# AI White Paper 2.0

## — Japan’s Structural Transformation toward an AI-Driven Nation —

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This English translation is provisional. In the event of any discrepancy, the original Japanese text will prevail.

# Contents

# Chapter 1 Structural Transformation toward an AI-Driven Nation

Artificial intelligence is shifting from a mere tool to an actor that carries out tasks.

The era of agentic AI has begun.

AI, which once only answered human questions, now — without receiving instructions at every step — formulates its own plans toward given goals, calls external tools and databases, executes multiple steps autonomously, verifies results, and selects the next action. Whereas conventional generative AI was a system that "answered questions," agentic AI has evolved dramatically into a system that "accomplishes objectives."

Dr. Shane Legg, who coined the term AGI (Artificial General Intelligence), put it this way when we interviewed him:

"This is only the beginning of an enormous transformation that will change human society."

Just as steam overcame the barrier of distance, electricity erased the boundary between day and night, and the Internet rewrote how information is transmitted, agentic AI is about to rewrite the very structure by which society makes decisions and takes action. The diverse intellectual activities of human beings — across occupations and hierarchical levels — are beginning to be unitized as "tokens" on a common computational substrate, connected, and recomposed. "Intelligence" is ceasing to be a capability confined within an individual; it is becoming a new infrastructure that is broadly distributed and consumed across society.

The main arena of competition has also shifted. It is expanding from simple performance comparisons among foundation models to a race for implementation across society as a whole. Yet what is being asked is not merely the accumulation of individual deployments. What is being tested is whether we can drive AI Transformation (AX) — a thoroughgoing reexamination and redesign of every societal mechanism on the premise that AI exists — into every corner of industry, government, and daily life, and whether we can convert the nation itself into an AI-driven one. We have entered an era in which how fast, how broadly, and how safely this structural transformation can be achieved will determine the rise and fall of nations.

In the spring of 2023, we issued our first AI White Paper, and since then we have pursued a national strategy under the banner of "the world's most AI-friendly society." Three years on, Japan's AI policy has steadily progressed from proposals to implementation: the establishment of the AI Strategy Council, large-scale securing of compute resources, leading the "Hiroshima AI Process," and the formulation of the AI Business Operator Guidelines. The comprehensive legal framework for AI that we proposed took shape last year as the Act on the Promotion of Research and Development, and Utilization of AI-Related Technology (the "AI Act"). The visions laid out across three editions of our white papers have been reliably translated into real policy.

However, the arrival of the agentic AI era makes clear that a strategy as a linear extension of that past is

no longer sufficient.

The world, too, is moving rapidly. The United States is accelerating massive investment in, and deregulation of, frontier technologies including agentic AI; China, under state leadership, is concentrating investment in physical AI and robotics; Europe has moved into the operational phase after implementation of the EU AI Act and is promoting international standardization of its regulatory framework. Japan has enacted the AI Act and put its institutional foundation in place, but the gap with major countries remains wide in terms of the scale of AI development investment, enterprise AI adoption rates, and the depth of talent.

Yet Japan also has unique opportunities. A declining and aging population, labor shortages, regional disparities, and aging infrastructure — the severity of these challenges also means, conversely, that Japan is the country where the benefits of AI-driven automation, efficiency gains, and remote operation will be greatest in the world. Japan holds an indispensable global position in semiconductor manufacturing equipment and wafers, and high-quality on-site know-how — the raw material from which AI learns — has accumulated in manufacturing, healthcare, long-term care, and other frontlines. Precisely because Japan is a challenge-frontier nation, it has both the need and the potential to stand among the leaders of the world in the societal implementation of agentic AI.

Japan must not be passive in the face of this great transformation. What is required in the agentic AI era is not simply to accept AI. It is to redesign the very structure of the nation — across industry, government, daily life, national security, and international order — on the premise of AI. This White Paper puts forward "Structural Transformation toward an AI-Driven Nation" as Japan's new national goal, and sets out the coordinate axes of a strategy to achieve it.

The next chapter begins by proposing the three paradigm shifts that will guide this structural transformation.

# Chapter 2 Three Paradigm Shifts Toward an AI-Driven Nation

"Structural Transformation toward an AI-Driven Nation" will not be realized through a patchwork of individual AI deployments. What is required is to rewrite the very coordinate axes of national strategy. On the premise of powerful AI, we must reconsider how to recompose national competitiveness, social values, and the relationship between people and institutions.

To realize an AI-driven nation, three fundamental questions must be answered.

First, how do we build a nation whose AI foundation — semiconductors, compute, data, and power — is not in the hands of other countries? Second, in an age when AI transforms human work and the structure of society, how do we redefine the value and role of the people? Third, how do we design the trust that allows powerful AI to be used with confidence while also enabling bold challenge?

This chapter presents three paradigm shifts that respond to these questions.

## 1. From "Sovereign AI" to "AI Sovereignty"

To operate an AI-driven nation with autonomy, Japan must not allow the foundations of AI to be controlled by other countries.

In recent years, debate over "Sovereign AI" has intensified in many countries, but if this debate is narrowed down to developing and possessing a domestic general-purpose foundation model per se, it is strategically insufficient. National competitiveness in the AI era is not determined simply by possessing a domestic general-purpose foundation model. Within the entire AI stack — comprising semiconductors, compute, cloud, data, models, applications, communications, and operations — what is being tested is whether Japan can secure the control, sustained operational capability, and negotiating power needed as a nation, while avoiding excessive dependence on any particular country or company.

"AI Sovereignty" as used here means neither complete domestic self-sufficiency nor full dependence on others. It is a design mindset that, in essential areas, cultivates domestic capability while combining international division of labor with like-minded partners, interoperability, and the securing of substitutability — strategically determining where to hold autonomy and where to complement through cooperation. What Japan should aim for is not an isolated sovereignty but open, networked AI sovereignty.

The following four perspectives are critical in giving concrete form to this shift.

**(1) Securing "Strategic Autonomy" rather than "Made-in-Japan Fundamentalism- "**

Pursuing complete domestic self-sufficiency across every layer of the AI stack is neither realistic nor strategic. What is needed is to secure strategic autonomy: in strategic domains such as defense, critical infrastructure, public administration, and frontier research, to strategically choose and secure autonomy, substitutability, and resistance to disruption across data, compute foundations, models, and operations — while flexibly leveraging the world's best technologies in the private and general-purpose domains.

Particularly important are the objective functions and evaluation criteria that determine what AI maximizes and which values it prioritizes: these should be made comparable across multiple models and evaluation axes, so that visibility and choice are preserved. Domestic production is not an end in itself; it must be repositioned as a means to support AI Sovereignty.

**(2) Turning Japan's On-Site Know-How into Assets, rather than "Simple Use of General-Purpose AI"**

Japan's strengths lie in the know-how accumulated on the frontlines of manufacturing, logistics, construction, healthcare, long-term care, and infrastructure. By structuring, standardizing, and modeling this know-how as data, Japan can graduate from being a mere user of general-purpose AI. Particularly important are vertical (domain-specific) AI, which goes deep into the issues of each industry, and physical AI, which combines with robots, equipment, sensors, and mobility to create value in real-world space. Japan must transform its on-site know-how into assets and build an AI nation that can win within industry.

**(3) Not only "Defense" but Elevating "Strategic Indispensability" and Building Its Foundation**

Securing autonomy alone is not sufficient. Japan must become indispensable to the global AI ecosystem. Building on areas where Japan has strengths — semiconductor manufacturing equipment, wafers, materials, communications, industrial data, and infrastructure operations — it is important to heighten international indispensability and wield influence. AI Sovereignty is not only about defense; it is also about cultivating the strength that the world needs.

**(4) Power and Compute as National Infrastructure for the Agentic AI Era**

To autonomously operate an AI-driven society, we must secure — as national strategy — the power, compute, and data foundations that underpin it. On the premise of an explosive increase in electricity demand accompanying society-wide AX, demand and supply forecasts must be continually revised, and data center siting, transmission and distribution reinforcement, energy policy, and cloud and compute foundation development must be advanced in an integrated manner. Power, compute, and data are no longer separate policies; they are themselves the national infrastructure of the agentic AI era.

## 2. From "What Can AI Do?" to "What Can Only Humans Do?"

An AI-driven nation is not a nation that entrusts everything to AI.

Precisely because this is an era in which AI substitutes for and augments much intellectual work, we must clarify what humans will bear and which values they will ultimately be responsible for. "What only humans can do" here is not a matter of capability alone; it is a redefinition of the values that humans must ultimately bear responsibility for.

Accordingly, we need to reconsider the mechanisms of labor, education, employment, wages, and social security on the premise of agentic AI, and redesign society's overall value-creation model. This shift extends beyond corporate business reform to the reconfiguration of human–AI relationships in scientific research, education, and creative activity. We must prepare to absorb and mitigate the friction that accompanies unemployment and job transitions, and resolve to continually redefine, in step with

technological progress, the roles and responsibilities that can be entrusted only to humans.

Two perspectives are key to linking this shift to societal implementation.

**(1) Advancing "AX" Through an All-of-Society Effort**

The essence of AI competition is determined not only by model performance, but by how widely and deeply AI can be implemented on the ground. AX must not end as the forward investment of a few leading large corporations. If businesses of every industry and every size — including SMEs — reconfigure their operations, organizations, and decision-making on the premise of AI and advance AX, it will lift the productivity of the entire Japanese economy. The greater the underlying challenge — manufacturing, healthcare, long-term care, logistics, construction, local government administration — the greater AX's impact. Japan should pursue AX with the resolve to make it a signature national strength, and deepen the implementation density across all of society.

**(2) Leveraging the Strengths of a Challenge-Frontier Nation and Confronting Transition Costs Head-On**

The challenges Japan faces — declining and aging population, labor shortages, regional disparities, aging infrastructure, disaster response — are heavy. But their severity also means Japan is the country where AI-driven problem-solving will have the greatest effect. By mobilizing policy tools such as regulatory reform and deployment support, Japan should generate new solutions to its most difficult social challenges using the power of AI. If Japan can be first to build industry models, administrative models, and lifestyle models, that experience will become a competitive advantage ahead of the world.

At the same time, we must not forget that this transformation comes with pain. Transition costs — unemployment and job changes that accompany the progress of AX, wage volatility, widening regional disparities — must be faced squarely, and reskilling support, strengthened safety nets, and institutional design for a just transition must be prepared as a policy package. Without preparation for transition costs, society-wide AX cannot be realized.

## 3. From "More or Less Regulation" to "Designing Trust"

An AI-driven nation cannot stand without trust.

The era in which AI policy is discussed solely through the binary of "more vs less regulation" is coming to an end. As AI grows ever more powerful, safety cannot be secured by regulation alone. Japan has enacted the AI Act, which has given legal footing to the establishment of the AI Safety Institute (AISI), the formulation of the Basic Plan, and the preparation of guidelines aligned with international norms. But the enactment of a law is a starting point, not a destination.

What is important from here on is how to design trust — so that society can use AI with peace of mind, firms can take on challenges, and government can operate AI with responsibility. To achieve "Responsible and Agile Governance," we need a multi-dimensional design that goes beyond rulemaking to include technical control and user-side literacy.

Japan should aim to be a nation that turns trust itself into competitiveness. Moreover, Japan must not confine itself to designing trust domestically; working with like-minded partners, Japan must play a leading role in international rulemaking and standardization.

Two perspectives are important to advance this shift on both the institutional and implementation fronts.

**(1) Designing Trust Multi-Dimensionally Through the Three Pillars of Regulation, Technology, and Literacy**

Responsible AI cannot be achieved by legal regulation alone. It is only when rulemaking is combined with technical controls — model evaluation, auditing, traceability, and guardrails — and with improved literacy on the part of enterprises, governments, and citizens, that effective trust is established. Rather than responding after problems emerge, we must adopt Security by Design to ensure, to the greatest extent possible from the design and implementation stage, risk identification, control measures, and transparency in harm mitigation. What matters is to move beyond the opposition of "regulation versus growth" and to embed responsible AI in society. Japan should implement such trust design steadily at home while also contributing to the formation of internationally shareable rules and standards, and build an AI ecosystem that is trusted at home and abroad.

**(2) From "Government AI" to "Government AX"**

To embed responsible AI in society, the government itself must shift its position from that of a user of AI to that of an institutional designer.

"Government AI," which is currently progressing, is at the stage of tool adoption — government employees using AI tools in their work. By contrast, "Government AX" refers to an architecture-redesign stage in which administrative business processes, data foundations, procurement, personnel allocation, authority design, and institutional operations themselves are recomposed on the premise that AI is continuously in operation. Government AI is the starting point and a way-station on the path to Government AX. What is required of government is to move beyond that starting point.

This redesign is not confined to the inside of government. Mindful that agentic AI is beginning to participate as an actor in contracts, applications, consultations, ordering, mobility, and healthcare and long-term-care support, Japan must lead the world in revisiting the systems of identity verification, allocation of responsibility, supervision, taxation, and social security that have been built on the implicit premise of human applicants and human principals. To drive this redesign — which straddles both administration and social institutions — cross-ministerial strategic coordination functions, continuous policy-update capacity, and a strengthened core that binds implementation and discipline are indispensable. As the agent that continuously redesigns institutions and social architecture, the structural transformation of the government itself is urgent.

These three paradigm shifts form the strategic skeleton that guides the structural transformation toward an AI-driven nation. Chapter 3 develops the first paradigm shift, Chapter 4 the second, and Chapter 5 the third, each as concrete policy proposals.

# Chapter 3 From "Sovereign AI" to "AI Sovereignty"

To operate an AI-driven nation with autonomy, Japan must not allow the foundations of AI to be controlled by other countries — to this first question posed in Chapter 2, this chapter responds with concrete policies.

Toward the establishment of "open, networked AI sovereignty," this chapter takes up eight priority domains. First, physical AI and vertical AI, which turn Japan's on-site know-how into assets and build the capacity to win within industry. Next, semiconductor manufacturing equipment and wafers, which elevate Japan's indispensability to the global AI ecosystem, together with power and data centers, the foundation of an AI-driven society. Further, autonomous driving, the frontline of societal implementation where physical AI and vertical AI intersect. And finally, AI implementation in the strategic national domains of defense, finance, and public administration.

Each domain is discussed in concrete terms, keeping in view the four perspectives: securing strategic autonomy, turning on-site know-how into assets, strengthening international indispensability, and developing foundational infrastructure.

## 1. AI Robotics and Physical AI

The era of "Physical AI" has arrived — in which AI operates autonomously in the physical world through robots and other machines, going beyond the generation of text and images. With enhanced autonomy and generality, Physical AI enables responses to labor shortages, productivity improvements, and the substitution of hazardous work across manufacturing, logistics, long-term care, infrastructure, and disaster response. It is a critical technology that serves both the strengthening of Japan's industrial competitiveness and the resolution of societal challenges, and a key field that connects Japan's manufacturing strengths to the next-generation growth capacity.

Meanwhile, global competition is rapidly intensifying. China, under state leadership, is accelerating the societal implementation of AI robotics through mass production and price reduction of humanoid robots and the diffusion of open-source models. The United States is also pursuing advantage through the development of common foundations such as foundation models, semiconductors, and simulation environments. By contrast, Japan has strengths in industrial robots, high-precision components, and the skilled techniques of its frontlines, but still faces challenges in foundation models for Physical AI, datasets suited for training, institutional frameworks for responsibility and safety, and the environment for societal implementation.

In particular, the preparation of training-ready datasets is urgent. The performance of Physical AI is heavily influenced by high-quality, on-site-anchored data — motion data from manufacturing sites, sensor data, work procedures, and the know-how of skilled technicians. Yet in Japan, such data is scattered across individual companies and the standardization and sharing of data are not sufficiently advanced. In addition, concerns regarding the Act on the Protection of Personal Information (APPI), the Unfair

Competition Prevention Act, and trade-secret management make it difficult to advance data utilization.

Because Physical AI operates in the physical world, institutional development for apportioning liability in the event of accidents, safety standards, certification, and insurance is also indispensable. Furthermore, to accelerate the transition from demonstration to societal implementation, deployment support through testing grounds and robotics special zones, human-resource development including promotion of industry-academia talent circulation and improved reception for advanced foreign talent, R&D support, and strengthening of supply chains for strategic hardware components such as motors and gear reducers — all these must be advanced together, and "Trusted Physical AI" must be pursued as national strategy.

Based on the above, we propose the following.

### 1. Support for the development of foundation models specialized in Physical AI

- The Ministry of Economy, Trade and Industry (METI) should develop and maintain a multimodal foundation model for Physical AI that serves all industries in common — providing the base for individual Physical-AI models used by each operator or each industrial domain and use case. As a national strategy, METI should advance the development of a multimodal foundation model for Physical AI that reflects Japan's strengths in quality, safety, and collaborative operation, and, based on the "Multimodal Foundation Model Development Project for AI Robotics and Physical AI" (FY2026 budget of ¥387.3 billion), should — looking toward execution of real-world tasks including specialized professional work by 2029 — establish an agent foundation at the level of the top models on the AAII (Artificial Analysis Intelligence Index) by 2027.
- In parallel with the above project, METI should build a cooperative framework among private-sector robot manufacturers, component makers, SIers, AI research institutes, and universities, and should establish a new program that, through subsidies and community-activity support, supports the development of individual Physical-AI models specialized to the needs of each company or each industrial domain and use case.

### 2. Promoting the preparation of training-ready datasets

- METI should take the lead in constructing cross-industry common data infrastructure. Through standardization of data items and specifications, development of contractual rules, and large-scale collection of training data using test robots ("data factories"), METI should — in public-private partnership — develop data infrastructure that is rich in both quality and quantity for Physical-AI training and should promote its use by operators.
- In parallel, support should be provided for efforts to build domain-specific data infrastructure. Through subsidies and other means, the collection of training data by each operator for individual Physical-AI models specialized to each industrial domain and use case, as well as the use of synthetic data and simulation environments, should be promoted. This should support making implicit

knowledge — including on-site data and the motion data of skilled workers — AI-ready, and enhance training infrastructure such as datasets suited for training.

### 3. Strengthening hardware development and production capacity

- In cooperation with relevant ministries and business operators, METI should strategically map — on both short-term and medium-to-long-term horizons, and including the possibility of diverting components from existing businesses — the key components supporting Physical-AI hardware (motors, gear reducers, sensors, semiconductors, batteries, etc.), and should strengthen domestic development and production capacity.

### 4. Developing institutions for responsibility and safety

- In cooperation with relevant ministries, METI should launch an expert panel to examine the need for a notification and registration system for AI robots, the apportionment of liability in the event of accidents, safety standards, certification systems, and insurance arrangements, and should aim to reconcile predictability for business operators with relief for victims.

### 5. Accelerating societal implementation through testing grounds and robotics special zones

- In cooperation with relevant ministries, and based on the "AI Robotics Strategy" and the "Sector-Specific AI Robotics Implementation Roadmaps" (March 2026), METI should support the resolution of technological challenges in each industrial domain, and should back the societal implementation of Physical AI through deployment subsidies, testing-ground development, the use of public procurement in public-demand areas such as disaster response, construction and civil engineering, and defense, and responses to institutional challenges through sandbox and special-zone schemes.

## 2. Vertical AI (Domain-Specific AI)

In parallel with the development of frontier foundation models, international competition over the development and implementation of Vertical AI — which vertically integrates data, AI models, and applications and specializes in a particular domain or field — is advancing rapidly. Vertical AI has the potential to greatly improve the productivity and efficiency of each industry, and it can also contribute to resolving Japan's domestic social challenges such as labor shortages, healthcare and long-term care, and administrative efficiency. In other words, Vertical AI is becoming the core of the race for societal implementation of AI as a source of significant value on the frontlines of industry, government, and daily life.

The market for Vertical AI is also expanding rapidly. Estimates indicate that in Japan the market will reach approximately ¥3 trillion by 2030, making Vertical AI an extremely important field from the standpoint of securing Japan's industrial competitiveness in AI. Three areas in particular are where Japan should bring its strengths to bear in Vertical AI: (i) areas contributing to Japan's industrial competitiveness (manufacturing, finance, drug discovery, science and technology, etc.); (ii) areas that contribute to

maintaining societal functions amid population decline (logistics, healthcare, long-term care, education, construction, etc.); and (iii) the public-service area (defense, disaster preparedness, administration, etc.).

Competitiveness in Vertical AI depends not only on the performance of the underlying model, but greatly on how one collects, structures, and integrates domain-specific data, on-site knowledge (including implicit know-how), business workflows, and rules, converts that data into forms usable by AI, and sophisticates it through implementation. In this regard, there is substantial room for late-arriving countries to enter international competition; for Japan, the strong industrial base, rich on-site know-how, and a regulatory environment comparatively favorable to data utilization present the possibility of establishing competitiveness. On the other hand, there is also a possibility that general-purpose foundation models will eventually replace domain-specialized models, so speed of development and implementation is of the utmost importance.

The government should therefore position Vertical AI as a priority field in Japan's AI strategy, concentrate resources on it, and secure autonomy.

This requires resolving a range of issues: how to datafy, collect, and integrate the domain-specific data, on-site knowledge, and business workflows that are unique to each area; how to leverage public data; and how to create a regulatory environment suited to data-based learning. Particularly in the middleware that structures and integrates the data AI uses — which can be called the core of Vertical AI — a small number of foreign firms is forming an oligopoly, and from the standpoint of securing Japan's autonomy, developing domestic alternatives is urgent.

Based on the above, we propose the following.

### 1. Focused development support for domestic middleware for AI data integration

- METI should vigorously advance the development of domestic middleware for AI data integration. "Middleware" here means a domestic foundational layer that collects, structures, and integrates the domain-specific data, on-site knowledge (including implicit know-how), and business workflows that constitute the source of Vertical AI's competitiveness, and converts them into forms usable by AI. Although related support has begun under GENIAC, priority should be placed on candidates promising in terms of international competitiveness and societal-implementation impact, with support concentrated through increases in the support cap, extensions of the support period, and related measures. In coordination with relevant ministries, end-to-end support leading up to deployment — including public procurement — should be swiftly advanced to stimulate bold investment.

### 2. Promoting the use of public data for Vertical AI

- Based on the data-utilization scheme to be established by the amendment of the Digital Administration Promotion Act and related legislation currently under deliberation in the Diet, the Digital Agency and the Council for Digital Administrative and Fiscal Reform should promptly draw up guidelines for priority areas so that data held by national administrative agencies and others may be

swiftly and maximally used for the AI development of private operators, and should carry out institutional development, outreach to operators, consultation, and presentation of use cases. In parallel, necessary support should be provided to accelerate the joint preparation of databases by national and sub-national administrative agencies.

### 3. Promoting the use of private-sector data for Vertical AI

- The Cabinet Office, in coordination with relevant ministries, should maintain a regulatory environment suited to the collection, interoperability, training, and use of data that AI development operators require, and, from the standpoint of accelerating the research, development, sophistication, and implementation of Vertical AI that goes deeply into each domain, should review laws and guidelines in each domain and revise them as necessary. In addition, the Cabinet Office should ensure that the amendment of the Act on the Protection of Personal Information currently before the Diet is harnessed to the maximum for promoting private-sector data utilization, through early institutional development, outreach to operators, consultations, and presentation of use cases.

### 4. Monitoring of progress in priority areas

- In coordination with relevant ministries, METI and the Cabinet Office should continuously monitor the progress of support projects in each priority area of Vertical AI, and should implement measures necessary to advance them.

## 3. Securing Strategic Indispensability in the AI Stack

As AI models grow more sophisticated and larger in scale, the competitiveness of nations in the agentic AI era will be determined not only by computational performance but by the total strength of the AI stack, including the hardware foundation, supply chains, and design capability that support it. In particular, advancing compute foundations, optical-electrical fusion technologies, stable server supply, semiconductor design support, and supply chain construction with like-minded partners — all as an integrated whole — is what will produce a resilient and trustworthy industrial base in the AI era.

Competition over the AI stack is not one in which a single nation dominates every layer; it is a structure in which countries can secure indispensability through the areas in which they have strengths. In this respect, Japan holds the world's second-largest share (28%) in semiconductor manufacturing equipment after the United States. Looking at individual processes, although the trend is one of declining share, Japanese firms still retain substantial global strengths in wafer manufacturing (72%), cleaning (68%), logic testers (76%), probers (78%), reliability testing (65%), and factory automation equipment (84%). Japan also holds a significant global market share in the materials field and maintains high shares globally in high-purity cleaning fluids (59%), photoresist (78%), fluorine mixed gases (92%), carbonyl sulfide (97%), silicon wafers (53%), and buffer-coat films and rewiring-formation materials (98%). Japan's strengths in equipment and materials form the foundation that supports its indispensability within the international division of labor in the AI era, and they must be clearly maintained and strengthened as a matter of national strategy.

Next, expectations are rising for optical-electrical fusion technologies as a route to more sophisticated compute foundations. In conventional compute systems centered on electrical wiring, power consumption and communication latency have become bottlenecks, and limits to further speeding up and energy-saving of AI processing are becoming visible. By combining the high speed of optical communication with the flexibility of electronic circuits, optical-electrical fusion substantially improves data-transfer efficiency and contributes to performance improvements in data centers and next-generation compute foundations. With power constraints across AI infrastructure becoming increasingly severe, optical-electrical fusion is a key technology for realizing sustainable compute foundations.

To convert advanced compute foundations into societal implementation, securing stable server supply — the components making up those foundations — is indispensable. AI-oriented servers are built on a broad industrial convergence that includes, in addition to high-performance semiconductors, conventional semiconductors such as power and analog, electronic components, power supplies, and cooling technologies. Against heightened geopolitical risks, excessive dependence on particular countries or regions increases the vulnerability of the entire compute foundation. From the standpoint of economic security, constructing and diversifying supply chains with like-minded countries is indispensable, and securing a reliable server-supply system is a precondition for AI utilization.

In this context, continuous support for Japan's strengths in semiconductor manufacturing equipment and the materials field — within the international division of labor — directly connects to the strengthening of global semiconductor supply chains. Taking into account the current geopolitical situation, from the standpoint of Japan's autonomy and indispensability, it is especially important, for economic security, to strengthen and optimize supply chains — and advance necessary industrial reorganization — in analog and legacy semiconductors, electronic components, and related areas.

Moreover, as the link between AI and semiconductors, the importance of semiconductor design support is rising further. As Physical AI is implemented in robotics, automobiles, factory automation, and other diverse fields, it is essential to design and integrate semiconductors optimized for each use case. To that end, it is important to develop design hubs that enable demand-side industries to proactively develop application-specific semiconductors, and to continue design and development projects to realize advanced semiconductors. Building on such initiatives, cultivating advanced talent versed in both software and hardware is essential to Japan's industrial competitiveness, as it is what translates AI's advances into competitive hardware.

Based on the above, we propose the following.

### 1. Positioning the hardware manufacturing base that supports the AI era as a national strategic asset

- The government should strengthen the domestic development and manufacturing base for semiconductors and other hardware indispensable to the AI era, and, with a view to achieving the targets of ¥15 trillion in domestic semiconductor sales by 2030 and ¥40 trillion by 2040, should clearly

position semiconductor manufacturing equipment and materials, optical-electrical fusion technologies, and other areas in which Japan has international market share and technological advantage as strategic foundations supporting the AI stack, in the "Japan Growth Strategy" to be compiled this June.

- METI should, regarding processes in which Japan is strong (etching, cleaning, inspection, etc.) and materials (silicon wafers, resists, etc.), maintain and strengthen competitiveness through R&D, capital investment, and talent acquisition. At the same time, within the areas requiring responses to leading-edge processes and next-generation materials from an economic-security perspective, priority, medium-to-long-term support should be provided to fields that have large market scale or high strategic importance as the implementation base for the Physical-AI era.

### 2. Optical-electrical fusion technologies, indispensable to the compute foundation of the AI era

- Given the rapid increase in compute demand accompanying the sophistication and expanded use of generative AI and Physical AI, and the resulting surge in power consumption by data centers and similar facilities, the government should position the development of optical-electrical fusion technologies — which achieve innovative energy savings by replacing electrical wiring with optical wiring — as a priority.
- Building on this, METI should strengthen integrated R&D support spanning devices, materials, packaging, and system design — with a view to implementation in data centers and next-generation servers — and should accelerate societal implementation.

### 3. Securing stable server supply for the construction of compute infrastructure

- From the standpoint of ensuring the reliability of AI-oriented compute foundations, the government should position the establishment of a stable supply system covering the server as a whole — including not only high-performance logic and memory semiconductors but also conventional semiconductors such as power and analog, electronic components, and power and cooling technologies — as a priority.

### 4. Strengthening the semiconductor supply chain of economic-security importance where Japan has strengths

- Recognizing that the semiconductor supply chain spans a broad range of industries from design and manufacturing to manufacturing equipment and materials and raw materials, and cannot be completed within a single country, the government should advance the construction of supply chains with like-minded countries as an economic-security priority.
- In doing so, METI should heighten Japan's indispensability through continued support for the semiconductor manufacturing equipment and materials fields in which Japan has strengths, and, in addition to leading-edge fields, should advance the strengthening and optimization of supply chains

— and necessary industrial reorganization — in analog and legacy semiconductors, electronic components, and other areas, from the standpoint of autonomy and stable supply.

**5. Semiconductor design support for building a semiconductor ecosystem that includes the demand side**

- To support the societal implementation of Physical AI advancing in robotics, automobiles, factory automation, and other diverse fields, the government should strengthen semiconductor design support — with at its core a framework capable of back-designing and integrating optimal semiconductors from the functional requirements demanded at the point of implementation.
- In doing so, METI should build nationally financed design hubs that provide the high-cost design environment required, thereby promoting semiconductor design and development that strengthens the competitiveness of demand-side industries. Through this, METI should aim to form a competitive hardware foundation for the AI era and actively advance design-development support for the realization of advanced semiconductors.
- At the same time, METI should work to cultivate advanced design talent that understands both software and hardware, leveraging these initiatives.

## 4. Securing Electricity and Compute as National Infrastructure for the AI Era

R&D and societal implementation of agentic AI, Physical AI, and autonomous driving will require massive training and inference compute across every domain. The rapid expansion of data center demand that supports this is inevitable, and an overwhelming tightening of electricity demand is forecast going forward. In this environment, the country that can secure sufficient compute and stable power supply will be able to convert AI autonomously into industrial competitiveness, public services, and regional revitalization — and will heighten international indispensability as well.

Now that electricity and data centers should be positioned as core infrastructure supporting AI Sovereignty and national competitiveness, if AI policy, energy policy, and regional revitalization policy remain siloed and optimized only individually, the national foundation of the agentic AI era cannot be built.

Future electricity demand is likely to be pushed up by a combination of factors — data centers and semiconductor plants in addition to autonomous driving, edge computing, autonomization of industrial equipment by Physical AI, and communications demand — so it is necessary to incorporate forecasts of such rapid demand increases into policy premises in advance and thereby secure stable power supply.

Furthermore, regarding data center siting strategy, the current concentration in major metropolitan areas is approaching its limits. Locations should be determined comprehensively, weighing — by use case — proximity to demand, integration with power and communications infrastructure, latency tolerance, and disaster preparedness. Within Japan, investment in regionally distributed data centers (including modular

types) is urgent. While carefully earning the understanding of local residents, investment-promotion measures — including siting guidance to suitable locations — must be implemented. In addition, Japan should, through public-private partnership, strategically pursue global deployment of a data-center ecosystem including the power equipment and cooling systems in which Japan has strengths, targeting overseas markets where large-scale data-center development is advancing explosively.

Based on the above, we propose the following.

### 1. Re-examination of power-demand forecasts and securing stable power supply

- In light of the explosive increase in electricity demand in the agentic AI era, METI should continue periodically reviewing the electricity demand scenarios referenced in the "Strategic Energy Plan." Based on the latest demand scenarios, in order to secure stable future power supply with a sustainable portfolio, METI should prevent excessive reliance on any particular source and should appropriately combine nuclear, thermal, and renewable energy, building a multi-layered supply structure capable of enduring massive demand.

### 2. Strategic domestic siting of data centers

- METI and the Ministry of Internal Affairs and Communications (MIC) should strategically advance domestic siting of data centers. In particular, they should adopt the viewpoints that domestic siting is especially important for administration, critical infrastructure, sensitive data, and real-time control, while other fields may also make use of overseas data centers — thus differentiating between domestic and overseas siting — and that required siting conditions differ by operator and use case.
- Leveraging the GX Strategic Area framework, METI and MIC should, through effective coordination of power and communications ("Watt-Bit Integration"), reduce concentration in major metropolitan areas and promote private investment in data center siting to suitable locations — for instance, distributing data centers across multiple blocks nationwide.

### 3. Promoting energy efficiency

- In parallel with strengthening power supply, METI should, by actively leveraging leading-edge technologies, work to convert limited electricity efficiently into high intelligence value.

### 4. Strengthening the supply chain of compute foundations and data centers

- METI should evaluate supply-chain vulnerabilities in the equipment and software necessary for the construction and operation of data centers, and should build a system that enables stable construction and operation through the diversification and strengthening of supply chains with like-minded countries and the securing of domestic server R&D and manufacturing capability.

### 5. Strategic overseas deployment of the data-center ecosystem

- The government should position cooperation in data center development as a pillar of international collaboration on the AI stack that Japan promotes. METI should support Japanese firms' active participation in leading-edge overseas data center development in order to further strengthen their technological capabilities, and should promote the feedback of technology to domestic development through Watt-Bit Integration and similar frameworks. Targeting the United States, the Middle East, and Asia in particular, METI should support the expansion of Japan's data-center supply chain, including the use of international cooperation frameworks with each country.

## 5. AI for Mobility

Autonomous driving is the greatest field of societal implementation where Physical AI and Vertical AI intersect, and it is the frontline on which AI Sovereignty is tested. Japan's automotive industry is a mainstay sector, accounting for 25% of world unit sales, approximately ¥72 trillion in manufacturing shipments, about 16% of exports, and about 8% of the working population. Competitiveness in the autonomous-driving market is extremely important from the standpoints of industrial competitiveness, economic security, regional transport, logistics, and traffic safety.

Globally, End-to-End (E2E) AI — which trains AI in a single chain from sensor inputs such as camera imagery to vehicle control commands — is transforming the competitive landscape of autonomous driving. Unlike conventional modular, rule-based technologies, E2E AI does not require costly high-definition 3D maps; because it continuously improves through the accumulation of driving data, it has excellent scalability. In the United States, Tesla has moved into full-scale technology training of its FSD (Full Self-Driving) system in Japan and other countries, and Waymo is accumulating data toward launching an autonomous-driving taxi service in Tokyo. The United Kingdom's Wayve is expected to be installed in vehicles of domestic manufacturers for launch in Japan in FY2027, and in China, Momenta, Huawei, and Pony.ai are entering mass-production stages.

By contrast, Japan's autonomous driving — also due to insufficient investment scale — remains at the modular, rule-based stage. For Level 4 driverless operation, implementation has begun on limited routes with low traffic volumes using modular technologies, but deployment in urban areas and complex traffic environments makes a shift to E2E AI unavoidable. If domestic E2E-AI development continues to lag, then given the characteristic of E2E AI — that performance improves through data accumulation as driving continues — only foreign AI companies' models will grow smarter, raising the risk of lock-in to specific AI vendors. The automotive industry is a mainstay of Japan, and losing autonomy in the AI that becomes its brain cannot be overlooked from an economic-security standpoint.

In implementing E2E AI, establishing methods for safety evaluation is also urgent. Because AI's decision-making process is a black box, it is difficult to respond with conventional rule-based safety-evaluation methods alone; new methods are required that make use of statistical and probabilistic verification of driving tests and simulation. International safety-evaluation standards are being developed primarily at UN WP29, but knowledge of AI-specific challenges is still evolving in every country, and there is room for

Japan to lead international standardization.

Moreover, to expand the societal implementation of autonomous driving into a broad rollout, not only technological development but also operational capacity for vehicle procurement, maintenance, dispatch, and operations management must be secured, and deployment in the logistics sector — where labor shortages are severe — is also indispensable. In truck transport in particular, modular AI is envisioned for trunk-line transport on expressways and E2E AI for the subsequent last-mile network; the technological, institutional, and operational foundations enabling unmanned operations at each stage must be developed in an integrated manner.

Based on the above, we propose the following.

### 1. Accelerating the development of domestic E2E AI

- Given that foreign E2E-AI-driven Level 2 automated driving (driver-assistance) will be launched domestically in FY2027, METI should accelerate development toward the early implementation of domestic E2E AI. Specifically, to enable domestic players to keep pace with leading firms such as Tesla (US), Wayve (UK), and Momenta and Huawei (China), METI should support the procurement of compute resources and should, through public-private partnership, build data and training infrastructure that enables efficient collection and accumulation of driving data and efficient AI training. The training infrastructure should be designed so that collected data can be shared and utilized across AI models and automobile manufacturers, avoiding duplicative investment and raising development efficiency at the national level.

### 2. Establishing methods for E2E-AI safety evaluation and their international standardization

- In coordination with the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), METI should advance efforts — toward the realization of Level 4 — to establish reasonable methods for evaluating the safety of AI-based autonomous-driving systems including E2E AI, making use of simulation environments and output-based AI-model evaluation. In institutionalizing these methods, design should be innovation-promoting, and collaboration should be sought with specialized institutions on AI safety. Also, in the standard-setting process at UN WP29, Japan should actively reflect its findings on E2E-AI safety evaluation and lead the creation of international standards for the AI era that are not confined to the logic of the automotive industry.

### 3. Building the operational foundation to support societal implementation of autonomous driving

- METI and MLIT should foster and support domestic providers (mobility servicers, etc.) that support operational functions such as vehicle procurement, maintenance, dispatch, and operations management, so that transport operators can deploy operations using vehicles equipped with E2E AI. In particular, even in cases where small-scale local taxi operators cannot respond on their own, a

framework should be developed through which such servicers support them in conducting Level-2-and-above operations with E2E AI.

**4. Promoting societal implementation of autonomous driving in the logistics field**

- To promote societal implementation of autonomous driving in logistics, where labor shortages are severe, METI and MLIT should support AI development for operations management systems and autonomous delivery robots so that each stage — from trunk-line transport between major logistics hubs through regional logistics and delivery hubs to last-mile delivery — may be unmanned to the maximum extent possible. In parallel, toward the realization of Level-4 unmanned truck operation on expressways, they should advance, in an integrated manner, the development of support infrastructure such as look-ahead information, the study of institutional issues regarding trailer switching, and the establishment of remote-monitoring and on-call response frameworks.

**5. Subsidies for the purchase of autonomous vehicles**

- MLIT, in coordination with METI, should implement demand-stimulating measures such as purchase subsidies for both individual and commercial demand for autonomous vehicles, from the standpoints of resolving social challenges such as transport deserts and of economic security.

## 6. AI for Defense

The use of AI in the military field has long been foreseen, but now — with the United States at the center — AI is beginning to be implemented across broad military functions including ISR (intelligence, surveillance, reconnaissance), command and control, logistics, maintenance, and cyber, and this is fundamentally transforming the way modern warfare is conducted. In the United States in particular, AI adoption is not being confined to individual technology demonstrations; the Department of Defense as a whole is seeking to elevate military capabilities through AI utilization, and it is anticipated that many nations will follow.

As the security environment surrounding Japan has become harsher than ever, any delay in AI utilization within the Ministry of Defense and Self-Defense Forces risks leading to relative decline of defense capabilities along many dimensions, including decision-making speed, joint-operations capability, and interoperability with allies. At the same time, promoting AI utilization not only enables more effective use of defense capabilities but also has the potential to solve a range of structural issues that the Ministry of Defense and the Self-Defense Forces face — such as shortfalls in Self-Defense personnel.

From the standpoints of ensuring technological superiority and interoperability with allies, it is desirable that connectivity with allied advanced software be taken into consideration for some command and control systems. On the other hand, the core parts that bear sensitive data storage and access control must be architected so that Japan can autonomously control them; system design that reconciles interoperability and autonomy is required.

In any event, in Japan too there is no option to forgo AI utilization in the defense field; rather, the issue is how to adopt AI fundamentally and swiftly in order to strengthen Japan's defense capabilities. After the end of the Cold War, a shift to "Network Centric Warfare" was once advocated; what is demanded today is a shift to "AI and Data Centric Warfare." Such a major shift in recognition should be reflected concretely in the planned revision of the three defense documents.

Based on the above, we propose the following.

### 1. Shifting the mindset to "AI and Data Centric Warfare"

- The Ministry of Defense should position AI as the core of a new way of warfare and should promote the shift to "AI and Data Centric Warfare." To move into a stage where AI is used not as a tool for strengthening individual functions but as an integrated operational foundation for securing decision-making superiority and for sophistication of force employment, the Ministry should develop its "Basic Policy for Promoting AI Utilization" into an integrated policy that unifies defense-capability buildup, operational doctrine, training, exercises, procurement, R&D, and data integration and utilization. To this end, the Ministry should — across every level of the Ministry of Defense and the Self-Defense Forces — advance a mindset reform that treats active AI utilization and the data integration that enables it as an urgent challenge, and strive to remove the cultural obstacles to this.

### 2. Clarifying and institutionalizing the authority to aggregate data

- As a precondition for AI utilization, the Ministry of Defense must advance the work of visualizing and aggregating the location, nature, and availability of data held by each Self-Defense Force and organization — including the development of common formats. In executing this, the Ministry should consider identifying and institutionalizing the unit that takes leadership of data aggregation and integration, and granting that unit clear authority.

### 3. Reforming procurement on the premise of AI utilization

- To maximize AI's potential, a procurement framework is needed that supports early fielding and that can swiftly incorporate continuous updates to AI models and software. So as to respond adequately to the fast-moving AI field, the Ministry of Defense should further accelerate its initiatives for early fielding — such as "fast-path procurement" — and should examine a procurement system premised on continuous updating of AI models and software. As part of this, participation by domestic startup firms should also be promoted.

### 4. Revamping human-resource development to maximize the effects of AI utilization

- To make AI utilization within the Ministry of Defense and the Self-Defense Forces effective, the Ministry should examine the revamping of personnel development and placement encompassing frontline units, staff officers, and R&D personnel. AI is not merely a technology; to maximize its effects, a shift in thinking is needed across everything from unit operations to command and control, logistics,

training, and R&D. Mindset reform to support this should also be promoted in human-resource development.

## 7. AI for Finance

"Agentic commerce" — in which agentic AI handles information gathering, comparison, purchasing, and payment end-to-end on behalf of people — is becoming reality. In finance, too, AI is no longer merely an auxiliary tool for efficiency; it is evolving into an entity that serves as a point of contact with customers and supports payments, remittances, and investment decisions. With these changes, the very structure of financial-service provision and the settlement infrastructure is about to transform significantly. The importance of on-chain finance — blockchains, stablecoins, tokenized deposits — as an underlying layer is also rising.

Abroad, standardization competition is advancing in areas such as inter-agentic-AI communication, authentication, and payments, and institutional development of new financial infrastructure including stablecoins is accelerating. In Japan, while institutional development under the Payment Services Act and demonstrations by private firms are progressing, a national strategy that integrally addresses financial policy, legal framework, and infrastructure development with the agentic AI era in view is still insufficient.

If left unaddressed, Japan risks being reduced to a mere user of foreign-designed protocols and payment infrastructure and foreign-currency-denominated stablecoins — not only missing growth opportunities but also taking on economic-security vulnerabilities regarding payment infrastructure and currency sovereignty. In addition, current law assumes that only natural or juridical persons are subjects of legal acts and financial transactions; many issues remain unresolved regarding transactions by agentic AI — attribution of effects, allocation of responsibility, applicability of business regulations, identity verification, AML/CFT, and more. Moreover, given the possibility of widespread high-frequency, always-on settlement, there is a need — from the standpoint of whether existing infrastructure will hold up — for urgent responses.

Japan has foundations that can be leveraged in advance — the stablecoin framework, the public digital-ID base, and the FSA's demonstration support. Drawing on these, finance in the agentic AI era should be clearly positioned as national strategy, and legal and infrastructure development should be advanced in an integrated manner.

Based on the above, we propose the following.

### 1. Positioning finance in the agentic AI era as a national strategic priority

- The government should position "AI for Finance" — including payments, remittances, and investment by agentic AI — as a priority for growth strategy and economic-security policy. In coordination with the Bank of Japan, the Financial Services Agency (FSA) should develop a vision paper shared by public and private sectors (the "AI Discussion Paper 2.0" (tentative name)) setting out the future of finance in the agentic AI era, including study for ensuring stable financial markets and governance and

auditing of financial institutions. In coordination with relevant ministries, the FSA should actively participate in international discussions on standardization, interoperability, and rulemaking so that Japan's position is reflected.

### 2. Advancing the legal treatment and societal implementation of financial transactions by agentic AI

- The government, through relevant ministries such as the Digital Agency, the Ministry of Justice (MOJ), and the FSA, should advance study on the legal position of agentic AI — clarifying the attribution of effects and allocation of responsibility for transactions that agentic AI autonomously conducts, an issue that also arises in financial transactions. To respond to AI-delivered misinformation, undue solicitation, and fraud, as well as cases where agentic AI exceeds the scope of authority granted by its principal, the FSA, the Consumer Affairs Agency, and other relevant ministries should advance study of necessary measures from the standpoint of user protection.
- The FSA should, regarding the application of the Financial Instruments and Exchange Act, the Banking Act, the Insurance Business Act, and other business-sector laws to the explanation, solicitation, advice, or sale of financial products through AI, take thorough steps for operator response and clarification based on specific use cases including the degree of involvement of natural or juridical persons, and should examine the proper treatment of financial regulation relating to DeFi. The Digital Agency, in coordination with relevant ministries, should advance study on identity and legal-entity verification, authority management, and AML/CFT in AI-mediated transactions, including the use of the public digital-ID base, other digital IDs, and trust services.
- The FSA should strengthen the framework of demonstration support combining agentic AI, stablecoins, tokenized deposits, and DeFi and other on-chain finance, so as to support their societal implementation.

### 3. Resilience and security of payment infrastructure

- In anticipation of high-frequency, always-on settlement by agentic AI, the FSA — in coordination with relevant ministries and the Bank of Japan — should conduct a comprehensive review of the processing capacity and fault tolerance of existing payment infrastructure and advance study and verification of next-generation settlement foundations.
- In light of the growing threat of cyberattacks that leverage recent agentic AI, the FSA should, in coordination with relevant organizations, work urgently to fundamentally strengthen the cybersecurity posture of financial infrastructure. (For details, see Chapter 5, Section 1.)

## 8. AI for Government

Japan will lead the world in the government's use of AI.

Government AI "GENAI" (pronounced "GENNAI") — the generative-AI environment developed by the

Digital Agency as a Government AI foundation for government employees to use AI safely and with confidence — implements, in addition to general-purpose AI functions such as conversational chat and writing assistance, a suite of applications specialized for administrative operations, and is already used widely across the government. In the first half of this fiscal year, it is expected to be made available to approximately 180,000 government employees across all ministries and agencies, making it among the world's largest-scale implementations of Government AI.

AI is no longer merely a tool to assist human intellectual work; it is transforming into social infrastructure that supports the frontlines of government, industry, and everyday life. The principal arena of competition, too, is shifting beyond comparisons of foundation-model performance to how AI is implemented in society and connected to concrete value creation on the ground. AI utilization in the public-administration field is a core undertaking that will determine national competitiveness in this era of transformation. The use of AI in government not only improves service quality and operational efficiency; it enables responses to staff shortages driven by population decline, and, by encouraging implementation in local governments and the private sector, connects to the formation and expansion of a domestic AI market.

On the other hand, full-scale rollout of government AI faces three structural challenges. First, common and shared use of digital infrastructure, data, and applications across national and local governments — the precondition for AI utilization — is still insufficient. Second, business designs and operational practices premised on pre-digital processes persist and constrain the effects of AI introduction. Third, stovepiped organizational structures and disconnection between national and local levels make human-resource exchange and implementation support difficult to advance. Going forward, the mindset must shift: from "individual and separate" to "common and shared," from "manpower premise" to "AI and digital premise," and from "mere delegation of authority" to "continuous accompaniment and support." In parallel, resilience encompassing not only digital infrastructure but also physical infrastructure such as electricity, communications, and data centers — as well as the development of common foundations that support quasi-public sectors such as healthcare, education, disaster preparedness, transportation, and agriculture — is indispensable.

Based on the above, we propose the following.

### 1. Common foundation development across national and local government

- The Digital Agency and the MIC, in coordination with relevant ministries, should advance the redefinition of the roles of the national government and wide-area local governments, and should advance common-foundation development and basic-municipality support as an integrated whole. The framework above should first be implemented in a leading manner in wide-area local governments such as the Tokyo Metropolitan Government, and a support model combining common infrastructure, data, and applications with the dispatch of personnel from wide-area local governments to basic municipalities should be established.

- The Digital Agency, in coordination with relevant ministries, should build — nationally led — the common digital foundation and quasi-public foundations that are the premise of AI utilization. In parallel with the horizontal rollout of the My Number Card, the Government Cloud, the Government Solution Service (GSS), and Government AI, common AI and digital foundations and data-linkage foundations should be systematically developed in quasi-public sectors such as healthcare, education, disaster preparedness, and transportation.

### 2. Launching the regional rollout of Government AI "GENAI" and implementing agent functions

- The Digital Agency and the MIC should, regarding the open-source software of "GENAI," advance outreach and deployment support as a measure that enables local governments to implement AI foundations safely and with confidence, aiming to realize the first adoption case during FY2026. In parallel, they should develop an environment in which private firms can extend functions and deploy services, and should advance collaboration with private operators to invigorate the public AI market and stimulate related investment.
- The Digital Agency and the MIC should organize the architecture and governance framework of "GENAI" as a concrete implementation model of "AI Sovereignty" — one that enables AI to be selected and operated safely and with confidence without excessive dependence on specific vendors or foundation models — and should strengthen information dissemination overseas. In tandem, they should advance the international deployment of this model through the promotion of the "Hiroshima AI Process" and the construction of co-creation and cooperation models with countries of the Global South.
- The Digital Agency should, within "GENAI," implement an AI-agent runtime environment during this year, develop a development environment that enables approximately 180,000 government employees to easily create AI applications (skills) using natural language, and put in place a government-wide mechanism for sharing and reusing the skills created. With due regard to human-resource development and security, this will broadly promote creative and autonomous AI utilization by government employees, and aim to realize the world's highest level of AI utilization in the public-administration field.

### 3. Leading implementation in priority use cases and AI-premised operational redesign

- The Digital Agency and the MIC, in coordination with relevant ministries, should advance joint leading implementation by national and local government from priority use cases such as benefits, consultations, and inquiry response. Deployment should be prioritized in fields with high impact on citizen convenience and on the reduction of administrative burden, where outcomes can be produced in a short period. The resulting outputs should be published on the premise of horizontal deployment and should be accumulated as a common asset for AI utilization in government.

- The Ministry of Finance, the Cabinet Bureau of Personnel Affairs, the National Personnel Authority, and the Digital Agency, in coordination with relevant ministries, should carry through AI-premised BPR (business process redesign) — centered on back-office functions — in each ministry and agency. Personnel, accounting, general affairs, and other such operations should not be limited to the mere addition of AI tools; institutions, personnel, systems, and data should be reviewed as an integrated whole.

### 4. Developing human resources and a nationwide rollout framework toward the creation of "GovTech Japan"

- The Digital Agency and the MIC, in coordination with relevant ministries, should leverage the mechanisms of human-resource development and municipality support in the Tokyo Metropolitan Government and GovTech Tokyo to the maximum extent, and should construct a framework to roll these out nationwide in the future as "GovTech Japan." By extending mechanisms for joint use, accompaniment support, human-resource development, and shared development assets across the country, and by combining talent pools, joint procurement, common specifications, and nationwide security operations, they should minimize regional disparities and realize an inclusive administrative DX and AX in which no one is left behind.

# Chapter 4 From "What Can AI Do?" to "What Can Only Humans Do?"

An AI-driven nation is not a nation that entrusts everything to AI — to this second question posed in Chapter 2, this chapter responds from the frontlines of society.

Precisely because this is an era in which AI substitutes for and augments much intellectual work, we must clarify what humans will bear and which values they will ultimately be responsible for. What matters is not to use AI locally as a mere efficiency tool, but to redesign the division of roles between humans and AI itself — encompassing corporate management, research, education, creation, and indeed ways of working and living. For Japan, this is also an opportunity to break through the constraints of a declining and aging population and labor shortages and to shift from a "challenge-frontier nation" to a "solution-frontier nation."

It is precisely for this reason that AX must be driven by society as a whole — including SMEs and individual businesses, not only leading firms — and that new ways for humans to exercise judgment, responsibility, and creativity must take concrete form in every domain of intellectual activity including education, research, and creation. At the same time, policies are indispensable that face squarely the transition costs — unemployment, job changes, and wage volatility — that accompany this shift, and that secure a just transition. This chapter lays out that path.

## 1. Driving AX Across All Businesses

For every enterprise, AI utilization is becoming an essential infrastructure that dramatically improves the quality and speed of management decisions, the value delivered, and cost reduction. Advancing AX and becoming an AI-first company is the most important management agenda determining future competitiveness.

In Japanese firms, use of generative AI is expanding. However, the proportion of companies that have indicated a policy of active utilization is about half that of the United States, Europe, and China, and use cases are limited to fragmented tasks such as writing, information search and gathering, and research. Progress on AI utilization and AX adoption lags significantly behind that of other major countries. This tendency is pronounced in SMEs, where the AI utilization rate among firms with fewer than 100 employees is less than 10%. So as not to repeat the failure of falling behind in DX, the state should immediately support AX initiatives from large firms down to SMEs.

In particular, the background to slow progress of AX in Japanese SMEs lies in a compound set of issues: first, executives' mindset; second, the shortage of AI-promotion organizations and talent; and third, a lack of investment funds.

Regarding executives who should make bold investment decisions in response to the changes of the era, there are cases in which understanding of AI is insufficient, the necessity of utilization in their own companies is not recognized, and decisions and investments to transform business cannot be made — or,

conversely, cases in which AI is mistaken for a magic wand, and impossible instructions are issued.

Even when executives direct AX forward, cases are also seen in which AX does not progress because there is no AI-promotion organization within the company, no AI-promotion talent, or because decision-making processes or corporate culture put the brakes on AI utilization.

Furthermore, even after overcoming executive and organizational issues and reaching concrete AI-project consideration, many companies hesitate to invest in PoCs (Proof of Concept, pre-full-implementation concept verification) where outcomes are uncertain, or cannot allocate the investment needed for development and on-site deployment beyond the PoC. Although IT-related subsidies that can also be used for AX already exist, AX support targets are not set, and there are issues making it difficult to use them for AI-utilization projects.

Based on the above, we propose the following.

### 1. Driving a nationwide mindset shift for SME executives in the AX era

- To promote understanding and inspire the will to take on challenges among SME executives, METI (SME Agency) should, by the end of next fiscal year, hold seminars in all prefectures (including online and jointly held seminars) covering best-practice examples of AX in SMEs and the effects and methods of AX. Seminar and training materials should, in principle, be publicly released as a public good.
- METI (SME Agency) should define the attitudes and capabilities demanded of executives in the AI era, and should conduct a support program that, for executives particularly active in AX, provides capability acquisition and accompaniment. (In implementing this support program, it should work with METI regional bureaus, local governments, and operators skilled in AI utilization to provide support that goes beyond classroom learning.)

### 2. Defining AX-promotion talent requirements and supporting talent development

- METI, in coordination with knowledgeable institutions such as IPA, should compile knowledge useful for firms building AI-promotion organizations — including the requirements of the organization, the essentials of organizational transformation, and best practices.
- METI (SME Agency) should define the talent that firms, and especially SMEs with limited staff, must secure to advance AX, and should support talent development. (For beginners, development should set clear goals — e.g., passing qualifying examinations such as G-Ken, E-Shikaku, and DS-Ken — and should support the acquisition of basic knowledge; for those who have acquired basic knowledge, it should provide, in coordination with local governments, accompaniment support for AI-utilization projects.)

### 3. Supporting AI investment through AX support for ¥10-billion enterprises and others

- METI (SME Agency) should structure the "¥10-Billion Declaration" — by which firms aim for annual sales of ¥10 billion and above — so that efforts on AX are actively evaluated as concrete measures

toward achieving that target. A similar mechanism should also be created for firms below ¥10 billion, so that their AX efforts are similarly evaluated.

- To support SME AX financially, METI (SME Agency) should provide seamless support tailored to each firm's stage of AX — tool introduction, productivity gains, and new-business creation. (Quantitative, periodic monitoring of the use of each AX-related subsidy should be carried out.)

## 2. Redesigning Work and Employment for the Agentic AI Era

The development of AI will bring about large-scale skill change and job change. The government must support the alignment of workers' mindsets and skills to AI-premised ways of working, and must support the smooth movement of labor from occupations whose employment shrinks to newly created occupations.

### (1) "Supporting skill change"

The era is approaching in which humans concentrate on work that only they can do — such as supervision, decision-making, and emotional understanding — and entrust all other work thoroughly to AI. What matters in skill change is acquiring the mindset and skills to collaborate effectively with AI. Practical capabilities are demanded that understand AI's characteristics and that build and operate agentic AI while making decisions.

In addition, to maximally draw out the capabilities of AI talent, firms must overhaul their organizational design. AI talent must be given clear responsibility and authority (job-based organization), and the middle layer between AI talent and management must be minimized (flat organizations) so that decisions can be made quickly and with little noise. Japan's employment system still leans heavily on membership-based employment and pyramid-shaped organizational structures with heavy middle layers — although fluidity is increasing — and a fundamental paradigm shift in talent and organization for the AI era is required.

### (2) "Supporting job change"

Among white-collar tasks, simple and repetitive work will be substituted by agentic AI (the OECD estimates that 27% of occupations face automation risk). This flow of efficiency and labor-saving cannot be avoided if society is to raise productivity and maintain international competitiveness.

At the same time, it is the government's responsibility — from the standpoints of both unemployment policy and effective labor utilization — to move workers in occupations that AI substitutes into occupations that are harder for AI to substitute. Research findings indicate that those most affected by employment contraction from agentic AI are young workers with less experience rather than older workers with more experience. Vocational training and employment measures for the young are as urgent as — if not more urgent than — reskilling for mid-career and older workers.

Based on the above, we propose the following.

#### 1. Research on the impact of agentic AI on the labor market

- The Cabinet Office and the Ministry of Health, Labour and Welfare (MHLW) should, in coordination, conduct research on the impact that the advance and diffusion of agentic AI and generative AI have on the labor market. This research should be conducted periodically in step with technological progress.

### 2. Strengthening support for skill change, including reskilling education

- The MHLW, in coordination with relevant ministries, should improve the content of reskilling for skills that use AI or that are not replaced by AI, and should provide reskilling information to workers in an easily understood manner and through simple procedures.
- From the standpoints of skilling and reskilling, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) should, through industry-academia collaboration, develop practical educational programs centered on 17 priority strategic fields so that workers can proactively acquire particularly advanced capabilities.
- MEXT, the MHLW, and METI should, in coordination, advance capability development and employment support for young people. To resolve the mismatch between what job seekers learn in higher education and the capabilities employers demand, they should support the acquisition of capabilities necessary as AI-utilization talent, making use of clear existing criteria such as qualification systems.
- To realize AI-premised talent utilization and smooth organizational decision-making, it is essential to advance job-based employment for management layers as well as to adopt flat organizational forms that enable swift organizational decisions. The Cabinet Secretariat, METI, and the MHLW should therefore work — with a view to formulating guidelines — on investigating and publishing successful examples on job-based employment and on organizations, including overseas.

### 3. Strengthening support for job change, including expansion of Hello Work functions

- Each ministry with jurisdiction over essential-worker occupations should carry out publicity for the rediscovery and broader recognition of the appeal of non-white-collar occupations, beyond those that AI substitutes.
- The MHLW should expand the functions of Hello Work to support smooth job change. So that workers displaced by AI and those who have reskilled can choose positions suited to their capabilities with conviction, the MHLW should work on improving the accuracy of AI-based matching at Hello Work and promoting its use.
- The MHLW should continuously examine labor-policy approaches that do not impede employment fluidity.

## 3. AI for Science

AI for Science is a new research foundation that can transform the entire process of scientific research —

literature review, hypothesis formation, experimental design, data analysis, and verification. By dramatically increasing research speed, exploration scope, and reproducibility, and by enabling scientific discoveries and societal applications that were previously hard to reach, it has significance beyond mere research efficiency. In recent years, the United States, China, the United Kingdom, and the EU have positioned AI for Science as a national strategy, accelerating investment in compute foundations, research data, human-resource development, and priority fields; AI for Science is becoming a field that goes beyond research policy and ties directly to industrial competitiveness, economic security, and national growth strategy. The driving force of AI for Science is the substitution and augmentation — by AI with processing power that surpasses humans in certain fields — of intellectual activities. Through its implementation, AI makes testable the diverse ideas of many researchers, raises productivity, efficiency, and creativity, and holds the potential to foster disruptive innovation and game-changing discoveries and inventions.

In this sense, AI for Science is also a field where the three paradigm shifts presented in Chapter 2 intersect. First, research capability in the AI era is not a matter of simply possessing a domestic model, but of how to design autonomy and international collaboration across the research foundation as a whole — including compute, cloud, research data, and research facilities — thereby embodying the shift from "Sovereign AI" to "AI Sovereignty." Second, AI for Science does not replace researchers; it augments their creativity, their problem-setting capability, and their ultimate responsibility, prompting the shift from "What Can AI Do?" to "What Can Only Humans Do?" Third, what matters in scientific research is not simply general performance; it is implementation of AI with safety, reliability, reproducibility, and continuous operability. Here too, the shift from "More or Less Regulation" to "Designing Trust" is indispensable.

For Japan — facing challenges such as talent shortages — AI for Science is the linchpin of a "Rebirth of Science," and it is also an important foundation that underpins the sophistication of Japan's AI base and the development of industry-specialized AI. Japan has strengths in common information foundations such as SINET, NII RDC, Fugaku, and HPCI, in high-quality research data, in precision manufacturing and measurement technologies, in robotics, and in on-site know-how. By making use of these, leading the world in priority fields — materials, life sciences, drug discovery, disaster preparedness, and environment and energy — and diffusing results broadly across fields are key to a "Rebirth of Science" and to strengthening research capabilities and international competitiveness.

However, the advancement of AI for Science in Japan still faces important challenges. First, while Japan possesses outstanding research data and research foundations, its AI research capabilities, compute resources, and investment scale remain comparatively weak against major countries, and the development capability, computing power, and financial capacity required to translate these into research and industrial strength are insufficient. Discussion among industry, academia, and government on the design of institutions for managing and using research data in the AI era, and the development of research environments — including cloud-type services, AI-ready data preparation, and integration of compute and data foundations — are likewise insufficient. Proper balance between concentrated investment in priority fields and diffusion to all fields is also required; and the development and retention of the diverse

personnel who drive AI for Science — field researchers, AI engineers, data-preparation personnel, research-support personnel — and institutions that properly evaluate their contributions, are also immature.

In addition, while international cooperation is indispensable, excessive overseas dependence risks undermining Japan's technological and economic autonomy in terms of research data, intellectual property, and attribution of results. An excessively closed posture, on the other hand, risks isolation from international competition; how to reconcile the two is critical. Finally, in AI for Science, safety, reliability, reproducibility, and continuous operability matter beyond general performance; yet the frameworks of evaluation indicators, benchmarks, and monitoring for each field are also immature.

Based on the above, we propose the following.

### 1. Positioning AI for Science as national strategy and advancing priority investment

- The government should clearly position AI for Science as a cross-cutting priority under the AI Basic Plan and Integrated Innovation Strategy 2026, and should — focusing on priority areas — make multi-year, agile, and bold investment (on the order of ¥1 trillion over the next five years) in AI agents and AI-driven research systems, at a scale and speed matching world-leading levels.

### 2. Creation and expansion of 3,000 AI-driven research projects over three years

- MEXT should, making use of support mechanisms (AI for Science Exploratory Challenge Research Creation Program (SPReAD1000)) so that a broad range of researchers nationwide can undertake AI-driven research, create 1,000 AI-driven research projects this fiscal year and 3,000 over the next three years. For promising projects, MEXT should develop a mechanism for multi-year, stepwise, and continuous support by connecting them to research funding at the next stage. In parallel, to introduce new review systems and research-evaluation methods suited to the AI era, MEXT should advance investigation, research trials, and verification on AI utilization in peer review and on agile review methods.

### 3. Developing strategic management and utilization rules for research data

- MEXT, in coordination with relevant ministries, should — in accordance with the characteristics of each research field — clarify an "open and closed strategy" that takes into account the confidentiality and strategic importance of research data and legal constraints, and should organize basic approaches to cross-border transfer, use of external clouds, and use in training large models. MEXT should also require submission of data-management plans for research funded by large-scale public funds.

### 4. Developing safe and smooth environments for AI-service use in research sites

- MEXT should work to develop environments in which universities and research institutions can use cloud-type AI for Science services — meeting common conditions on security, data residency, non-use for training, contractual terms, and auditability. In parallel, MEXT should advance the swift

securing and provision of compute resources, the organization of common use conditions, and smoothing of contracts, so that young researchers and small laboratories can also access such services.

### 5. Integrated development of research foundations and a promotion system for AI for Science

- Toward the advancement of AI for Science, MEXT should integrally develop compute foundations equipped with AI-oriented compute resources, research-data foundations, information-distribution foundations, advanced research equipment and instruments, and automated, autonomous, and remote research environments. Specifically, MEXT should urgently realize substantial enhancement of compute resources and research-data foundations as well as speed-up of information-distribution foundations, and should strongly advance — also with an eye on the introduction of AI agents — the construction of pipelines seamlessly connecting these.

### 6. Developing and securing 3,000 advanced AI researchers over five years

- MEXT should develop 3,000 or more advanced AI researchers over five years. To this end, MEXT should — through the "Scientific Research Revolution Program by AI for Science" and related initiatives — advance top-talent development and research-capability improvement through the diffusion of AI for Science in Japan and through strategic joint research with world-leading groups, and should promote — based on guidelines on personnel systems for each category of personnel — the establishment of stable career paths and improved treatment for AI engineers, technical staff, and R&D management personnel at research institutions through continuous research support and hub formation.

### 7. Ensuring reliability through field-specific evaluation criteria and benchmarks

- MEXT, METI, and other relevant ministries should, in coordination, examine — according to field characteristics in materials, life sciences, medicine, and other fields — evaluation items, benchmarks, and monitoring guidelines regarding the safety, reliability, reproducibility, continuous operability, explainability, and data governance of products and services used in AI-driven research, and should develop environments in which research institutions and firms can appropriately select products and services.

## 4. AI for Education

Amid the rapid advance of AI, Japan is required to respond on both the axis of utilizing AI in education and school administration ("AI for education") and the axis of updating educational content to suit the AI era ("education for AI").

#### (1) "AI for education"

Education today faces multifaceted challenges — shortages of teachers, long working hours, and responding to student diversity. Multiple demonstration studies at home and abroad have shown AI's

usefulness, including shortening administrative tasks of teaching staff to give them more time with students, and improving individualized responses to each student's personality and characteristics. AI utilization in education is a top-priority agenda.

However, according to OECD international comparisons, AI utilization in Japanese schools ranks 54th out of 55 countries — far behind that of many other countries. This results from an interlocking mix of soft-side issues (insufficient literacy and training time for teaching staff, slow clearing of a risk-averse culture) and hard-side issues (slow introduction of tools, lack of standardization of school administration, and delays in data preparation and accumulation).

Going forward, quantitative KPIs must be set from the perspectives of teaching staff's work efficiency and the sophistication and diversification of educational content, and an environment must be built that thoroughly leverages AI on both the soft and hard sides. To advance the construction of this AI-utilization environment with speed, national and local governments must cooperate without being bound by precedent.

Cultivating the human resources that are the starting point for AI utilization in the education field should also begin immediately. By developing AI-utilization talent, demonstration studies of AI use in education can be conducted, and a cycle of seeking more effective AI utilization while gathering data can be built. For example, in the UAE — a country leading in AI-utilized education — AI-utilized education is positioned within policy, 1,000 teachers have been trained on AI utilization, and those trained teachers are strategically expanding AI-utilized education on-site.

Additionally, as hard-side preparation, it is especially important to advance cloud-based infrastructure that is a precondition for AI utilization, to develop and deploy generative-AI tools that can be used safely in the education field, and to pursue standardization of school administration and preparation and accumulation of data — all to expand the scope of AI use and to improve accuracy.

It should be noted that regarding AI utilization in education, it is important to take both a short-term and a medium-to-long-term view, in line with AI's evolution and trends. Using a familiar phrase in Japanese on tradition and change, it is essential to distinguish between parts where swift response to technological change is required and parts that should be handled with care — such as the cultivation of humanity and sociality — and to act accordingly.

**(2) "Education for AI"**

The capabilities demanded of people in the AI era will change significantly. For example, the importance of performing repetitive, continuous administrative work quickly and accurately — work AI can substitute — will retreat greatly, while the ability to set goals and design business processes that incorporate AI, and the ability to consider, verify, and make decisions based on AI's outputs, will become more important than ever.

Looking at age groups, young people already live surrounded by AI, and AI's harms are beginning to manifest — for example, "AI shallow thinking," in which outputs from AI are used as one's own without

sufficient consideration. Nevertheless, the Courses of Study have not yet adequately adapted to the AI era. Efforts to adapt instructional content to the AI era should be immediately accelerated.

Adults must also proactively reskill in view of changes in demand by occupation in the AI era. However, it cannot be said that they have sufficient opportunities to learn. For AI-related reskilling, it is important to gain practical experience in addition to classroom learning. Together with reskilling into AI and data personnel, reskilling into occupations not easily replaced by AI (for example, essential-worker fields) is also important.

Based on the above, we propose the following.

### 1. Implementation of AI training for 3,000 teachers

- Referring to overseas initiatives, MEXT should conduct practical and effective training that advances the application of generative AI to teachers' work. First, this summer, MEXT should provide continuous training for 3,000 teachers on AI-utilized classes and school administration (going beyond mere DX). Teachers participating in this training should strive to spread generative-AI utilization in their workplaces, while MEXT should collect data on generative-AI utilization and advance more efficient and sophisticated AI-utilized classes and school administration. Further, MEXT should work to enable more teaching staff to receive AI-utilization training on classes and school administration in FY2027.

### 2. Accelerating implementation, including large-scale demonstration for fundamental AI-based BPR in education

- MEXT should conduct a large-scale demonstration research project in elementary, junior-high, and high schools in specific regions. The demonstration should not be fragmented generative-AI utilization limited to some teachers or some tasks on a small scale, but should — through fundamental review and reconstruction of business processes (BPR) — identify school-administration operations where AI introduction has a large effect, and should construct a model case for AI-era school management. This should include introducing school-administration AI that resolves inefficiency, building new business processes that fully leverage AI, and advancing sophistication of educational content using AI.
- MEXT should thoroughly and swiftly advance hard-side preparation such as cloud-based online environments and generative-AI introduction at each school. As a precondition for AI utilization, school operations as a whole should be digitized and made online.
- MEXT should advance the preparation and utilization of data to expand AI's scope and to maximally draw out the abilities of students (including gifted students). In particular, for data of high public value — such as the Courses of Study — the government should immediately begin examining improvements in AI readability, while leading the setting of data formats and the construction of data-collection processes for the accumulation of teacher- and student-related data at schools.

- To realize safe and secure AI in the school field with due regard to privacy, MEXT should revise existing guidelines and, to create guidelines for operators that develop, implement, and support AI utilization, should establish a working group in coordination with AISI.

### 3. Redefining what children learn in the AI era

- MEXT should promptly compile the qualities and capabilities children should acquire in the AI era. In coordination with relevant ministries, MEXT should, from the perspectives of industrial development and the resolution of societal challenges, advance in higher education the strengthening of science, engineering, and digital talent development and the development of talent that reflects regional talent demand.
- MEXT should promptly develop environments for classes that cultivate the essential qualities needed for children to use generative AI appropriately without dependence. MEXT should also encourage experimental efforts to cultivate the qualities and capabilities necessary in the AI era at the primary and secondary levels, and should collect the learning from these and share it with schools nationwide.
- MEXT should thoroughly provide for the acquisition of liberal arts (general education) and inquiry-based learning that do not rely on AI. In parallel, to enhance learning effects, MEXT should actively leverage AI in basic learning, drills, and language education.
- MEXT, in coordination with relevant ministries, should put in place opportunities for adults to acquire the qualities and capabilities needed to thrive in the AI era — from both sides: AI-related occupations and occupations that cannot be replaced by AI — not only through classroom learning but also through practical experience.

## 5. AI for Creators

As exemplified by the case in which generated content resembling famous Japanese content was disseminated through a foreign operator's video generation AI, concerns of copyright holders about unauthorized use of content by generative AI are rising further. While there are cases where requests from the government or the LDP have led to a certain degree of responsive improvement by foreign operators, the record in Japan of enforcement through litigation by individual operators is thin.

At the same time, on production sites facing severe labor shortages, generative AI dramatically improves the efficiency of work, enables creators to focus on tasks that are rewarding to humans, and broadens the possibility for humans to create new forms of creative expression — becoming an indispensable presence for the revitalization of Japan's content industries.

If we remain caught indefinitely in the simple conflict structure of "copyright holders vs. AI operators," it will accelerate the hollowing-out not only of Japan's AI industry but also of its content industries. As the accumulation of examples of profit return through license agreements via negotiations — alongside frequent copyright-infringement lawsuits abroad — makes clear, proper exercise of rights and licensing

through contracts are not in opposition but are complementary.

For the healthy development of an ecosystem including the broad range of stakeholders in the content industries, it is important to raise the effectiveness of enforcement against malicious rights infringements at home and abroad and to promote the creation of environments in which smooth profit return is possible for rights holders who are positively disposed to licensing. In doing so, attention should be given not only to content protected by copyright, but also to issues such as unauthorized use of a performer's "voice," with the same awareness.

Based on the above, we propose the following.

### 1. Active use of guidance, advice, and other necessary measures under the AI Act

- The Cabinet Office should actively request from AI-service providers — where infringing outputs are frequently generated — measures to prevent the generation of similar outputs, and explanations and reports on the status of actions and the realities of training data. Based on the content of such reports, the Cabinet Office should take guidance, advice, and other necessary measures under the AI Act.

### 2. Research and demonstration for building a licensing and profit-return ecosystem

- To further promote private efforts — at home and abroad — to build safe and transparent mechanisms for licensing and profit return, the Cabinet Office and the Agency for Cultural Affairs should hear practical issues from stakeholders, and should conduct research and demonstrations including the preparation of model contracts, the construction of data-linkage foundations, and the technical verification of data management and consideration allocation.

### 3. Ensuring the effectiveness of rights exercise by businesses

- The Cabinet Office and the Agency for Cultural Affairs should investigate what legal and factual obstacles individual content holders face in exercising their rights, and should examine measures to raise the effectiveness of enforcement against rights infringement.

### 4. Clarifying the interpretation for unauthorized use of voice and strengthening countermeasures

- The Cabinet Office, the MOJ, and METI should publicize the fact that unauthorized generation and publication of voice content imitating a performer's voice may, in certain cases, amount to infringement of the right of publicity or other rights, even through generative AI. They should continue to discuss this issue, including the need for hard-law development toward more reliable protection of rights.

# Chapter 5 From "More or Less Regulation" to "Designing Trust"

An AI-driven nation cannot stand without trust — to this third question posed in Chapter 2, this chapter responds from three sides: institutions, technology, and society.

In an era when agentic AI participates as an actor in real-world acts such as applications, contracts, consultations, ordering, mobility, and on-site support, the binary of "strengthen or weaken regulation" is no longer sufficient. What is needed is the design of trust that reconciles confidence in use with the ability to take on challenges. Its foundation lies in the multi-dimensional design of governance that combines, as a trinity, (i) rulemaking, (ii) technical control and auditing, and (iii) improvement of users' literacy. In addition, unless the government itself carries out AX, fulfills its responsibility as an institutional designer, and equips itself with a strategic coordination function that can adapt to change, trust will not take root in society.

This chapter discusses the design of trust, international cooperation, Government AX, and strengthening the strategic coordination function — putting forward concrete measures to embed responsible AI in society and to turn trust itself into Japan's competitive advantage.

## 1. A Three-Pillar Approach to Designing Trust

As AI technology permeates society as infrastructure, issues are becoming manifest — including harm from generative-AI deepfakes and copyright infringements. In addition, with the full-scale diffusion of agentic AI going forward, the effects of malfunction may reach beyond digital space into domains affecting citizens' lives, bodies, and property, and even national security — seriously and broadly. We must also recognize that, as Japan pursues a strategy of focusing on applied domains such as Vertical AI and Physical AI that leverage the strengths of manufacturing and other sectors, how to secure the safety of the AI models on which those applications depend as their core and foundation is also a challenge.

In Japan, in addition to soft-law measures such as the AI Business Operator Guidelines, various initiatives are being advanced under the framework of the AI Act that took effect last year — such as the formulation of guidelines under Article 13 and research and study under Article 16. However, effective means of addressing the challenges of the AI era that are not covered by existing law are limited. Given the unprecedented speed of AI's technological progress and the resulting pace of transformation of society as a whole, the conventional approach — which begins legislative work only after a legislative fact becomes clear, i.e., after a serious accident or harm has occurred — must be fundamentally reconsidered. While taking a view of the desired shape of society and governance as a whole, in addition to active use of soft law, the legislature should proactively carry out continuous review and swift updating of hard law itself. Japan, as a democratic nation, should realize "Responsible Agile Governance."

To increase the reliability of AI as it grows more sophisticated and to advance further utilization and innovation, the nation as a whole must carry out a "Design of Trust" that goes beyond the binary of "strict/more" or "loose/less" regulation. This cannot be realized by our legal system alone; indispensable

are the establishment and strengthening of technical evaluation capabilities — centered on AISI — that enable model evaluation, traceability, guardrails and other technical controls, and information sharing in crises. In particular, rather than responding after problems become manifest, the Security by Design philosophy — embedding risk assessment, control functions, auditability, and vulnerability-response systems from the design and implementation stages of AI — must be instilled in both developers and users.

Cybersecurity threats in the agentic AI era in particular are entering a qualitatively new stage. In November 2025, Anthropic announced that it had detected and blocked what it described as the world's first large-scale cyber-espionage operation in which AI autonomously carried out most of the attack process. Furthermore, in April 2026, it emerged that the company's latest model, "Mythos," possessed the capability to autonomously discover large numbers of unknown vulnerabilities in major software — and for security reasons, its general release was withheld. While AI's growing capability also benefits defenders, if attackers harness AI's power first, cyberattacks at a scale and speed that conventional defense postures cannot address will become reality. In advancing structural transformation toward an AI-driven nation, fundamentally strengthening AI-driven cyber-defense capabilities is no longer an option but a precondition.

Moreover, user literacy is indispensable if every sector using AI — firms, government, citizens — is to correctly understand AI's benefits and risks and to make meaningful use of it. In addition to responding to risks of generative AI and the like that are already manifest, for instance as proxy purchasing and contracting through agentic AI spread, each citizen will need to be able to recognize and deal with risks such as malfunction and fraud. Measures that ensure continuous improvement of user literacy are required. A cycle should also be established in which the intelligence of the AI Strategy Headquarters and AISI empowers citizens' AI literacy, while the voice gained from citizens' AI utilization specifies and develops government measures.

To advance integrated measures across the legal system, technical control and auditing, and user literacy, we propose the following.

### 1. Strengthening the enforcement of Article 16 of the AI Act and updating the legal system

- The Cabinet Office should examine more effective and appropriate measures, including penalties, against bad-faith operators that do not comply with the requests under Article 16 of the AI Act. The investigations, research, guidance, advice, and information provision under this Article are the primary means by which, when the beginnings of a problem arise, the Cabinet Office — in coordination with relevant ministries — can swiftly and reliably ascertain and analyze the situation, provide information to the public, and enable the state to respond appropriately. Regarding information-provision requests in particular, Japan must not suffer information disadvantage in an emergency compared to the United States, Europe, and China, which hold broad authority under AI-related laws. For now, the Cabinet Office should actively operate the current Article 16, while — with

a view to situations that may seriously affect citizens' rights and Japan's economy and society — securing smooth operation and effectiveness.

- As set out in the LDP Digital Society Promotion Headquarters' "AI Evolution and Implementation Project Team" White Paper 2024 and reflected in the "Responsible AI Promotion Basic Act" drafted by members of the working group — which became the foundation of the AI Act — the Cabinet Office should continuously examine, watching AI's technological development, the necessity of reporting by operators of AI of particularly high importance as social infrastructure regarding their arrangements for ensuring safety.

## 2. Strengthening technical control and auditing capabilities, including for cyber responses

- Regarding AISI, the technical core of AI policy, the Cabinet Office should — in line with our Subcommittee's "Urgent Proposal on Strengthening the Functions of the AI Safety Institute (AISI)" of last December, and in coordination with METI and other relevant ministries — advance, using the UK AISI as benchmark, the strengthening of personnel and posture in both quality and quantity, expansion of secondments from each ministry, high and flexible annual-salary expenditure to employ excellent technical experts at home and abroad, and securing of a financial foundation. It should also swiftly and reliably advance international-cooperation measures including hosting an AI Summit in Japan.
- To respond to high-speed, wide-area, and sophisticated cyberattacks that exploit AI, the National Cybersecurity Office of the Cabinet Secretariat should — in coordination with relevant ministries — build a mechanism for broadly collecting and aggregating cybersecurity-related information from private operators that are the foundation of the state and public life. Recognizing that large-scale autonomous cyberattacks using agentic AI have become a real threat, the Office should — without waiting for the enforcement of the Cyber Response Capability Enhancement Act, and while swiftly preparing the council envisioned under the same Act — begin urgently the vulnerability checks of systems of government agencies and critical-infrastructure operators, the verification and strengthening of business-continuity plans assuming AI-driven attacks, the review of various security guidelines, and the formulation of procedures for public-private information sharing at the time of attack detection.
- Upon discovery of risks or vulnerabilities, or in the event of large-scale cyberattacks or malfunctions that could significantly affect citizens' lives, the National Cybersecurity Office of the Cabinet Secretariat should — in collaboration with AISI — promptly collect and analyze information, strengthen public-private cooperation through information provision to critical-infrastructure operators, and establish a system — working with the AI Strategy Headquarters — for alerting and informing the public. In particular, regarding AI use related to cybersecurity, such as Mythos, the Office should lead a whole-of-government effort to improve the cybersecurity functions of related financial institutions and critical-infrastructure operators, leveraging AISI's expertise and networks. In

parallel, the Office should strengthen the function of continuously collecting and analyzing safety information such as system cards and threat-intelligence reports published by AI developers, and of sharing within the government the assessment of cyber risks posed by the latest AI capabilities.

- Taking the above into account, the FSA should — in collaboration with FISC (the Center for Financial Industry Information Systems) and industry associations — build a public-private framework specialized for cyber threats to financial systems in the agentic AI era. Specifically, it should advance in an integrated manner vulnerability diagnosis of financial systems leveraging AI, industry-wide exercises assuming AI-driven attacks, early-warning and information-sharing arrangements in case of an attack, and formulation of guidelines for financial institutions leveraging AI for defensive purposes.

### 3. Improving user literacy

- The Digital Agency, the MIC, MEXT, and the MHLW should, in coordination, advance the expansion of opportunities for users to acquire and improve AI literacy — in parallel with measures to develop AI-development and implementation personnel — including strengthened education on AI use from primary and secondary schooling, and reskilling covering a wide range of age groups.
- The Consumer Affairs Agency, in coordination with the Cabinet Office and relevant ministries, should expand public consultation desks so that citizens can receive appropriate advice and redress when they suffer AI-related harm. Each business-supervising ministry should take measures so that operators appropriately establish their own complaint-handling systems.

## 2. Leading International Cooperation and Rulemaking

Japan has led international cooperation toward the spread of safe, secure, and trustworthy AI from the time when the world was still half-convinced of AI's capabilities and risks.

Since the 2016 G7 Ise-Shima Summit, where it proposed the formulation of AI development principles ahead of the world, Japan formulated the "Social Principles of Human-Centric AI" in 2019, and at the G20 Osaka Summit proposed the concept of "Data Free Flow with Trust (DFFT)." These have become the basis of today's OECD principles and have shaped the trend of global AI governance.

Further, in 2023, through the "Hiroshima AI Process," Japan as chair led the consensus on the world's first comprehensive international guidelines for generative AI. In 2026, it will host the "2nd In-person Meeting of the Hiroshima AI Process Friends Group," seeking to expand the countries, regions, firms, and organizations — including countries of the Global South — that endorse the spirit of the "Hiroshima AI Process," and to deepen initiatives. The soft-law approach of Japan's AI Act, which took effect last year and balances the promotion and risk management of AI utilization, is also serving as a reference for AI rulemaking in other countries.

While Japan has thus led international rulemaking and dissemination, AI's rapid evolution and expansion of activity range are giving rise to new risks and social concerns. Going forward, the perspectives of

"Designing Trust" and "AI Sovereignty" will be important in Japan's pursuit of international cooperation.

Regarding "Designing Trust," Japan has led rulemaking to build a human-centric AI society, as stated above. Going forward, Japan must continue to develop the "Hiroshima AI Process" and must deepen and promote initiatives with partners outside the G7. As AI risks spread across borders, working with other countries to build AI risk assessment and technical auditing regimes is necessary to increase the effectiveness of the "Hiroshima AI Process."

The establishment of "AI Sovereignty" is rapidly becoming more important as AI penetrates deeply into life and industry. To realize the "strategic autonomy" described in (Perspective 1) of Chapter 2, relations with friendly countries must be strengthened, and an international division of labor in AI development and operation must be built. Japan must also establish the strengths that make it an indispensable member of that international division of labor.

Based on the above, we propose the following.

### 1. Promoting and developing the "Hiroshima AI Process" with an eye to the AGI era

- To sustain and develop the "Hiroshima AI Process," the MIC should lead continuous discussion with the G7 and should host initiatives to strengthen relationships with partners outside the G7. As technological progress accelerates toward AGI, the MIC should lead discussion among countries on the timing of appropriate auditing of particularly powerful models that could pose threats to society, and on containment measures in the event of threats.
- The Ministry of Foreign Affairs (MOFA) should, so that countries and regions can promote AI utilization matched to the characteristics of their industrial structures and cultures and can co-create AI ecosystems with Japan, leverage the network of diplomatic missions abroad and ODA to support the development and strategic invitation of advanced talent, promotion of joint research and development between Japanese and local firms, and strengthening of networks with world-leading research institutions.

### 2. Hosting the FY2028 AI Summit

- The Cabinet Office, in coordination with relevant ministries, should work — as a catalyst for deepening international understanding and cooperation on Japan's advanced initiatives and governance frameworks in the AI field — toward hosting the FY2028 AI Summit.

### 3. Strengthening international standardization strategy for agentic AI

- Recognizing that international standards and standardization will become increasingly important in agentic AI and Physical AI, METI and the Cabinet Office should advance efforts to strengthen cooperation with international organizations and friendly countries.

## 3. Executing Government AX

Artificial intelligence, through the spread of generative AI, is making a discontinuous leap into agentic AI — AI that autonomously thinks, judges, and acts. The arrival of a society in which agentic AI blends into every scene of civic life and economic activity — applications, contracts, payments, mobility — is no longer a distant future. What government is now asked to do is not simply to adopt AI, but to carry out "Government AX (Agentic AI Transformation)" — redesigning laws and institutions, data and systems, and organizations and business itself on the premise of agentic AI.

Given this change in societal structure, Government AX must be positioned not as a mere internal administrative reform but as a national undertaking that leads the reboot of Japanese society as a whole. At the same time, there are still several structural issues with this transformation. First, much of the current legal system and administrative procedures is built on the premise that humans apply, review, judge, and bear responsibility, and does not sufficiently envision the involvement of AI that autonomously judges and acts. Second, the preparation of administrative, quasi-public, and private data necessary for AI to function appropriately, and the framework for their safe linkage, are not yet sufficient, and the foundation supporting the societal implementation of agentic AI remains fragile. Third, a framework for promotion that verifies institutions, operations, and technology as an integrated whole and that rapidly rolls out — while concentrating resources in priority areas — has not been established. Fourth, expert talent that understands AI technology and can transform operations is in short supply, and a flexible public-servant personnel system suited to the AI era is not yet sufficiently in place. Personnel allocation and evaluation systems premised on conventional routine tasks and fixed jurisdictions are impediments to fundamental updates of the administrative organization.

In addition, in advancing Government AX, the view of digital investment itself must also change. The AI and digital foundations that underpin Government AX should be positioned not as mere cost-cutting but as strategic investment for the future — contributing to easing labor shortages, improving public services, and creating new public-private services. Digital investment should therefore be reconceived as a national investment, and the government's AI and digital foundations should be positioned as "digital public goods" from the standpoint of public-value creation.

As agentic AI becomes real social infrastructure, partial and incremental reforms on the extension of the past reach their limits. What is required is for the government itself to advance institutional review, leading demonstrations, data-foundation preparation, visualization of outcomes, and organizational reform in an integrated manner, and to take the lead in presenting a new administrative model.

Based on the above, we propose the following.

### 1. Establishing an "AI Extraordinary Commission"

- The Digital Agency should establish the "Extraordinary Administrative Commission on AI" (tentative name) ("AI Extraordinary Commission") to continuously and simultaneously review, across ministries, laws, guidelines, and operational rules. Under this framework, mechanisms should be put in place to agilely and continuously update legal interpretation and guidance. In doing so, reform of regulation,

standards, and certification should be advanced as an integrated whole, starting from growth strategy and international standardization strategy, and aligning regulation with these. Items for examination should include organizing areas where labor-saving and automation are possible, institutional design by AI autonomy level, systematizing responsibility and remedy regimes, and machine-readable encoding of laws. Connectivity with existing regulatory-reform devices — the Council for Promotion of Regulatory Reform, special zones, and regulatory sandboxes — should be strengthened and role clarification conducted. Through public procurement, the integration of regulatory development and market formation should be advanced, thorough administrative reform conducted, and a mechanism established to feed back the results of leading demonstrations in special zones into nationwide regulatory reviews.

### 2. Public-private leading demonstrations and data preparation for AX

- The Digital Agency, in coordination with relevant ministries, should select AX-oriented use cases in the public, quasi-public, and private domains, concentrate human resources, and conduct public-private leading demonstrations. The data needed for the demonstrations should be positioned as priority data, and preparation advanced with clear priorities. To advance such public-private leading demonstrations, the "Japan AX Sandbox" (tentative name) should be developed — an arrangement for verifying institutions, operations, and technology as an integrated whole. This framework should — to inform the agenda of the AI Extraordinary Commission (tentative name) — focus on AI agents and Physical AI and should be structured so that institutional designers also accumulate operational know-how.

### 3. Visualization of Government AX progress and effects through a dashboard

- The Digital Agency, in coordination with relevant ministries, should develop the "Japan AX Dashboard" (tentative name) bringing together whole-of-government AX policies, and should clearly visualize targets, progress, and outcomes, providing continuous information both to citizens and to domestic and international stakeholders. In public procurement as well, the setting of outcome indicators — such as reductions in processing time and in return rates — to measure administrative efficiency and quality improvement should be made a principle, so as to raise transparency on return on investment.

### 4. Reforming the public-servant personnel system for the AX era

- The National Personnel Authority, in coordination with relevant ministries, should advance review of the public-servant personnel system in a way suited to the AI era. Routine work should be entrusted to AI so that public servants can concentrate on planning and proposal development, complex judgment, interpersonal response, and institutional design. To that end, the development, strategic placement, and public-private exchange of necessary specialized personnel should be advanced.

## 4. Strengthening the Strategic Coordination Function

To realize the Government AX described in the previous section, a strategic coordination function that drives — across ministries, as an integrated whole — institutional review, data preparation, leading demonstrations, and horizontal rollout of outcomes is indispensable.

With the advance of agentic AI, AI has become a cross-cutting national issue spanning public administration, industry, social infrastructure, national security, and international competitiveness. The previous White Paper pointed out the need to formulate a new basic national strategy befitting the new AI era and, for its implementation, to designate a strategic coordination function for AI policy and strengthen the system. As of 2026, that need is even more pressing.

Policy issues in the AI era are not confined to R&D support and industrial policy. Institutional design, data foundations, talent development, international cooperation, and the formation of social acceptance must be advanced as an integrated whole. In particular, in the competition over societal implementation of AI, how fast, how broadly, and how deeply implementation proceeds is being contested; siloed responses by individual ministries will hit their limits. The strategic coordination function that is required is not merely a coordination function, but a core function that shows the direction of institutional reform, sets priority areas, prepares necessary data foundations and demonstration environments, supports public-private implementation, and connects outcomes to the next cycle of institutional review — running strategy, implementation, and evaluation as an integrated whole. Given the pace of AI's evolution, the conventional inter-ministerial coordination alone is not sufficient; a new promotion system with clear accountability for execution, necessary authority, and sufficient agility is needed.

In addition, because design responsibility has been absent at the boundaries between ministries, cross-domain data linkage and public-private service connections have been repeatedly stitched together after the fact, resulting in repeated data conversion and duplicative investment. The strategic coordination function must hold within it the authority to design the architecture that connects cross-domain and public-private services and data, and must build a mechanism under which each ministry's individual development aligns with that design.

Based on the above, we propose the following.

### 1. Launching the Japan AX Promotion Team

- To maximize initial speed and execution capability, the government should, as a special task force under the direct authority of the Minister in Charge of AI, establish the "Japan AX Promotion Team" directly under the Cabinet Secretariat. This team should be positioned as an executing body that integrally bears the specification of national strategy, selection of priority areas, cross-ministerial coordination, and advancement of institutional reform and implementation.
- To raise the effectiveness of the strategic coordination function, the government should embed within the "Japan AX Promotion Team" a unit that designs the architecture connecting cross-domain and public-private services and data, and should organize a mixed public-private, multi-disciplinary team (business owners, design leads, project managers, AI researchers, legal experts, business-reform and

service designers, data analysts, etc.). In parallel, through use of special treatment arrangements, a mechanism should be put in place to secure specialized talent agilely and continuously.

### 2. Establishing an AX Strategy Promotion Fund

- As a mechanism for continuous investment from a medium-to-long-term perspective in priority areas, the government should establish the "AX Strategy Promotion Fund" (tentative name), which can be used agilely under the strategic coordination function's strategy.

### 3. Integrating and strengthening AI-policy promotion functions

- From the standpoint of promoting as an integrated whole societal transformation that leverages AI and digital technology to the maximum extent, the government should, regarding the AI-strategy-related functions including the secretariat functions of the AI Strategy Headquarters under the AI Act, swiftly more than double the authorized and actual staffing levels of the current Cabinet Office Bureau for Science and Technology and Innovation Promotion (AI Policy Promotion Office) — including in terms of operations and human and fiscal resources — strengthen the secretariat of the AI Strategy Headquarters, and strengthen the enforcement function of the AI Act. Going forward, the government should consider gradually consolidating and integrating the functions between this secretariat and the Digital Agency, and should advance study of the legislative measures required for its realization.

# Annex 1

## Meetings held by the LDP Digital Society Promotion Headquarters (AI-related) and the AI/web3 Subcommittee (from October 2025)

| No. | Date | Agenda | Presenter(s) |
|---|---|---|---|
| | **2025** | | |
| 1 | Oct 23 | Draft outline of the AI Basic Plan | Cabinet Office |
| 2 | Oct 29 | Anthropic's founding background and vision for responsible AI; Anthropic's product deployment and market strategy in Japan, and collaboration with Japanese firms | Anthropic — Dario Amodei, CEO |
| 3 | Nov 13 | Fully domestic NTT LLM "tsuzumi" — Protecting Japan's intelligence at low cost; Development of domestic general-purpose foundation models | NTT R&D Marketing HQ; METI |
| 4 | Nov 18 | ・About Stablecoins<br>・About Crypto-Assets, etc.<br>・Urgent Proposal on Crypto-Asset Taxation | ・Financial Services Agency<br>・JPYC Inc.<br>・Japan Crypto-Asset Business Association |
| 5 | Nov 20 | Public-private DX opening regional women's wage increases and empowerment, driving a virtuous economic cycle | Public-Private DX Women's Empowerment Consortium — Wakako Yata, Representative Director |
| 6 | Nov 26 | Strengthening AISI's functions; Domestic and overseas AISIs | AI Safety Institute — Akiko Murakami, Director; Cabinet Office (Bureau for Science and Technology and Innovation Promotion) |
| 7 | Dec 10 | Draft AI Basic Plan | Cabinet Office |
| 8 | Dec 17 | Draft Urgent Proposal on Strengthening the Functions of the AI Safety Institute (AISI), and other items | — |
| | **2026** | | |
| 9 | Feb 25 | General overview of Japan's national AI strategy | Institute of Geoeconomics — Makoto Shiono, Managing Principal / Head, Emerging Technology Group; Univ. of Tokyo Graduate School of Engineering — Prof. Yutaka Matsuo |
| 10 | Feb 25 | Status of considerations on AI for Science | MEXT; Matlantis Inc. — Akiko Segawa, Head of |

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| | | | Corporate Planning; Google Japan — Yu Kawamoto, Senior Executive Officer (Policy & Government Relations); Google DeepMind — Byeongha Jeon, Principal Scientist & Tokyo Site Lead; Google Japan — Hiroki Kayama, AI Research & Core Partnership Japan Lead |
| 11 | Feb 26 | Principal Code; Status briefing from TikTok regarding Seedance 2.0 | Cabinet Office; TikTok Japan — Nobuaki Yasunaga, Head of Public Policy |
| 12 | Mar 10 | Vertical AI | Sakana AI — Ren Ito, COO; NSV Wolf Capital — Naoki Shibata, Managing Partner |
| 13 | Mar 12 | Supporting AI utilization in SMEs | SME Agency; Akari Inc. — Yuki Noro, President and CEO |
| 14 | Mar 17 | Arrival of the AGI era and Japan's possibilities | Google DeepMind — Shane Legg, Co-founder; Google DeepMind — Shane Gu, Research Scientist & Manager |
| 15 | Mar 18 | Institutional reform for the agentic AI era | Hisashi Asanuma, former Vice-Minister for Digital Transformation; Atsumi & Sakai — Takafumi Ochiai, Senior Partner |
| 16 | Mar 25 | AI for Defense | Yoshihide Yoshida, former Chief of Staff, Joint Staff; Palantir Technologies Japan — Katsuyuki Ohara, CEO |
| 17 | Apr 1 | The future of commerce: AI and stablecoins | Oliver Jenkyn, Visa Group President |
| 18 | Apr 1 | ・AI for Government<br>・About the status of consideration on AI utilization measures contributing to labor-saving in operations<br>・About Government AI (Gennai) | Tokyo Metropolitan Government — Deputy Gov. Manabu Miyasaka; Digital Agency; Council for Digital Administrative and Fiscal Reform |
| 19 | Apr 2 | Physical AI | Nomura Research Institute, Future Creation Center — Zhihui Li, Chief Expert; METI |
| 20 | Apr 9 | AI for Education | Univ. of Tokyo Graduate School of Engineering — Assoc. Prof. Rui Yoshida; Polaris.AI Inc. — Hiroto Tobishima, COO; MEXT |
| 21 | Apr 15 | Work in the AI era | Univ. of Tokyo Graduate School of Economics — Prof. Daiji Kawaguchi; MHLW |
| 22 | Apr 16 | AI for Creators | Japan Academic Association for Copyright Clearance — Toshimichi Ishijima, Executive Director; note, Inc. — Sadaaki Kato, CEO; Voice- |

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| | | | AI Concerned Associations |
| 23 | Apr 16 | Data centers in the agentic AI era | NTT Global Data Centers Japan Inc. — Yasuo Suzuki, President and CEO; Keio University Graduate School of Media and Governance — Prof. Koichi Takahashi; METI; MIC |
| 24 | Apr 21 | AI for Mobility | Honda R&D; Digital Agency; METI; MLIT |
| 25 | Apr 22 | 17 areas of the Japan Growth Strategy related to the Digital Society Promotion HQ: AI/semiconductors (AI portion); Digital and cybersecurity | Cabinet Office; METI; Digital Agency |
| 26 | Apr 23 | Compilation of AI White Paper 2.0 | — |

# Annex 2

### AI/web3 Subcommittee Working Group

| Name | Affiliation |
|---|---|
| Hisashi Asanuma | Former Vice-Minister for Digital Transformation at Digital Agency |
| Naoto Ikegai | Professor, Hitotsubashi University Graduate School |
| Kota Umeda | Research Fellow, Institute of Geoeconomics, International House of Japan |
| Ryo Matsukura | CEO and Attorney, AVILEN Inc. |
| Atsushi Okada | Attorney, Mori Hamada & Matsumoto |
| Keiji Tonomura | Attorney, Nagashima Ohno & Tsunematsu |
| Togo Kitajima | Attorney, Nagashima Ohno & Tsunematsu |