



GENCI



Introducing Jules Verne, toward a common European Exascale project called Alice Recoque



EuroHPC
Joint Undertaking



JULES VERNE : THE FRENCH LED EXASCALE CONSORTIUM



Organization of the french application

- GENCI Hosting Entity
- CEA Hosting Site
- SURF (NL) as member of consortium



Name of the consortium : Jules Verne

Name of the supercomputer : Alice Recoque



Full TCO over 5 years : 544 M€ (50% EuroHPC, 50% consortium)

-French public contribution (MESR, France2030...)

- French research institutions (ONERA and IFPEN – under finalization)
- Industrial partners
- NL contribution



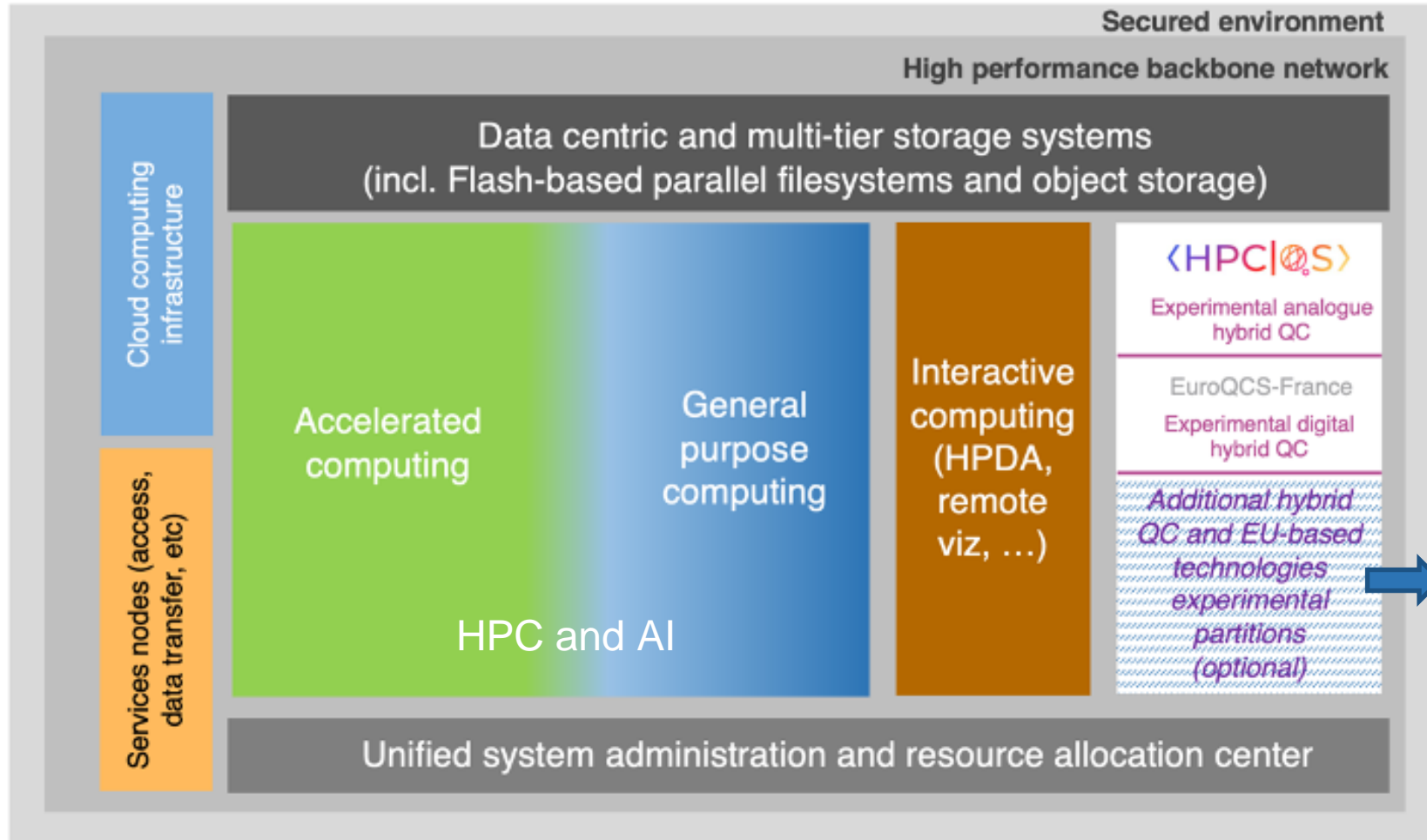
ALICE RECOQUE ARCHITECTURE OVERVIEW



Large scientific instruments



Academia, industrial and public services users



RISC-V ?
Cryo/ neuromorphic computing ?
Immersive cooling ?
Photonics ?
DNA storage ?
>1000 qubits or pre LSQ ?



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Power efficiency (Gflop/W) as technology target → Compute power based on accelerators

- Need to port / optimise applications on GPUs
- Coupling of numerical simulations and Artificial Intelligence

Energy to solution (EtS) taking over Time to solution (TtS)

- Need for new metrics and insights
- Energy aware algorithms

Involvement of the scientific communities before the arrival of Alice Recoque supercomputer

- Participation in the preparation of the benchmarks
- Setup of »Contrat de progrès « for porting codes to accelerators
 - joint teams between HPC vendors, user support teams from HPC centers and application developers
- Need for programming environments and tools (porting to GPUs, profiling, use of mixed precision...)

Setting up an Application Support Team for the entire lifetime of the supercomputer

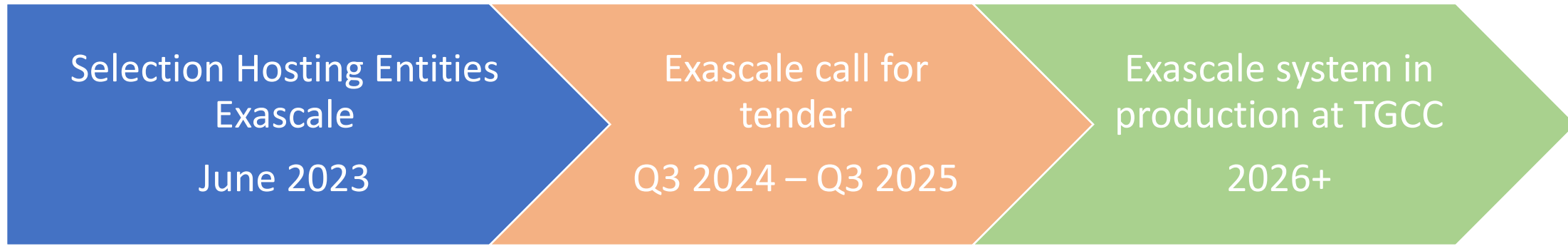
- Skills as important as the machine for the rise of Exascale

TIMELINE FOR ALICE RECOQUE PROCUREMENT



The EuroHPC JU has selected the Jules Verne Consortium to host and operate in France the 2nd EuroHPC exascale supercomputer

NEW CALL TO PROCURE THE EXASCALE SUPERCOMPUTER ALICE RECOQUE



Tender procedure driven by EuroHPC with Jules Verne Consortium

Delivery, installation and production for 5 years

