Press release

Atos to empower automotive digital manufacturing processes with high-performance computing for AVL List

Paris, France – January 12, 2023 – Atos today announces that it has been selected by Austrian AVL List GmbH to deliver a new high-performance computing cluster based on BullSequana XH2000 servers along with a five-year maintenance service. As the world's leading mobility technology provider for development, simulation and testing in the automotive industry, the company will rely on Atos' supercomputer to drive more complex and powerful simulations, while optimizing its energy consumption.

As a global supplier to the automotive industry, AVL provides its customers with highly complex computer simulations for the design, development and testing of powertrains, workpieces, drive units and large engines. Every step of the way, the processes are represented digitally and require high, reliable computer performance as well as storage capacity. The cluster is used for a wide range of applications, from finite element analysis (FEA) for structural optimization and crash simulations to fluid mechanics simulations of combustion processes and battery cooling. Commercial software packages of well-known manufacturers as well as AVL-List's own Computational Fluid Dynamics (CFD) software package FIRE are used for this task.

The new computer network implemented by Atos has more than doubled the computational performance in engineering and therefore the processing times of computational tasks in customer projects could be reduced by more than half. In addition, it is possible to offer a greater variety of calculation results without having to access external compute resources such as cloud instances. This results in rapid and efficient adaptations of engineering workflows to new tasks.

With this cluster, AVL also benefits from a highly energy-efficient system, including Atos' Direct Liquid Cooling (DLC). This technology has been developed to avoid overheating. It consumes significantly less electricity than conventional cooling systems while ensuring almost noiseless, particularly stable operation.

> *"AVL's passion is innovation and Atos' supercomputer meets that requirement in terms of performance and energy-efficiency. The Direct Liquid Cooling (DLC) technology of the XH2000 cluster has opened up an unprecedented performance range, with minimal energy requirements and a green footprint, because 95 per cent of the waste heat is not released into the environment, but is put to further use via the cooling water circuit," explained* **Günter Bachler, Senior IT System Administrator, AVL List GmbH**.
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> **Stefan Kero, Head of Advanced Computing, Central Eastern Europe, Atos,** *added: "High-performance computers are among the key technologies of our time and have become indispensable in Sciences, Medical Research, Weather Forecast but also in the Industry, especially in digital product development. With HPC, industrial players can accelerate the construction of digital prototypes – which can be run through quickly and as often as desired in a multitude of variants – therefore*

gain flexibility and innovative strength. We are glad to be supporting AVL to simulate and test automotive technologies, for a safer mobility."

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About Atos

Atos is a global leader in digital transformation with 112,000 employees and annual revenue of c. € 11 billion. European number one in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all industries in 71 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is a SE (Societas Europaea) and listed on Euronext Paris.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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