



HYPERION RESEARCH

Hyperion Research HPC Market Update: Conclusions

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Conclusions

- **2021 was a strong year with a 9% increase**
 - 2022 is also expected to be a growth year
 - Exascale systems will help drive growth in 2022 to 2024
 - AI, HPDA/big data are hot areas
 - But supply chain issues continue
- **New technologies are showing up large numbers:**
 - Processors, AI hardware & software, memories, new storage approaches, etc.
 - Quantum technologies
- **The cloud has become a viable option for many sites**
 - HPC in the cloud is lifting the sector writ large
- **Storage will likely see major growth driven by AI, big data and the need for much larger data sets**
- **There are growing concerns about the workforce**

A Concern: HPC Expertise Shortage

The growing scarcity of HPC experts to implement new technologies is the number one roadblock for many HPC sites

- **Two major trends:**
 - 1) A shrinking HPC workforce
 - 2) A massive increase in system complexity
- **HPC experts are an aging workforce**
 - The pipeline of new HPC staff entering the workforce does not adequately match the outflow of retirees
 - Competition for HPC staff will intensify
- **Increasingly complex workloads are more difficult to manage**
 - Increasing HPC systems per site
 - Augmenting traditional modeling/simulation with AI and big data
 - Incorporating multiple processor types, co-processors, accelerators, and other specialized hardware
 - Balancing on-prem and cloud
 - And Enterprise IT users are entering HPC space, and need HPC expertise
- **HPC users need major improvements in ease-of-use, ease-of-selection, & ease-of-optimization**

Future Meetings

- **April 18 - 19, 2023 – Princeton, NJ**
 - In person HPC User Forum meeting
- **May 23, 2023 – ISC23 Breakfast Briefing**
 - In person at the Grand Elysée Hamburg
- **September 6 - 7, 2023 – Tucson, AZ**
 - In person HPC User Forum meeting
- **October HPC User Forum in Europe**

Questions?



**We welcome questions,
comments and suggestions**

**Please contact us at:
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