- Facility management (Butics)

Consultation

Carbon offset
- Satellite image analysis

Substitution
- PPA
- Energy storage (storage batteries)

Orchestrating a brighter world NEC

Strategy to Step Up Actions Towards a Green Society

✓ Steady efforts underway to accumulate know-how through demonstrations

Examples of solutions for power saving measures

✓ Achieving 94% reduction in electricity consumption using liquid cooling of servers in a data center,

✓ Achieving PUE value (indicating electricity usage efficiency in a data center) of 1.05

- Installation design, procurement and construction of equipment and comprehensive monitoring system
- Establishment of optimum maintenance design, operation and maintenance schemes

Examples of storage battery system demonstrations

✓ Design, construction/SI and maintenance services of storage battery system for supply-demand adjustment market

✓ Support for demonstration utilizing and operating multiple renewable energy and storage battery resources

\Orchestrating a brighter world   **NEC**
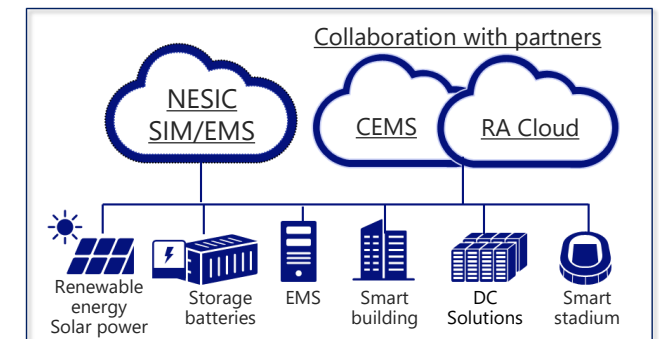
Strategy to Develop a More Sophisticated Construction Business

✓ Shifting to a business providing system solutions leveraging engineering capabilities as a strength

Market strengths

Customer base of public-interest companies
(approx. 2,000 companies)

Technology strengths

Provision of uniqueness and "one-and-only" solutions

Co-creation capabilities

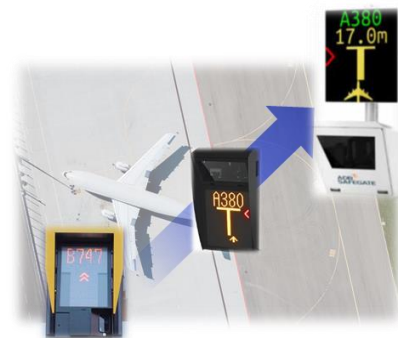Partnerships with regional businesses and local companies

Road solutions
✓ Products developed in-house for ease of construction and maintenance
✓ Expansion to next-generation networks

Airport solutions
✓ One-and-only
✓ Launch of new models on the market
✓ Extensive track record

Real sharing of environmental information at a center

Ongoing proposals of operating improvements for customers

Center coordination to support the safe operation of parked aircraft

\Orchestrating a brighter world   NEC

Strategy to Develop a More Sophisticated Support Service Business

✓ Streamlining of customer contact points through the DX and AI utilization and improved CS through shorter response times
✓ Automate customer business processes to provide as services

Market strengths

Support for a wide range of industries
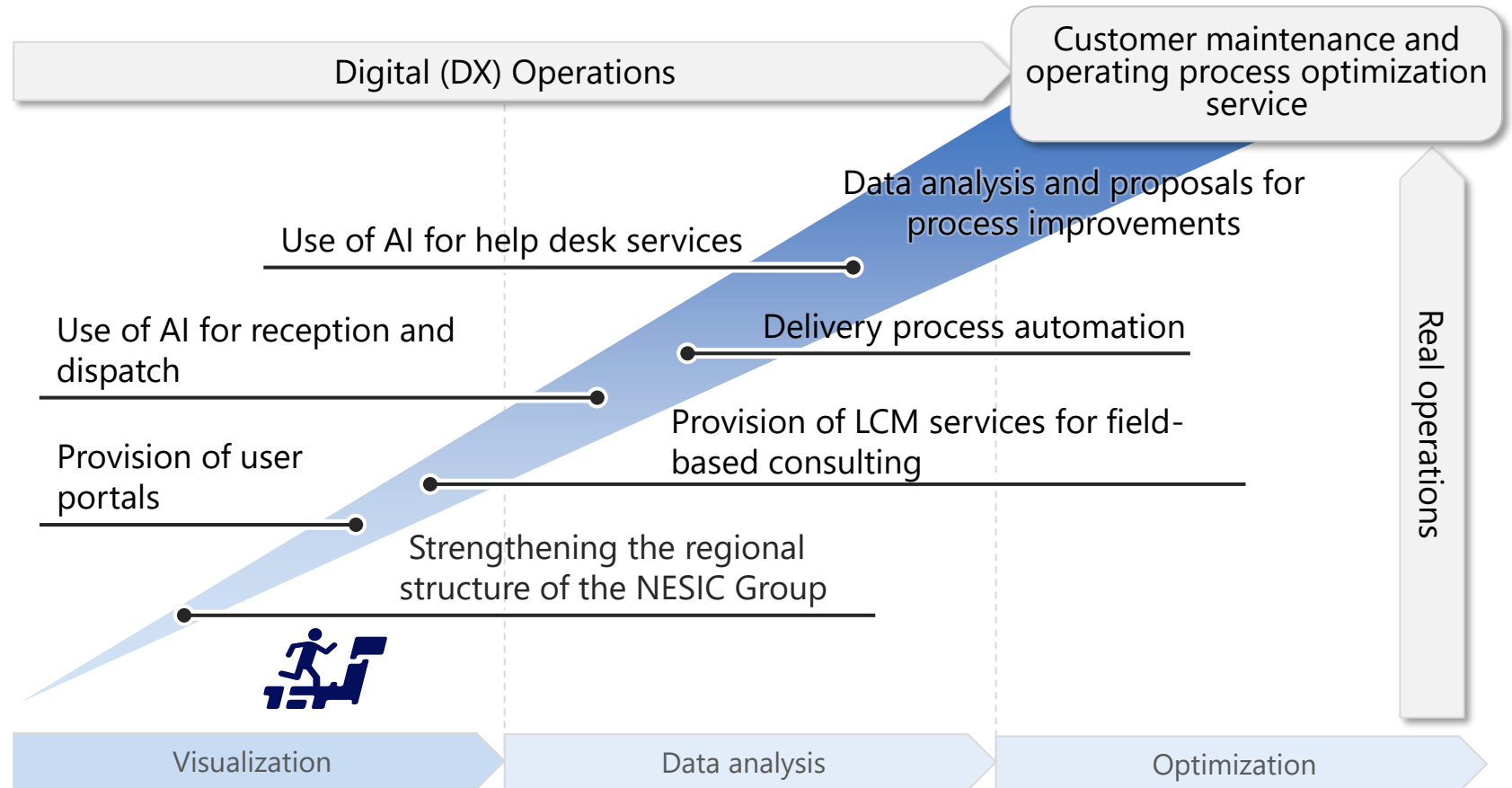(Approx. 3,000 companies including telecom carriers, public entities, private demand)

Technology strengths

Customer support expertise and information accumulated over many years

Ability to execute strategy

Nationwide support services structure
(Shortened downtime, disaster response)

Digital (DX) Operations

Customer maintenance and operating process optimization service

Data analysis and proposals for process improvements

Use of AI for help desk services

Use of AI for reception and dispatch

Delivery process automation

Provision of LCM services for field-based consulting

Provision of user portals

Strengthening the regional structure of the NESIC Group

Real operations

Visualization

Data analysis

Optimization

Orchestrating a brighter world NEC

Cultivating Advanced and Specialized Human Resources

Supervising engineers	2023/3	2025/3
	825	940

Advanced DX profess-sionals	2023/3	2025/3
	43	140

Beyond 5G professionals	2023/3	2025/3
	419	590

Cultivating the human resources needed to achieve growth strategy

Cultivating engineers through KTC* utilization and our self-implementation

* KTC: Shin-Kawasaki Technical-Base

Advanced DX professionals

● DX engineers
- Video AI, data analysis
- Low-code development

Supervising engineers

Beyond 5G professionals

● Supervising engineers
- Telecommunication construction supervising engineer
- Electrical construction supervising engineer

● Beyond 5G networking engineers
- Virtualization, public cloud computing
- 5G／BWA

\Orchestrating a brighter world NEC

Cautionary Statement

Forecasts and targets of results mentioned in this document are future estimates and are thus inclusive of risks and uncertain factors since they are not based on definite facts. Please be aware that a variety of factors could cause actual results to differ significantly from those projected. The major factors affecting actual results include the economic climate and social trends surrounding the business of this Company's group, consumer trends vis-a-vis systems and services provided by this Company's group, as well as pressure to lower prices and ability to cope with the market in response to intensified competition.

Factors affecting results are not limited to the ones mentioned above.

There was segment change in April 2022. Segment information for the FY 2022/3 have been recalculated to reflect the change in the content of business segments.

\Orchestrating a brighter world NEC

https://www.nesic.co.jp/english/ir/