



HYPERION RESEARCH

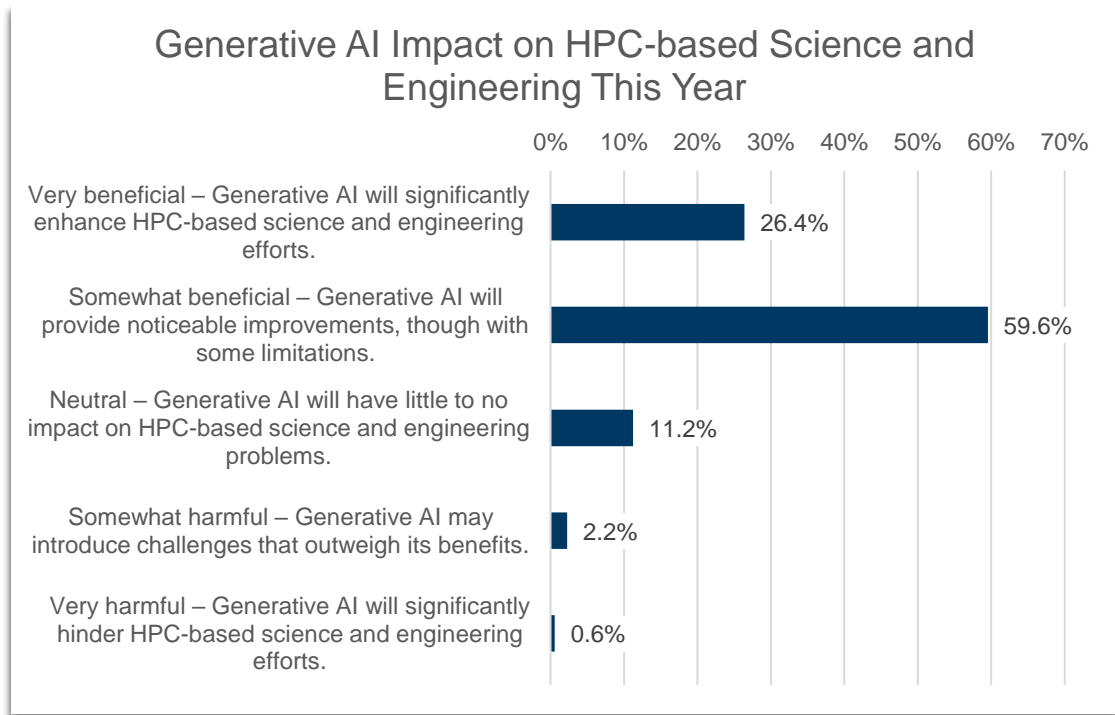


Top Of Mind #1
Survey Results
March 2025

ToM Survey #1 Results

- Hyperion Research recently conducted its first Top of Mind (ToM) survey designed to gather quick answers on some of the more compelling questions of the day
- For this maiden activity, questions spanned AI, mixed precision data formats, hyperscalers and the Top 500 list, quantum computers, and HPC hardware shortcomings
- 178 respondents from across the HPC/AI community and around the world participated in the survey
- Questions and comments are most welcome and can be addressed to info@hyperionres.com with the subject header *ToM Survey #1*

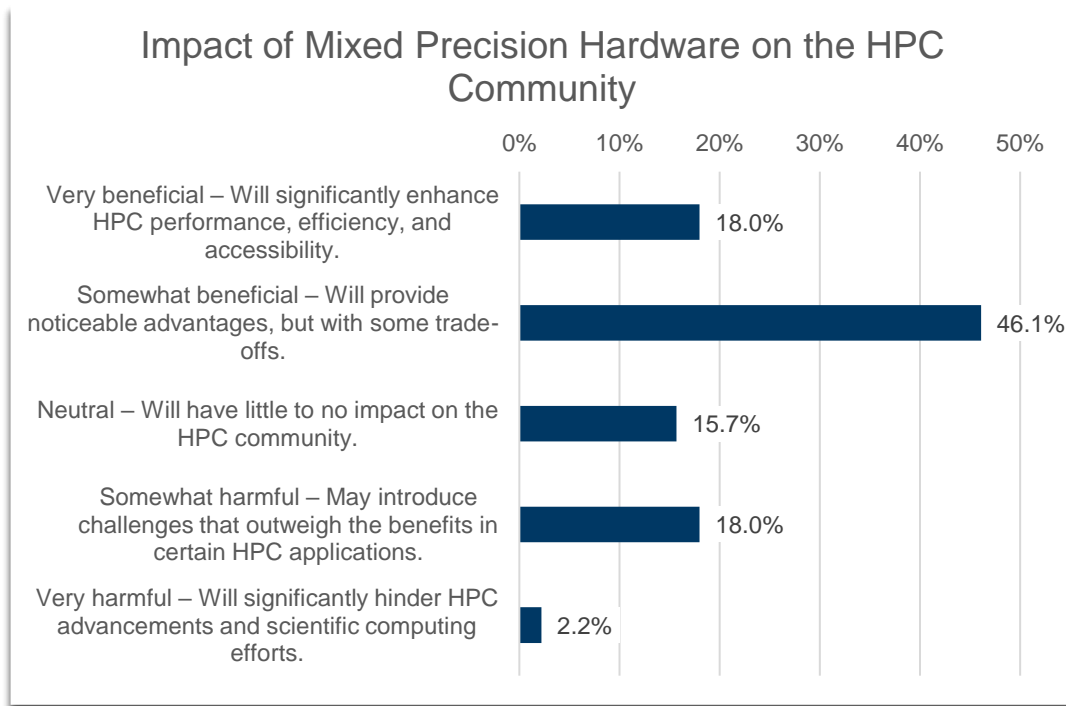
1) What impact will Generative AI have on HPC-based science and engineering problems this year?



N = 178, Source: Hyperion Research, 2025

- Overall, Generative AI (Gen AI) seen as a positive force in HPC-related S&E efforts
- Almost 60% see Gen AI as somewhat beneficial to HPC-related S&E problems
- One in four see the potential for significant enhancement from Gen AI
- Little concern of potential harm

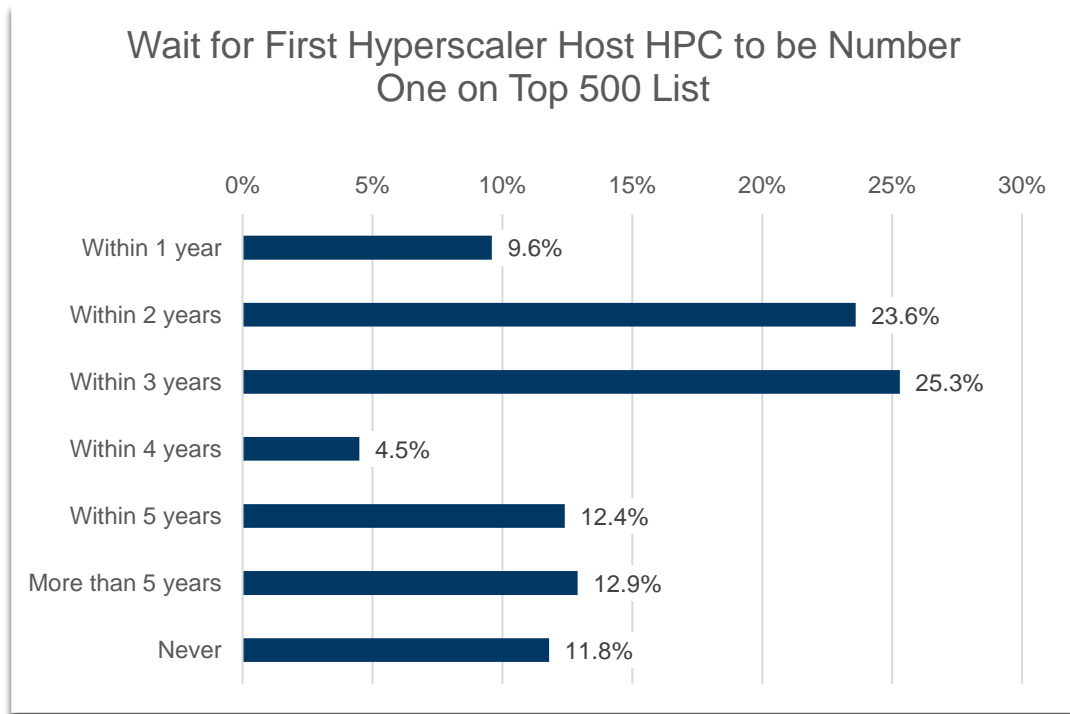
2) What impact will the growing emphasis on mixed or low-precision hardware have on the HPC community in the next three years?



N = 178, Source: Hyperion Research, 2025

- The growing trend towards support for mixed precision hardware, spanning 64-bit floating point to include 32, 16, 8 and lower floating point and integer data formats is mostly seen as being somewhat beneficial to the HPC community by most (46.1%)
- Only 18% see significant benefits
- However, one in five see some harm in this growing trend

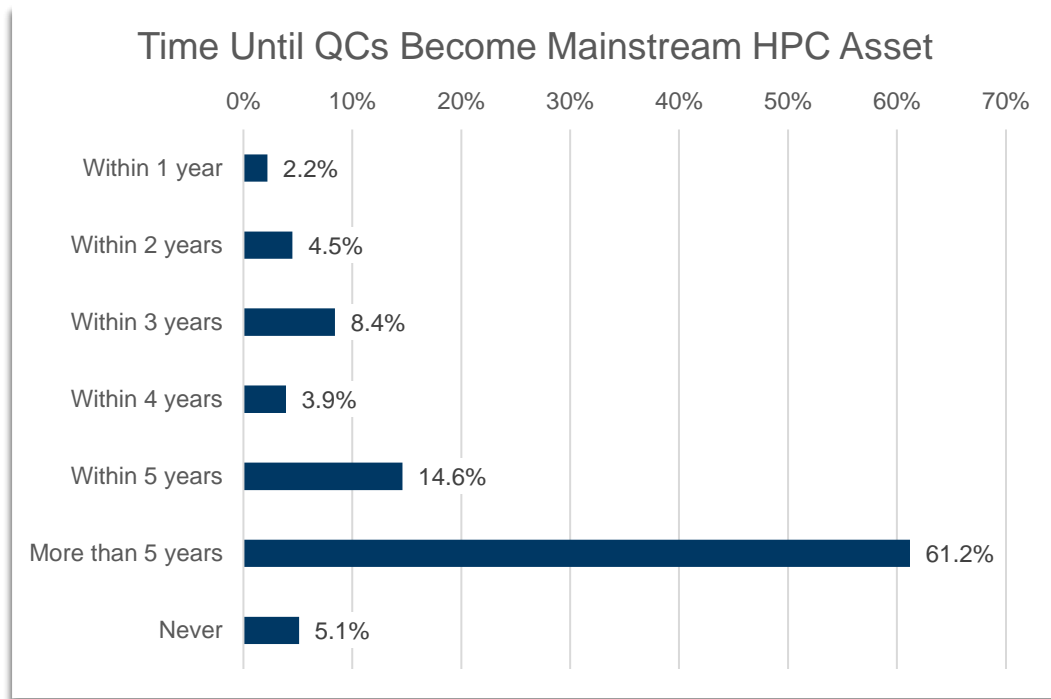
3) When will a hyperscaler-hosted HPC be the number one system on the TOP500 list?



- Three years was most selected option for first hyperscaler HPC to appear in the number one spot on the Top 500 list (25.3%)
- Almost 60% see it happening in the next three years or less
- But one out of 11 don't see it ever happening

N = 178, Source: Hyperion Research, 2025

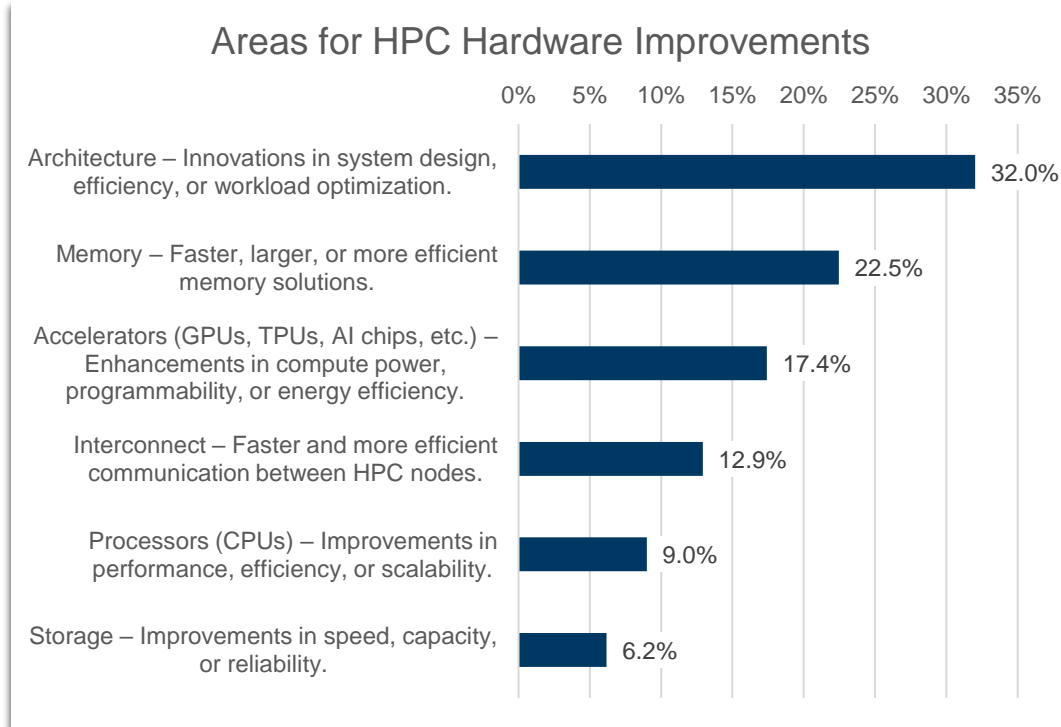
4) When will quantum computers become a mainstream HPC computing asset?



N = 178, Source: Hyperion Research, 2025

- Most respondents (~60%) indicated that it will be more than five years before QC becomes a mainstream HPC compute asset
- 15% saw that happening in three years or less
- One in twenty indicated QC would never be a mainstream HPC computing asset

5) Which component of HPC hardware needs the most improvement?



N = 178, Source: Hyperion Research, 2025

- Overall, HPC architectures was cited by about one in three respondents as the area most in need of improvements
- Memory (22.5%) was also cited as a major candidate for improvements in speed, size and efficiency
- Processors (9.0%) and storage (6.2%) were not ranked as comparatively in need of improvement

QUESTIONS/COMMENTS?



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