



## **Eni ranks as the world's leading company by computing power in the new TOP500 global ranking**

### ***Thanks to the combination of HPC6 and HPC7, Eni's computational capacity exceeds the Exaflop threshold***

*San Donato Milanese (MI), 23 June 2026* – Eni announces the launch of its new supercomputing system, HPC7 (High Performance Computing – HPC), which, with a capacity of over 861 PFlops/s, ranks 6th overall in the new TOP500 global ranking ([link](#)), second supercomputer in Europe and confirming its position as the world's most powerful High-Performance Computer for industrial use. HPC7 thus surpasses HPC6, launched in November 2024, which has in turn confirmed its position within the TOP10, ranking 8th in the TOP500 list.

The combination of the HPC6 and HPC7 computing systems exceeds the Exascale threshold. Together, HPC6 and HPC7 can deliver over 1 Exaflop/s (1 Exaflop/s = 1000 PFlops/s), equivalent to more than 1 billion billion complex mathematical operations per second. The achievement of Exascale-class performance by Eni's supercomputing system represents the attainment of the most advanced and extraordinary technological frontier in the world of supercomputing and confirms the company's leadership in the sector.

The launch of HPC7 marks a key milestone in Eni's strategy to enhance energy resources and decarbonization, within a model where technology is a central element of innovation, capable of supporting growth, efficiency and competitiveness in both traditional and transition businesses.

In this context, advanced computing and HPC systems are confirmed as central to Eni, enabling the integration and enhancement of expertise and applications across the entire value chain: from subsurface understanding to the optimization of industrial plant operations, as well as improving the accuracy of geological and fluid dynamics studies for CO<sub>2</sub> storage and the development of advanced energy technologies.

Supercomputing also contributes to accelerating the evolution of key innovation drivers, supporting the efficiency of emerging value chains – such as biofuels – and the simulation of complex phenomena, including plasma behaviour in magnetic confinement fusion.

In this framework, HPC also establishes itself as a crucial enabler for the internal development of artificial intelligence use cases in support of Eni's businesses.

This technological ecosystem also represents a distinctive value for Eni, as it can attract new initiatives and talents from outside the company, as already demonstrated with HPC6 through the Call4Innovators.

In detail, Eni's new HPC system allows to add HPC6's 477 PFlops/s sustained to HPC7's 571 PFlops/s, corresponding to peak performance values of 606 PFlops/s for the former and 861 PFlops/s for the latter.

HPC7 is based on an architecture leveraging the same technology that underpins the most powerful systems currently available in Europe and worldwide, combining CPUs and GPUs in a hybrid configuration, with over 3,400 computing nodes and nearly 14,000 GPUs, to maximize computational performance and energy efficiency.

The combined computing power of HPC6 and HPC7 reaches 1048 PFlop/s sustained and 1467 PFlop/ peak.

With a value of 65.426 GFlops/W, HPC7 also achieved an excellent position in the dedicated Green500 ranking—which measures system efficiency—placing 11th worldwide and ranking first among peer systems in its category.

Eni's CEO, Claudio Descalzi, stated: *"The transition toward energy from both traditional and renewable sources that is increasingly secure, accessible, and clean cannot take place without a profound technological evolution. The adoption of supercomputing and predictive technologies across all activities is essential for developing new energy solutions, reducing emissions, maximizing efficiency in exploration and production, and generating value. In this context, the rapid development and commissioning of HPC7—completed in an even shorter timeframe than HPC6, which was already a benchmark—represents a concrete example of our execution capabilities: the result of the expertise, commitment, and quality of our operational teams. This robust digital ecosystem, developed through talent, collaboration, and internal research, not only accelerates our path toward Net Zero, but also strengthens our strategic positioning and competitive advantage in the market."*

Both supercomputers are in a dedicated area of Eni's Green Data Center, benefiting from an infrastructure designed to combine operational efficiency with environmental sustainability. The Green Data Center, already among the European leaders in energy efficiency and emissions reduction, confirms its strengths thanks to an innovative liquid cooling system.

**Note to editors:**

1. HPC7 uses HPE Cray EX4000 and HPE Cray ClusterStor E2000 technologies based on HPE's AMD architecture.
2. Computing Power: the system has achieved a peak performance of over 861 PFlops (Rpeak) and over 571 PFlops sustained (Rmax), positioning it among the most advanced infrastructures in the world.
3. Size: the system includes 3,480 compute nodes, incorporating a total of 13,920 GPUs.
4. Node Composition: each node consists of four AMD Instinct™ MI300A Accelerated Processing Units (APUs), each combining 24 AMD EPYC™ Zen 4 CPU cores and 228 CDNA3 GPU compute units, for a total of 96 CPU cores and 912 compute units per node. Each node is equipped with 512 GB of HBM3 memory.
5. High-Performance Network: the HPE Slingshot network ensures fast and reliable interconnection between nodes, enabling high-speed data transfer (200 Gbps).
6. Cooling System: the system employs direct liquid cooling (DLC) technology, capable of dissipating 96% of the generated heat.
7. Power Consumption: the system has a maximum power absorption of 9.4 MW (including cooling and supporting systems), achieving an efficiency of 65.426 GFlops/W.

**Eni Company Contacts:**

Press Office: Tel. +39.0252031875 – +39.0659822030

Freephone for shareholders (from Italy): 800940924

Freephone for shareholders (from abroad): +39.800 11 22 34 56

Switchboard: +39.0659821

[ufficio.stampa@eni.com](mailto:ufficio.stampa@eni.com)

[segreteria.societaria.azionisti@eni.com](mailto:segreteria.societaria.azionisti@eni.com)

[investor.relations@eni.com](mailto:investor.relations@eni.com)

Website: [www.eni.com](http://www.eni.com)

