

Global Science & Market Shifts: Unpacking Innovations in AI, Space, Biotech,

Scientific Discoveries · Answer Key · 13 Questions

1. Which country has seen its quantum computing market reach approximately US\$1.61 billion in 2025, with a projected annual growth rate exceeding 30%, and is prioritizing quantum technology as a key 'future industry' in its 15th Five-Year Plan (2026-2030)?

- A) South Korea
- B) China**
- C) Japan
- D) United States

2. In India's burgeoning space economy, what is the projected value by 2033, and what percentage of the global space market does it aim to capture, according to its Decadal Vision and Strategy?

- A) US\$24 billion, 5%
- B) US\$44 billion, 8%**
- C) US\$60 billion, 10%
- D) US\$100 billion, 12%

3. Which nation's AI sector is projected to contribute up to US\$79.3 billion to its national economy by 2030, bolstered by a new Digital Technology Industry Law offering significant tax and investment incentives?

- A) Indonesia
- B) Thailand
- C) Vietnam**
- D) Malaysia

4. South Korea's semiconductor industry held what percentage of the global memory semiconductor market in 2022, and what was its overall global semiconductor market share that same year?

- A) 52.6% market share and 17.7% global share**
- B) 60.5% memory market share and 13% global share
- C) 70.5% DRAM share and 17.3% foundry share
- D) 51% NAND share and 18.9% export share

5. What is the projected revenue for Mexico's biotechnology market by 2030, and what is its expected Compound Annual Growth Rate (CAGR) from 2024 to 2030?

- A) US\$14.8 billion, 9.9%**
- B) US\$20.4 billion, 6.01%
- C) US\$15.5 billion, 12.1%
- D) US\$12.1 billion, 7.5%

6. In Italy's aerospace and aviation industry, valued at over \$50 billion, it ranks as the 4th largest in Europe and 7th globally. What is its export value to the United States, and what was the growth from 2021 to 2023?

- A) \$3.55 billion in 2021 to \$4.36 billion in 2023**
- B) \$2.1 billion in 2021 to \$3.5 billion in 2023
- C) \$5.0 billion in 2021 to \$6.2 billion in 2023
- D) \$1.0 billion in 2021 to \$1.5 billion in 2023

7. Sweden's advanced chemicals and materials science sector is a global innovation hub. Which of the following is a key focus area for their sustainability-driven innovation in this sector?

- A) Development of synthetic fuels for transportation
- B) Research into advanced ceramic superconductors
- C) Creation of bio-based plastics and eco-friendly construction materials**
- D) Exploration of rare-earth element extraction from deep-sea vents

8. Which country is targeting 80 GWh of annual domestic battery production capacity by 2030, aiming to become a regional hub for battery manufacturing and energy storage, and has seen significant investments from companies like BYD and SIRO?

- A) South Africa
- B) Turkey**
- C) Brazil
- D) Mexico

9. The United States biopharmaceutical industry is a major economic engine. What are identified as the four pivotal drivers behind its leadership in innovation?

- A) Strong IP rights, significant public research investment, robust startup environment, and favorable regulatory pathways.**
- B) Aggressive patent enforcement, substantial private equity funding, advanced AI integration, and a large patient pool.
- C) Government subsidies for R&D, low manufacturing costs, rapid clinical trial approvals, and extensive university collaborations.
- D) International market access, efficient supply chain logistics, skilled labor availability, and advanced diagnostic technologies.

10. Japan's AI in healthcare market is projected to reach US\$14.8 billion by 2033. What is the primary demographic challenge driving this rapid adoption of AI in their healthcare system?

- A) A rapidly growing young population requiring advanced pediatric care.
- B) A shrinking working population and an aging demographic leading to workforce shortages.**
- C) High rates of infectious diseases requiring advanced AI-driven outbreak detection.
- D) A low birth rate leading to reduced demand for healthcare services overall.

11. In Vietnam's push for AI adoption, what percentage of businesses reported improvements in operations and revenue growth, and what percentage anticipated or achieved cost savings through AI, according to an AWS Vietnam report?

- A) 70% revenue growth, 65% cost savings
- B) 61% revenue growth, 58% cost savings**
- C) 55% revenue growth, 72% cost savings
- D) 45% revenue growth, 50% cost savings

12. South Korea's semiconductor industry, a global leader, accounted for what percentage of the global foundry market in 2022, driven by ultra-fine processing technology?

- A) 60.5%
- B) 17.3%**
- C) 70.5%
- D) 52.6%

13. What is the projected contribution of digital transformation to Vietnam's economy annually by 2030, and which sector is identified as the largest economic beneficiary?

- A) US\$74 billion, manufacturing sector
- B) US\$52 billion, technology sector
- C) US\$109 billion, finance sector
- D) US\$74 billion, agriculture and food sector**