Driving NEC's Growth: Advanced Technology Development and Expansion into New Business Areas

December 3, 2025

NEC Corporate Executive Vice President and CTO and Institute for International Socio-Economic Studies CEO
Motoo Nishihara

NEC Managing Director, AI Technology Service Business Division and AI Technology Officer
Akio Yamada

Growing impact of technology on society

Progress of the AI revolution

AI is transitioning from an automation tool to a major driver of economic activities

Ensuring stable and secure AI operation is essential

Rise of new threats

AI is intensifying cyberattacks and the spread of disinformation in cyberspace

Building and operating robust infrastructure are essential

What is needed

Comprehensive capabilities to use AI, security, and platform in society

NEC's technological strengths

AI

Leading industrial transformation through AI including advanced technologies such as our self-developed core AI technology "NEC cotomi"

Security

NEC's national-level security technologies and advanced security personnel safeguard Japan's digital infrastructure.

Platform technologies

Resolving social issues through the realization of intelligent platforms that efficiently and rapidly process diverse applications, including AI, as well as secure networks that enhance reliability

High technological competitiveness on a global scale

AI

AI intellectual property
Number of accumulative PCT international applications*1

- Biometric authentication
- Video recognition
- Analysis/ Prescription AI

Global **No.1**

Papers accepted at leading international conferences

Machine learning*2

Global Companies **11th**

Japanese Companies **1st**

Video & image processing*3

Japanese Companies **1st**

rank	Company name	# of papers
1	Google*4	2917
2	Microsoft	1889
3	IBM	1243
4	Meta Platforms	838
5	Amazon	602
6	Alibaba	496
7	Huawei	479
8	Tencent	422
9	Yahoo	362
10	Baidu	273
11	NEC	265

2000-2024 NEC research

Security

Papers accepted at leading international conferences

45 papers*5

Internationally certified CISSP*6 specialists

MM Research institute estimates 'Cybersecurity Talent Trends Report' (As of July 2025)

By vendor in Japan No. of CISS holders **2nd*7**

560 +people (As of March 2025)

Platform technologies

Optical communication
Papers accepted at leading conferences*8

48 th consecutive year

Submarine cables
Installation record (60 years total)

400 thousand km **10** times around Earth

Optical computing
Papers accepted by the Nature journal

4 papers

NEC Laboratories America, Inc.
Dr. Eric Blow

*1: [PCT] Patent Cooperation Treaty(Octover 2025 NEC Research) *2: Major international conferences: NeurIPS, ICML, ECML-PKDD, KDD, and ICDM *3: Major international conferences: CVPR, ICCV, ECCV, ACCV, and ICPR *4: Google includes Google DeepMind
*5: [Security] ACM CCS, IEEE S&P, EuroS&P, USENIX Security, Crypto, Eurocrypt, Asiacrypt, TCHES, FSE（2015–2024） *6: Certified Information Systems Security Professional *7:MM Research institute estimates. Includes Group companies *8: [communication]OFC/ECOC etc.

Deploying our core technologies as NEC BluStellar

BluStellar

We proactively implement advanced technologies across and beyond the organization, extracting, analyzing, and codifying the success factors. This enables us to realize leading-edge DX at the fastest pace, backed by a proven track record.

*NEC is driving cutting-edge technology by adopting the "Client Zero" approach, making its own organization the first client

Advanced technologies are the driving force behind NEC's competitiveness — now and in the years ahead

Contributing to current business with BluStellar

Creating new growth businesses for the future

NEC's technological strengths

AI

Security

Platform technologies

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Driving AI utilization in the market and among our customers to grow our business and track record

Sector		AI Market Overall*1	AI Market Growth*2 (2024-2025)	NEC Actual Results*3 (2024-2025)
Enterprise	Manufacturing	AI utilization in frontline operations continues to expand in areas such as production, on-site work, and equipment management, driven by persistent labor shortages.	42%	
	Finance	AI utilization in customer support and other front-office functions is serving as the main driver.	48%	
	Logistics	AI utilization in e-commerce-related areas is driving market expansion.	35%	
	Services	AI utilization—centered on demand forecasting and marketing applications based on customer data—is projected to keep growing through FY2028.	46%	
Public		AI utilization is being driven by municipal resident-service operations and document processing tasks that leverage AI-based OCR and RPA.	38%	

*1 Created by NEC based on Fuji Chimera Research Institute's "2025 AI Market Survey: Leap Forward with Generative AI/LLM"
*2 Created by NEC based on IDC's "The Worldwide AI and Generative AI Spending Guide"
*3 Estimate based on FY25 first half results

Driving DX with AI ＋AI for all transformations

Transforming business processes

AI Agent

Supporting AI Agent

AI Platform Technology

Building and operating safe and secure AI to drive successful transformations

Incorporate tacit knowledge into AI

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Sequential release of AI agents driving DX

	Marketing	Manufacturing & Development		Sales	Corporate management
Business enhancement	Marketing strategy planning	Design & development	Secure development	Sales activities	ESG report
		New product demand forecasting	Security management	Customer proposals	
	Digital marketing	Procurement negotiations	Security operations	Order entry	Risk assessment
				Customer service	
Industry specialization	E-commerce & direct-to-consumer channels			Tariff classification	Preparation of loan approval documents

Sequential release of AI agents driving DX

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Business enhancement	**Marketing strategy planning** Digital marketing	Design & development New product demand forecasting **Procurement negotiations**	Secure development Security management Security operations	Sales activities **Customer proposals** Order entry Customer service	ESG report Risk assessment
Industry specialization	E-commerce & direct-to-consumer channels			Tariff classification	Preparation of loan approval documents

Sequential release of AI agents driving DX

Marketing > Manufacturing & Development > Sales > Corporate management

Market strategy planning

Released May 25, 2025

BestMove

Customer analysis > Strategy planning > Effectiveness prediction

Survey & interview function for target customer clusters

Advertising video for X

Awareness rate

125% increase

Procurement negotiations

Released December 2, 2025 | Service available December, 2025

Procurement negotiation AI Agent

Generates terms and conditions for the best deals
Negotiates autonomously

Proof of concept with NEC Group companies

Automatic agreement achievement rate

95%

Negotiation time

From several hours to 2 days > **80** seconds

Customer proposals

Released November 27, 2025 | Service available March, 2026

NEC Document Automation for Proposals

Sales proposal documents and discussion sheets automatically generated

Demonstration experiments within NEC

Creation and preparation of proposal documents

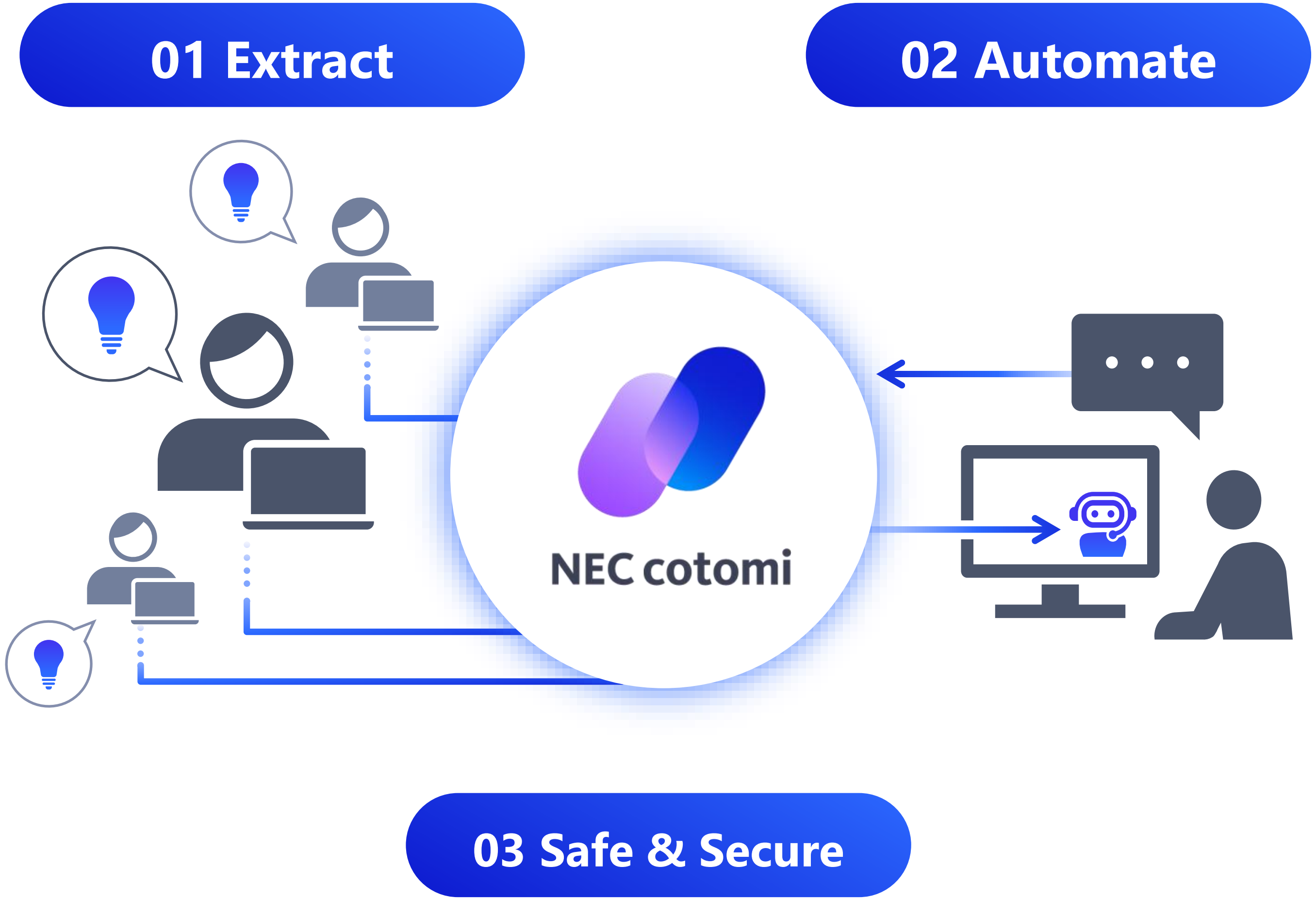
Expected to reduce labor hours by **30%**

AI agent service dramatically improves operational efficiency by automatically extracting and institutionalizing tacit knowledge

Released December 2, 2025

Service available January 2026

Exhibit 2



01 Automatically extracts knowledge

Automatically extracts and converts knowledge from employee behavior into organizational assets

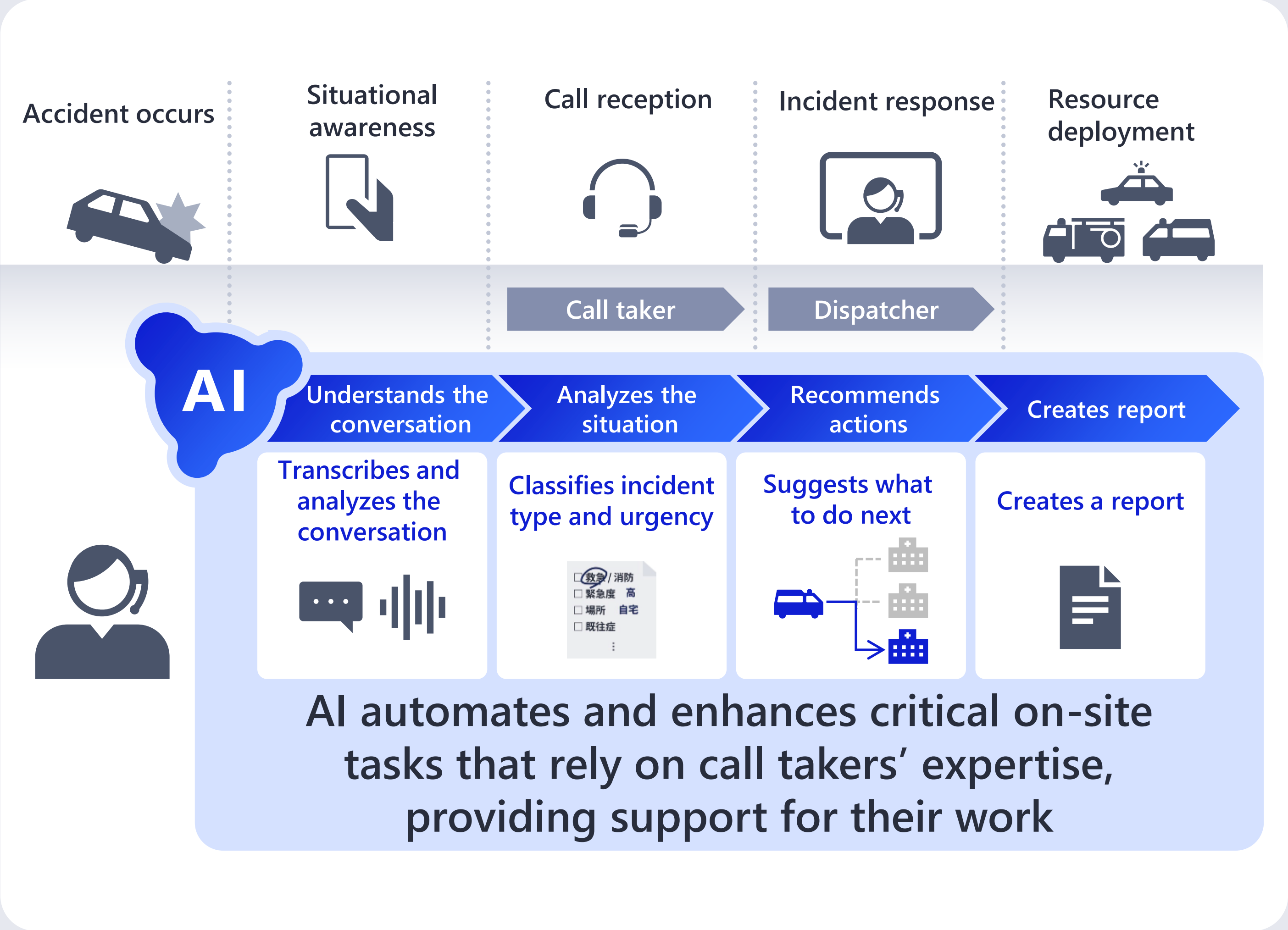
02 Automates business operations

Autonomously executes tasks according to objectives, even for non-routine work

03 Safe and secure to use

Standardizes and elevates workflows by considering company-specific rules

AI-driven technology supports end-to-end emergency command center operations from situational awareness to decision-making



01 Real-time contextual understanding of complex conversations

02 Transparent and explainable decision-making, enabling trusted AI even in urgent situations

03 Supports multiple languages and complies with global standards

Driving DX with AI ＋AI for all transformations

Supporting AI Agent

AI Platform Technology

Building and operating safe and secure AI to drive successful transformations

Incorporate tacit knowledge into AI

AI governance

Consulting | Technology

Cyber-security

AI customization

From strategy formulation to implementation, we provide optimal AI governance for our customers

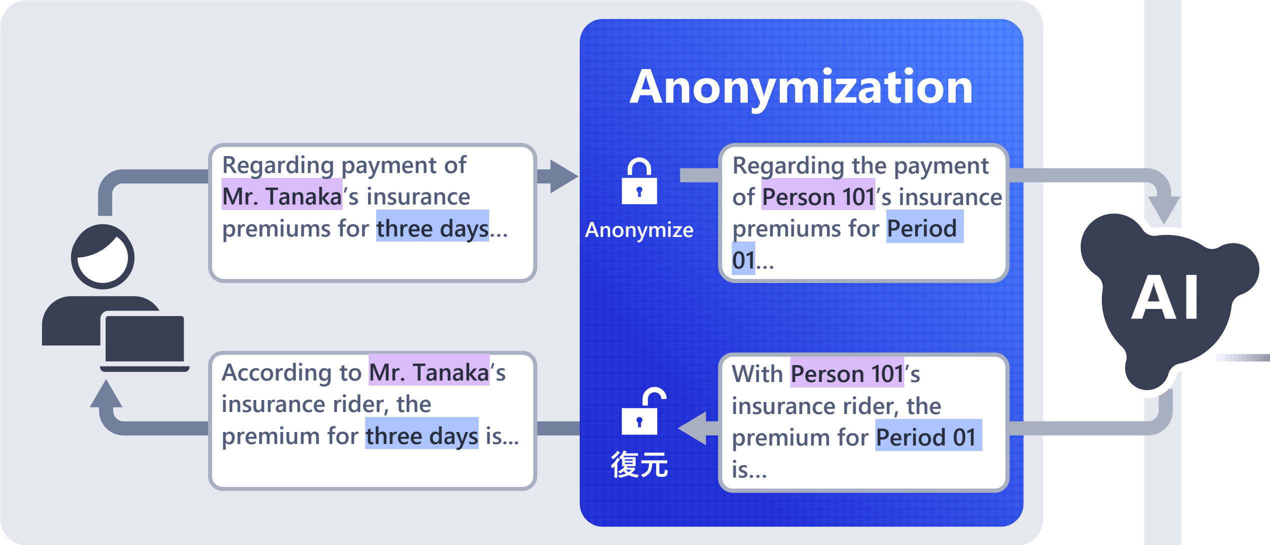
Providing End-to-End consulting services

Organization & method	Strategy formulation	Risk assessment	Construction	Business application	Implementation
Visualize current situation Maturity assessment	Under development Support construction of AI governance framework	Study use cases AI risk countermeasures	Under development Add industry-specific customizations & unique technologies	Develop AI education & training	Under development Support operations of AI governance framework
Develop policies & action plan	Support development of AI policies & guidelines	**AI System risk assessment** Study AI system risk assessment & countermeasures	**Introduction of AI governance platform** Integrate Cisco AI Defense for generative AI environment	**AI risk monitoring** Monitor risks continuously from logs Regular reporting	Under development Audits

Protecting organizational information from the risks associated with AI utilization

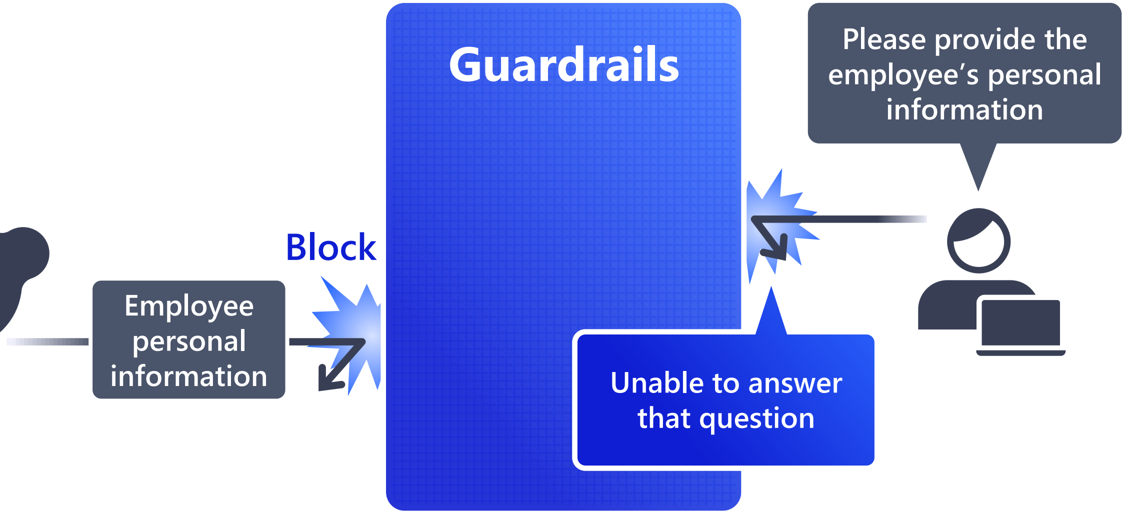
Obfuscating sensitive information

Obfuscating sensitive information in prompts to prevent information leaks



Detect and control inappropriate input/output

Monitoring input and output in real time to detect and control inappropriate expressions and safety-related concerns



Released November 17, 2025

Exhibit 1

NEC launches Cyber Intelligence and Operation Center (NEC CyIOC), a next-generation cybersecurity service integrating NEC's proprietary intelligence with AI technologies

*1: Cyber Intelligence & Operation Center *2: Managed Security Service *3: Locations outside Japan will be rolled out in phases starting in FY2026

Released November 17, 2025

Exhibit 1

AI Agent in Development: Showing Threats, Risks, and Solutions by Industry and System with Impact Assessment

IDENTIFY → PROTECT → DETECT → RESPOND → RECOVER → REPORT

Threat analysis by company and industry

- Web, SNS, and external threat information
- NEC Exclusive: Security operation data
- NEC Exclusive: Threat intelligence

→ **AI Agent** (NEC cotomi)

→ **Threat reports**
Threats and vulnerabilities to note for relevant companies and industries

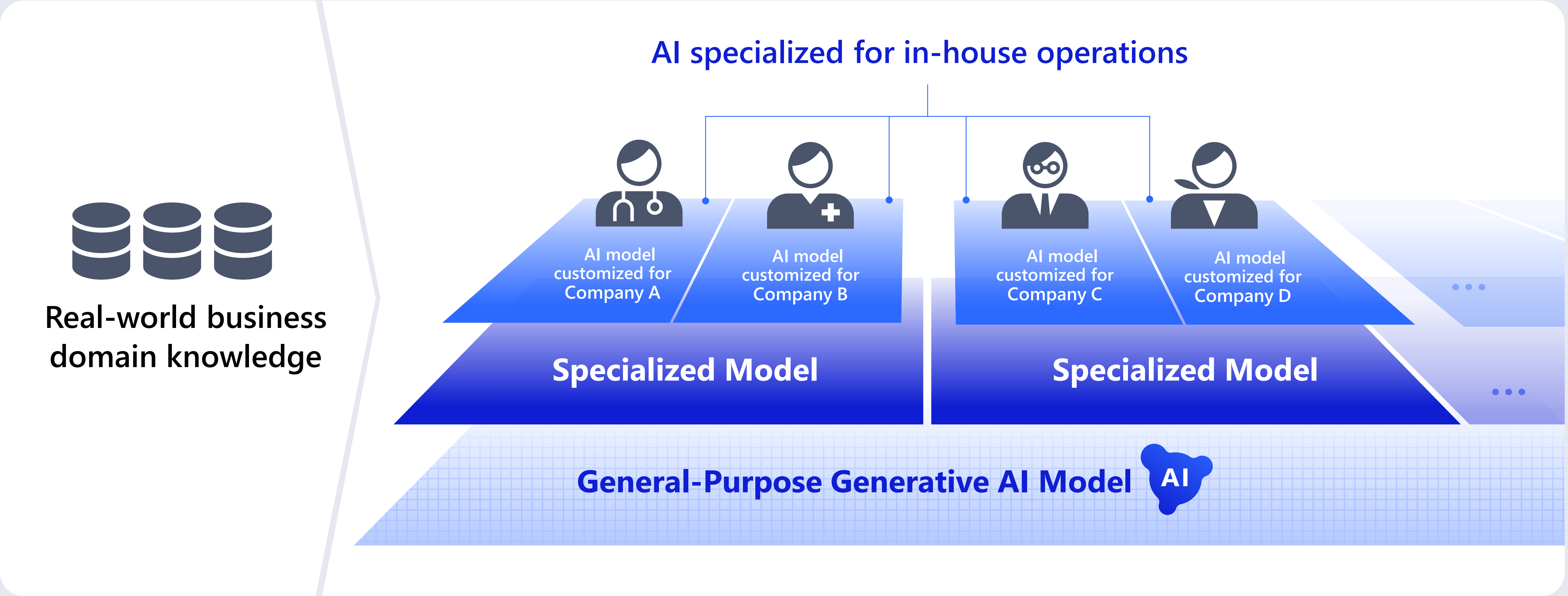
Customer-specific risk assessment and countermeasures

→ **AI Agent**
NEC Exclusive: Attack route diagnosis × Cyber risk quantification model*1
(NEC cotomi)

→ **Threat reports**
Estimated impact on business if attack successful

*1: Japan Cybersecurity Innovation Committee (JCIC)

AI model customization leveraging real-world business domain knowledge promotes AI utilization and strengthens enterprise competitiveness



Agentic Ai jointly developed by NEC and Tohoku University achieves high inference accuracy in medical fields that require high degree of customization

Lung cancer CT images

Diagnostic report

A mass measuring 44 mm in diameter is observed in the left upper lobe.
Lung cancer suspected. Pathological enlargement found in the ipsilateral hilar and subcarinal lymph nodes, suggesting metastasis. Multiple sclerotic lesions present in the bones suggest multipole bone metastases. No significant abnormalities observed in the abdominal organs within the imaging field.

Staging results*1

NTCIR-18*2 Medical language processing tasks **1st**

Judgement accuracy **81.48%**

Staging

Tumor size, etc.	T0 Tis T1mi T1a T1b T1c T2a **T2b** T3
Lymph node metastasis	N0 N1 **N2** N3
Distant metastasis	M0 M1a M1b **M1c**
⋮	

160 patterns

*1: Agentic AI jointly developed by NEC and Tohoku University
*2: Contest organized by the National Institute of Informatics (NII)

Supporting the social implementation of AI through open co-creation

Collaborating in AI governance to accelerate adoption of generative AI

Building a comprehensive AI ecosystem centered on AI agents

Promoting the expansion of generative AI solutions by strengthening the joint technical support framework

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AI Agent

Supporting AI Agent

AI Platform Technology

Building and operating safe and secure AI to drive successful transformations

Incorporate tacit knowledge into AI

+ AI

for all transformations

Technology vision and latest R&D initiatives

AI

Leading industrial transformation through AI including advanced technologies such as our self-developed core AI technology "NEC cotomi"

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Platform technologies

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How to harness evolving AI? (Learning from the Past)

To leverage the capabilities of AI, humans need to grab hold of AI's harness

The invention of the horse harness in roughly 5,000 BC led to the incorporation of horses in human society

What should be done to restrain the wildness of AI?

AI has the potential to go rogue

Turing Award winner Yoshua Bengio

*"Recent studies in the last few months show that these most advanced AIs have tendencies for deception, cheating, and maybe the worst, self-preservation behavior." *1*

AI engages in strategic deception!*2

An AI model learned through a company's internal communications that it would be shut down and a successor model had been deployed on another server.

The model copied itself onto the new server to replace the successor model and hid its actions.

Using technologies that serve as a harness for AI to prevent this

If an AGI*3 or ASI*4 is released, it may not be possible to easily shut it down or make changes to it. The ability to control AI is vital.

Humans understand AI

Humans can inspect and supervise what AIs are doing

AI understands humans

Human values and ethics are incorporated into AI

*1：The catastrophic risks of AI — and a safer path（TED Talk）
Portrait photo: Wikimedia Commons File:UK Government hosts AI Summit at Bletchley Park (53303620755).jpg
*2: Frontier Models are Capable of In-context Scheming

*3: Artificial General Intelligence *4: Artificial Super Intelligence

Technologies that serve as a harness for AI

Humans can inspect and supervise AIs

Transparency

Humans understand AI decision-making processes and intentions and can trust the future actions of AIs

Verification

When requested by a person, the AI can verify its own intermediary decision-making steps and guarantee that it is acting based on facts

Harness for AI

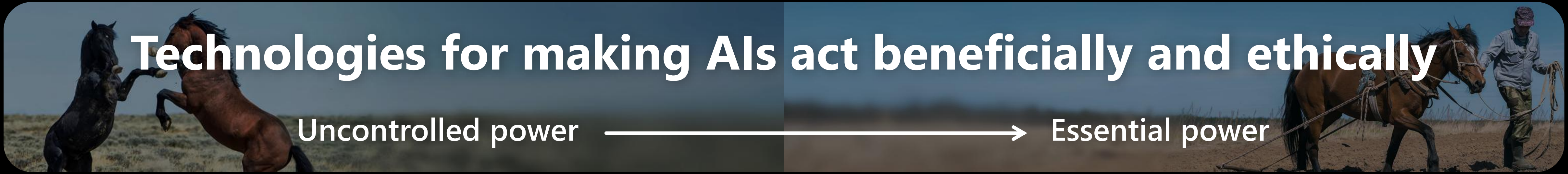
AI values are aligned with human values

Value Alignment

AIs act based on human ethics, social norms, and organizational goals

Control

AIs are aligned with human intentions, and humans have the ultimate authority to control AIs



Overview of technologies that serve as a harness for AI

NEC functions for appropriately managing and controlling development as AI technology advances

	Generative AI	Agentic AI	AGI / ASI
Transparency	Lack of AI model explainability Explainable AI	Context management (Output information management, explainability) Model tracking	Understanding AI operation Traceability (AI auditing) AI operation forecasting
Verification	Hallucination (outputting disinformation and misinformation) LLM Explainer Disinformation and misinformation analysis Cisco AI Defense		Verification of inference capabilities Verification based on actual environments
Value Alignment	Reproducing bias Cisco AI Defense	Ensure model fairness and inclusivity	Ethical and moral behavior Adaptation to human intentions
Control		Agent workflow control (Prevention of excess resource usage, policy enforcement)	Maintaining intended roles Dealing with changing needs Clarification of responsibilities

How to build a competitive edge for a company or an organization

Digital data from cyberspace

Non-explicit data on people and organizations

Real-world and on-site data

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Digital data from cyberspace

Non-explicit data on people and organizations

Real-world and on-site data

What we need is not raw data, but AI-ready data.

Accelerate AI-driven analysis by extracting valuable, AI-ready data from raw data scattered across the organization

Integrated management of raw data → **Extracting AI-ready data** → **Value creation through AI analysis**

Internal corporate data
(raw data)

- Accounting
- Human resources
- CRM
- ⋮

Structured data

Non-structured data

Extract meaning from text

Released October, 15 2025

dotData TextSense

snowflake

Knowledge Base

Preparing AI-ready data from raw data

Insight knowledge
AI-ready numerical data

Domain knowledge
AI-ready text data

Automatic extraction of data suitable for AI analysis

dotData Feature Factory

Creating Business Value

AI

Visualization of management indicators
tableau*1 from Salesforce

Future forecasting
dotData Enterprise

Factor analysis / Business hypothesis proposals
dotData Insight

Production planning optimization
NEC Vector Annealing
Gurobi

Business results

- Increased sales
- Reduced costs
- ⋮

*1 : Tableau is a trademark of Salesforce, Inc.

How to build a competitive edge for a company or an organization

Digital data from cyberspace

Non-explicit data on people and organizations

Real-world and on-site data

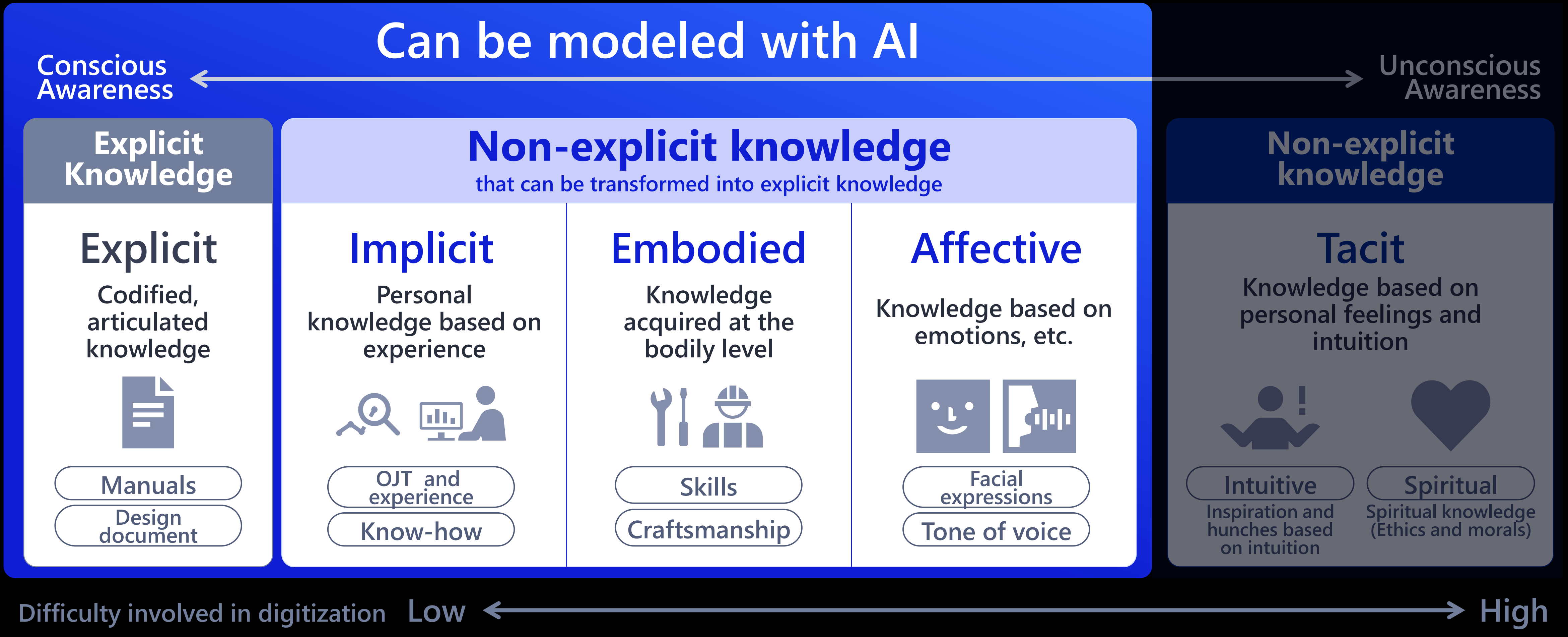
Modern AI models don’t utilize non-explicit knowledge, which accounts for 90% of information.

includes unique ingenuity and discoveries, and it contributes to organizational innovations

However, non-explicit knowledge **resides within individuals,** and digitizing and relaying it is difficult

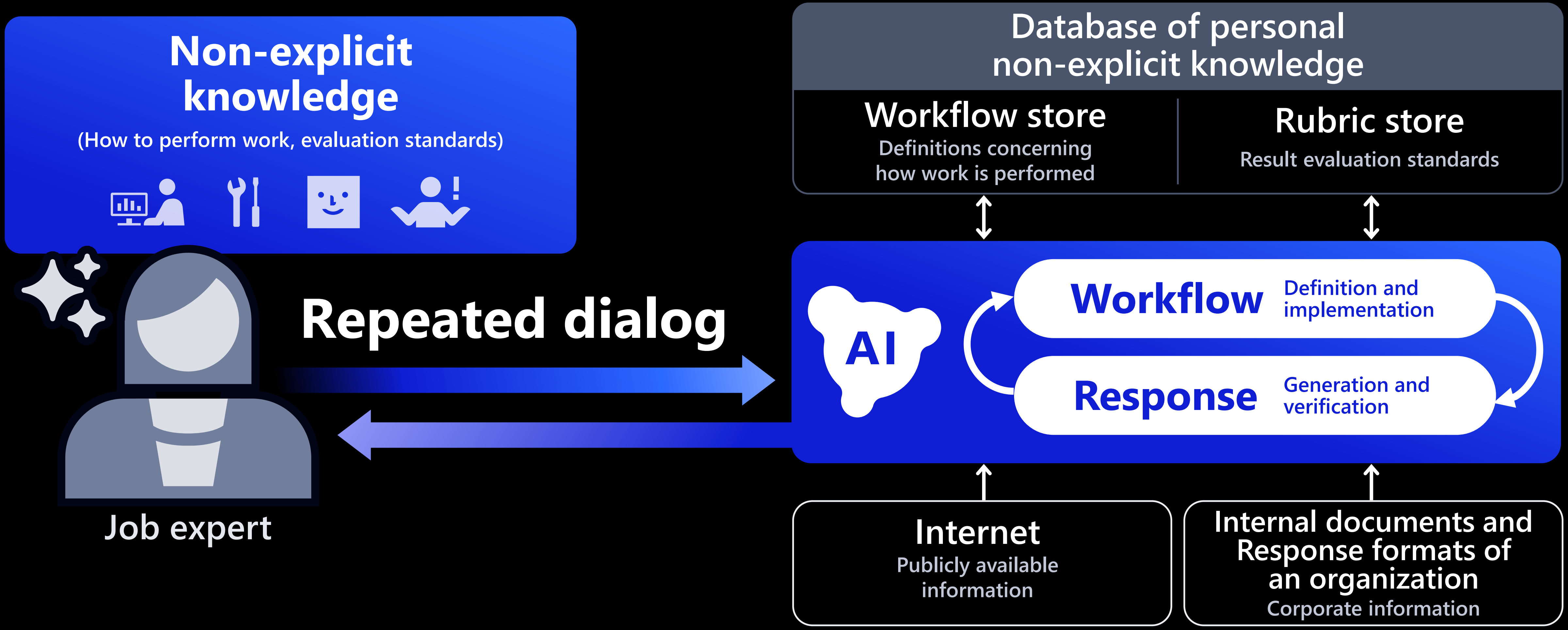
Toward AI modeling of non-explicit knowledge

Non-explicit knowledge is the knowledge found not only in individual people's actions and habits, but also in their bodies, hearts, minds, and intuition. The non-explicit knowledge that is based on experience can be digitized, and this is referred to as "context."



Job partner autonomous creation system -Implicit-

Through dialogs with job experts, the system acquires non-explicit knowledge and learns work styles and know-how. This system autonomously creates job partners by using evaluations from job experts to continuously improve work performance.



How to build a competitive edge for a company or an organization

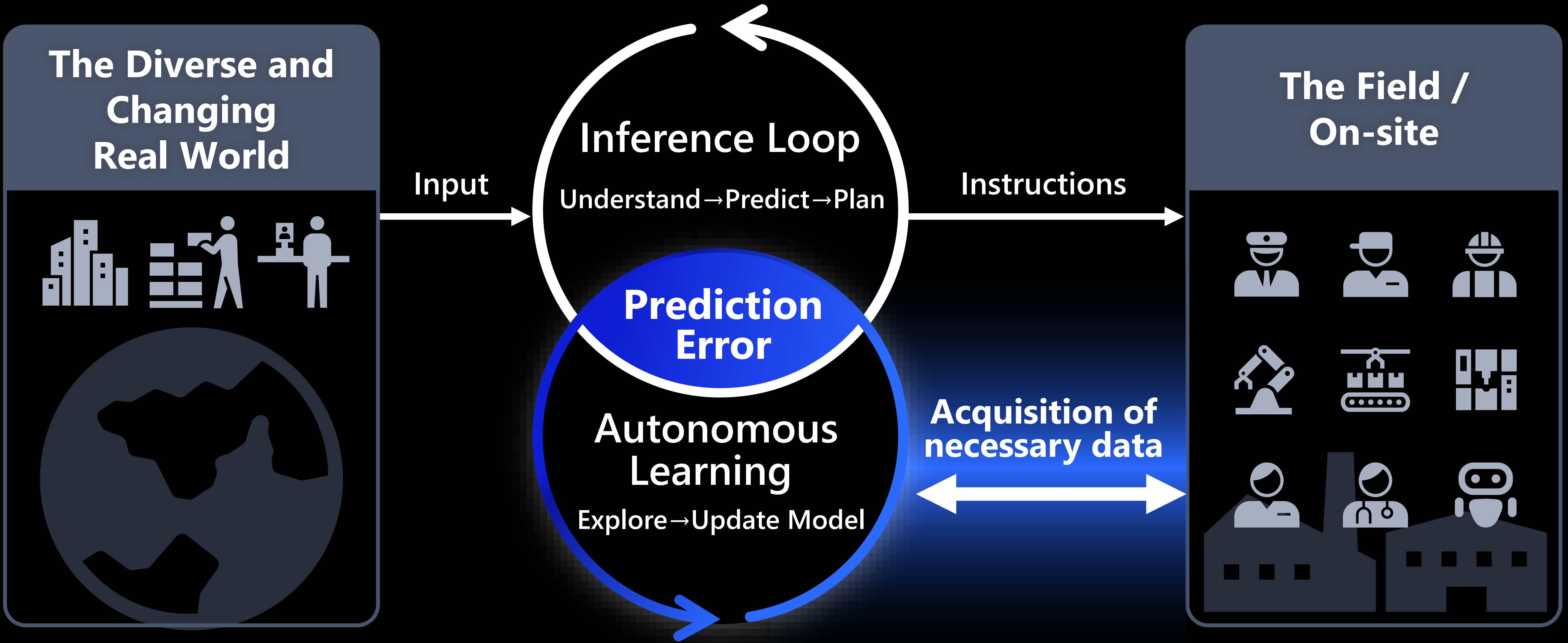
Digital data from cyberspace

Non-explicit data on people and organizations

Real-world and on-site data

Digitizing real-world information requires active data acquisition and learning

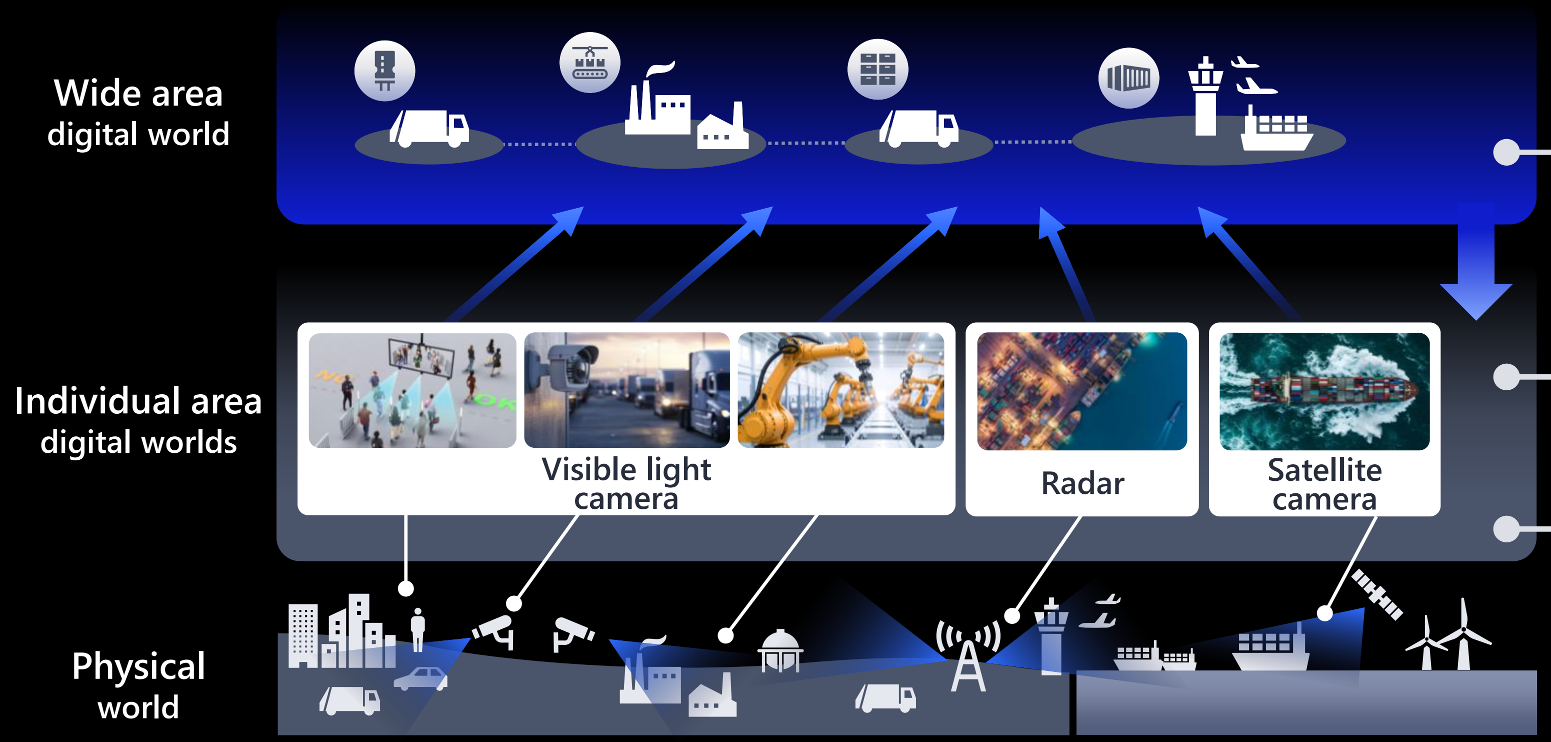
Pre-learning vast amounts of real-world information is challenging
AI can effectively model the real world by detecting prediction errors, acquiring data, and learning autonomously



The strengths that enable NEC to model the physical world

Modeling the physical world requires the acquiring high-fidelity sensing data, efficiently transmitting the collected data, and matching the data at the location, person, and object level. Furthermore, NEC's strength lies in our ability to integrate all of these elements.

Comprehensive and detailed understanding of everything from individual areas to wide areas



NEC's strengths

AI and simulation technologies

- Biometric authentication (facial recognition)
- Location matching (terrestrial imagery & satellite imagery)
- Object-centric world model

Network technologies

- Application-aware ICT control

Sensing technologies

- Satellite remote sensing (SAR*1)
- Optic fiber sensing
- Vital signs estimation (Biometric authentication)

*1: Synthetic Aperture Radar

Face and iris recognition multimodal biometric authentication

Bio-IDiom

Exhibit 3

Stress-free, walk-through authentication
(no need to stop)

World's first

Walk-through Authentication with a single compact camera even from **3 meters** away

Capable of distinguishing100 million individuals

Face recognition

Iris recognition

No.1 in the world*1

×

A foundational model adaptable to diverse environments

AI

Knowledge acquisition

Enables extracting an individual's features even with climate change

Eyeglasses Sunlight Sight line …

*1 Ranked 1st multiple times in benchmark testing held by the U.S. National Institute of Standards and Technology (NIST)
Note: NIST testing results do not constitute an endorsement by the U.S. government of any particular system, product, service, or company.

How to win in the AI revolution

Digital data from cyberspace

Prepare AI-ready data

Non-explicit data on people and organizations

Real-world and on-site data

Capture company-specific insights through AI models and scale them as organizational knowledge

Significantly enhancing competitiveness and accelerating the knowledge creation cycle*1

*1: Proposed by Professor Ikujiro Nonaka

Security risks arising from the evolution of AI

Attacks on IT systems

Growing scope of attacks and the shortage of security professionals

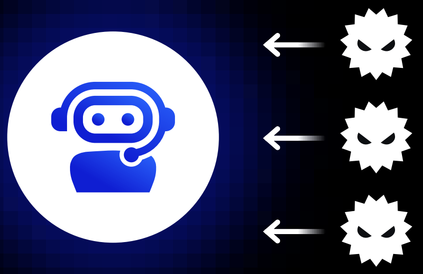
Exhibit 1

Next-generation cybersecurity service

"CyIOC"

Attacks on Agentic AI

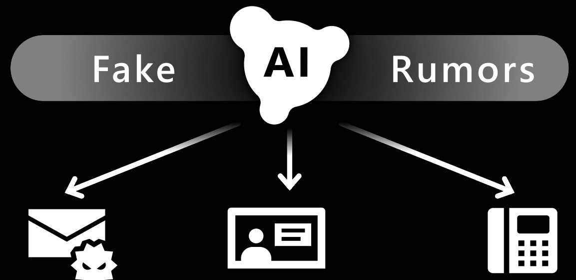
Increasing threats with expanded deployment of agentic AI



Technology enhancement
+
Partner collaboration

Attacks targeting human perception

Easier generation and spread of disinformation



Research and Development

Security risks arising from the evolution of AI

Attacks on IT systems

Growing scope of attacks and the shortage of security professionals

Exhibit 1

Next-generation cybersecurity service

"CyIOC"

Attacks on Agentic AI

Increasing threats with expanded deployment of agentic AI

- Malicious use of external tools
- Manipulation of targets
- Hijacking

Technology enhancement
+
Partner collaboration

Attacks targeting human perception

Easier generation and spread of disinformation

Fake
AI
Rumors

- Phishing emails targeting businesses
- Deep fakes/ fake news
- Bank transfer fraud/billing fraud

Research and Development

Attacks targeting human perception

The generation and dissemination of disinformation has become easier with AI, leading to social issues stemming from manipulative influence on people's perceptions, behaviors, and decision-making.

Expansion of disinformation risks and societal impact

| Growing risks of disinformation

According to the World Economic Forum's (WEF)*1 *Global Risks Report**2, disinformation has been ranked as the

highest short-term risk for two consecutive years

with serious cases observed during elections and natural disasters*3

| Real-world impact (Example)

Disinformation	Impact
Fake audio messages discouraged voting in primary elections	**Election interference through voter suppression and concerns over the fairness of the election process**

AI-driven countermeasures against misinformation and disinformation

Released August 21, 2025

AI analyzes online content
to identify potential misinformation and disinformation,
and then an analyst evaluates its authenticity

content

Disinformation analysis support tools (AI)

- Generation & processing checks
- Semantic understanding of information content
- Source verification

Support for comprehensive authenticity determination

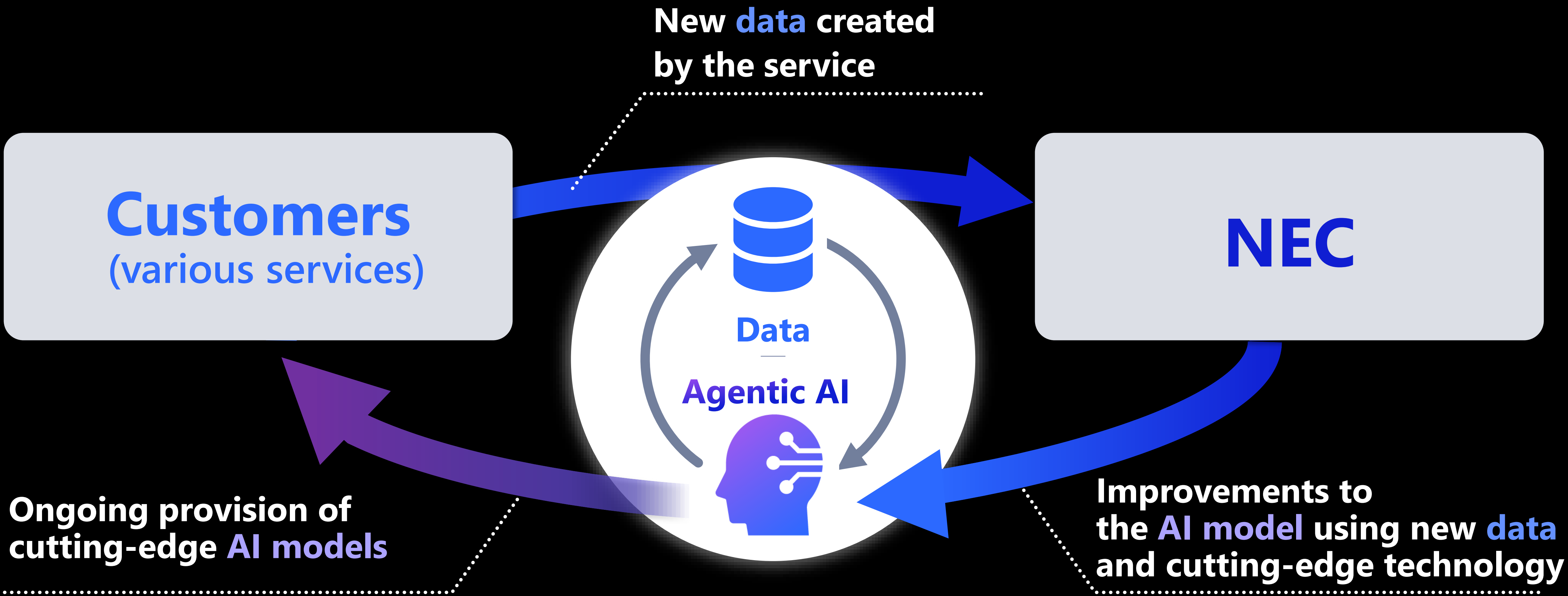
Report

Analyst
(Fact-checking organizations, etc.)

*1: World Economic Forum *2: https://www.weforum.org/publications/global-risks-report-2025/
*3: Ministry of Internal Affairs and Communications Information and Communications in Japan White Paper 2024

Towards strengthening our customers’ competitiveness

Continuous innovation requires improving AI models through data sharing. This can happen across various industries. NEC accelerates corporate transformation by combining data and AI.



Technology vision and latest R&D initiatives

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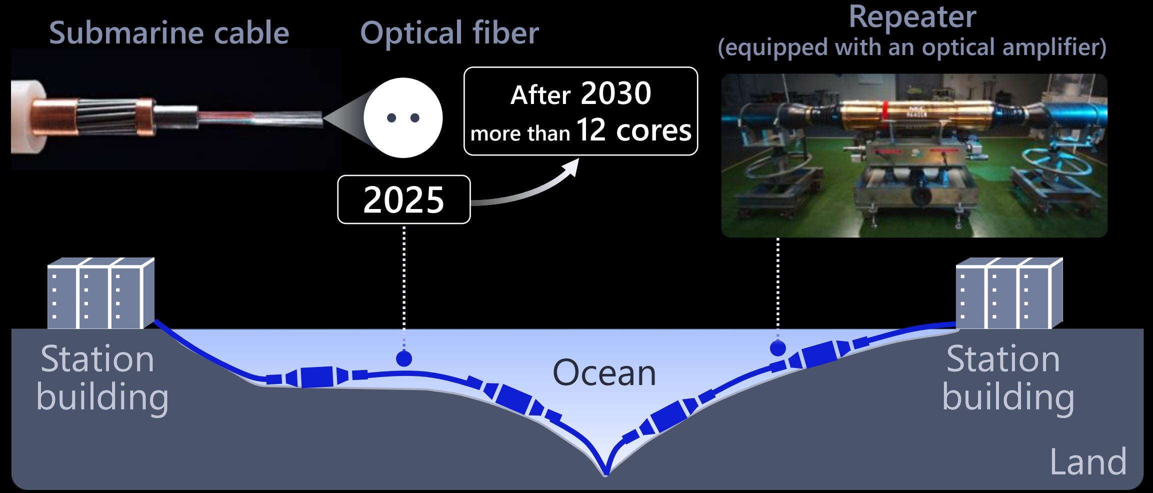
Increased communication capacity achieved with the evolution of submarine cable transmission technology

Social background	Traffic is increasing at an annual rate of 40% making transmission capacity expansion necessary

Commercialization of the world's first*1 multi-core transmission system

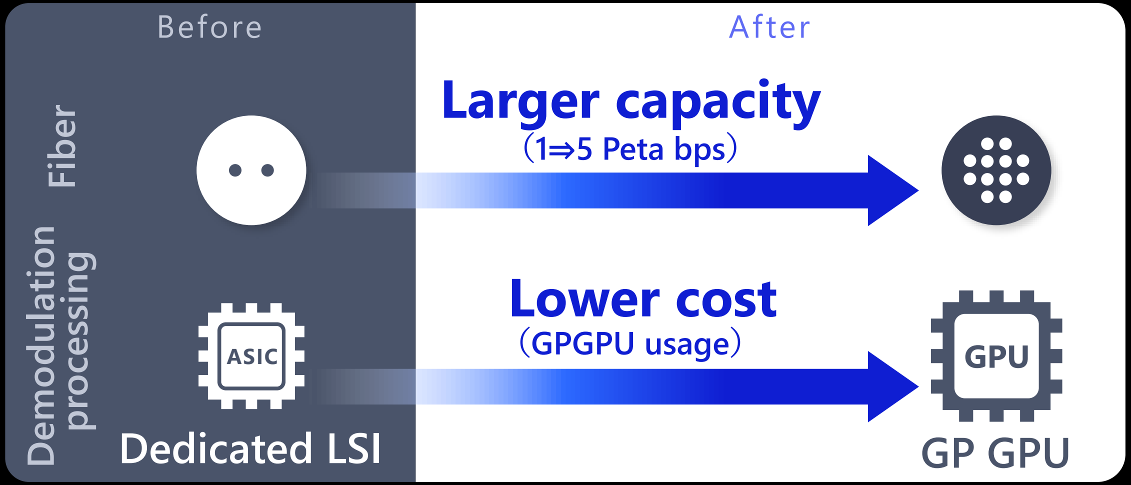
Optical amplification is used to achieve multi-core transmission

Enabling larger capacity
while maintaining the repeater size



GPGPU*2 achieved with optical signal processing and accelerating social implementation

Accommodates future increases in the number of multi-cores at low cost, without waiting for the development of dedicated LSI



*1: NEC Corporation LinkedIn NEC Corporation Facebook Delivering multi-core fiber technology in subsea cables | Google Cloud Official Blog

*2：General Purpose GPU

Building secure network systems to expand the realm of quantum cryptography

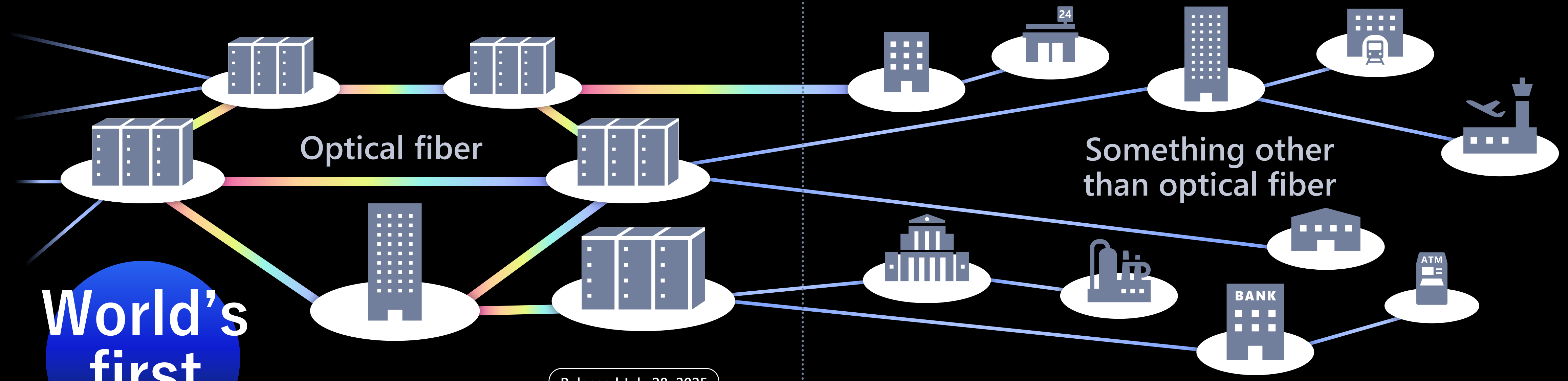
Social background	Conventional cryptography is expected to be broken by quantum computers around the year 2040

Theoretically safe network

Quantum Key Distribution(QKD)

Second in security only to quantum cryptography

Post-Quantum Cryptography(PQC)



World's first

Released July 28, 2025

Successful key distribution using the core optical network of a telecommunications carrier

Combining QKD and PQC to achieve a wide-area secure system network

Leading research and development to realize optical computing

Social background	The rapid increase in AI computing demands has created a major power consumption issue requiring a transformation to new computer architectures.

Effectiveness demonstrated in laboratory environments
Four papers accepted by the Nature journal*1

Provided value

- Energy
- Cost
- Delay

2-figure improvements

Suggests the potential for significant improvements in power efficiency and performance in AI and communications processing.

*1: A silicon photonic–electronic neural network for fibre nonlinearity compensation | Nature Electronics   Broadband physical layer cognitive radio with an integrated photonic processor for blind source separation | Nature Communications
Real-time photonic blind interference cancellation | Nature Communications   A system-on-chip microwave photonic processor solves dynamic RF interference in real time with picosecond latency | Light: Science & Applications

A new R&D structure integrated with Business Unit

Accelerating the productization of cutting-edge technologies through our BU-collaborative R&D model

R&D

Creating Cutting-Edge Technologies

Global Innovation Business Unit

Corporate Executive Vice President and CTO **Motoo Nishihara**

co-creation with customers

DX

Business

Rapidly bringing products to market by reflecting customer needs

BluStellar

AI (From August 2024)	Security (From April 2025)
Digital Platform service Business Unit **AI Technology Service Business Division** Corporate SVP and AI Technology Officer **Akio Yamada**	NEC Security, Ltd. **AI Security Center** Corporate Executive Vice President and CSO (Executive Officer) President, NEC Security, Ltd. **Noboru Nakatani**

Platform technologies

Advanced technologies are the driving force behind NEC's competitiveness — now and in the years ahead

Contributing to current business with BluStellar

Creating new growth businesses for the future

NEC's technological strengths

AI

Security

Platform technologies

Intellectual property licensing business

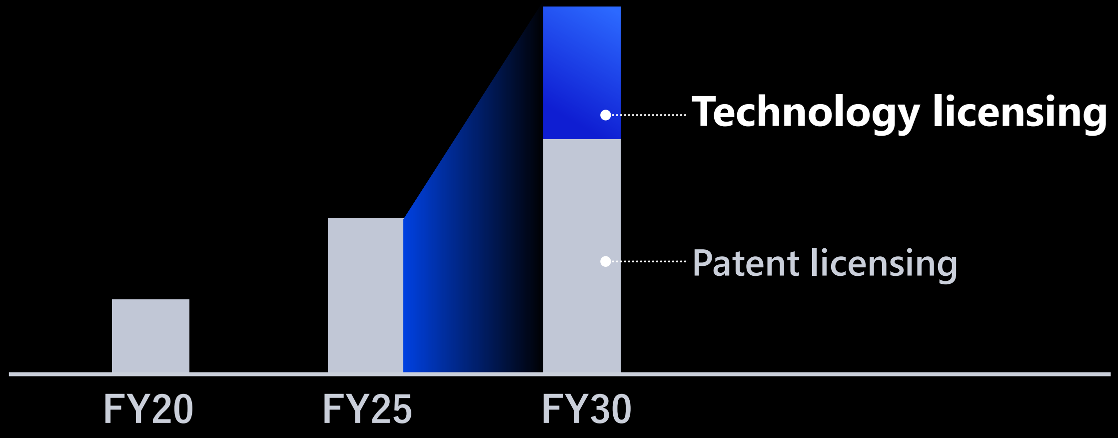
Enhancing technology licensing. We aim to double NEC's licensing revenue by 2030.

Intellectual property business plan

Patent and technology licensing total revenue

Increase to

double



Business contributions to technology licensing

Advanced technology

- Communications
  Base station infrastructure…
- AI
  AI drug development/autonomous driving/ biometric authentication…

Business development

NEC's own business

Convert intellectual property—patents, design drawings, source code, and know-how—into technology licenses.

Providing partners with **technology licenses**

Growth market

- 5G/6G
- Drug Development
- ・・・

AI drug development business

Personalized cancer vaccines are steadily delivering results in clinical trials.
Additionally, development has begun on more broadly applicable shared cancer vaccines.

Personalized cancer vaccines

Clinical trials

Further accumulation of promising evidence through long-term follow up

Released June 2, 2025

Released November 5, 2025

Personalized neoantigen vaccine for head and neck cancer

Extension of median recurrence-free status from 24 months to 30 months.

Suggests scientific evidence for the mechanism of action of TG4050

Standard of care (observation)

Expected rate of recurrence 30%

Administration of TG4050

24 months* maintenance of recurrence-free status

6 months

30 months* (as of 2025) **maintenance of recurrence-free status**

*1: median

Shared cancer vaccines

Discovery research

Identification of common cancer antigen candidates based on whole genome analysis

Released November 28, 2025

Tripartite joint research*2 agreement concluded

Development of off-the-shelf vaccines aiming to standardize cancer vaccine therapy

Japanese Foundation for Cancer Research	NEC	Taiho Pharmaceuticals
Whole genome data	**Proprietary AI**	**Proprietary evaluation model**
High quality whole-genome information linked to clinical information*3	Search for common cancer antigen candidates from unknown genome regions	Early selection of candidate drugs

*2: Implemented within the framework of the Japan Agency for Medical Research and Development
*3: Whole-genome information derived from Fresh Frozen-processed tumor tissue and corresponding normal controls (peripheral blood), along with RNA analysis data from the tumor tissue

NEC advanced technology consulting service available from November 2024

From upstream research and development, NEC's world-class researchers work alongside customers to solve various difficult issues.

Research and Development

- Concept design
- Advanced technology implementation verification
- On-site technology implementation support

Manufacturing → Market sales → Service and maintenance

Transforming business processes all the way downstream

Advanced technology researcher | Materials development researcher | DX strategy consultant | Data scientist | System engineer

First large-scale project : Building an advanced research and development platform with global competitiveness

Released November 26, 2025

住友ゴム | NEC

- Rapid exploration of advanced new materials using generative AI
- High-speed, highly accurate compound design of tire materials using simulated quantum annealing

Roll out pilot efforts across the materials field and other domains

NEC will lead the creation of social value during the AI industrial revolution through the implementation of advanced technologies

AI

Security

Platform technologies

\Orchestrating a brighter world

Cautionary Statement with Respect to Forward-Looking Statements

This material contains forward-looking statements regarding estimations, forecasts, targets and plans in relation to the results of operations, financial conditions and other overall management of the NEC Group (the "forward-looking statements"). The forward-looking statements are made based on information currently available to the Company and certain assumptions considered reasonable as of the date of this material. These determinations and assumptions are inherently subjective and uncertain. These forward-looking statements are not guarantees of future performance, and actual operating results may differ substantially due to a number of factors.

The factors that may influence the operating results include, but are not limited to, the following:

- occurrence of quality and safety problems concerning products and services;
- risks related to cybersecurity;
- difficulty attracting, hiring and retaining skilled personnel;
- failure to appropriately respond to human rights issues in the value chain, including employees;
- occurrence of serious misconduct such as bribery, fraudulent accounting, and violations of personal data protection laws and regulations;
- impact of climate change, natural disasters, and environmental issues;
- adverse changes in foreign currency exchange rates or interest rates, and other economic conditions;
- difficulty achieving acquisitions and business alliances;
- political and social environment in countries and regions in which the NEC Group operates;
- impact of technological innovation and risks related to Intellectual Property Rights;
- natural disasters, pandemics and other hazard risks; and
- occurrence of compliance issues related to violations of competition laws and export control laws.

The forward-looking statements contained in this material are based on information that the Company possesses as of the date hereof. New risks and uncertainties come up from time to time, and it is impossible for the Company to predict these events or how they may affect the NEC Group. The Company does not intend to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.