

## Press

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Plano, Texas, USA – October 3, 2023

### CEA and Siemens collaborate on research to expand applications of Digital Twin for industry

- **Research collaboration to bring greater use of artificial intelligence and cloud computation in the world's most comprehensive digital twin across electronics systems based industry sectors.**

Siemens Digital Industries Software and CEA-List, a technological research institute focused on smart digital systems research, announced today the signing of a memorandum of understanding to collaborate on research to further extend and enhance digital twin capabilities with artificial intelligence (AI) and explore greater integration of embedded software on both virtual and hybrid platforms.

The research collaboration will bring together the two organizations' combined industry expertise with the Siemens Xcelerator portfolio and CEA-List's toolset to help break down the barriers between electronics design, software development and mechanical engineering disciplines using digital twin technologies. This is expected to help customers to significantly reduce the time and cost of verification and validation and to drive significant improvements in product quality and accelerate time to market across the full electronics systems product lifecycle; from architectural exploration to design and development. Alongside this, the research will further explore the use of Digital twin technologies for autonomous driving, smart robotics and health domains.

“With the strong increase in electronics and software content of products and systems, there is a clear need for multi-domain, multi-fidelity system simulation solutions to relieve

multiple design and verification challenges. We share a vision with CEA of an even more comprehensive Digital Twin and believe we can implement this vision through the power of the Siemens Xcelerator portfolio because it covers everything from Electronic Design Automation software and hardware tools to system, sensors and multi-physics simulation software,” said Jean-Marie Brunet, VP&GM of Hardware Assisted Verification Division, Siemens Digital Industries Software. “From chip-to-system, this collaboration with CEA-List is expected to further expand the application domains and technology breadth of these solutions.”

“At CEA-List, we are delighted to partner with Siemens, who share our common vision about the importance of a more holistic Digital Twin. CEA-List will contribute its expertise in digital technologies and tools from immersive and functional digital twin platforms (XDE and Papyrus), artificial intelligence and code verification areas,” said Alexandre Bounouh, CEO of CEA-List. “We believe that the Siemens and CEA-List Digital Twin research roadmap can offer best in class tools for generating rapid immersive and functional digital twins enhanced with artificial intelligence. This can certainly boost the competitiveness of companies by integrating Digital Twin technology early to innovate in their products and processes while keeping humans in the loop and reducing their environment impact.”

**Siemens Digital Industries Software** helps organizations of all sizes digitally transform using software, hardware and services from the Siemens Xcelerator business platform. Siemens' software and the comprehensive digital twin enable companies to optimize their design, engineering and manufacturing processes to turn today's ideas into the sustainable products of the future. From chips to entire systems, from product to process, across all industries. [Siemens Digital Industries Software](#) – Accelerating transformation.

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### About us

**CEA** is a major French government organization in research, serving economy and citizens. It provides concrete solutions to their needs in four main areas: energy transition, digital transition, technologies for health, defense and security. The CEA-List, located in the CEA-Paris-Saclay and CEA-Grenoble centers, is a CEA technological research institute that focuses its research on intelligent digital systems. Bringing major economic and societal challenges, its R&D programs concern artificial intelligence, the factory of the future, cyber-physical systems and digital health. The CEA-List is a member of the Carnot Institutes network. Pour en savoir plus : [www-list.cea.fr](http://www-list.cea.fr) | [LinkedIn](#) | [X](#) | [YouTube](#)

**Siemens Digital Industries (DI)** is an innovation leader in automation and digitalization. Closely collaborating with partners and customers, DI drives the digital transformation in the process and discrete industries. With its Digital Enterprise portfolio, DI provides companies of all sizes with an end-to-end set of products, solutions and services to integrate and digitalize the entire value chain. Optimized for the specific needs of each industry, DI's unique portfolio supports customers to achieve greater productivity and flexibility. DI is constantly adding innovations to its portfolio to integrate cutting-edge future technologies. Siemens Digital Industries has its global headquarters in Nuremberg, Germany, and has around 76,000 employees internationally.

**Siemens AG (Berlin and Munich)** is a technology company focused on industry, infrastructure, transport, and healthcare. From more resource-efficient factories, resilient supply chains, and smarter buildings and grids, to cleaner and more comfortable transportation as well as advanced healthcare, the company creates technology with purpose adding real value for customers. By combining the real and the digital worlds, Siemens empowers its customers to transform their industries and markets, helping them to transform the everyday for billions of people. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a globally leading medical technology provider shaping the future of healthcare. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power.

In fiscal 2022, which ended on September 30, 2022, the Siemens Group generated revenue of €72.0 billion and net income of €4.4 billion. As of September 30, 2022, the company had around 311,000 employees worldwide. Further information is available on the Internet at [www.siemens.com](http://www.siemens.com).

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