

# Generative AI: Global markets

The global generative artificial intelligence (AI) market was valued at \$15.4 billion in 2023 and is expected to grow at a compound annual growth rate (CAGR) of 35.3% to reach \$94.4 billion by 2029.

Generative AI is a subfield of AI that specializes in creating new data. It uses pretrained learning techniques to identify underlying patterns connected with the input, which allows it to then produce new text, pictures, videos, audio, and code that replicate the training data's features (Table 1).

The landscape of generative AI is categorized into three main offerings (Table 2): software, hardware, and services (e.g., consulting, installation, and support). In 2023, the software segment dominated the market (73.6%), driven by the increasing adoption of Internet of Things technologies and the growing focus on quality assurance.

Software offerings can be grouped based on the type of foundation model used, i.e., large-scale neural networks trained on massive unlabeled datasets to handle a wide variety of jobs.

- **Statistical models** use statistical machine learning principles to capture complicated patterns in data and produce exact results. ChatGPT, DALL-E, Runway ML, DeepAI, and Jasper AI are examples of generative AI technologies that use statistical models.
- **Rule-based models** rely on pre-defined rules to generate outputs. They are less flexible than other models, but they can be effective in specific applications where rules are clear and well-defined. IBM uses rule-based systems in its Watson AI for decision support in specific fields, including healthcare and finance.
- **Deep learning models** are the most advanced foundation models. These models use many layers of abstraction to learn from large volumes of data, helping them comprehend and

duplicate the minute characteristics that differentiate various groups within a dataset. Among deep learning model types, transformer-based large language models (LLMs) are trending thanks to advancements such as DeepSeek R1, Gemini 2.0, and Grok-3, which have increased demand for LLM-based offerings.

Many industries are embracing generative AI, and its use in on-premises and cloud environments has significantly increased. Cloud-based deployment is especially popular because of its scalability, cost-effectiveness, and simplicity of connection with other cloud services. On-premises deployments, while less common, provide additional control over data privacy and security, making them appropriate for sectors with rigorous data governance requirements.

According to the AI Index report by Stanford University, since 2016, 32 countries have enacted at least one AI bill, with 148 bills passed. As of 2023, the U.S. has passed the most AI-related laws (23), with Portugal (15) and Belgium (12) also ranking highly.

In 2023, North America dominated the global generative AI market with

a 39.6% share. The region is expected to maintain its dominance throughout the forecast period due to the rising adoption of technologies and significant investments in digital transformation across various industries. However, the Asia-Pacific region is expected to grow at the highest CAGR of 37.9% during the forecast period due to the rapid digital transformation across the region, increasing investments in AI technologies, and a growing number of startups focusing on generative AI applications.

## About the author

BCC Publishing Staff provides comprehensive analyses of global market sizing, forecasting, and industry intelligence, covering markets where advances in science and technology are improving the quality, standard, and sustainability of businesses, economies, and lives. Contact the staff at Helia.Jalili@bccresearch.com.

## Resource

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**Table 1. Global market for generative AI, by data type, through 2029 (\$ millions)**

Data type	2023	2024	2029	CAGR % (2024–2029)
Text	7,503.6	10,161.5	46,503.5	35.6
Images/videos	4,933.1	6,747.8	32,453.1	36.9
Code	1,820.5	2,413.6	9,936.2	32.7
Audio/speech	1,155.5	1,507.4	5,481.9	29.5
Total	15,412.7	20,830.3	94,374.7	35.3

**Table 2. Global market for generative AI, by offerings, through 2029 (\$ millions)**

Offerings	2023	2024	2029	CAGR % (2024–2029)
Software	11,346.3	15,361.5	70,210.4	35.5
Hardware	2,691.2	3,565.2	14,618.4	32.6
Services	1,375.2	1,903.6	9,545.9	38.1
Total	15,412.7	20,830.3	94,374.7	35.3