

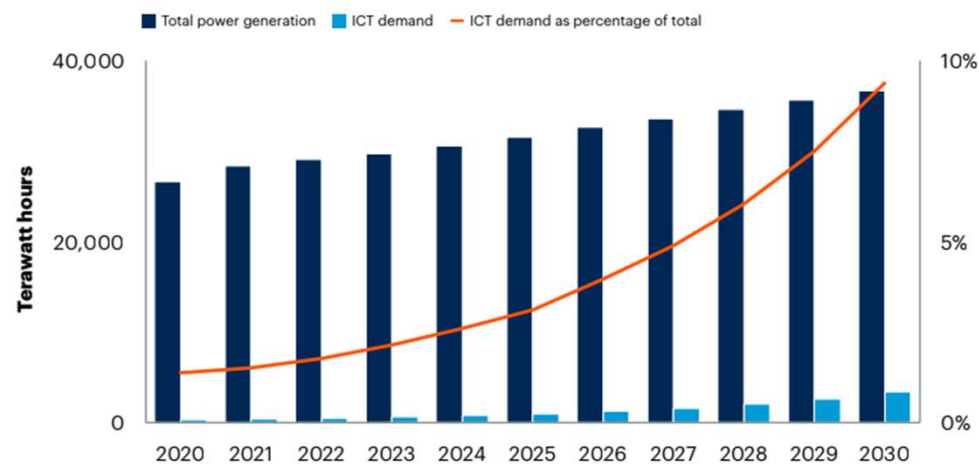
Future of Energy Efficient Compute



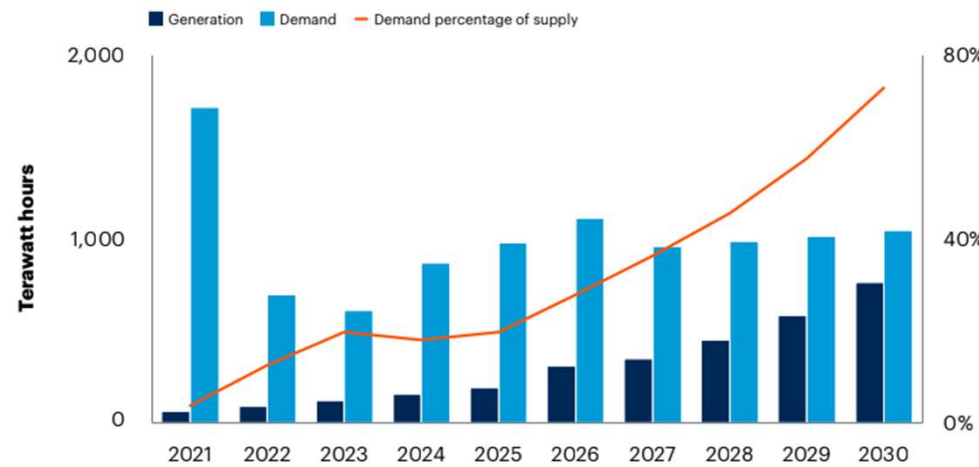
Gaurav Gupta, VP Analyst,
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GenAI Raises Power Problems

Total Global Power Generation vs ICT Demand

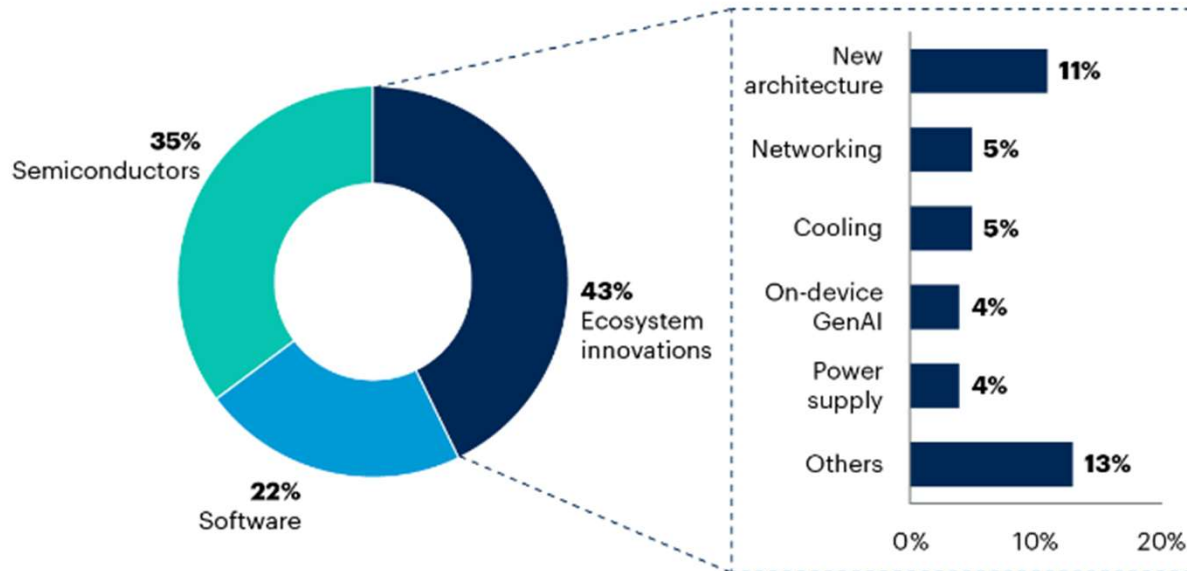


Annual Increase for Power Generation vs ICT Demand



Wider Innovations will Solve the Power Issue

Semiconductor and Ecosystem Innovations to Solve the GenAI Power Problem
Percentage of responses from semiconductor companies



Source: Gartner (August 2024)
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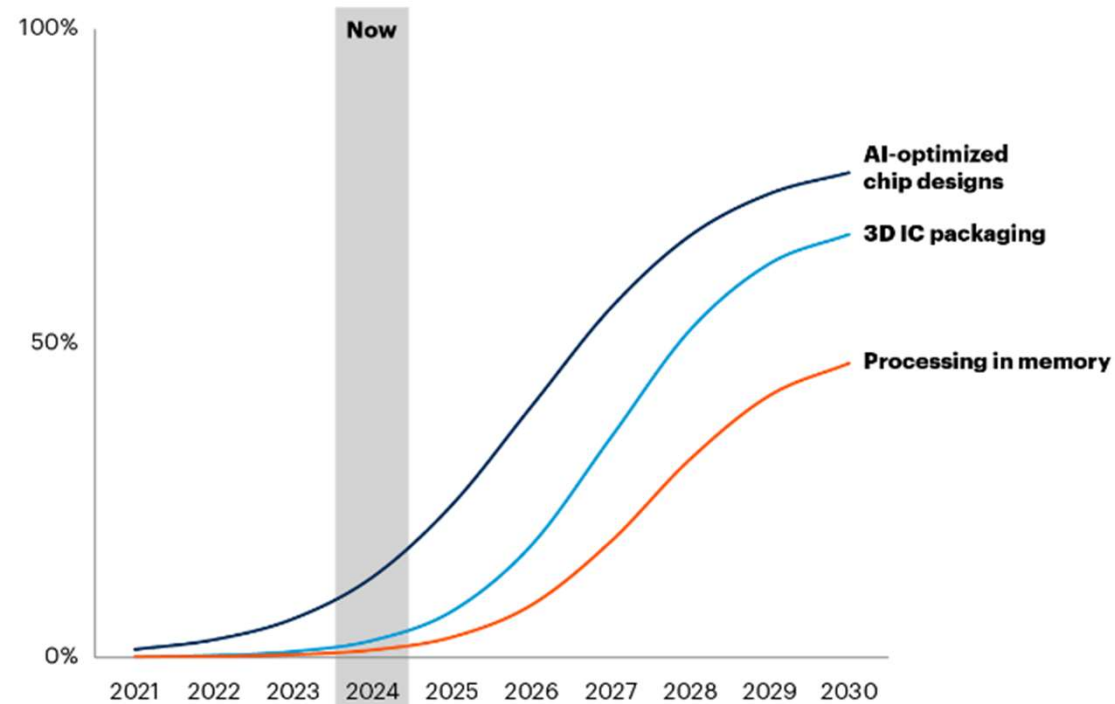
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Semiconductor innovations across 3 key areas

Top Trends in Energy-Efficient Solutions for GenAI Compute Infrastructure

Percentage of market penetration



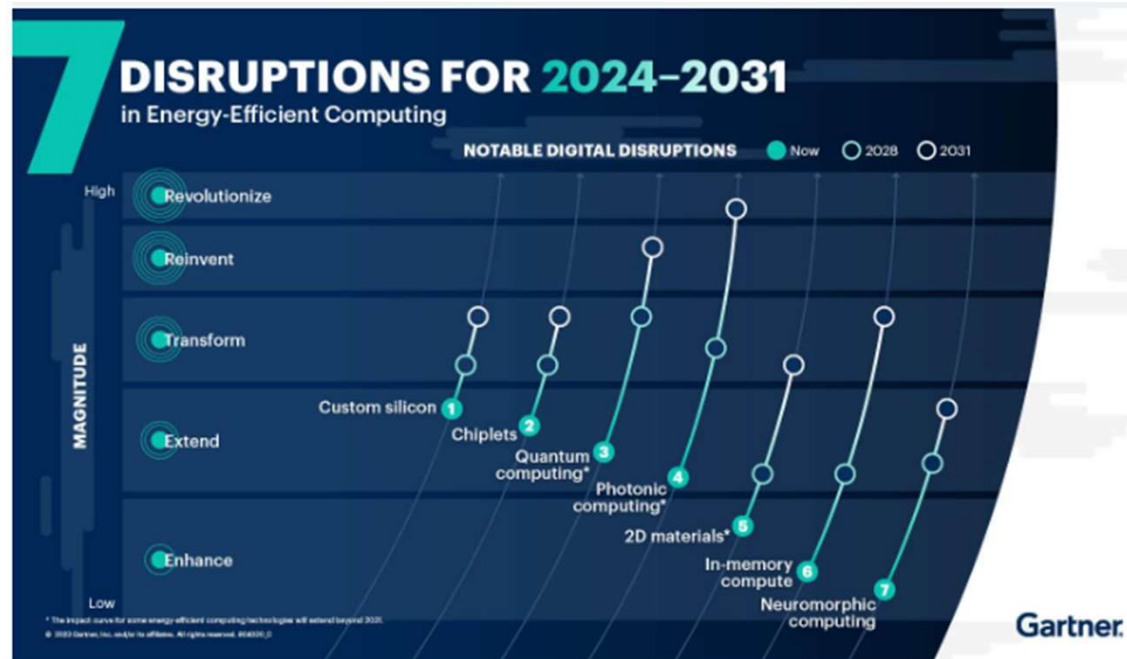
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Several disruptive compute technologies in play



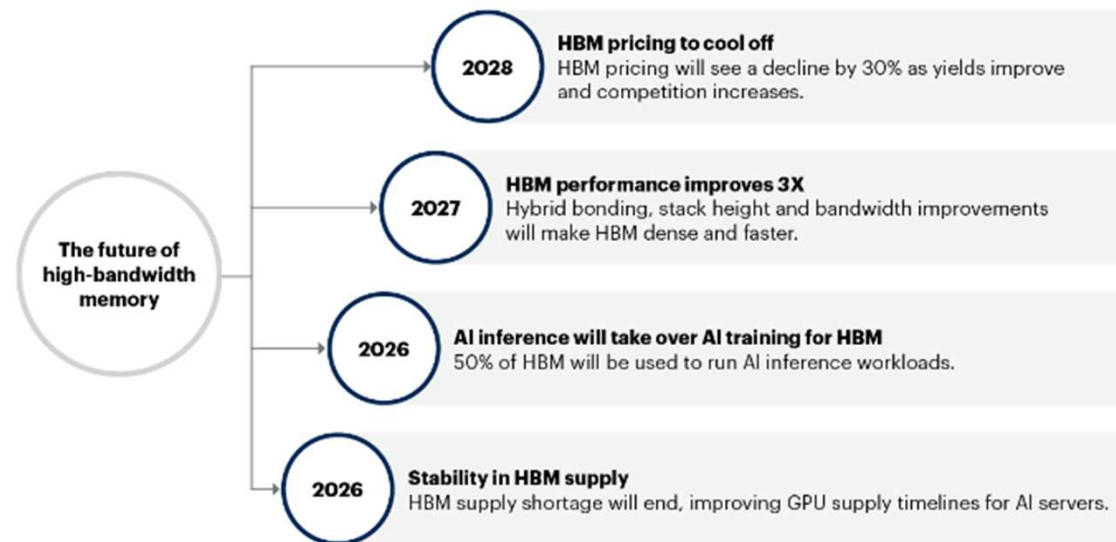
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Progress in HBM will be critical

The Future of High-Bandwidth Memory



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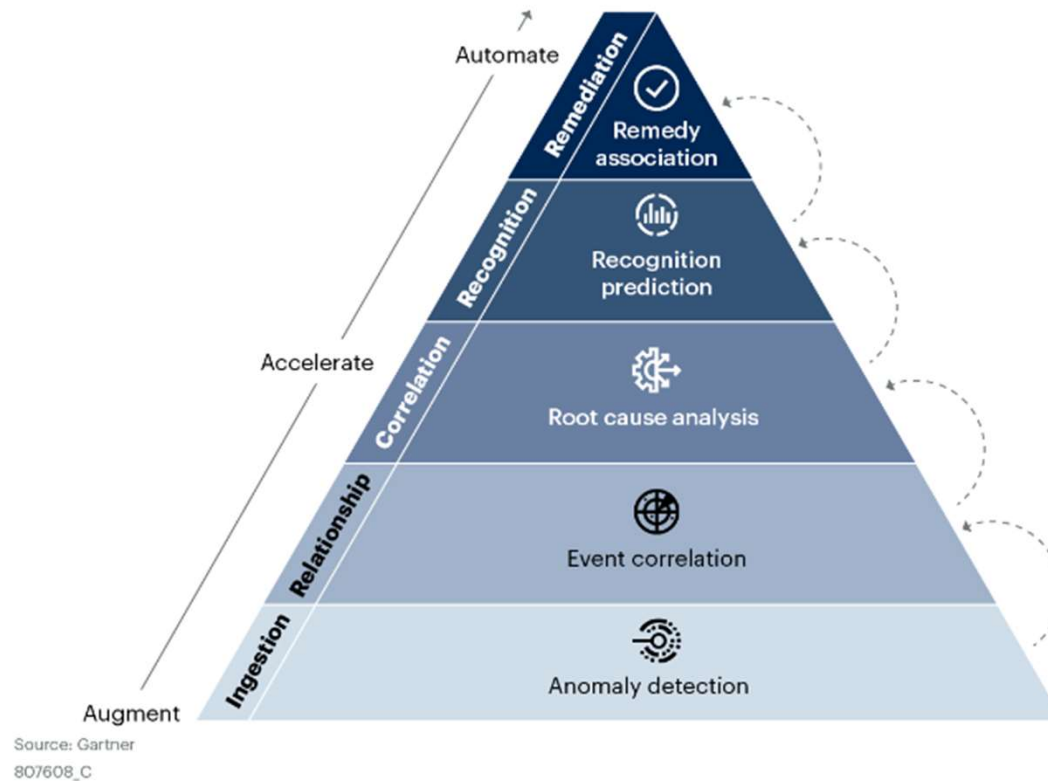
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Infrastructure analytics will help

AIOps Capabilities and Characteristics to Rethink AI Power Usage

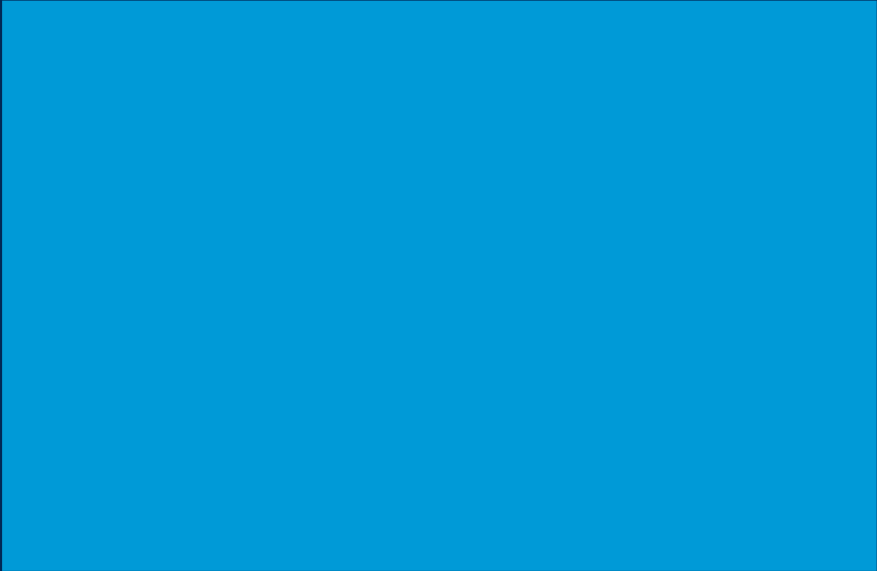


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- 1** *Realize: GenAI Power Problem is an Opportunity*
- 2** *Optimize: Hardware Infrastructure to Workload*
- 3** *Recognize: Software/LLM Innovation with **Integrated Solutions** is Most Efficient Path Forward*
- 4** *Embrace: On-Device GenAI and Edge as Use Cases*
- 5** *Leverage: Analytics to Assess, Predict, Act.*



Thanks

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