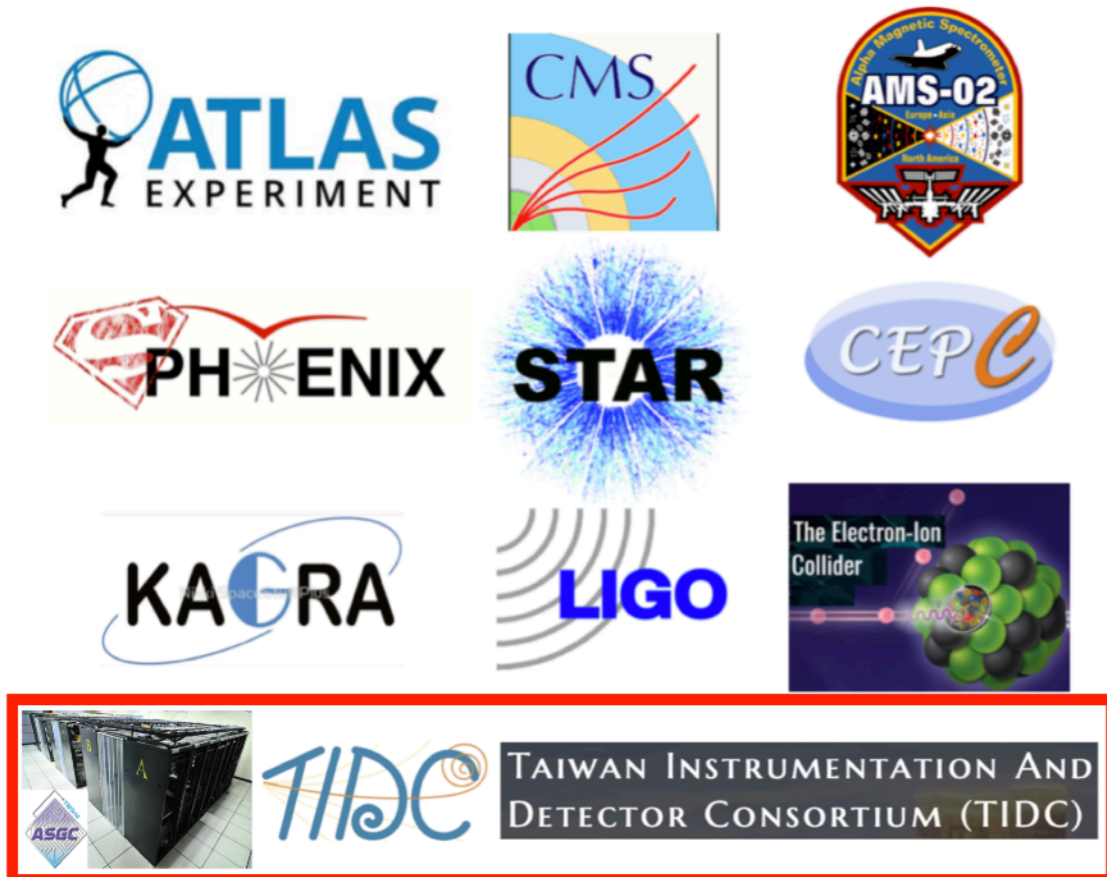


ASGC - Accelerating Discovery & Innovation

Your Computational Research Partner

- **WLCG Tier Centre** - building capacity by participating the development & deployment of the world largest and advanced distributed cloud research infrastructure
 - WLCG is moving towards O(1000)PB scale in RUN4
- **Core Facility** - computing arms of HEP experiment, research facility and research communities, based on WLCG core technologies
 - Also part of the research infrastructure

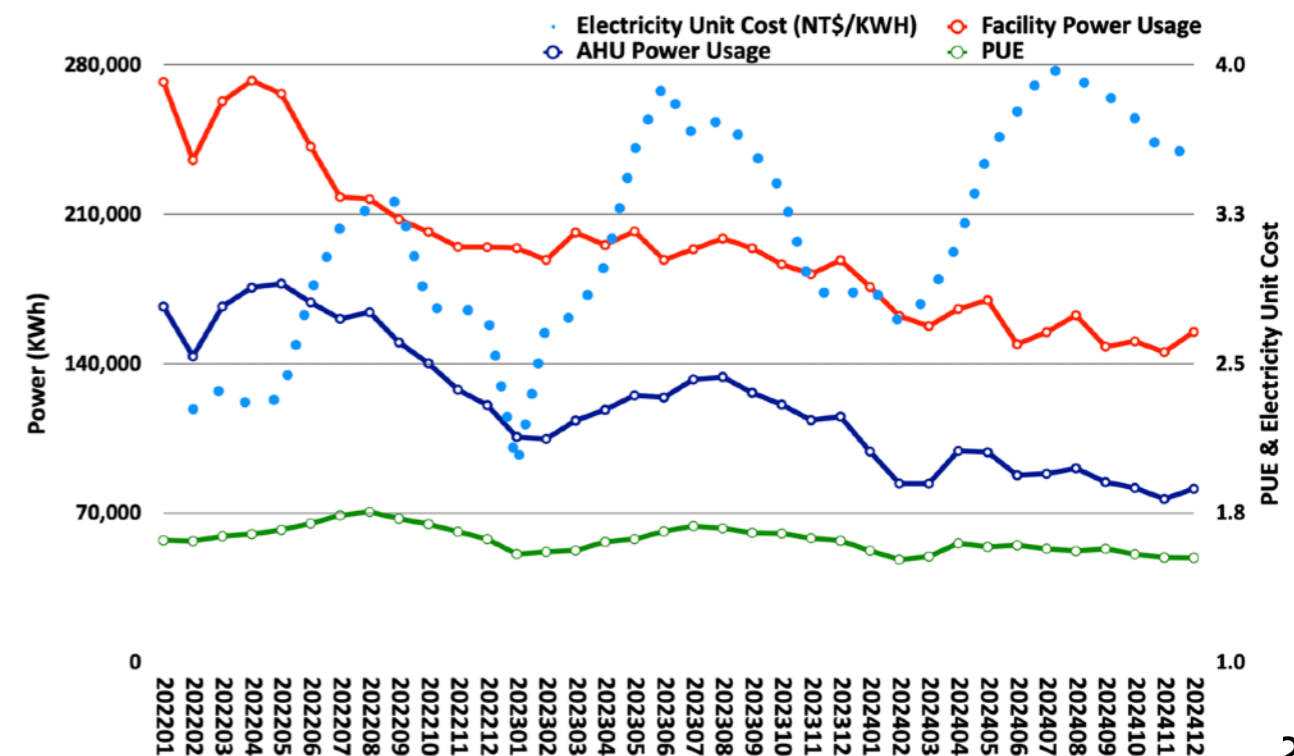
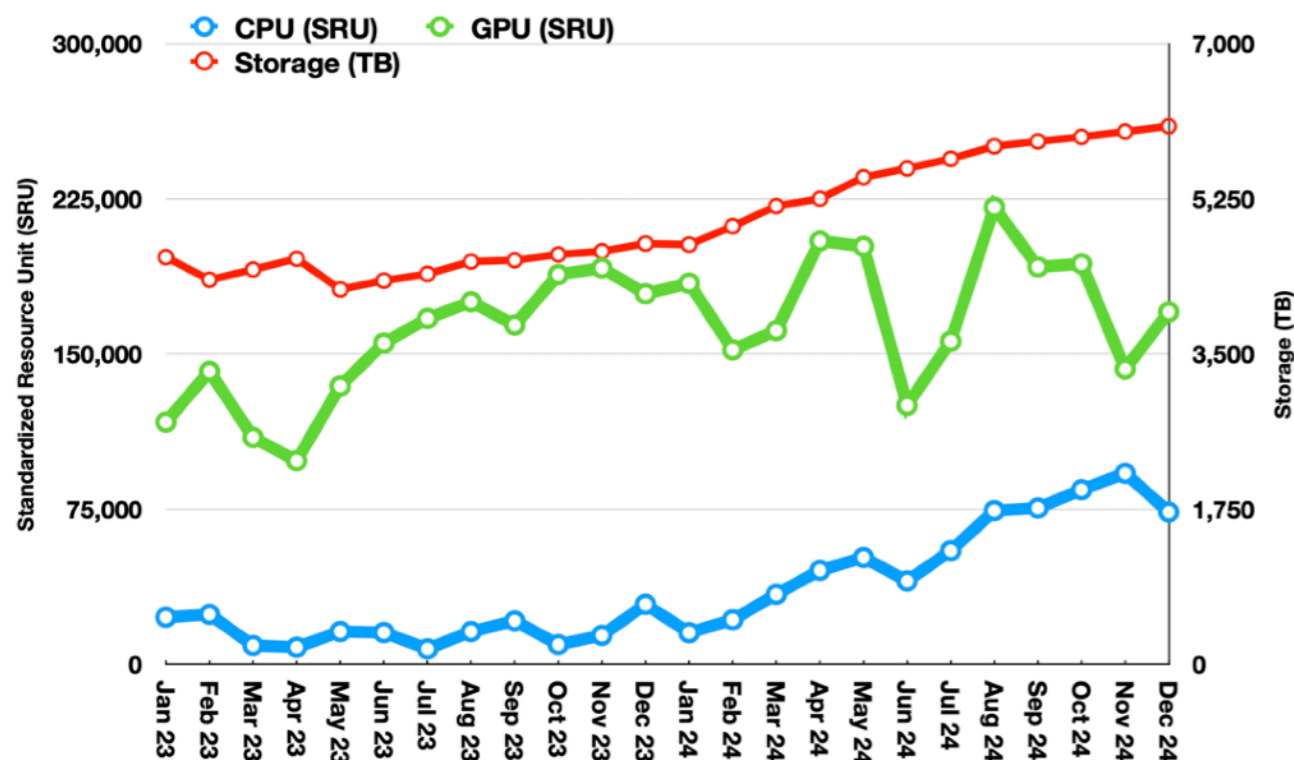


NMR	X-ray Crystallography	CryoEM	ASGC Server Room
Structure Prediction	Small to Large (>3000aa) protein	Monomer to Oligomer	Low-order to High-order Complex
Protein Design			
Docking	Protein-Ligand	Protein-Protein	
Data Analysis	NMR Spectral Assignment	Automation in Crystallography	CryoEM particle picking/ model building
			AlphaFold-Full DB AlphaFold/ColabFold RosettaFold RFDiffusion ProteinMPNN DiffDock CryoSPARC RELION Warp cisTEM NMR-app bundle



Reliability & Efficiency Are Key Objectives

- Sustained growth of users, utilization, reliability and satisfaction in 2024
 - 174 PI Groups, 595 users from 25 Institutes in Taiwan
 - Finished 4.94M CPU jobs, and 52.8K GPU Jobs, with 99%+ reliability
 - 26+ supported research publications
 - Demands of advanced GPU keeps growing in 2024 - 20% utilization growth in high usage situation
 - CPU usage has increase of 333% in 2024
- Onboarding new hardware and retiring legacy ones for power saving and performance improvements: 5,760 CPUCores, 210 GPUBoards, 12PB Disk, 8PB Tape
 - New procured HW (1,920 + 256 CPUCores, 2.5PB Disk Storage) had been available on 20 Dec 2024
 - Expected to have >7,000 CPUCores and new GPUs, 15PB disk and new tape backup/archive in 2025
- Persistent capacity building: research application efficiency, ease-of-use, advanced services & core technologies
 - 4x trainings, GPU/AI computing workshop, thematic computational research workshop, etc.
- Efficiency (& power saving): Power consumption reduced 20% in two years straight from 2023
- Flexible collaboration model and services





中研院網格中心 聯絡資訊

- **Core Facility Services**
 - <https://nstccore.twgrid.org>
 - <https://scale.grid.sinica.edu.tw/index.php>
- **ASGC Web Site: <https://www.twgrid.org>**
- **Access to ASGC Resources**
 - <https://dicos.grid.sinica.edu.tw/>
- **Contact point: DiCOS-Support@twgrid.org**
- **Gentle Reminder**
 - Please include ASGC (Academia Sinica Grid-computing Center) in the acknowledgement when research outcomes that relied on ASGC resources, services or expertise are presented in your research.