

FACING ENGINEERING

## COMPLEXITY WITH LIMITED RESOURCES

70% OF IN ADOR

OF INDUSTRY EXECUTIVES WILL ADOPT NEW AND EMERGING TECHNOLOGIES BY 2020



Exponential growth in design complexity and a growing skills gap are threatening the industry while it works to innovate faster.

TOP CHALLENGES FOR A&D PRODUCT DEVELOPMENT



of products are
BECOMING MORE
COMPLEX



of products **OPERATE** in **VARIABLE** and **COMPLEX ENVIRONMENTS** 



of **DEVELOPMENT RESOURCES** are **LIMITED** 



of A&D businesses
claimed that recruitment
issues had DELAYED
PRODUCT DEVELOPMENT
and INFLATED
OPERATING COSTS

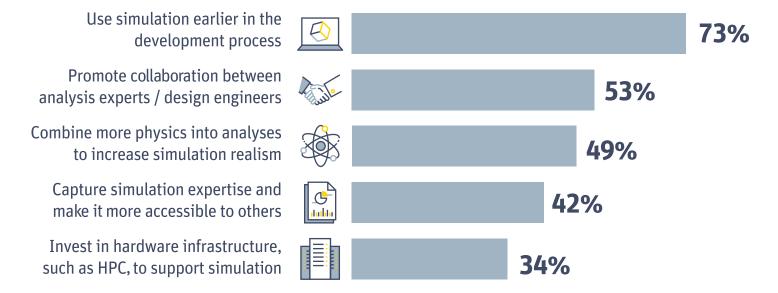


The first B-757 was flown in 1982. By 1992 the B-777 had **21X MORE ONBOARD SLOC\*** than the B-757, which required an estimated **28.5X GREATER DEVELOPMENT EFFORT** 

\*source lines of code

A&D companies must improve engineering productivity by digitally transforming their engineering processes and implementing simulation.

**TOP ACTIONS TO IMPROVE PRODUCT ASSESSMENTS** 



Simulation accelerates innovation at a lower cost and with fewer resources.



can reduce the time for materials research from **DAYS TO HOURS** 



## A CONSOLIDATED SIMULATION PLATFORM

will lead to a **17%** improvement in prompt launch dates and a **20%** rise in achieving product cost goals



## MULTIPHYSICS SIMULATION

users are 44% more likely to meet launch dates and 58% more likely to meet product cost targets, compared to non-simulation users