

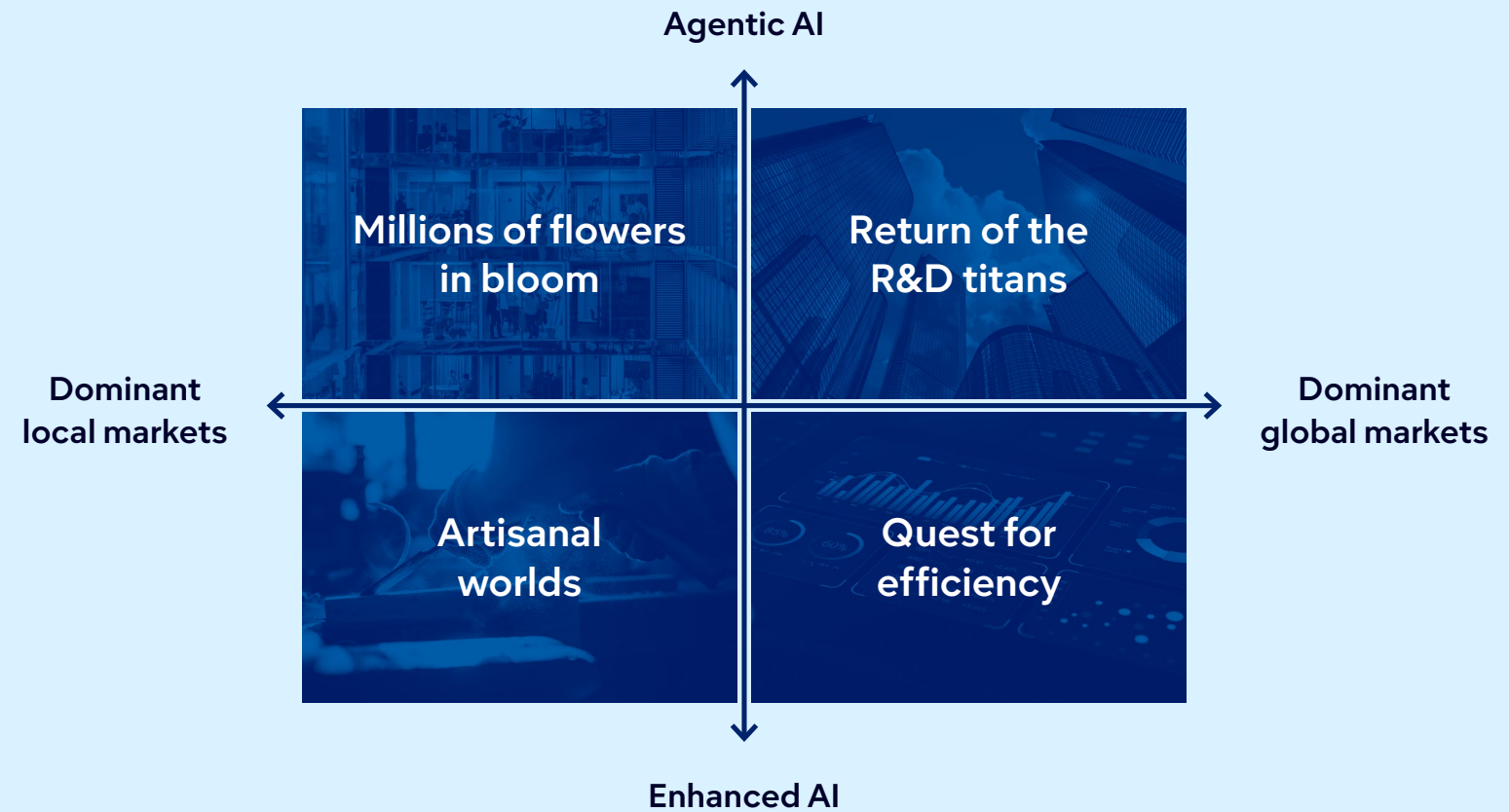
AI and global marketplace dynamics over the next five years will fundamentally disrupt how R&D operates and innovates. This report outlines four distinct scenarios for the future of R&D that are emerging from the intersection of these two key drivers. R&D leaders should use these scenarios to inform their forward-looking budgets, project portfolio decisions and organizational design across the coming years.



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Gartner position

Between now and 2030, the intersection of AI and global marketplace dynamics will define four alternative futures for R&D and each demands different strategies for portfolio, talent and leadership.



Source: Gartner



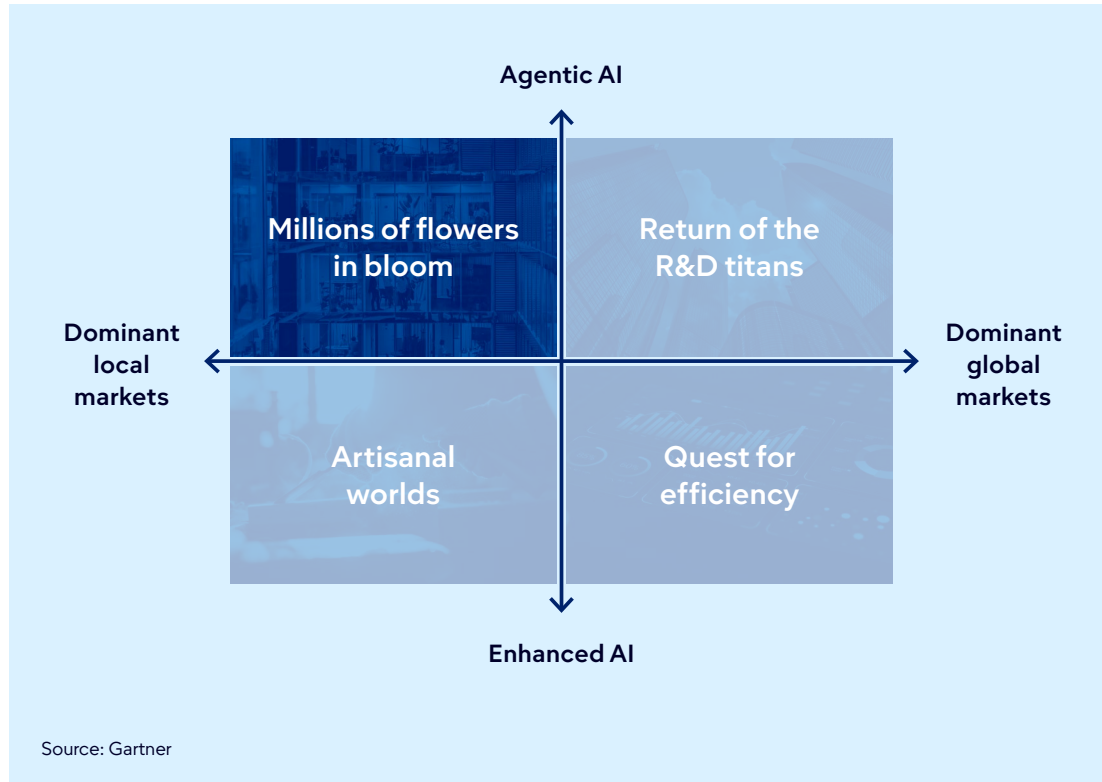
Millions of flowers in bloom

Overview

Proliferation of low-cost, highly effective AI tools democratizes desktop R&D; AI unlocks attractive niche markets and accelerates idea-to-prototype learning loops.

Operating implications

- **Winning portfolio mix:** 60% transformational, 20% next-gen and 20% incremental, with many big bets that can be versioned for localized needs.
- **Metrics:** Number of new products launched; speed from idea to market; diversity of portfolio.
- **Leadership posture:** Visionary market sensor — orchestrates fast learning loops and prioritizes ideation-to-market test speed.
- **Critical skills:** Use of AI “digital colleagues” for rapid ideation and experimentation; market insights and trend sensing.
- **Organization model:** Decentralized; small project teams with heavy AI digital colleague deployment.





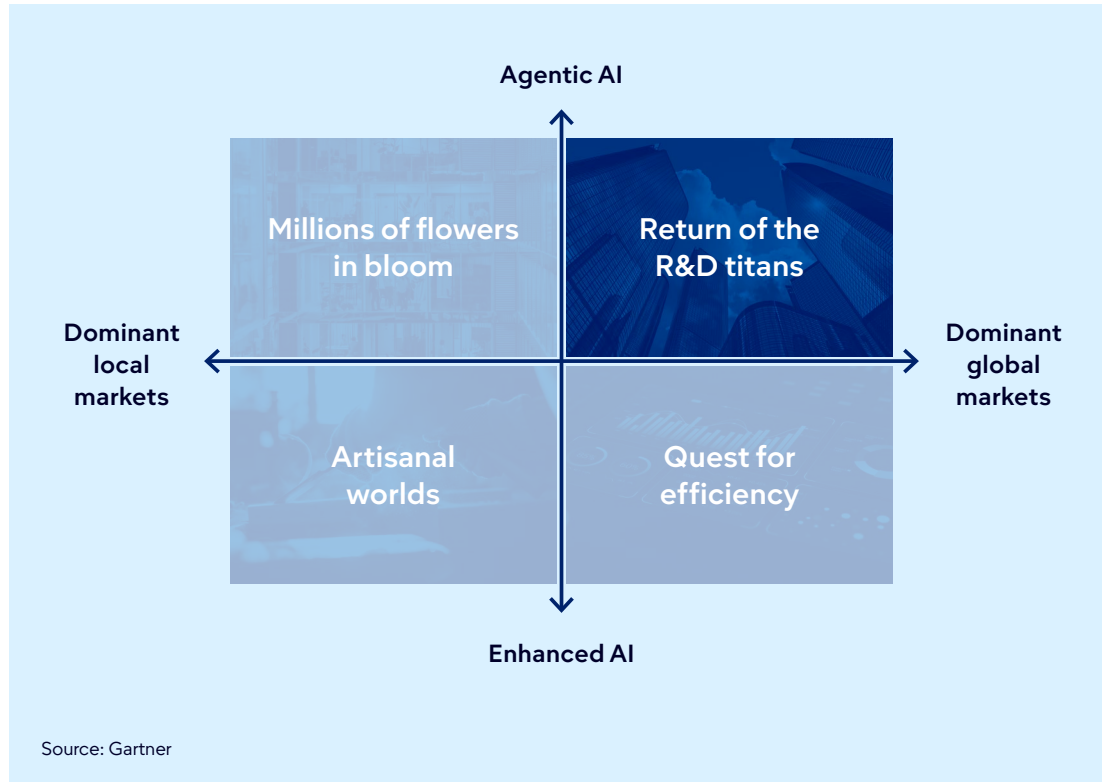
Return of the R&D titans

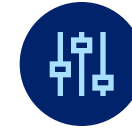
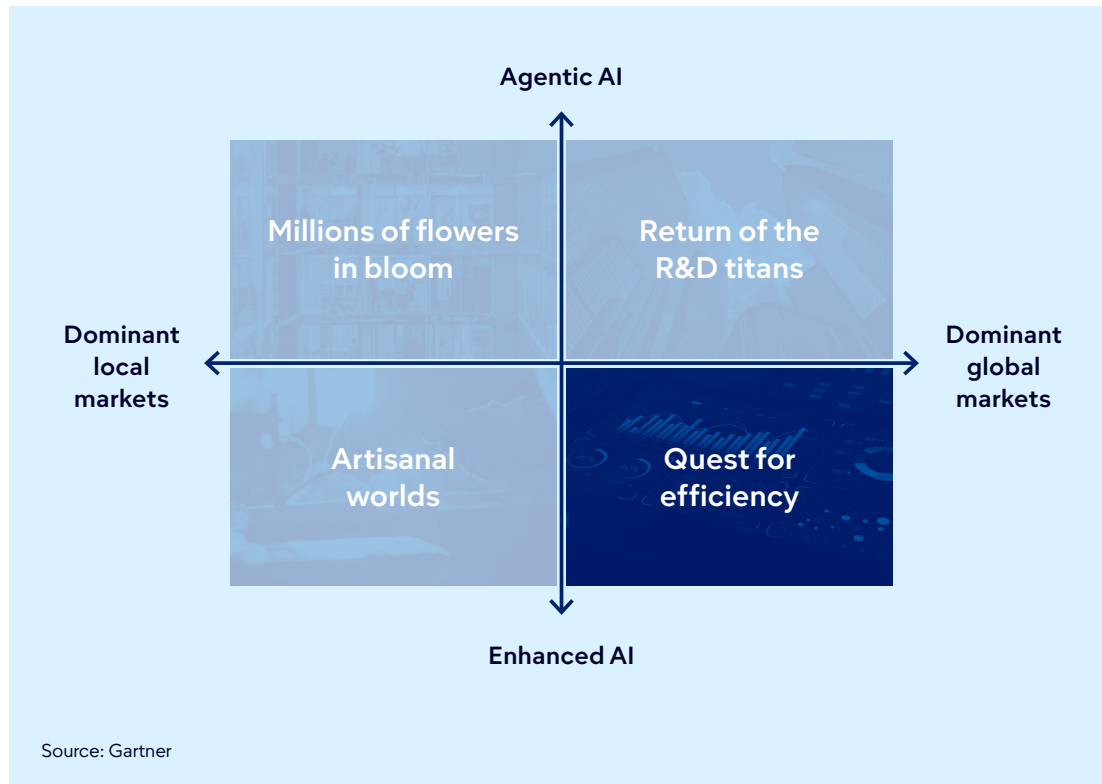
Overview

Globalized markets plus powerful (expensive) AI tools concentrate economic power; only a few players control category-defining R&D.

Operating implications

- **Winning portfolio mix:** 40% transformational, 20% next-gen and 40% incremental, with a few very large bets.
- **Critical skills:** AI-augmented solution testing; stakeholder influence for consensus decision making.
- **Organization model:** Highly centralized; large project teams with heavy AI augmentation.
- **Metrics:** Number of patents; market concentration/ penetration; speed to global scale for launches.
- **Leadership posture:** Global thought leader — personally champions the most promising technology bets and the monetization path.





Quest for efficiency

Overview

AI underdelivers on autonomy and becomes a complementary efficiency tool; corporate R&D focuses on process excellence while startups lead transformational breakthroughs.

Operating implications

- **Winning portfolio mix:** 5% transformational, 20% next-gen and 75% incremental, with an emphasis on outcome optimization.
- **Metrics:** Cost reduction; reduced time to market for incremental projects; percentage of on-time/on-budget delivery.
- **Leadership posture:** Technocratic process manager — drives operational efficiency and rigorous metrics to monitor gains.
- **Critical skills:** Use of AI to identify efficiencies; process engineering and analytics.
- **Organization model:** Highly centralized; small teams focused on incremental improvements and scaling external winners.



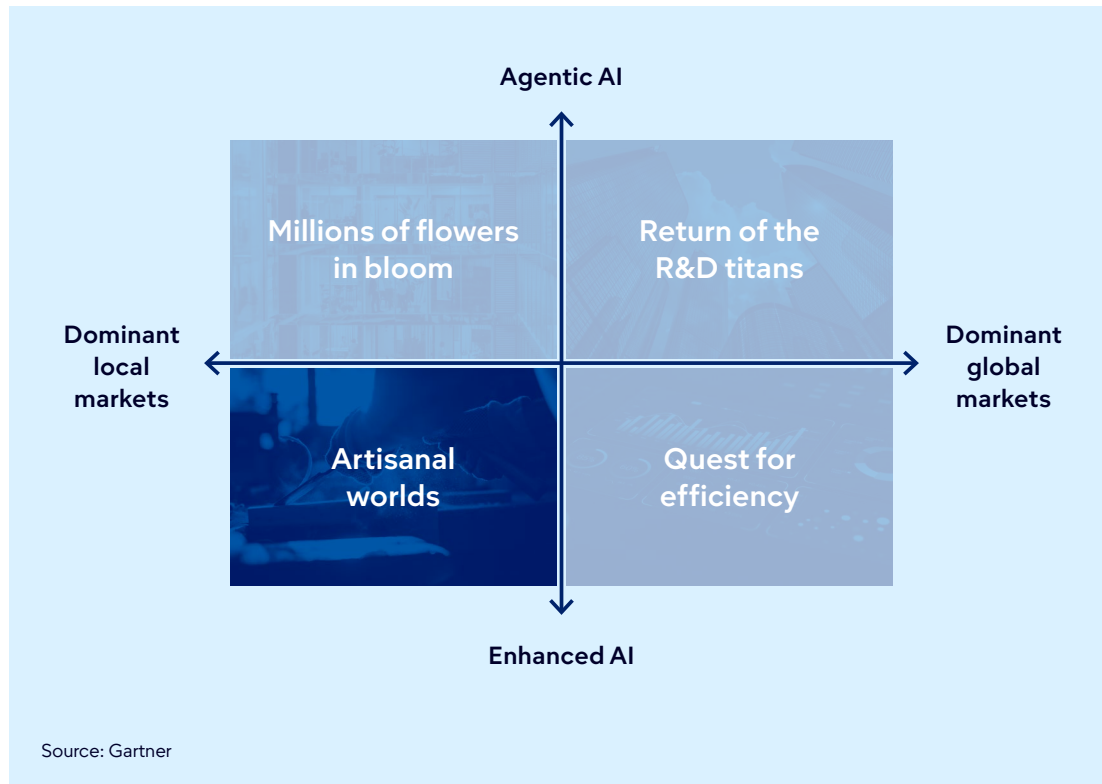
Artisanal worlds

Overview

Social pushback and AI overpromise fuel a return-to-analog movement; demand rises for handmade, custom, unique offerings; antiscale R&D thrives.

Operating implications

- **Winning portfolio mix:** 10% transformational, 40% next-gen and 50% incremental with a few small bets.
- **Critical skills:** AI augmentation to refine quality; product/feature mastery and small, impactful differentiators.
- **Organization model:** Highly decentralized; very small teams focused on artistic, niche value-adds.
- **Metrics:** Number of unique products; local market share growth; share of niche categories.
- **Leadership posture:** Storytelling technology advocate — crafts the narrative of differentiated impact and enables small-batch delivery.



Overview of the 4 scenarios for R&D in 2030



	Millions of flowers in bloom	Return of the R&D titans	Quest for efficiency	Artisanal worlds
Scenario characteristic	Desktop R&D	Concentrated R&D power	Short-term incrementalism	Custom-made and unique
Winning portfolio mix	Many big bets that can be versioned for niche needs	Few very large bets	Incremental optimization	Very few small bets
Critical R&D team skill	Trend sensing	Stakeholder influence	Workflow engineering	Feature mastery
Preferred R&D organizational model	Small decentralized teams	Large centralized teams	Small efficiency-focused teams	Small decentralized niche-focused teams
Highlighted metrics	Number of new products launched	Market concentration/ penetration	Cost reduction	Number of unique products created
Successful R&D leadership posture	Visionary market sensor	Global thought leader	Technocratic process manager	Storytelling technology advocate

Source: Gartner

R&D 2030: Next steps for R&D leaders



Lead conversations among R&D team members and key stakeholders on the ideas posed by each of the four scenarios.



Identify leading indicators for gaining early insights into how the future is unfolding over the next five years.



Determine which of the four scenarios is most likely to occur and which one is your most preferred, and decide how you will plan for the future accordingly.







Begin to alter the portfolio mix, team skills, organizational models and metrics to better align with your selected scenario.



Adopt the leadership posture for your selected scenario.

Actionable, objective insights

Position your R&D function for success. Explore these additional complimentary resources and tools for innovation leaders:

<p>Guide </p> <p>Strategic Planning Guide for R&D Leaders</p> <p>Document your R&D strategy on a consumable, one-page template.</p> <p>Download Now</p>	<p>Insights </p> <p>Top 3 Strategic Priorities for R&D</p> <p>Discover the top 3 strategic imperatives and associated challenges for R&D leaders this year.</p> <p>Read Now</p>	<p>Webinar </p> <p>Join an Expert-Led Event</p> <p>Hear the latest insights from Gartner R&D experts at an upcoming or on-demand event.</p> <p>Explore Webinars</p>	<p>How We Help </p> <p>Gartner for R&D</p> <p>Explore insights, guidance and tools to enable you to drive growth through product innovation.</p> <p>Learn More</p>
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