Nasdaq

Nasdaq Global Artificial Intelligence & Big Data™ Index

Effective July 2026

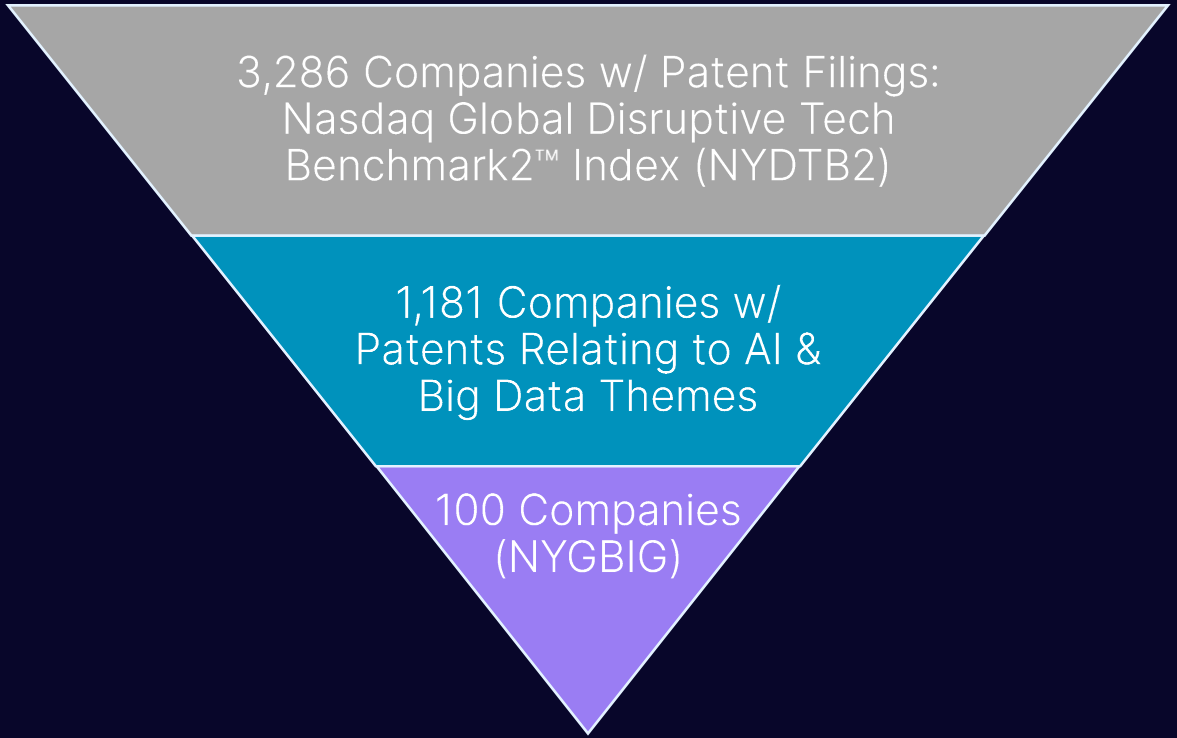
Effective: July 20, 2026

Patent Methodology Overview

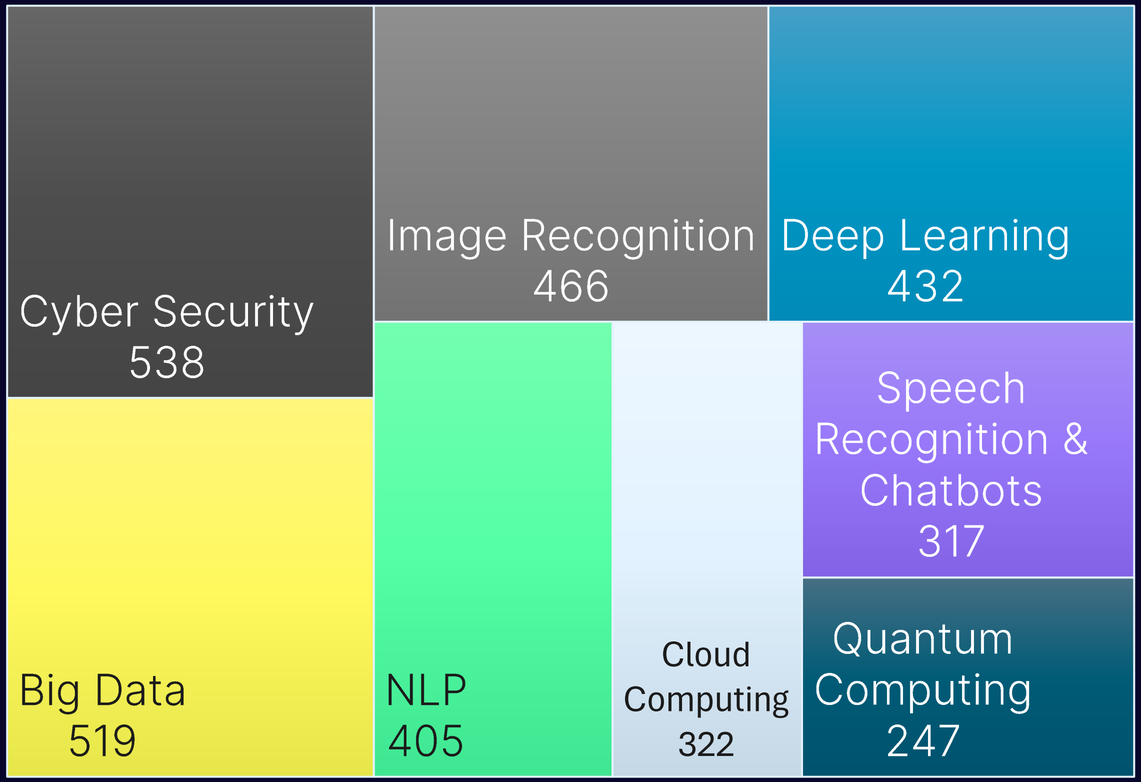
Nasdaq Global AI & Big Data™ Index (NYGBIG™)

NYGBIG is designed to track the performance of companies that are most active in filing patents relating to Deep Learning, Natural Language Processing (NLP), Image Recognition, Speech Recognition & Chatbots, Cloud Computing, Cyber Security, Quantum Computing, and Big Data. Of the 3,286 companies in the starting universe (NYDTB2™), 1,181 filed patents in one or more of these areas in the most recent two-year lookback period; Cyber Security was most common with 583 companies filing related patents; 100 companies met all index criteria and were selected for NYGBIG inclusion

NYGBIG Broad Funnel



NYGBIG Eligible Constituents (1,181):



Source: Nasdaq, Patent data as of 05/31/2026. Index data as of 07/20/2026.

Effective: July 20, 2026

Patent Methodology Overview

Nasdaq Global AI & Big Data™ Index (NYGBIG™)

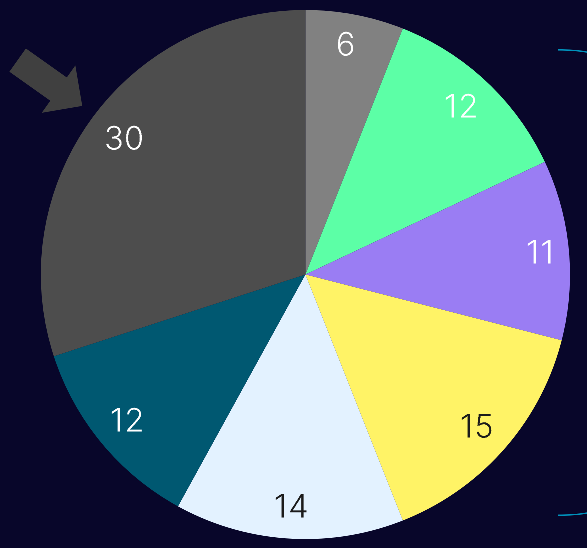
NYGBIG's universe of eligible constituents are assigned an Intensity Score, measuring the number of sub-themes (i.e. relevant technologies with patent filings) with a level of involvement (max score = 8, min = 1). Constituents are selected based on the strength of their Pure & Contribution scores (must be in the top 50^{th} percentile to remain in the index, top 35^{th} percentile for additions), as well as their Intensity Score. Preference is given to constituents that belong to ICB Subsectors determined as being most relevant to the theme, while also allowing a few other high-relevance, high-scoring stocks (e.g., Walmart, Amazon, Alibaba) that are eligible irrespective of industry classification.

of Constituents vs. Breadth of Patent Activity

Walmart (IS: 8)

Primary Sub-Theme:
Deep Learning

Other Sub-Themes:
- NLP
- Image Recognition
- Cloud Computing
- Big Data
- Speech Recognition
- Quantum Computing
- Cyber Security



Most of the index (94 out of 100 constituents) have Intensity Scores of 3 or higher for patent activity relating to AI & Big Data

# of Sub-Themes with Patent Activity ■1 ■2 ■3 ■4 ■5 ■6 ■7 ■8

NYGBIG Constituent Examples (Primary ICB Subsector):

SAP (IS: 8)

Primary Sub-Theme:
Big Data

Other Sub-Themes:
- NLP
- Deep Learning
- Image Recognition
- Cloud Computing
- Speech Recognition
- Quantum Computing
- Cyber Security

Adobe (IS: 7)

Primary Sub-Theme:
Image Recognition

Other Sub-Themes:
- Deep Learning
- NLP
- Cyber Security
- Cloud Computing
- Big Data
- Speech Recognition

AMD (IS: 6)

Primary Sub-Theme:
Quantum Computing

Other Sub-Themes:
- Image Recognition
- Deep Learning
- Big Data
- Cloud Computing
- Cyber Security

QuantumCTek (IS: 2)

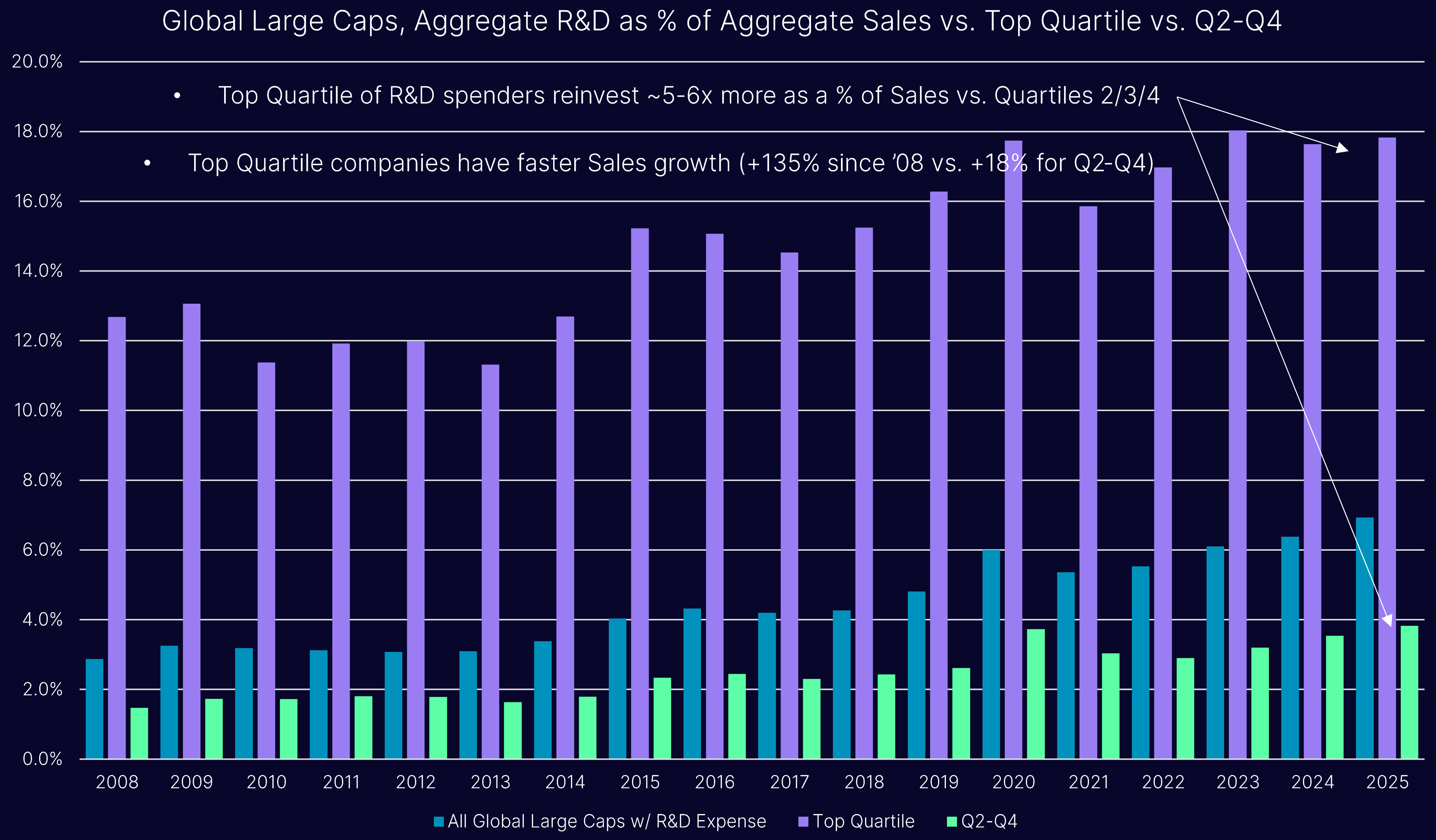
Primary Sub-Theme:
Quantum Computing

Other Sub-Themes:
- Cyber Security

Source: Nasdaq, Patent data as of 05/31/2026. Index data as of 07/20/2026

Growth of R&D Spending among Global Large Caps

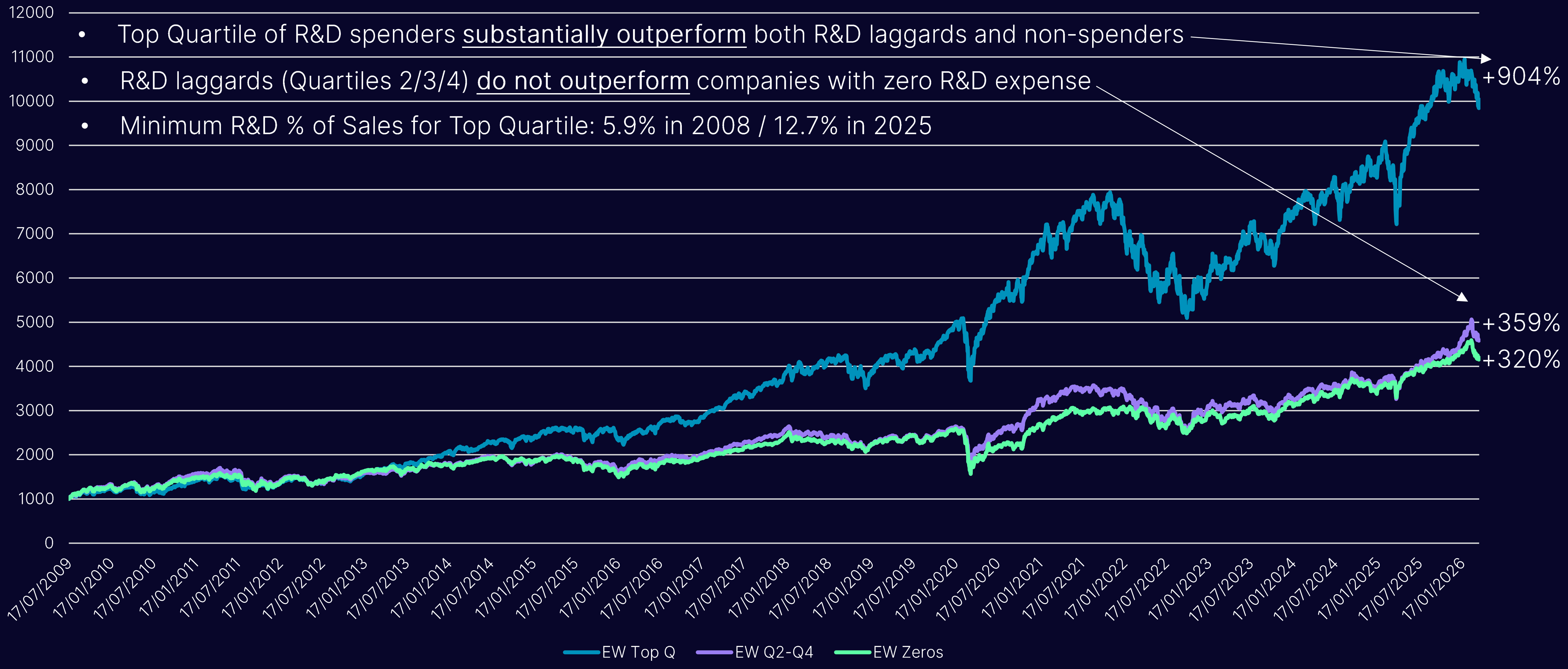
- Based on Nasdaq Global Large Cap Index universe of companies with some level of reported R&D (2025: 349 out of 948 companies)
- Annual R&D as % of Sales has steadily grown from ~3% in 2008 to ~6-7% in recent years among this group
- Top Quartile has increased R&D from ~12-13% of Sales to ~17-18% in recent years
- Rest of R&D spenders (Quartiles 2/3/4) has increased from ~1.5% to ~3-4%
- Total R&D across global large caps up from $342B in 2008 to $1T+ in 2024 / 2025



Source: Nasdaq, Factset as of 6/11/2026. Index data as of each year-end from 12/31/2008 to 12/31/2025.

R&D Leaders Outperform Laggards/Non-Spenders

Global Large Caps: Top Quartile Firms Ranked by R&D % Sales vs. Quartiles Q2-Q4 vs. Zero R&D Firms, Equal-Weighted Performance (TR), 2009-2026

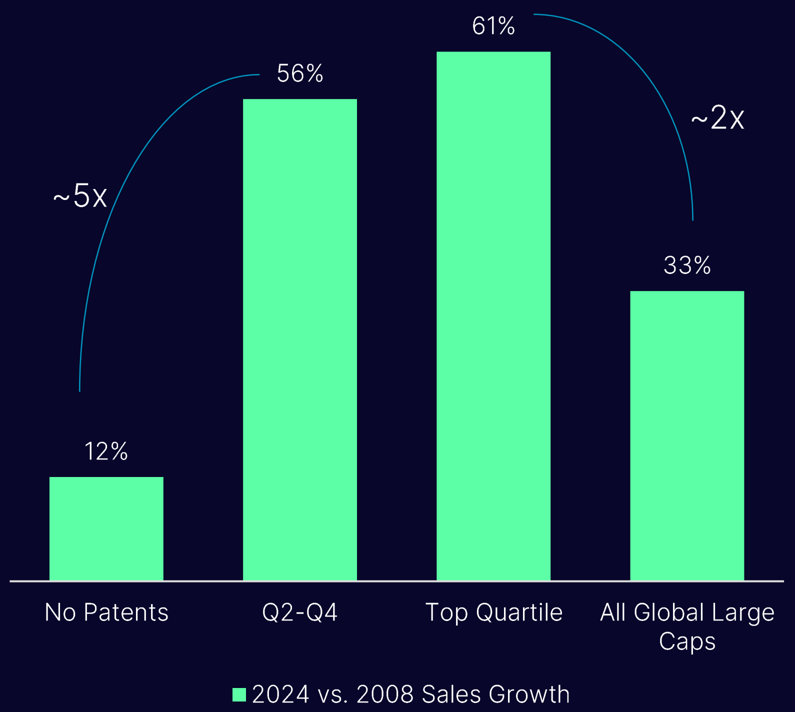


Source: Nasdaq, Factset as of 3/31/2026. Index data as of each year-end from 12/31/2008 to 12/31/2024.
Companies are ranked on prior full-year R&D expense as % of Sales on a 6-month lag (June 30) to allow for disclosure of reported financials. Baskets rebalanced annually 3rd Friday of July.

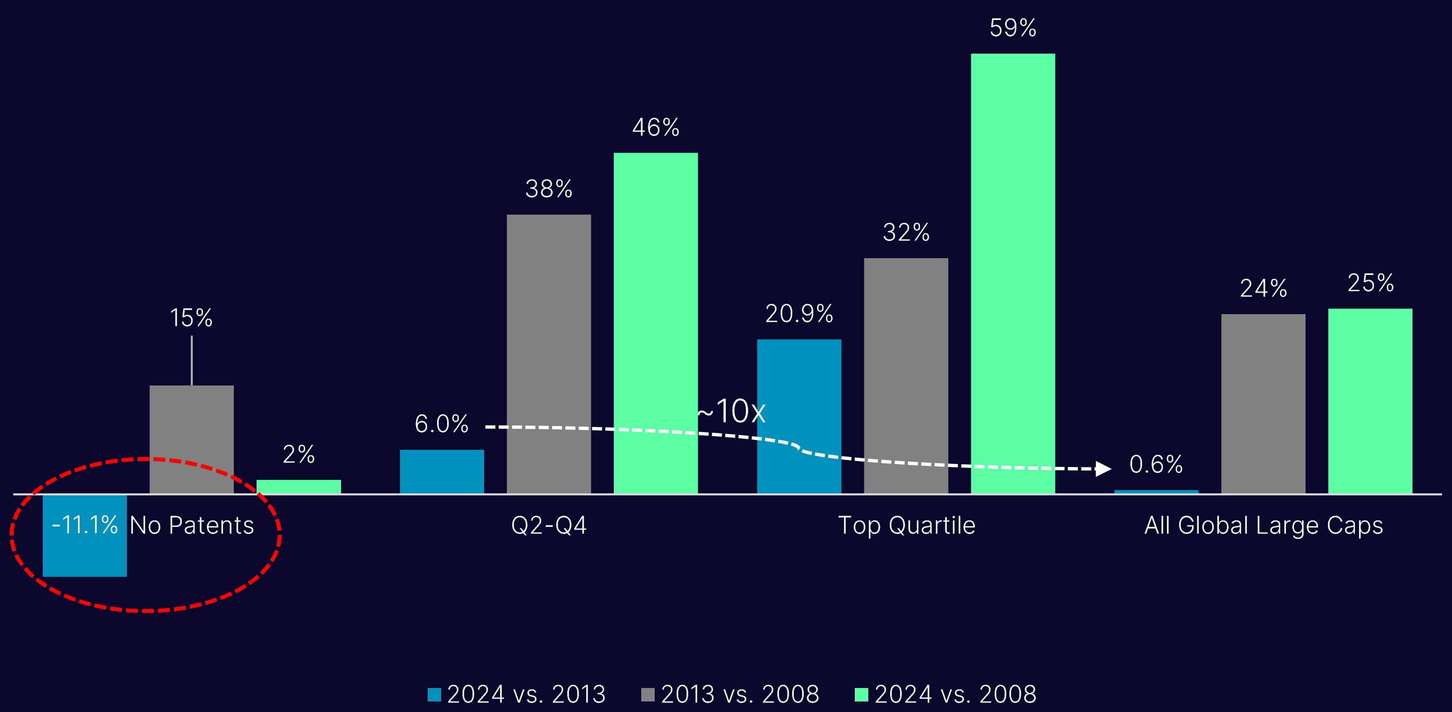
Patent Filings as a Growth Signal

Among global large caps in 2024, patent filers recorded the fastest sales growth over the past decade and a half, up ~60% regardless of the volume of patents, ~2x the average for the entire group of companies (33%). Those with no patent filings recorded growth of only 12%. Looking at the same groupings of companies as of 2013 market cap/patent rankings, patent filers would have also seen at least ~10x the rate of sales growth on a 11-year, go-forward basis, while non-filers saw negative sales growth.

2024 Patent Filers: Trailing 15-Year Aggregate Sales Growth



2013 Patent Filers: Trailing 5-Year / 10-Year Forward Aggregate Sales Growth



Source: Nasdaq Global Indexes, Nasdaq AI Team, IFI Claims, Factset as of 9/30/2025. Index data as of 12/31/2013 and 12/31/2024.
Companies are ranked on prior full-year total patent filings.

Disclaimer