AI Usage of the EuroHPC JU Systems during the Year 2023

The European High Performance Computing Joint Undertaking

LEADING THE WAY IN EUROPEAN SUPERCOMPUTING

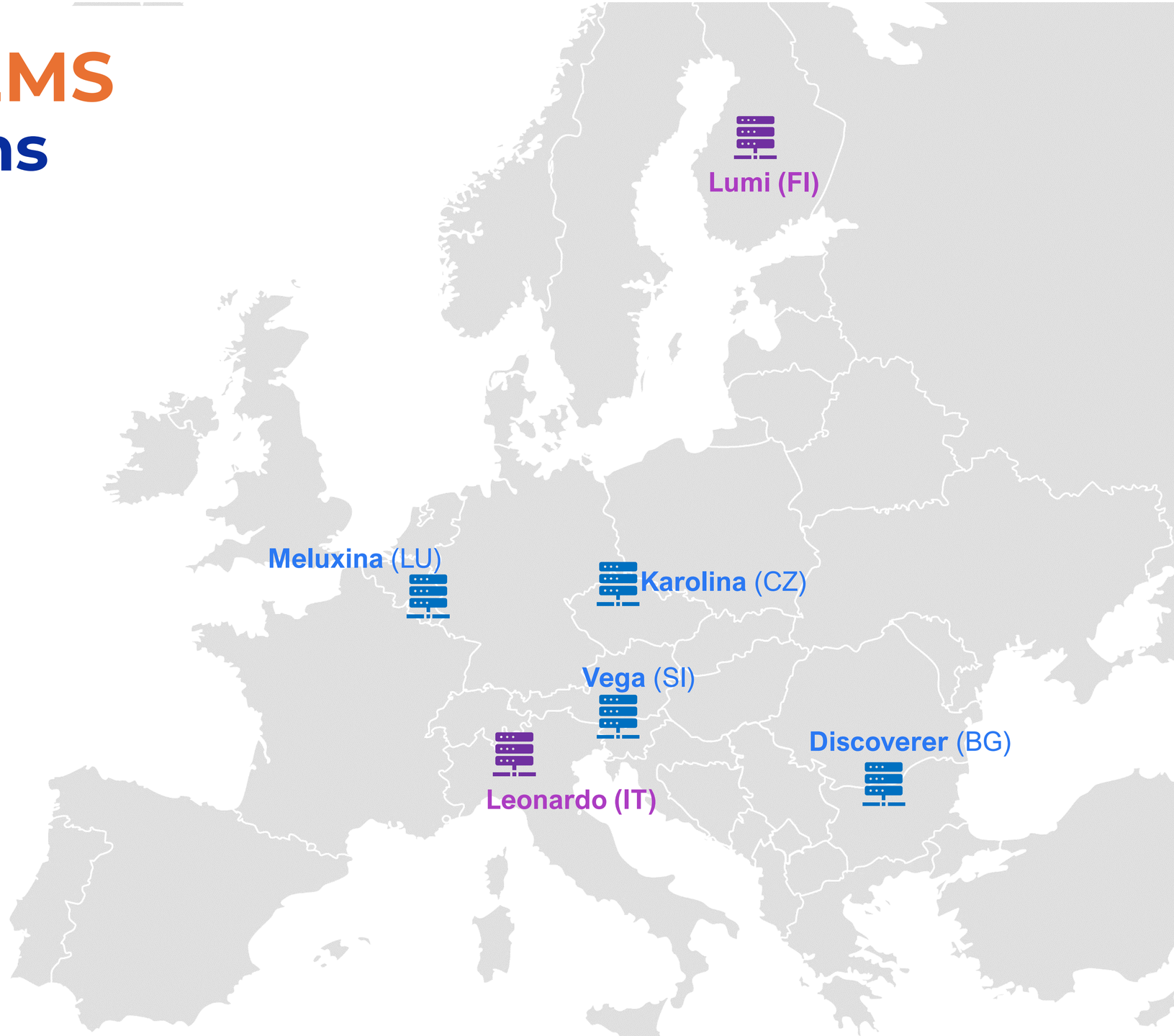
Dr. Lilit Axner

Programme Officer Infrastructure

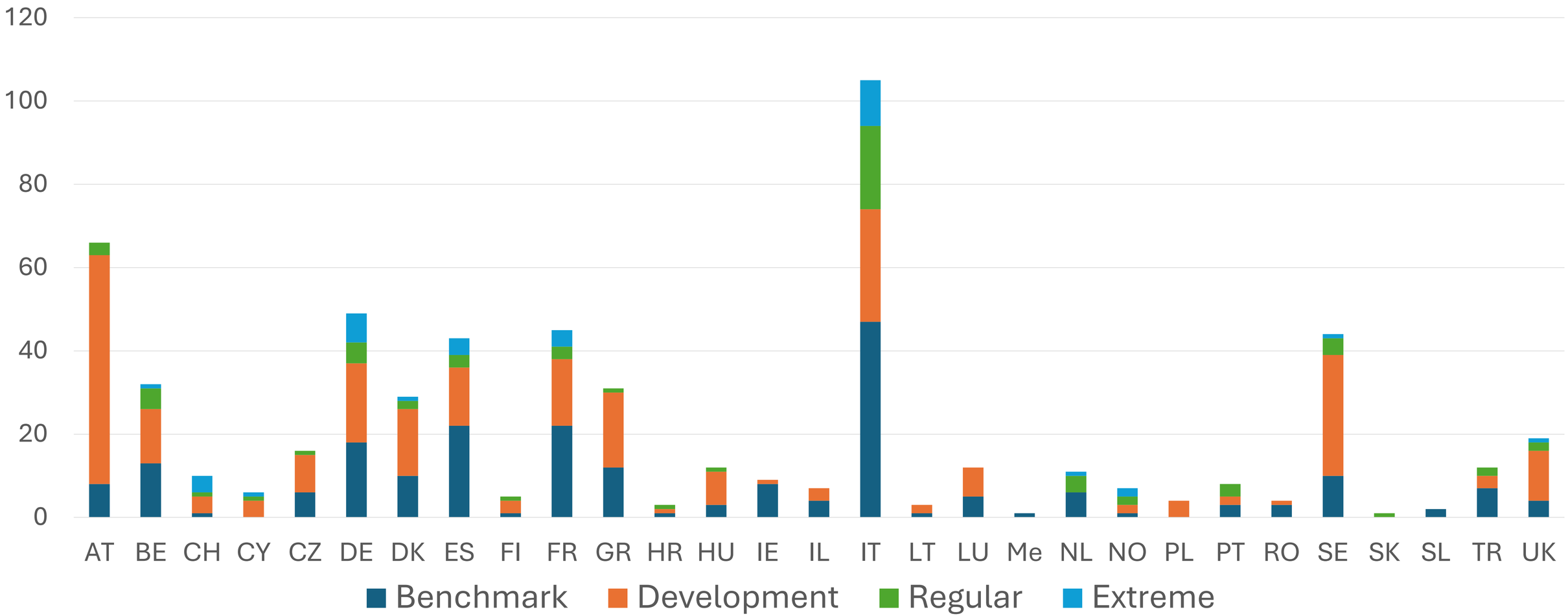
EUROHPC SYSTEMS
2023 active systems

PRE-EXASCALE

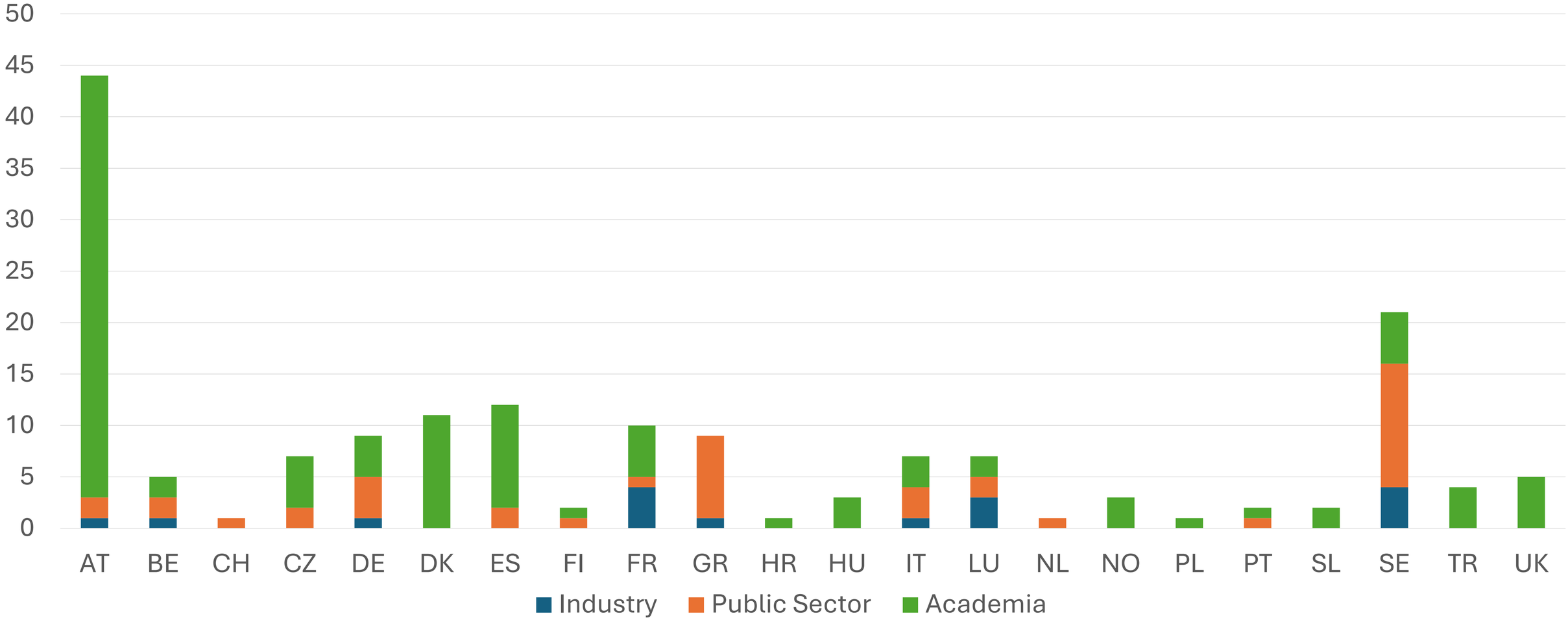
PETASCALE



596 projects started their executions on EuroHPC JU systems in 2023 (Distribution per Country of the PIs)



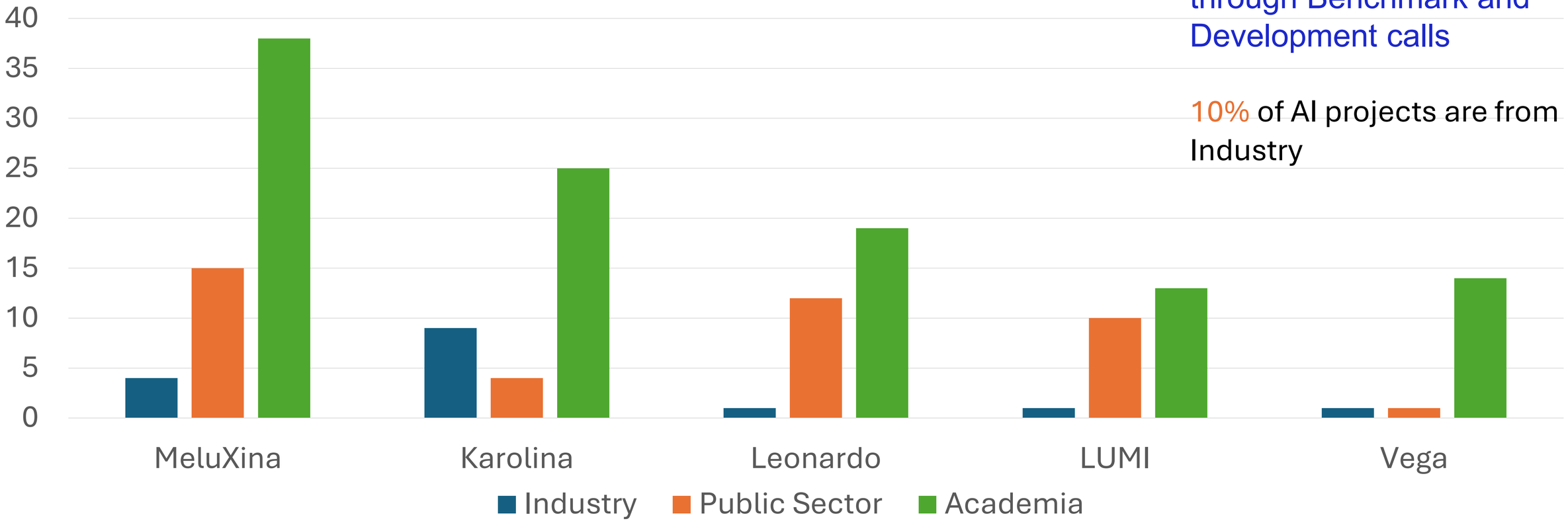
167 AI projects started their executions on EuroHPC JU systems in 2023 (Distribution per Country of the PIs, per type of applicant)



167 active AI projects distribution per system per type of applicant

94% of projects were applied through Benchmark and Development calls

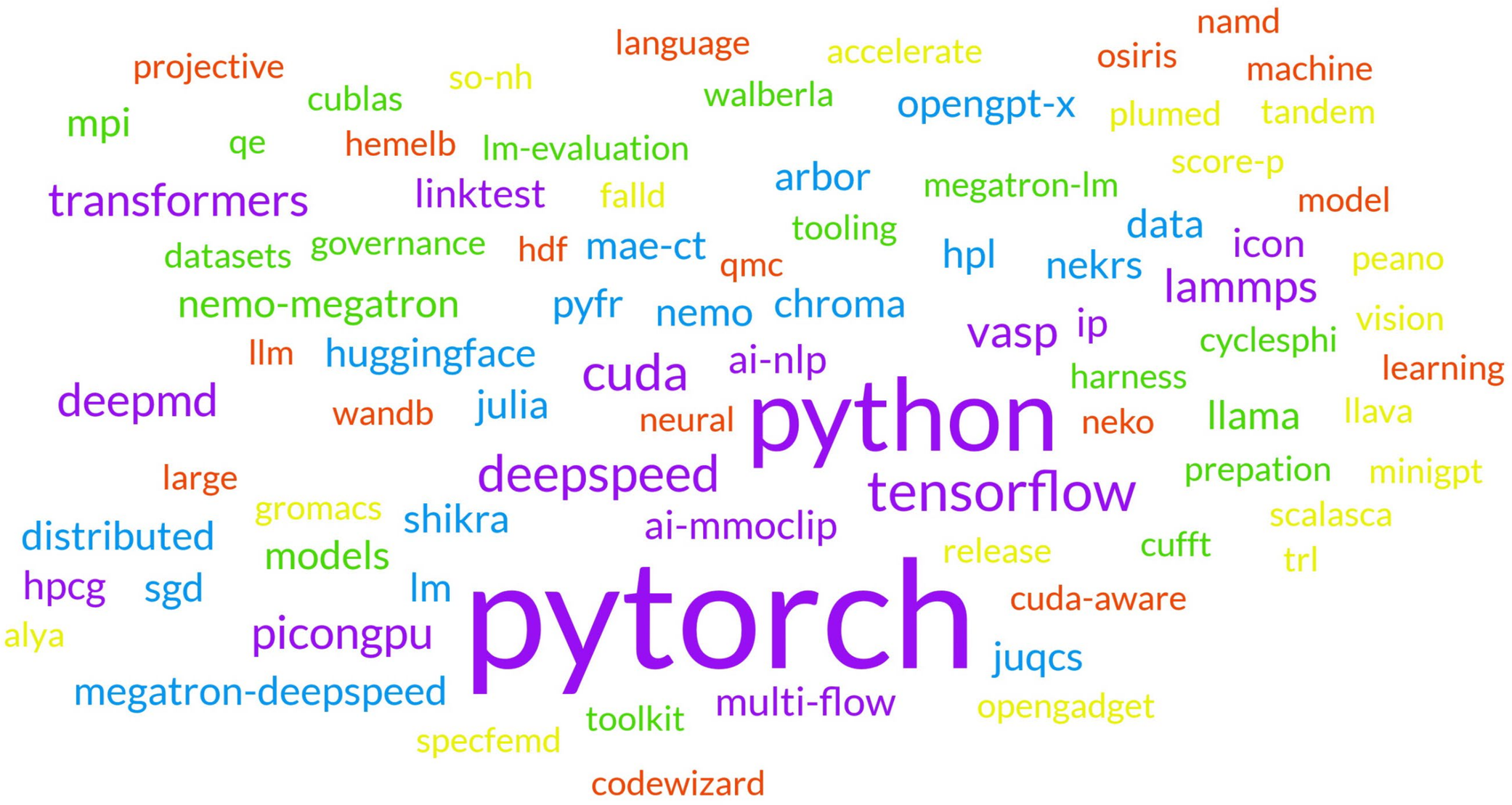
10% of AI projects are from Industry



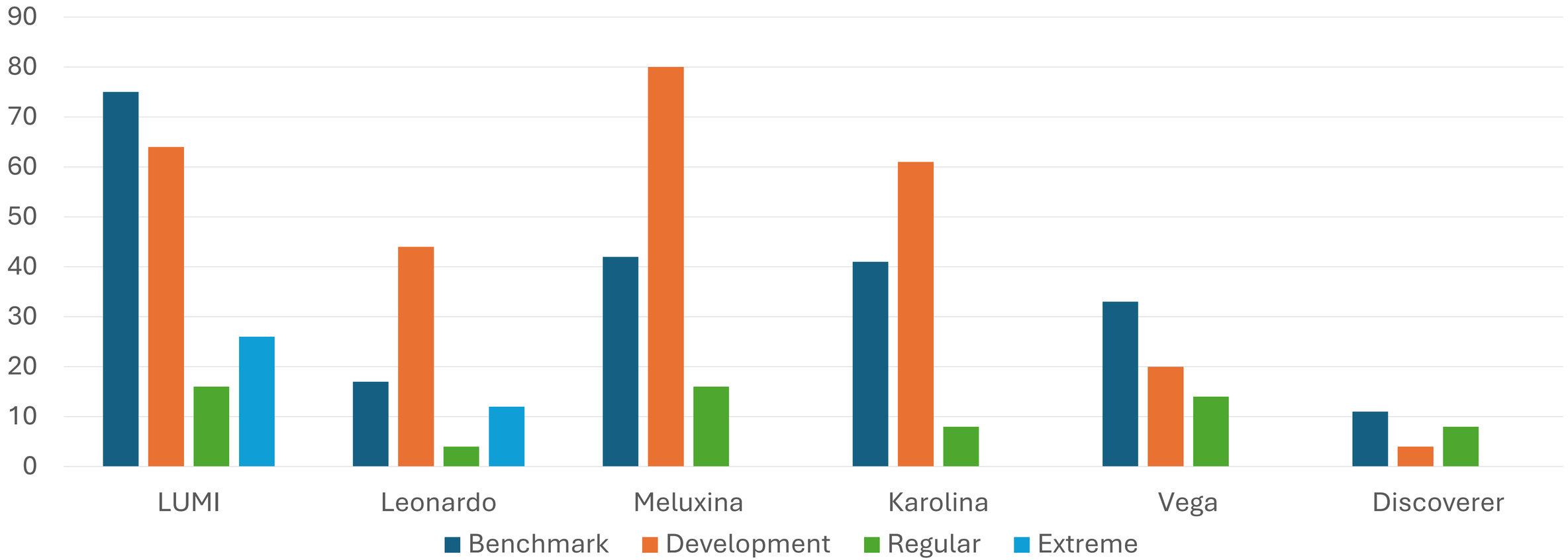
(*) Leonardo was available for access since June 2023

(**) LUMI-G was on maintenances few times during the 2023 as it was newly installed

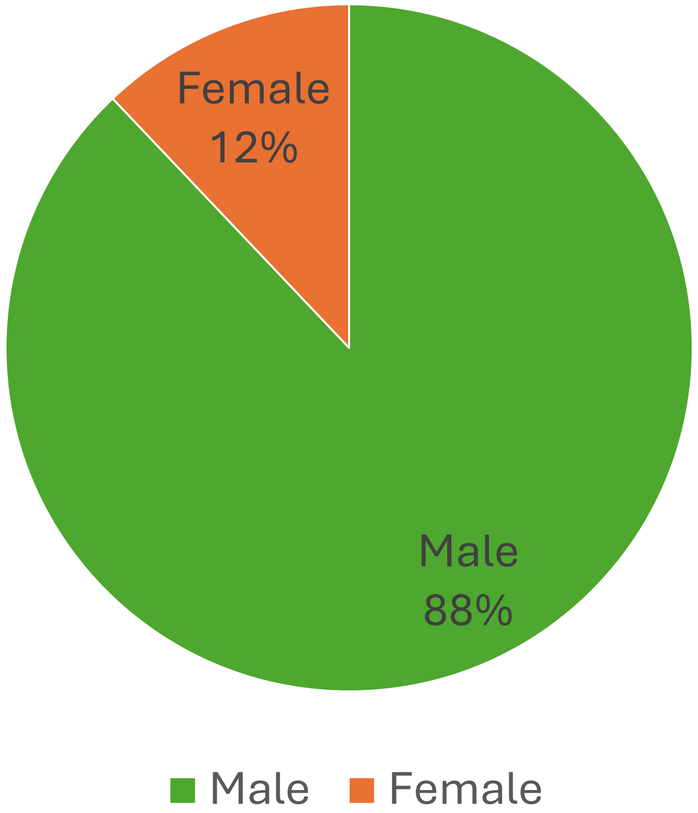
Popular AI software



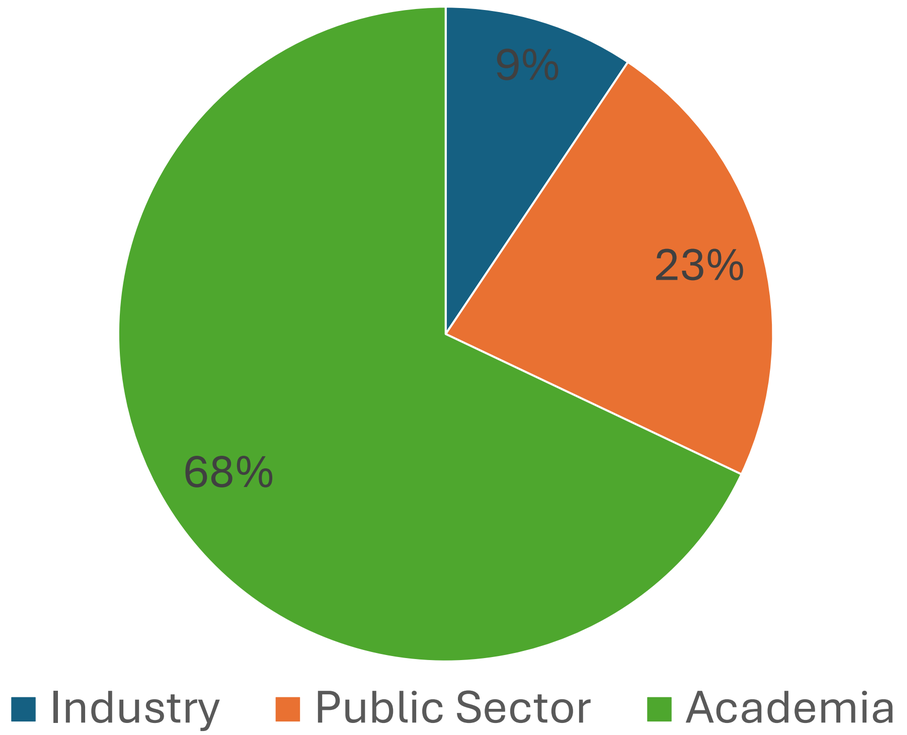
596 active projects distribution per system per type of EuroHPC JU access modes



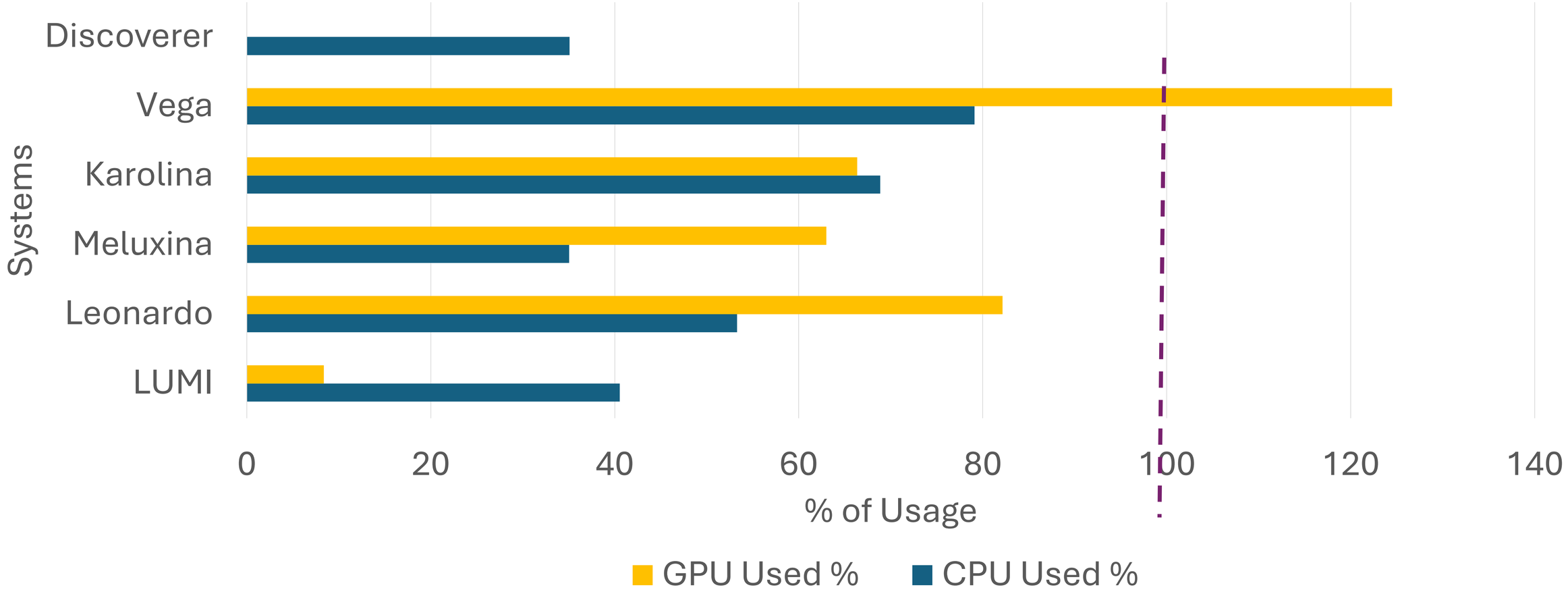
Gender ratio of 596 projects



596 projects distribution per type of applicant



Resources that were used by 596 projects during 2023 per EuroHPC JU system



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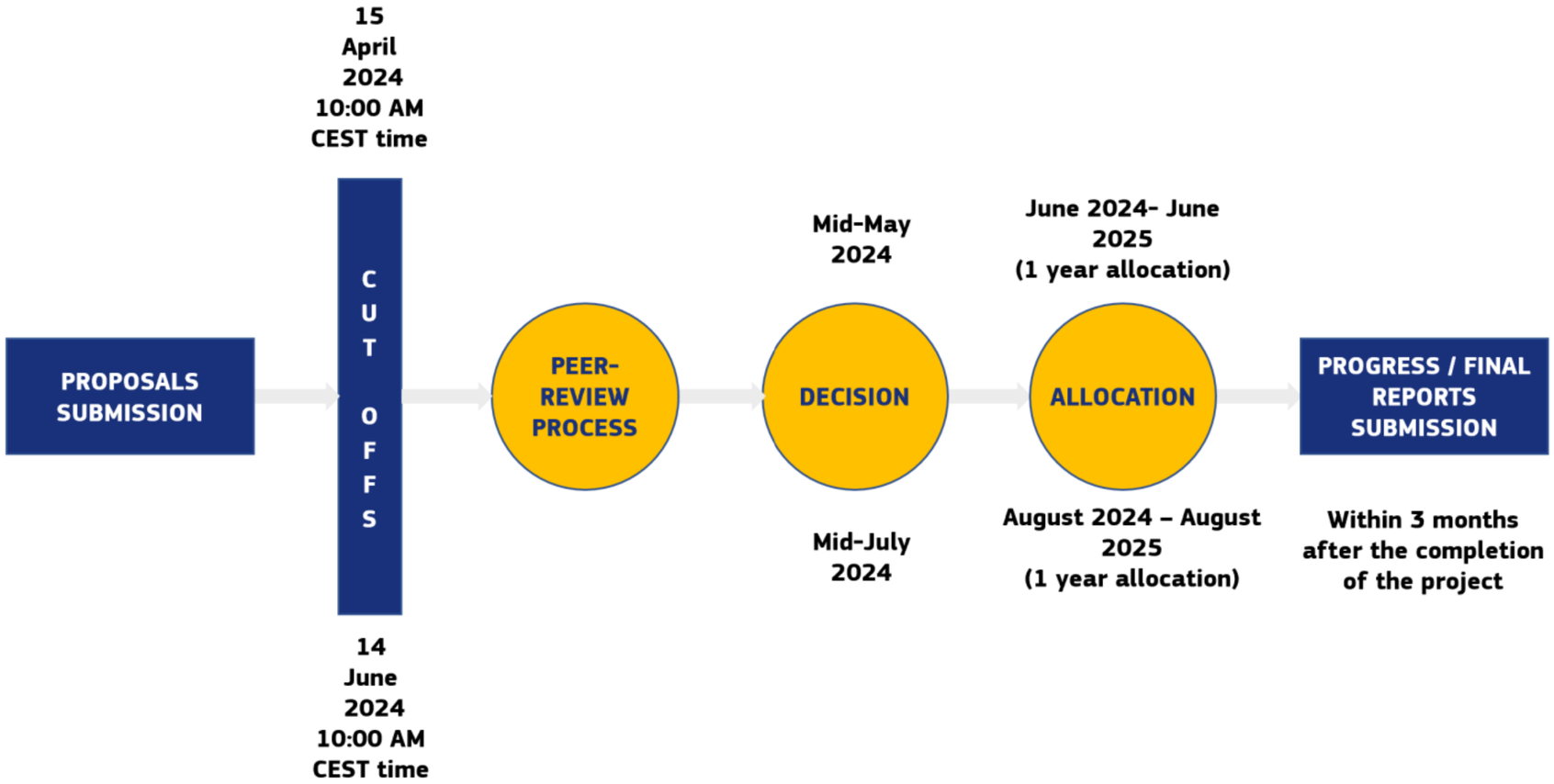
(**) LUMI-G was on maintenances few times during the 2023 as it was newly installed. (***) Discoverer has only CPU partition.

- Access for AI and Data-Intensive Applications

AI Access: Start to use after 1 month, for the duration of **1** year
Resources: Up to **35 000GPU** Node hours



• EPICURE: Software support for the EuroHPC JU successful applicants

- 14 HPC centres across Europe
- 20 HPC software experts
- 988 month of experts' work on **European** HPC and AI software of the **EuroHPC JU successful applicants** during 4 years
- **Port, Scale, Optimise, Benchmark** = Keywords of the project
- Organise at least 24 HPC and AI training events and hackathons
- Create a one-stop-shop portal for users
- Produce at least 15 Best Practice Guides and similar manuals for users including for AI use of HPC

Future Needs….

- Already in progress: Substantial user software support (Epicure, NCCs, AI support centre etc…) porting or developing workflows, adjusting containerised solutions, enabling data transfer.
- Already in progress: Federated user-friendly EuroHPC ecosystem suitable for AI

- Increase in demand of Computing Resources
- Demand for enhanced and robust interconnectivity of resources (**Hyperdata** hypermobility = Hyperconnectivity)
- Increased **diversity** of “non-traditional” HPC users
- Increase in demand of **diversity** of HPC software supporting activities
- Increase in demand of **diversity** of HPC middleware supporting activities

THANK YOU

EuroHPC
Joint Undertaking

For more information, feel free to visit our website and social media:

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