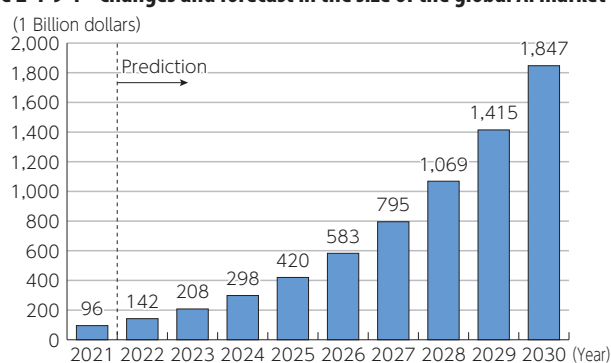## Section 9   Trends in AI

1. Market overview

The global AI market size (sales) is expected to grow to 18.7148 trillion yen in 2022, a 78.4% increase from the previous year, with accelerated growth projected to continue until 2030 **(Figure 2-1-9-1)**.
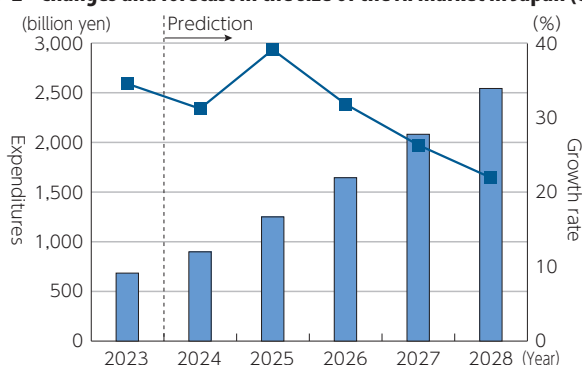
The market size for AI systems[1] in Japan (expenditure) is projected to reach 685.873 billion yen in 2023, a 34.5% increase from the previous year, and continue growing to 2.543362 trillion yen by 2028 **(Figure 2-1-9-2)**.

Figure 2-1-9-1   Changes and forecast in the size of the global AI market (sales)

(Source) Next Move Strategy Consulting (cited from Statista)[2]

Figure 2-1-9-2   Changes and forecast in the size of the AI market in Japan (expenditure)

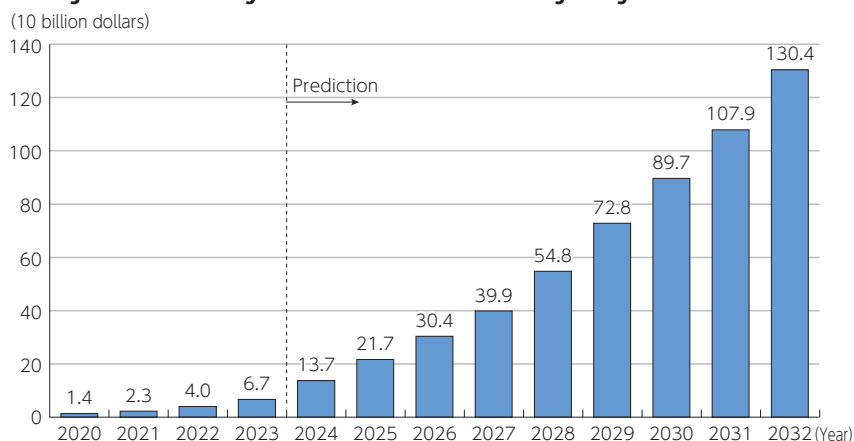(Source) IDC "Announced Market Prediction of Domestic AI System in 2024" (April 25, 2024)[3]

The societal implementation of AI is advancing, with generative AI, which creates text, images, audio, and video, gaining attention. The global generative AI market is expected to expand significantly from 67 billion dollars in 2023 to 1.304 trillion dollars by 2032. This growth is driven by the explosive adoption of generative AI tools such as Google's Bard, OpenAI's ChatGPT, and Midjourney, Inc.'s Midjourney. Generative AI can create various types of content, including text, images, audio, and video, with applications in marketing, sales, customer support, data analysis, search, education, literature, law, and more. It can also generate computer programs and designs, addressing labor shortages and improving productivity **(Figure 2-1-9-3)**.

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[1] Hardware and software platforms for using AI functions and IT services related to the construction of AI systems
[2] https://www.statista.com/statistics/1365145/artificial-intelligence-market-size/
[3] https://www.idc.com/getdoc.jsp?containerId=prJPJ52070224

Figure 2-1-9-3 Changes and forecast in the size of the global generative AI market

(10 billion dollars)

(Source) Bloomberg (Statista)[4]

2. Trends in AI by country

AI is still in a developmental stage, with foundational research being conducted worldwide. According to AI Rankings, which publishes leading countries, companies, and universities based on the number of research papers, the top countries are the U.S., China, the UK, Germany, and Canada, with Japan ranking 11th to 12th annually.

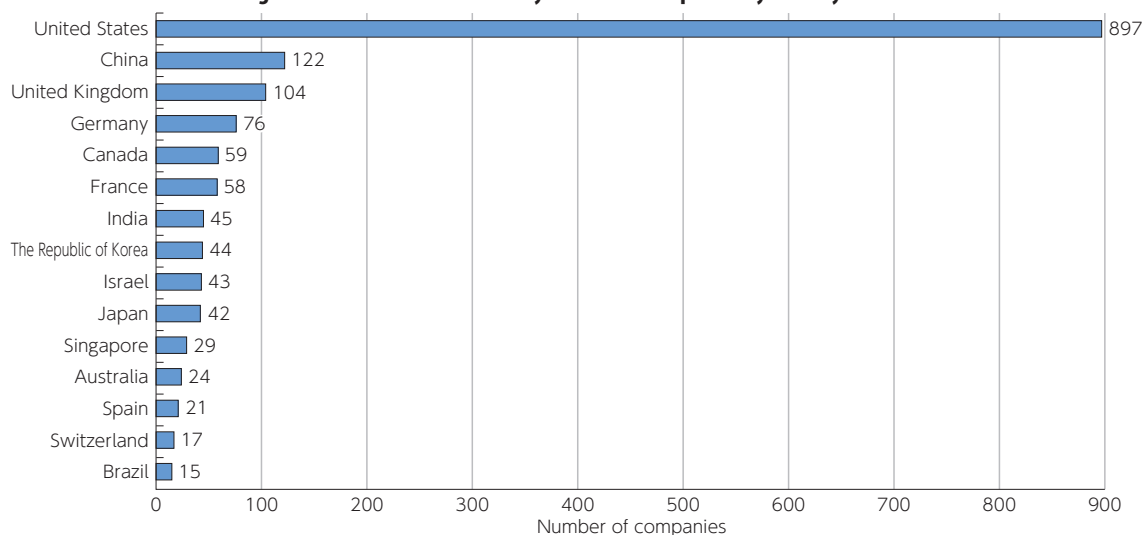**Figure (related data) Changes of AI rankings by country (top 15)**
Source: Prepared based on AIRankings
URL: https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/r06/html/datashu.html#f00291
(Data collection)

Investment in AI-related companies is also increasing. According to Stanford University's "Artificial Intelligence Index Report 2024," the number of AI companies that received new funding in 2023 was highest in the U.S. (897 companies), followed by China (122 companies), and Japan ranked 10th with 42 companies **(Figure 2-1-9-4)**.

Figure 2-1-9-4 Number of newly funded AI companies by country in 2023

(Source) Stanford University "Artificial Intelligence Index Report 2024"[55]

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[4] https://www.statista.com/statistics/1417151/generative-ai-revenue-worldwide/
[5] https://aiindex.stanford.edu/wp-content/uploads/2024/04/HAI_AI-Index-Report-2024_Master.pdf