

## **ESI Group collaborates with Aberdeen Strategy and Research to unveil "Shift Left" Insights on Virtual Prototyping**

ESI Group has partnered with industry analysts Aberdeen Strategy and Research to present novel insights into the benefits of virtual prototyping for digital transformation in product development. The result of this collaboration is "[Shift Left: The Value of Virtual Prototyping for Digital Transformation of the Product Development Lifecycle](#)," an in-depth examination of how virtual prototyping can revolutionize industries such as automotive, aerospace, and heavy machinery.

The research found that top-performing organizations embracing 'shift left' - an early-stage digital approach to product performance testing - were able to significantly reduce their reliance on physical prototypes by 75.6% and decrease engineering change orders by 73.8%, resulting in a 75.2% decrease in the overall development time. The research also explores the key challenges to a successful deployment and details the "Top 10" long-term benefits realized by organizations that adopt a solid virtual prototyping strategy.

Mike Russell, Head of Customer Success at ESI Group, comments: *"Our collaboration with Aberdeen Strategy and Research underscores the importance of virtual prototyping, embracing digital practices, and shifting validation processes and decision-making to virtual realms. Despite the initial investment and upfront effort, particularly in upskilling and training the workforce, simulation-led decision-making stands as a crucial leap forward in industry innovation. By seamlessly integrating predictive, real-time, immersive virtual testing software into their digital thread, industries gain the unique capability to foresee not just the expected performance but also accurately predict how their product will perform in real-world conditions, accounting for manufacturing intricacies."*

Industrial manufacturers in automotive, aerospace, and heavy machinery sectors are actively seeking ways to manage increasing product complexity, foster collaboration, and adapt swiftly in early development stages. They face the challenge of balancing cost reduction with quality improvement, productivity enhancement, and faster time-to-market. This necessitates a strategic approach to working smarter in an end-to-end digitalized way.

The report is available as a 26-minute video presentation or as a downloadable eBook: [https://www.esi-group.com/the\\_value\\_of\\_virtual\\_prototyping](https://www.esi-group.com/the_value_of_virtual_prototyping)

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### About ESI Group

ESI Group, a part of Keysight Technologies, provides reliable and customized solutions anchored on predictive physics modeling and virtual prototyping expertise. Acting principally in automotive, land transportation, aerospace and defense, and heavy industry, ESI software enables engineers to simulate mechanical designs, smart manufacturing processes, and human-centric workflows to make better decisions earlier in the product lifecycle. Keysight is an S&P 500 company delivering market-leading design, emulation, and test solutions to help engineers develop and deploy faster, with less risk, throughout the entire product lifecycle. For further information, go to: [www.esi-group.com](http://www.esi-group.com)

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