



Ansys Joins PowerizeD Research Initiative to Enable Sustainable and Resilient Energy Applications

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Ansys brings power of digital twins to European initiative that focuses on digitalization of power electronics and decarbonization

/ Key Highlights

- Ansys joins leading organizations on the three-year, 72-million euro project to elevate the sustainability and resilience of the European energy chain via smart, efficient power electronics
- Ansys will demonstrate how digital twin technology used as part of multiphysics workflows can increase efficiency, lower development costs, and contribute to decarbonization efforts

PITTSBURGH, April 11, 2023 /PRNewswire/ -- [Ansys](#) (NASDAQ: ANSS) joined European research initiative PowerizeD, which focuses on boosting the intelligence of power electronics to make them more efficient. As part of the initiative, Ansys will demonstrate the power of digital twins through new workflows that can increase efficiency, reduce development costs, and contribute to decarbonization efforts.



The project, initiated and coordinated by longtime Ansys customer Infineon Technologies AG (Infineon), is expected to contribute to European decarbonization and climate protection by improving the sustainability and resilience of the European energy chain.

Reliability issues in power electronics can often be traced back to thermal stress, which can be predicted and then mitigated via new compact digital twin workflows. These workflows are based on Ansys® Twin Builder™ and Ansys® optiSLang™, relying on metamodels built with Ansys® Fluent®, Ansys® Mechanical™, Ansys® Sherlock™, and Ansys® Electronics Desktop™. Using this approach with PowerizeD, Ansys will demonstrate how development time and costs can be saved by eliminating unnecessary prototypes and testing, while extending the useful life cycle of power electronics devices.

"We have to make highly efficient use of energy if we are to achieve net-zero climate protection goals. Digitalization can help here as a highly decisive lever for more energy efficiency," said Constanze Hufenbecher, chief digital transformation officer at Infineon. "We are pleased to combine our strengths with the strengths of so many excellent partners from research and business to jointly make the ambitious European research initiative PowerizeD a success."

"Power electronics is key to energy transformation and is used anywhere and everywhere that electricity is generated, transferred, and used efficiently," said Dr. Rutger Wijburg, chief operations officer at Infineon. "The broad spectrum of power electronics applications makes it very important that we collaborate with partners across the boundaries of corporate entities and organizations to jointly advance Europe as an innovation engine." The immediate PowerizeD project objectives include:

- Reduction of power loss in power conversion by 25 percent
- Extension of the service lives of devices and systems by 30 percent
- Reduction of chip size by at least 10 percent
- Shortening development times by a challenging 50 percent

"Ansys already works closely with many companies involved in the European Research Initiative PowerizeD to help optimize product development and integrate simulation into digitalization efforts," said Shane Emswiler, senior vice president of products at Ansys. "We look forward to collaborating with the project's research partners on an interdisciplinary approach to power electronics that will demonstrate the value of an integrated simulation workflow and our compact digital twin technology."

[Learn more](#) about simulation's role in power electronics.

/ About PowerizeD

The project has been accepted for funding within the Key Digital Technologies Joint Undertaking (KDT JU), a public-private partnership in collaboration with the Horizon Europe (HORIZON Framework Program and National Authorities under grant agreement number 101096387 Co-funded by European Union). Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or Horizon Europe. Neither the European Union nor the granting authority can be held responsible for them.

Further information on the project and the project partners can be found at the following web site: www.powerized.eu.

/ About Ansys

When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. From sustainable transportation to advanced semiconductors, from satellite systems to life-saving medical devices, the next great leaps in human advancement will be powered by Ansys.

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