SIPEARL

Global Top 500 & Green 500 (nov. 25)

Europe

Global Top 500

148	4.7	5	1st
supercomputers	exaflops *cumulative power*	machines in the TOP10	exascale system JUPITER

Green 500

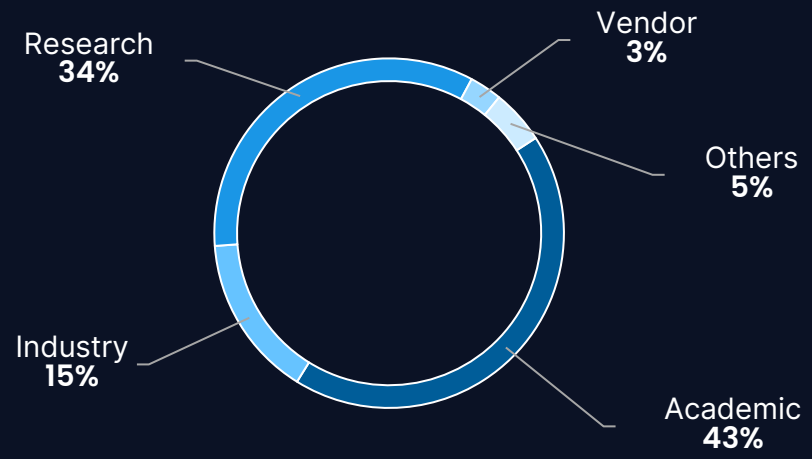
8	73.28
machines in the TOP10	Gflops/Watts KAIROS (France)

Europe*

TOP500
Nov. 2025

148

Segment



(*): Excluding Russia – The rise/fall is expressed in net figures.

Europe has 148 of the Global Top 500 supercomputers(1)

TOP500
Nov. 2025

5 machines in the TOP10,
including 3 EuroHPC ones

No4: JUPITER Booster - Germany
(1 exaflop) EuroHPC Joint Undertaking

No6: HPC6 – Italy
(478 petaflops)

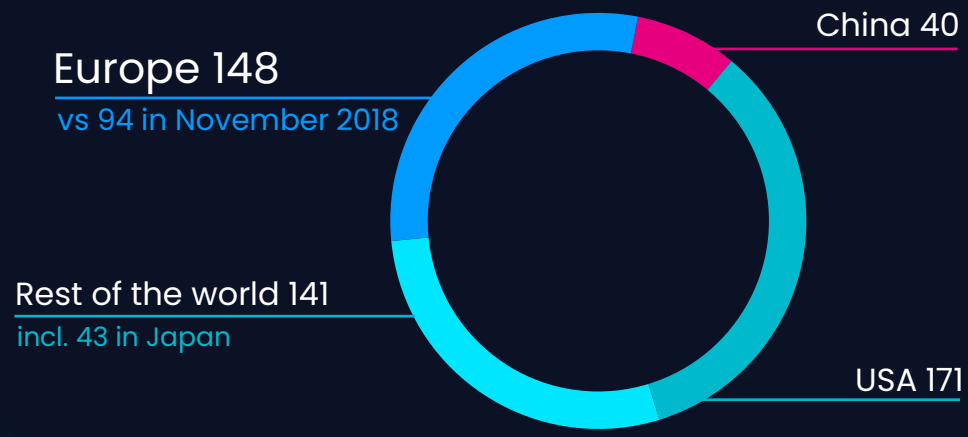
No8: Alps - Switzerland
(435 petaflops)

No9: LUMI - Finland EuroHPC Joint Undertaking
(380 petaflops)

No10: LEONARDO - Italy EuroHPC Joint Undertaking
(241 petaflops)

A rising demand for supercomputers in Europe

Since the launch of EuroHPC in 2018
+ **54** European supercomputers in the TOP500(1)



(1) Sources: 66th edition of the global Top 500 most powerful supercomputers - November 2025 – Europe's supercomputers without Russia's: 148
52nd edition of the global Top 500 most powerful supercomputers - November 2018 - Europe's supercomputers without Russia's: 94

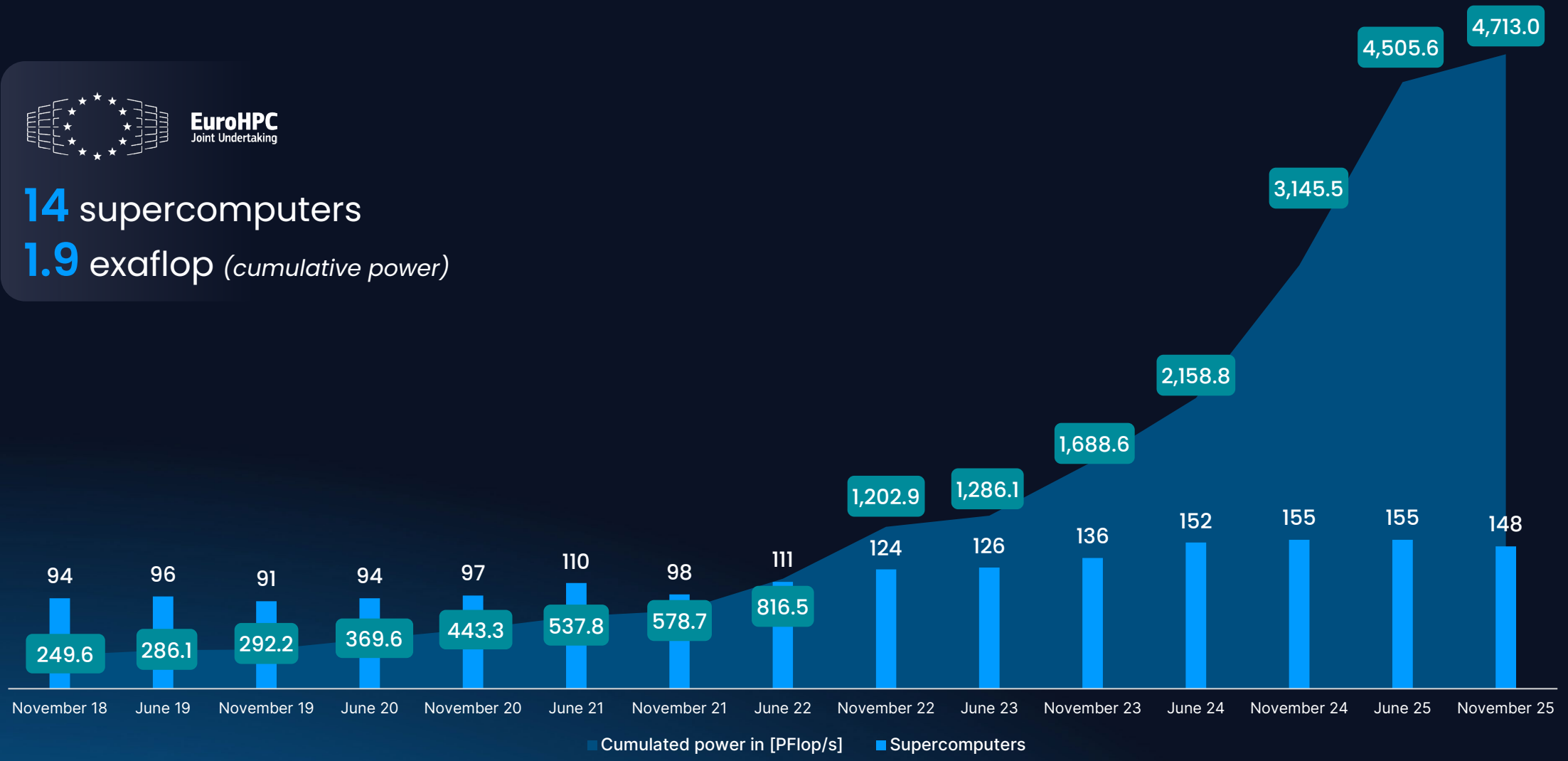
Supercomputing growth in Europe since EuroHPC launch(1)

TOP500
Nov. 2025

EuroHPC Joint Undertaking

14 supercomputers

1.9 exaflop *(cumulative power)*



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Green500 key figures[(1)] :
Europe definitely greener than the US

GREEN500
Nov. 2025

TOP10 – Green500 Supercomputers

x3 x3
x1 x1

#1

KAIROS
73.28 Gflops/Watts

CALMIP / University of Toulouse
CNRS
France

EVIDEN

3,046 TFlop/s
46.18 kW

#2

ROMEO-2025
70.91 Gflops/Watts

ROMEO HPC Center
Champagne-Ardenne
France

EVIDEN

9,863 TFlops
160.16 kW

#3

Levante (GPU extension)
69.43 Gflops/Watts

DKRZ - Deutsches
Klimarechenzentrum
Germany

EVIDEN

6,747 TFlops
109.78 kW

Jupiter Booster: EuroHPC Joint Undertaking
the most energy-efficient exascale machine

63.32
Gflops/Watts

JÜLICH Forschungszentrum
EVIDEN
ParTec MODULAR SUPERCOMPUTING

El Capitan
60.94 Gflops/Watts

Frontier
54.98 Gflops/Watts

Aurora
26.15 Gflops/Watts

(1) Sources: 66th edition of the global Green 500 – November 2025

About... SiPearl

SiPearl is the European fabless designer of sovereign high-performance energy-efficient processors for HPC, AI and data centres. These processors will help address strategic dual-use challenges in the fields of security, defence, medical research, energy, climate and engineering with a reduced environmental footprint.

SiPearl recently completed the design of the most complex processor ever designed in Europe, Rhea1. Featuring 80 Arm Neoverse V1 cores, with 61 billion transistors, it is currently in production at TSMC in Taïwan and will be available for sampling in early 2026. Sipearl processors will equip both European exascale supercomputers owned by EuroHPC JU. Rhea1 will be integrated into the JUPITER machine operated by Forschungszentrum Jülich. Meanwhile, Rhea2 has been selected for the scalar partition of the new Alice Recoque exascale supercomputer, which will be based in France and operated by GENCI.

Incubated within the European Processor Initiative (EPI) consortium and seed-funded by the European Union, SiPearl employs 200 people in France, Spain, and Italy. Following a successful €130 million Series A, the company is launching its Series B round.

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the European Union

European Processor Initiative
epi