



AI in Japan: OpenAI's Economic Blueprint

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OpenAI



Foreword

At OpenAI, we research and develop AI that empowers people, businesses, and governments to confront the most complex challenges of our time. It is our mission to build artificial general intelligence that benefits all of humanity. Working together with Japan's world-class researchers, policymakers, companies, and educators, we believe AI can help build a more prosperous, inclusive, and resilient Japan. From accelerating scientific and industrial innovation to improving healthcare, education, and public services, we see a powerful opportunity to shape a better future together.

AI is an indispensable **general-purpose technology**, like electricity or the internet, that will transform every aspect of society. Already, people around the world are using OpenAI's tools to make progress in remarkable ways:

- **Healthcare:** Doctors and nurses are using AI to organize patient data, analyze diagnostics, and enhance the quality of care.
- **Science and Industry:** Researchers are leveraging OpenAI's models to advance studies in materials science, energy systems, robotics, and cybersecurity.
- **Education:** Students and educators are using *ChatGPT Edu* to personalize learning, support lesson planning, and streamline administrative tasks.
- **Government and Public Sector:** In the public sector, ChatGPT is being used to draft policy documents, assist in policymaking, translate foreign materials, and make administrative language more accessible.

Founded over a decade ago as a research lab, OpenAI now provides tools used by more than **800 million people worldwide**. In Japan, adoption across both the private and public sectors is rapidly accelerating - and this is only the beginning.

This **Japan Economic Blueprint** is a living framework designed to unlock AI's full potential. Japan now stands at an inflection point: through strategic investment in AI infrastructure, responsible innovation, and alignment of national strategy with emerging technologies, the country can strengthen its competitiveness, create new jobs, and ensure sustainable prosperity for generations to come.



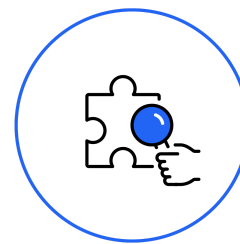
Japan's strengths - in advanced manufacturing, scientific research, education, and public trust - uniquely position it to lead in the age of AI. National investment in AI infrastructure will serve as the foundation for the next era of growth, innovation, and entrepreneurship.

We are committed to working hand in hand with Japan's government, industry, and academia to make AI a driving force for national progress and for enriching people's lives with greater happiness and prosperity.

Kazuya Okubo

Head, Policy & Partnerships, OpenAI





Executive Summary

Japan is a society with world-class creativity and economic potential, and few nations have reinvented themselves as dramatically as Japan. From the Meiji Restoration, which transformed a feudal society into a modern industrial nation, to the period of rapid economic growth after World War II that stunned the world, Japan has always turned transformation into power and connected it to prosperity. Today, as the global economy enters another historic turning point, AI, especially generative AI, provides Japan with a once-in-a-lifetime opportunity to demonstrate leadership.

Japan is not only a nation of world-class creativity and ingenuity but also one with the economic scale to turn ideas into global impact. Reliable economic forecasts suggest that AI has the potential to create economic value in excess of 100 trillion yen,¹ and the issue is not “whether Japan can lead this new era,” but “how boldly it can seize the opportunity.” AI is not just a tool for improving efficiency; it is a breakthrough that can unleash people’s creativity, enhance productivity across every sector, and write the next chapter of Japan’s economic story.

The key to fully leveraging this opportunity lies in Japan’s innovation promotion policies. Specifically, innovation-friendly policies as represented by the AI Promotion Act and Japan’s unique intellectual property environment are highly attractive to AI developers worldwide. Building on Japan’s global advantage, where anyone can participate in the development and utilization of AI, it is essential to continue leading the formation of international AI rules, expand both domestic and international AI partnerships, make strategic investments in the AI ecosystem, and accelerate AI education for future talent.

This blueprint outlines Japan’s specific national strategy to realize this vision, which is centered around the following three pillars.

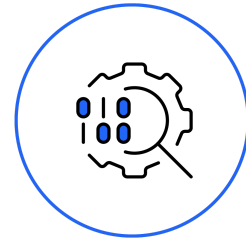
- 1. Building an inclusive and participatory social infrastructure through which everyone can enjoy the benefits of AI:** To deliver AI to everyone and enrich all lives, we will establish an inclusive policy framework and social system that allows everyone to participate in the development and utilization of AI and enjoy the benefits of innovation.

¹ See footnotes 3 and 4 below.

- 2. Strategic infrastructure investments:** We will make intensive and strategic investments in data centers, which are a foundational support of AI, and in the green energy grid, which is essential for their operation. This ensures “watt (electric power)” - “bit (information)” collaboration in the AI economy and contributes to regional revitalization.
- 3. Education that unlocks the potential of people of all generations through AI:** We will promote school education to enable the next generation of individuals to lead an AI-driven society, support lifelong learning and reskilling for everyone, and create opportunities to further unlock the creativity of people of all generations.

This blueprint goes beyond mere analysis and presents a specific and actionable action plan for Japan to re-establish its economic leadership in the AI era and achieve sustainable and inclusive growth.





Macro Impact Analysis

The economic growth of a country is mainly driven by two primary forces. One is the force to “increase quantity,” such as increasing the number of workers and factories. The other is the force to “work smart,” which means generating more value from the same quantity. The latter force leads to the improvement of “productivity” supported by technological innovation, and is exactly the core issue that will determine the future direction envisioned by the Japanese government.

The Cabinet Office’s Council on Economic and Fiscal Policy presents a vision of Japan’s future divided into the following three scenarios.²

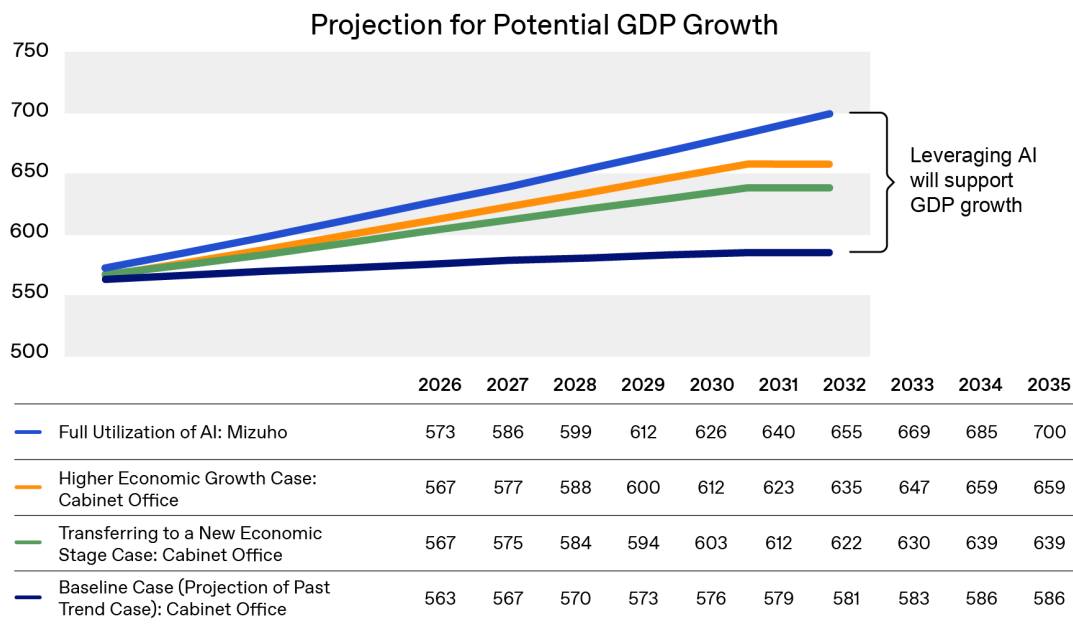
- **Higher Economic Growth Case:** This is the most ambitious scenario. The assumption is that **the total factor productivity (TFP) growth rate will reach approximately 1.4%**, which is equivalent to the average for the period before the economy entered the deflationary situation. In this case, the real GDP growth rate is projected to be approximately 2%, and the nominal growth rate is approximately 3%
- **Transferring to a New Economic Stage Case:** This is a standard optimistic scenario for transitioning to an economy driven by wage increases and investments. The assumption is that the TFP growth rate will reach **approximately 1.1%**, which is the average of the past 40 years.
- **Baseline Case (Projection of Past Trend Case):** This is a stagnation scenario in which productivity growth decreases and low growth continues. The assumption is that the TFP growth rate will remain approximately 0.5%, which is the same as the recent average.

The difference between these three futures is the gap in productivity growth rates, and the Council repeatedly emphasizes that the key to bridging this gap lies in the “social implementation of digital transformation (DX) and new technologies” and the “creation of innovation.”

² Cabinet Office. <https://www5.cao.go.jp/keizai3/econome/projection202501.pdf>

Two independent analyses examining the potential of AI have reached the same conclusion: AI’s impact on the Japanese economy could be transformative. One study estimates that fully leveraging AI could cumulatively raise Japan’s GDP by 140 trillion yen³—more than half of South Korea’s GDP. Another study finds that generative AI alone could increase real GDP by 16.2%.⁴ While these are separate analyses with different methodologies, together they underscore a consistent message: AI represents a once-in-a-generation opportunity to lift Japan’s economic trajectory by an amount equivalent to nearly one-sixth of its entire economy. These figures suggest that the exponential growth brought about by AI will strongly support the realization of the Japanese government’s most ambitious goals.

GDP Growth Enabled by Full Utilization of AI and Cabinet Office Projection for GDP Growth



This macroeconomic effect comes from transformations at the corporate level. Research shows that Japanese companies using AI have **8.8% higher productivity** than companies which do not use AI.⁵ This indicates that AI is not just a tool for improving operational efficiency, but that it also has the potential to transform the production structure of companies, and as such, the use of AI is likely to become commonplace in highly productive companies.

These analyses indicate that investment in AI is not just a capital investment, but an “investment in the productivity of the entire Japan” that will increase the potential growth rate of the Japanese economy. This impact on the entire Japanese economy results from productivity reforms occurring in individual industries, and the impact on such individual industries will be described in the next chapter.

³ Mizuho Research & Technologies, Ltd. <https://www.mizuho-rt.co.jp/publication/2025/pdf/report250129.pdf> (Japanese only)
⁴ Daiwa Institute of Research Ltd. https://www.dir.co.jp/report/research/economics/japan/20241108_024729.html (Japanese only)
⁵ Research Institute of Economy, Trade and Industry. <https://www.rieti.go.jp/jp/publications/dp/24j011.pdf> (Japanese only)



Japan Specific Sector Deep Dives

In this chapter, we will demonstrate how the first pillar of this blueprint, “Building an inclusive and participatory social infrastructure through which everyone can enjoy the benefits of AI,” has the potential to transform all parts of Japan’s society and economy. The transformation brought about by AI is not limited to a few high-tech industries and will result in a structural transformation of society at large, spanning all core sectors of Japan, including manufacturing, medical and nursing care, education, government services, science, and finance. The wide range of examples discussed below are a powerful testament to a future in which AI will increase productivity and creativity across Japan, allowing everyone to enjoy its benefits.

1. Manufacturing Industry

AI will breathe new life into Japan’s manufacturing industry. The manufacturing industry is the backbone of Japan’s economy, making up approximately 20% of its GDP—nearly double the share in the United States. What makes Japan unique is its vast base of 3.36 million small and medium-sized manufacturing enterprises, far more than Germany’s famed “Mittelstand” and unmatched among developed countries. These small and medium-sized enterprises supply the precision parts and craftsmanship that sustain global supply chains and power Japan’s industrial giants. Unlike conventional enterprise software, AI is **easy for anyone to** use through the cloud and does not require a large initial investment. Anyone can instantly increase their productivity in everyday tasks, such as email, document creation, and accounting. This opens the door for **businesses of all sizes** to increase their output and efficiency, and will lead to new innovations.

For example, AI-based inspection systems and demand forecasting are being introduced by small local factories that are suffering from labor shortages. An auto parts manufacturer with a history of approximately 70 years in Shizuoka **halved its error rate** by using AI demand forecasting, while another metal fabricator in Osaka **reduced** inspection costs by **25%**, eliminating labor shortages while improving quality.⁶ AI is also an effective tool for digitizing and passing on experienced workers’ skills and will support the competitiveness of Japan’s manufacturing industry.

⁶ Ministry of Economy, Trade and Industry. https://www.pref.iwate.jp/_res/projects/default_project/_page_001/045/501/20210805meti.pdf (Japanese only)

Utilization and Effects of AI in Manufacturing

Area	Usage of AI	Expected Effects
Work efficiency and lead time	Optimize preparation steps and work procedures with AI	Shorter work time, reduced redundancy, higher productivity, and enhanced deadline adherence
Quality control and maintenance	Use AI for early detection of abnormalities and malfunctions with sensors	Fewer defects, higher equipment uptime rate, and lower maintenance costs
Supply chain; Green transformation (GX)	Use AI as a support to make CO ₂ visible and to coordinate order acceptance and order placement	Lower environmental impact, optimal inventory, and more efficient procurement and delivery

2. Medical and Nursing Care

AI frees medical and nursing care professionals in Japan from repetitive clerical work and physically demanding tasks that have conventionally required extensive hours and effort. The time saved by this will enable medical and nursing care professionals to engage with care receivers. AI makes it possible to devote more time to higher-value care that only humans can provide, including making decisions based on expertise and communicating warmly with care receivers, making the medical/nursing care practice more humane. In response to the serious labor shortages, which are one of Japan's structural issues, AI brings a "ray of hope" to care practice by enriching connections between people.

AI can also be an extremely effective solution to addressing the pressing issue of soaring social security costs. The effects of reduced medical and nursing care costs through innovative medical technologies utilizing AI and other technologies range from preventing cancer to preventing the development of diabetes, with the estimated impact being between **hundreds of billions and trillions of yen**.⁷ In particular, preventing the need for nursing care due to osteoporosis alone is estimated to help reduce nursing care costs by **approximately 1.5 trillion yen per year**. This is equivalent to approximately 13% of Japan's total nursing care expenses,⁸ or the annual salary for approximately 370,000 nursing care workers.⁹ This single disease area shows the scale of the impact AI could have in reducing the burden of social security costs.

⁷ Cabinet Office. https://www.kantei.go.jp/jp/singi/kenkouiryousiryou/pdf/r051228_jikikenkou_iryousiryou.pdf (Japanese only)

⁸ The cumulative nursing care expenses in FY2023 were 11.5 trillion yen. MHLW. <https://www.mhlw.go.jp/toukei/saikin/hw/kaigo/kyufu/23/dl/03.pdf> (Japanese only)

⁹ Assuming an average annual income of four million yen.

The effectiveness of nursing care robots and other technologies has been proven extensively by a study carried out by the Ministry of Health, Labour and Welfare (MHLW). For example, wearable muscle suits significantly reduce the risk of back pain during the transfer of care-receivers. This is critical to mitigating the physical burden imposed on caregivers—which contributes to their high turnover rate—and to encouraging experienced personnel to continue working in the industry. AI-powered monitoring sensors also enable efficient nighttime patrols within nursing facilities, allowing caregivers to allocate the time saved to their care receivers.¹⁰

The Japanese government has established strong incentives as part of its national policy to accelerate these changes in the care practice. In the Japanese government's FY2024 revision of medical fees, a system was established to ensure that the promotion of medical DX is directly linked to medical institutions' revenues,¹¹ which included expanding the scope of medical fee procedures covered by the public health insurance system to include AI-supported diagnostic imaging. The government also plans to inject a total of **29.7 billion yen** in FY2025 to provide robust support for the introduction of nursing care technologies.¹²

These are clear examples that AI utilization is not only an initiative implemented by individual healthcare providers but is at the core of the national strategy to ensure the sustainability of Japan's medical and nursing care systems.

3. Education

The third pillar of this blueprint, "Education that unlocks the potential of people of all generations through AI," is the most important investment in Japan's future. Already, more than three in four ChatGPT users in Japan are under the age of 25, —evidence that the younger generation has embraced AI as a natural tool for learning and creativity. AI will drive the wheels of next-generation education and lifelong learning, making it a powerful partner for all citizens to unleash their creativity.

Adaptive learning tools, such as AI drills, will analyze each student's level of understanding and their answer patterns in real time, providing optimal questions as if each learner had a personal AI tutor to achieve **individually optimized learning**, contributing to raising the overall level of education. Not only does AI transform the education system, but it also plays a crucial role in developing the decisive skills of students in Japan to thrive globally. Especially in higher education, advanced generative AI, such as ChatGPT Edu and ChatGPT Study Mode, serves as a powerful right-hand tool for students. AI's advanced translation and summarization capabilities in more than 50 languages remove language barriers in accessing international academic papers and information, providing students with easy access to global insights. This

¹⁰ MHLW. <https://www.mhlw.go.jp/content/12300000/001126070.pdf> (Japanese only)

¹¹ MHLW. https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000188411_00045.html (Japanese only)

¹² MHLW. <https://www.mhlw.go.jp/content/12300000/001476528.pdf> (Japanese only)



goes beyond just supporting language learning—it fosters true internationally-minded individuals who can work effectively with people from diverse cultural backgrounds.

More importantly, there is a possibility that AI can be used to further develop higher-order thinking skills, such as **critical thinking and creativity**, although it is still early days in understanding how AI impacts such skills. The transformation brought by AI to education presents questions requiring careful consideration, including the concern that overdependence on AI may reduce students' thinking skills, as well as the accuracy of the information output. That is why students should not take AI output at face value but should verify the authenticity of the information and utilize it as a tool to deepen their own thinking. Students can develop their problem-finding and problem-solving skills that are not replaced by AI through training themselves to gain multiple perspectives and identify logical flaws in their arguments, utilizing AI not as the principal thinker but rather as a partner.

The changes brought about by AI are not limited to school education. Creating an environment where all people can continue to learn throughout their lives utilizing AI as a partner is the very core of the national strategy—"investing in people." The Japanese government is also strongly supporting reskilling in the AI era through measures including the Education and Training Benefit System and the Human Resource Development Support Grants. AI tutors can suggest optimal learning content based on job duties and career plans of individual working adults and manage their progress. This allows busy working adults to effectively acquire new skills at their own pace. Human capital reform in the AI era can only be completed by driving education for the next generation and re-education for the current generation as two wheels of a cart. This comprehensive approach is key to enhancing productivity and creativity across Japan and achieving sustainable economic growth.

4. Administrative Services

Japan is one of the developed countries with the heaviest administrative paperwork. Each year, approximately 1.5 billion administrative procedures are still carried out offline,¹³ many of them manually. AI has the power to relieve administration of this burden and transform administration into a more accessible and reliable partner. AI will play a central role in enhancing the efficiency of the administration which the Priority Plan for the Realization of a Digital Society aims to achieve.¹⁴ Numerous municipalities already have introduced AI chatbots that respond to inquiries and automate nursery school admission, leading to better services for residents and reduced burdens on workers. For example, Saitama City utilized AI matching technology to reduce the time required for nursery school admission selection for thousands of citizens, from approximately **1,500 hours** in total to less than one hour. In Aomori Prefecture, real-time

¹³ Digital Agency.

https://www.digital.go.jp/assets/contents/node/basic_page/field_ref_resources/06ac5a18-3aa3-4fc6-a15a-866d4f7cd3f9/f144b81e/20220701_resources_procedures_inventory_result_outline_01.pdf (Japanese only)

¹⁴ Digital Agency. https://www.digital.go.jp/en/policies/priority-policy-program-past#2024_priority-policy-program



meeting minutes creation using AI has **reduced** the transcription time by **40%**, contributing to the reduction of outsourcing costs.¹⁵

While the main focus is on cost reduction at the initial stage of AI utilization in administration, the Japanese government's long-term vision envisages higher value creation. The Regional Economy Society Analyzing System (RESAS) by the Cabinet Office and the Small and Medium Enterprise Agency, which was also presented at the Osaka-Kansai Expo in 2025, points to a future where AI analyzes complex regional social and economic data to support evidence-based policymaking (EBPM). This indicates that AI's role will evolve from a mere cost-saving tool to a strategic partner that enhances the quality of Japanese government services and the accuracy of policy-making.

Fukuoka City is propelling “Yatai (food stall) DX,” which utilizes AI and data to promote the city's symbolic food stall culture. The city is offering unique services on its official LINE account, including making real-time food stall congestion status visible using IoT light bulbs, and using generative AI chatbot “AI Oi-chan” to recommend food stalls that match users' preferences in the local Hakata dialect. These initiatives are highly appreciated by tourists, with the local economic ripple effect brought by food stalls estimated to reach **approximately 10.5 billion yen**.¹⁶ This is equivalent to approximately 1% of Fukuoka City's annual budget¹⁷ and approximately 0.04% of Japan's entire restaurant industry.¹⁸ This is a progressive example of not limiting AI to increasing operational efficiency (conservative DX), but creating new economic value by linking AI with local cultural resources (aggressive DX).

The Tokyo Metropolitan Government has been promoting an ambitious and comprehensive AI strategy to serve as a model for the entire nation. The “Tokyo AI Strategy” formulated in July 2025 embraces a clear vision of not only utilizing AI for increasing operational efficiency, but also implementing it in all areas of the Tokyo government's administration, thereby enhancing the quality of life (QOL) of 14 million Tokyo residents and boosting the international competitiveness of Tokyo. This vision already has begun to materialize. For example, Nerima Ward utilized AI to support delinquency settlement operations and **reduced** the time for selecting property search sites by **90%** from an average of 30 minutes to 3 minutes per case.¹⁹ **Shinagawa Ward** introduced AI search services for complex family register processes, **cutting** the time for literature research by **approximately 50%**.²⁰

¹⁵ Ministry of Internal Affairs and Communications. https://www.soumu.go.jp/main_content/000820109.pdf (Japanese only)

¹⁶ Fukuoka City. <https://yokanavi.com/features/256889> (Japanese only)

¹⁷ Fukuoka City. https://www.city.fukuoka.lg.jp/zaisei/zaisei/shisei/7Ntoushoyosanan_2.html (Japanese only)

¹⁸ Japan Foodservice Association. <https://www.jfnet.or.jp/files/2024-1-1.pdf> (Japanese only)

¹⁹ Nerima Ward. <https://www.city.nerima.tokyo.jp/kusei/koho/hodo/r6/r603/20240327.files/20240327.pdf> (Japanese only)

²⁰ Shinagawa Ward. https://www.city.shinagawa.tokyo.jp/ct/pdf/20210521162937_1.pdf (Japanese only)



5. Science

AI serves as a powerful engine that drives transformation—previously unimaginable—to Japan’s science and technology, particularly in the field of drug development. According to studies compiled by the Japan Pharmaceutical Manufacturers Association, AI has proven its worth at every stage of clinical development.²¹ For example, AI achieved dramatic efficiency improvements in the development strategy formulation phase, including **reducing** the time for information collection process, in which drug manufacturers previously relied on experienced professionals, by **70%**, and the time it takes to create clinical trial documentation by **up to 60%**. AI has also increased the success rate in drug development, with one prediction tool predicting the success rate of transitioning from phase II to phase III with an accuracy of 79%, enabling better investment decisions.

AI’s contributions also have been deeply entrenched in the field of clinical trials. Japan, the world’s most rapidly aging society, is estimated to have one in three people over the age of 65 experiencing cognitive impairment,²² with Alzheimer’s disease being a particularly urgent issue. In a clinical trial for Alzheimer’s diagnosis, AI-based image analysis identified the most suitable subjects with an 80% positive predictive value for future symptom progression. In addition, cases have been reported where AI has fundamentally improved the quality and efficiency of clinical trials. For example, AI chatbots increased patient medication rates by 20% and the utilization of digital biomarkers reduced the number of clinical trial participants to less than half. These achievements clearly demonstrate AI’s potential to overcome the long-standing challenges of time, cost, and success rate in drug discovery, dramatically bolstering the competitiveness of scientific research in Japan.

6. Finance

Japan’s financial sector is one of the largest in the world, generating approximately 5% of its GDP and more than 1.5 million jobs for banking, insurance, and securities services together. In addition, Japanese households hold approximately 2,200 trillion yen in financial assets, which is the second largest in the world after the United States. In Japan’s financial sector, AI is a core technology driving improvements in operational efficiency and service development. Financial institutions have already made extensive progress in using AI to improve operational efficiency, such as by converting documents required for opening an account into electronic data and introducing chatbots for internal procedures.

Utilization of generative AI in more advanced areas include **making personalized investment proposals, implementing advanced measures for anti-money laundering (AML), and detecting cyber risks**, which will fundamentally change customer experiences, enhance the

²¹ Japan Pharmaceutical Manufacturers Association.

https://www.jpma.or.jp/information/evaluation/results/allotment/tcjm0000001ecw-att/CL_202405_TF1_DX.pdf (Japanese only)

²² Public Relations Office. <https://www.gov-online.go.jp/article/202501/entry-7013.html> (Japanese only)



soundness of the financial system, and prevent risks that can disrupt the very foundation of management. The Mizuho Financial Group, Inc.'s efforts to advance preparation of credit approval through the "Wiz Series," a generative AI application,²³ shows that the financial industry in Japan has begun utilizing AI in these advanced areas.

In accelerating this transformation, the "AI Discussion Paper" published by the Financial Services Agency in March 2025²⁴ plays a pivotal role, as not just a regulatory document, but a "growth guide" to foster secure innovation. In the financial industry, which requires high standards for transactional soundness, stability, and consumer protection, introducing AI while managing risks such as hallucination and information leakage, and building a robust governance system in accordance with these guidelines **is the most efficient way of promoting innovation through AI while enhancing corporate credibility and brand value.**

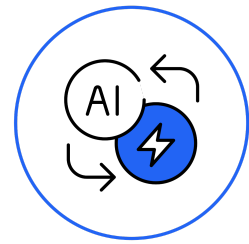
AI is no longer just a tool for improving operations. Pioneer financial institutions are starting to utilize AI in advanced areas to address ever-increasing security risks and economic competition. Failing to adopt AI in advanced areas could result in falling behind due to an inability to meet challenges, both in regard to domestic competitions but also internationally, such as with financial institutions in the United States and China. However, Japanese companies are among the most willing in the world to invest in AI.²⁵ By unlocking this potential, Japan's financial sector can take a leadership role in the global market.

²³ Mizuho Financial Group, Inc. <https://www.mizuho-fg.co.jp/dx/articles/aix-generative-ai/index.html> (Japanese only)

²⁴ Financial Services Agency. https://www.fsa.go.jp/en/news/2025/20250304/aidp_en.pdf

²⁵ BCG. <https://bcg-jp.com/article/8139/> (Japanese only)





AI Infrastructure & Energy

The second pillar of this blueprint, “Strategic infrastructure investments,” serves as the physical foundation for supporting Japan’s AI economy in the future. To realize the productivity improvements and innovations brought by AI, it is essential to construct data centers that provide computing power and the large-scale energy grid necessary for operating data centers, so investment in this field will be a decisive factor in determining Japan’s economic growth.

The size of the market for data centers in Japan is expected to be over five trillion yen by 2028,²⁶ and significant investments already have been made by both domestic and international sources. Along with this investment boom, nationwide growth in power demand is also expected. The Ministry of Economy, Trade and Industry estimates that the total national power demand will increase by approximately 5.8% by FY2034 due to the expansion of data centers and semiconductor factories,²⁷ and as stated in the government’s “Green Growth Strategy,” the key to the success of Japan’s AI strategy lies in how to meet this demand in a stable and environmentally friendly manner.

In response to this issue, the Japanese government has presented a clear answer as a national strategy. Based on the **Economic Security Promotion Act**, semiconductors, the brains of AI, are positioned as “specified critical products,” and strengthening the domestic production base is being promoted as a “national project.”²⁸ Furthermore, the government’s “GX2040 Vision” has set out the policy of “GX Industrial Location” to strategically guide energy-intensive industries such as data centers to areas rich in renewable energy.²⁹ This integration of energy policy (GX) and digital policy (DX) makes Japan one of the most attractive investment targets in the world for global investors seeking long-term predictability.

The construction of a resilient supply chain, which is a grand national strategy, cannot be completed by Japan alone, but can only be realized through partnerships with domestic and international counterparties across various layers of industry and government. The long-term securing of digital infrastructure, supported by these domestic and international partnerships, is an important strategy that provides a sustainable financial foundation for many related companies and local governments, and ultimately contributes to sustainable economic growth in Japan as a whole.

²⁶ Ministry of Internal Affairs and Communications. <https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/r07/pdf/00zentai.pdf>

²⁷ Ministry of Economy, Trade and Industry. https://www.meti.go.jp/shingikai/enecho/denryoku_gas/denryoku_gas/pdf/085_06_00.pdf

²⁸ Ministry of Economy, Trade and Industry. https://www.meti.go.jp/policy/mono_info_service/joho/conference/semicon_digital/0011/handeji_revised.pdf (Japanese only)

²⁹ Cabinet Secretariat. <https://www.meti.go.jp/press/2024/02/20250218004/20250218004-3.pdf> (Japanese only)



Policy Recommendations

Based on the analysis so far, we have the following policy recommendations as an integrated national strategy to maximize economic opportunities through AI in Japan.

1. Building an inclusive and participatory social infrastructure through which everyone can enjoy the benefits of AI

As international competition in AI development intensifies, Japan needs an environment that attracts outstanding talent and companies from abroad to become a global innovation hub. Japan's stable and flexible copyright system for AI development will be a significant incentive to reduce concerns about legal uncertainty for overseas partners. In order to maintain this innovation-friendly approach and lead the way in international rule-making, we propose that the following measures be implemented.

- **Fostering domestic and foreign partnerships:** AI development and social implementation cannot be achieved by a single country's efforts. We will encourage open partnerships with domestic and foreign enterprises, universities, and research institutes, and create an ecosystem where technology, human resources, and data work together across borders.
- **Leading rule-making that facilitates innovation:** We will maintain and develop a flexible intellectual property environment, which is one of Japan's strengths, and also will formulate specific guidelines to enhance legal foresight based on the policy of the Agency for Cultural Affairs' "General Understanding on AI and Copyright in Japan." We will thereby establish a "Japan model" that balances innovation and creator protection, and present it to the international community.

2. Strategic infrastructure investments

The physical and digital foundation of the AI economy is the cornerstone that supports the future of the nation. To realize improvement of the productivity to be brought by AI, we will position long-term, large-scale investments in computing resources and energy as national projects.



- **Accelerate “watt-bit collaboration”:** In collaboration with the Japanese government’s “GX2040 Vision,” we will strongly promote the simultaneous development of data centers (bits) and renewable energy power sources (watts). For the construction of data center hubs in rural areas, we will provide subsidies and tax incentives using “GX Economy Transition Bonds” and other measures to attract private investment.
- **Establishing digital infrastructure as a national project:** Integrating semiconductors, which are the brain of AI, data centers, which are the heart of AI, and energy supply networks, which are the power source, is the most important issue for economic security. We will accelerate the strengthening of the domestic production base of semiconductors (targeting sales of over 15 trillion yen by 2030), which the Japanese government is promoting based on the Economic Security Promotion Act, as a “national project,” and in line with the “GX2040 Vision,” we will promote the strategic location of data centers and renewable energy power sources with the Japanese government and private sectors working together.

3. Education that unlocks the potential of people of all generations through AI

The most important asset in the AI era is people who can skillfully use AI and create new value. From next-generation education to lifelong learning, we will radically strengthen investment in human capital to unlock everyone’s potential.

- **Promote next-generation AI education:** Create opportunities to become familiar with AI literacy, data science, and programming from the primary and secondary school education levels. We will deliver, throughout the nation, educational methods that utilize AI not just as a memorization tool for knowledge, but as a reassuring “thinking partner” to foster critical thinking and creativity in each child.
- **Reskilling for all generations:** Launching a large-scale public-private reskilling initiative to enable people whose jobs may be transformed by AI to learn new, value-added skills, to innovate their current way of working, or to take on challenges to new careers of their choice. We will commit to empowering individuals by expanding their range of choices.





Conclusion

This blueprint serves as a roadmap for transforming the power of AI into greater prosperity of all citizens in Japan. Just as Japan rebuilt from the ashes of war into an economic superpower and showcased its ingenuity with the Shinkansen, this blueprint charts a path to channel AI into a new era of prosperity. AI will boost productivity, drive new learning, and create opportunities once unimaginable. Its power will not be limited to giant tech companies but extend to the 3.36 million small and medium-sized enterprises that sustain Japanese industry, to citizens in both cities and rural areas, and to adults as well as students. This inclusiveness—innovation that lifts everyone—is the essence of the “Japan Model” and a path of shared growth that deserves global recognition. AI increases our productivity, leads to new forms of learning, and creates new opportunities we have never imagined before.

This model is shaped by the trinity strategy proposed in this article: flexible **rules** that support people’s innovation, a resilient **infrastructure** that supports people’s lives, and investment in **education** that unlocks each person’s potential. In response to the global tide of AI, Japan can show a path to achieve both economic growth and realization of a society where each citizen can shine in their own way. Now is the time to take daring actions through public-private cooperation to realize this “Japan Model” taking initiative of the world and build a future where each and every citizen can feel its richness.

