

Activities of RIST in HPCI

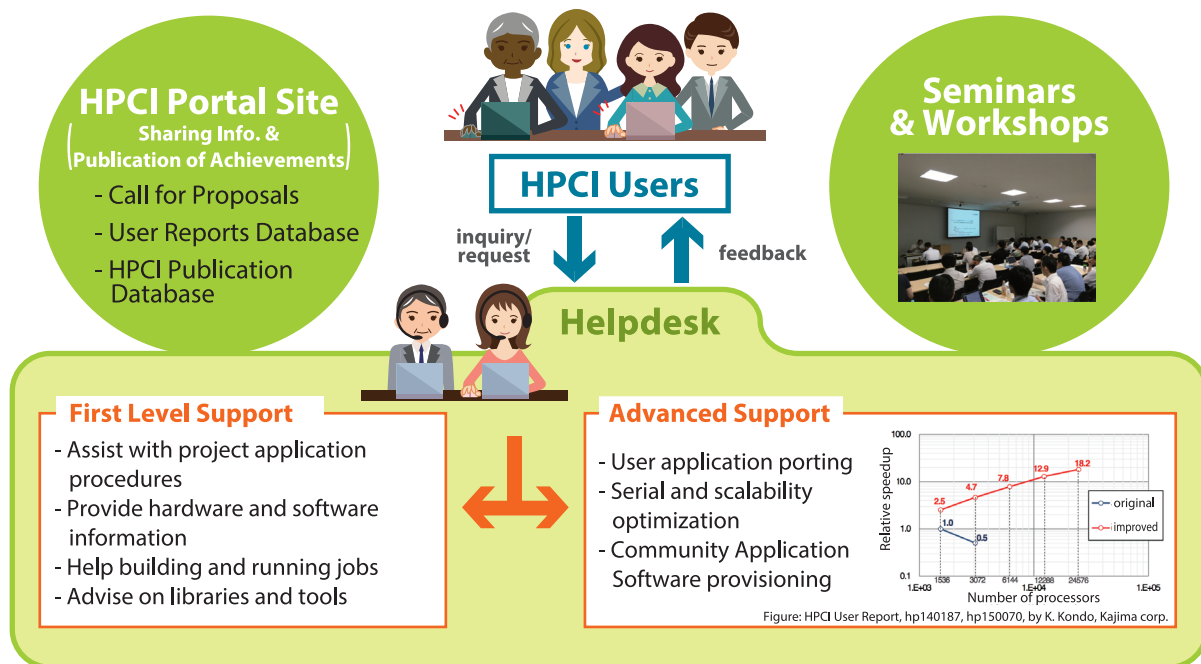
RIST carries out the General Coordination for HPCI Operation, as well as the User Selection, Resource Allocation, User Support and other relevant activities*.

- User Selection and Resource Allocation

RIST carries out the user selection and resource allocation of Supercomputer Fugaku and other computers of the HPCI system through transparent and fair procedures adopting a peer review process.

- User Support

RIST provides a variety of services with Helpdesk as the general contact point for users.



* RIST has been designated as the “Registered Institution for Facilities Use Promotion” in accordance with the Act on the Promotion of Public Utilization of the “Specific High-speed Computer Facilities” and has also been designated as the Representative for HPCI Operation by MEXT (Ministry of Education, Culture, Sports, Science and Technology, Japan).

For details of the calls and support services, please visit the **HPCI Portal site** or contact the **Helpdesk** in English.

Helpdesk

Phone +81-78-940-5795 (9:00am-5:30pm JST, Mon. to Fri.) / FAX +81-78-304-4959
E-mail helpdesk@hpci-office.jp URL https://www.hpci-office.jp/en/user_support/helpdesk



HPCI Portal site

<https://www.hpci-office.jp/en>



RIST Kobe Center

1-5-2, Minatojimaminami-machi, Chuo-ku, Kobe, Hyogo, 650-0047 JAPAN
Phone +81-78-599-9511

INTRODUCTION to HPCI

The innovative
High **P**erformance **C**omputing **I**nfrastructure
operated by Japanese government

What is HPCI?

HPCI was established in 2012 as national HPC infrastructure connecting the flagship system and the systems of major universities and national laboratories with high speed academic network. To accelerate the utilization of HPC in Japan and to contribute to the society, HPCI provides world's top class computing resources with variety of system at open calls.

Call for Proposals to HPCI

General Terms

- Scientific excellence, social significance and breakthroughs are expected.
- Resources and related services are available free of charge and the achievements are required to be open to the public except for some fee-based projects.
- Project execution and utilization of the results are limited to non-military purposes.

Project Categories of Public Calls

Project Categories	Duration	Fugaku	Other HPCI Resources
General Access / Junior Researchers*1 / Industrial Access	One year	Twice per year (Period A, B)	Once per year (Period A)
Small Scale Projects for General Access / Junior Researchers*1 / Industrial Access	Up to one year	Year-round opening	N/A
Fee-based Access (General / Industrial)	Up to one year		Year-round opening (Industrial access only)
Trial Access (General / Industrial)	Up to 6 months		Year-round opening (Industrial access only)
Trial Access First-touch option (General / Industrial)	Up to 3 months		N/A
Fee-based Trial Access (General / Industrial)	Up to 6 months		N/A
HPCI Shared Storage	Up to one year	Year-round opening	

*1 Junior Researchers Projects are only for those who are less than 40 years old.

Timing of periodic calls

	Call opens	Project starts
Period A	September (in the previous year)	April
Period B	March	October

Remarks on Overseas Application to HPCI Call

See the sections of “Eligibility”, “Intellectual Property Right”, and “Export control” in the “Proposal Preparation Instruction” of each call

https://www.hpci-office.jp/en/using_hpci/proposal_submission_current

HPCI Computing Resources

RIKEN R-CCS
Supercomputer Fugaku



Hokkaido Univ.
Grand Chariot

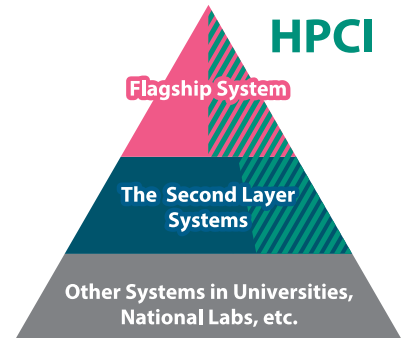


Tohoku Univ.
AOBA-S

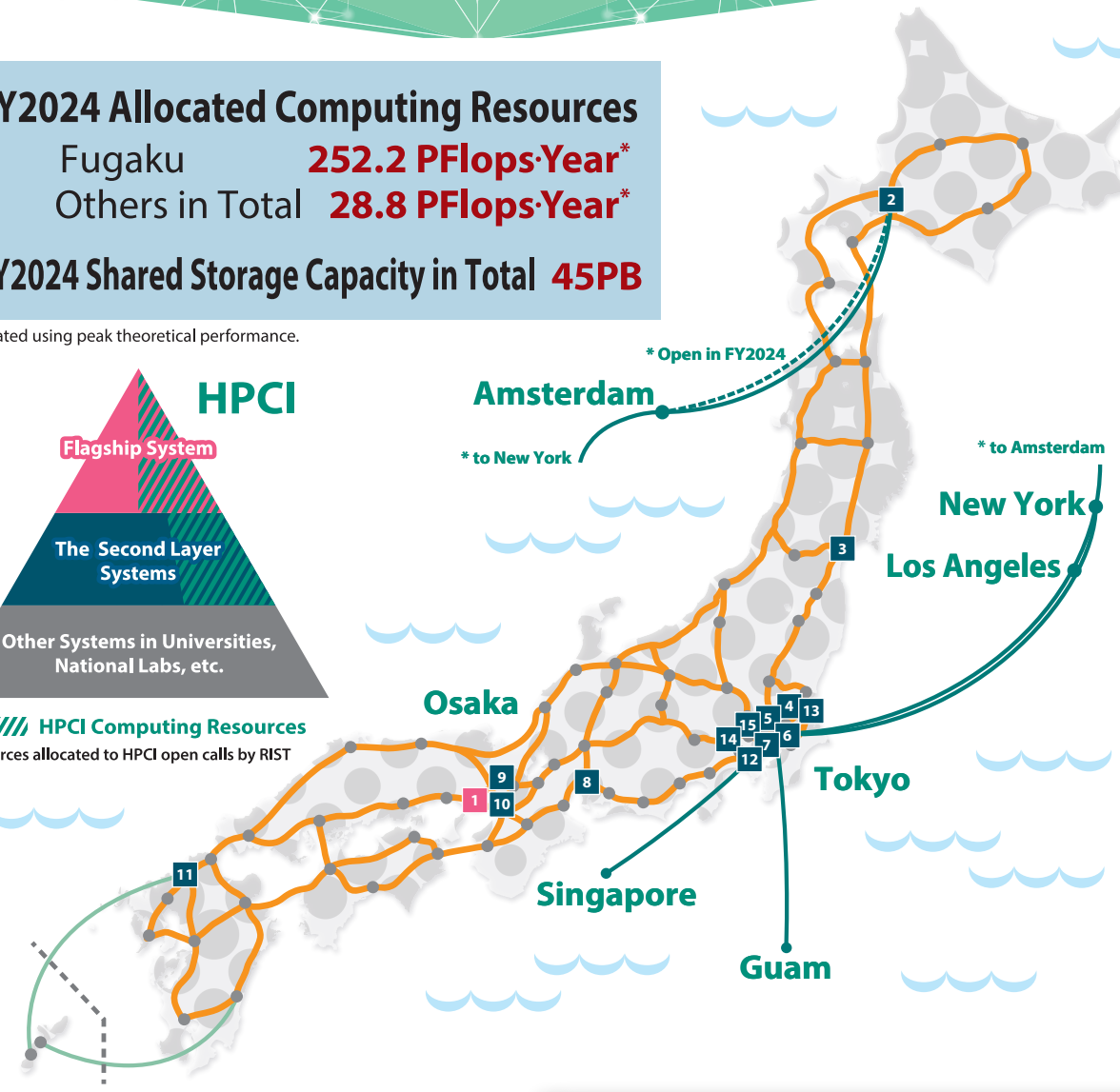


FY2024 Allocated Computing Resources
Fugaku 252.2 PFlops-Year*
Others in Total 28.8 PFlops-Year*
FY2024 Shared Storage Capacity in Total 45PB

* Estimated using peak theoretical performance.



HPCI Computing Resources
Resources allocated to HPCI open calls by RIST



- SINET6
 - SINET Router
 - Domestic line (400Gps)
 - Domestic line (100 Gbps)
 - International line (100Gps)
- CPU
 - A64FX*
 - SX-Aurora TSUBASA
 - x86(intel)
 - x86(AMD)

*Arm v8.2-A SVE 512 bit

As of FY2024

	Site	Computing Resources (Architecture)
1	RIKEN R-CCS	Supercomputer Fugaku (A64FX)
2	Hokkaido University	Grand Chariot (Xeon Gold 6148) Polaire (Xeon Phi 7250)
3	Tohoku University	AOBA-A (SX-Aurora TSUBASA) AOBA-B (AMD EPYC 7702) AOBA-S (SX-Aurora TSUBASA)
4	University of Tsukuba	Cygnus (Xeon Gold 6126 + Tesla V100) Pegasus (Xeon Platinum 8468 + NVIDIA H100)
5	The Univ. of Tokyo/JCAHPC	Wisteria/BDEC-01 (Odyssey) (A64FX)
6	The University of Tokyo	Wisteria/BDEC-01 (Aquarius) (Xeon Platinum 8360Y + NVIDIA A100)
7	Inst. of Science Tokyo	TSUBAME4.0 (AMD EPYC 9654 + NVIDIA H100)
8	Nagoya University	Supercomputer "Flow" Type I FX1000 (A64FX) Supercomputer "Flow" Type II CX2570 (Xeon Gold 6230 + Tesla V100)
9	Kyoto University	Camphor3 (Xeon Max 9480)
10	Osaka University	SQUID (Xeon Platinum 8360, NVIDIA A100, SX-Aurora TSUBASA)
11	Kyushu University	GENKAI Nodegroup A (Xeon Platinum 8490H) GENKAI Nodegroup B (Xeon Platinum 8490H + NVIDIA H100)
12	JAMSTEC	Earth Simulator (ES4) (SX-Aurora TSUBASA, AMD EPYC 7742)
13	AIST	ABCI 2.0 (Xeon Gold 6148 + NVIDIA V100, Xeon Platinum 8360Y + NVIDIA A100) * Computational resources managed by the rules of the resource provider.
14	ISM	Supercomputer System for Data Assimilation (Xeon Platinum 8280L)
15	RIKEN Information R&D and Strategy Headquarters	HOKUSAI BigWaterfall 2 (Xeon Max 9480)

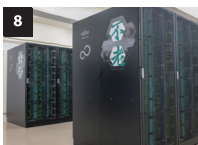
The Univ. of Tokyo
Wisteria/BDEC-01 (Aquarius)



Inst. of Science Tokyo
TSUBAME4.0



Nagoya Univ.
"Flow" Type I



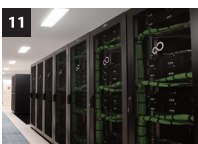
Kyoto Univ.
Camphor3



Osaka Univ.
SQUID



Kyushu Univ.
GENKAI



JAMSTEC
EARTH SIMULATOR



AIST
ABCI



ISM
Supercomputer System for Data Assimilation



RIKEN R-IH
Supercomputer HBW2



Shared Storage West Hub
(RIKEN R-CCS)



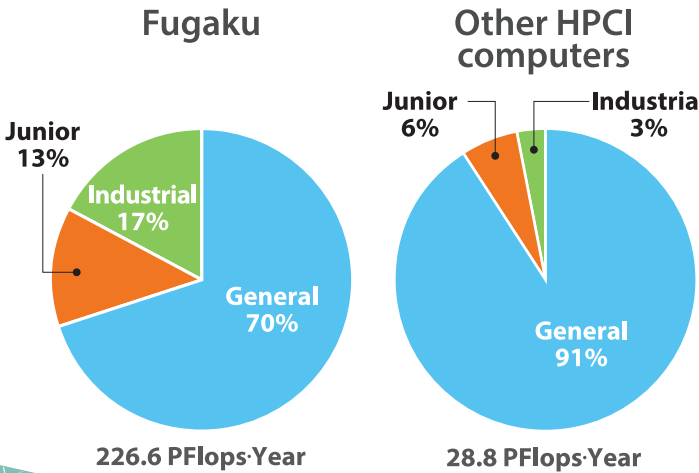
Shared Storage East Hub
(The Univ. of Tokyo)



As of FY2024

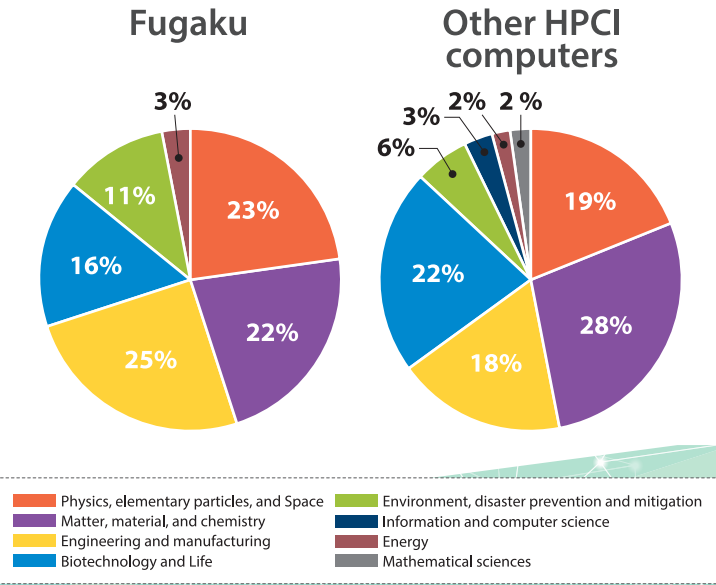
Statistics of HPCI

HPCI Resource Allocation
(FY2024 periodic calls)



226.6 PFlops-Year
28.8 PFlops-Year
- 243 proposals at the regular call in FY2024
- 185 projects awarded
- Around 1,000 users every year

Research Areas of Awarded Projects
(FY2024 Periodic calls)
- Project number based -



Publications

HPCI Portal site
<https://www.hpci-office.jp/en>



The study to improve the accuracy of a large-scale model of large-span bridge in the Hanshin-expressway due to the great earthquake
Project Number: hp160105
Category: Industrial Use
Period: 2016/4 - 2017/3/31
Objectives
Outline of Results

Table with 10 columns: Author, Title, Journal, Year, etc.



HPCI User Reports
Over 2,000 user reports using HPCI computers can be downloaded.
https://www.hpci-office.jp/en/achievements/user_report

HPCI Publications DB
You can search the database with over 10,000 HPCI supported publications.
<https://www.hpci-office.jp/hpcidatabase/publications/search.html?lang=en>

HPCI Public Relations Website
We provide easy-to-understand information on HPCI computers including "Fugaku".
<https://fugaku100kei.jp/en>