

# Spectrum of Insights with Advanced Engineering Simulation

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## ABSTRACT

We're witnessing a disruption in product development as the physical and digital worlds merge to generate unprecedented product innovation. Because products are smarter and more innovative than ever, the methods by which they are manufactured, brought to market, and operated has been profoundly altered. Engineering simulation is key in enabling greater insight and rigor in product design.

In this forward-looking presentation, Dr. Williams will begin with brief reflections on commercial electromagnetic simulation development. He will then highlight how engineers can see the big picture of their design's operation by leveraging engineering simulation. Core areas covering advanced numerics, high-performance computing, artificial intelligence and machine learning, advanced workflows, and digital engineering will be covered. Industry examples will be highlighted including automotive, aerospace, healthcare, autonomous vehicles, advanced materials, and Cloud computing.