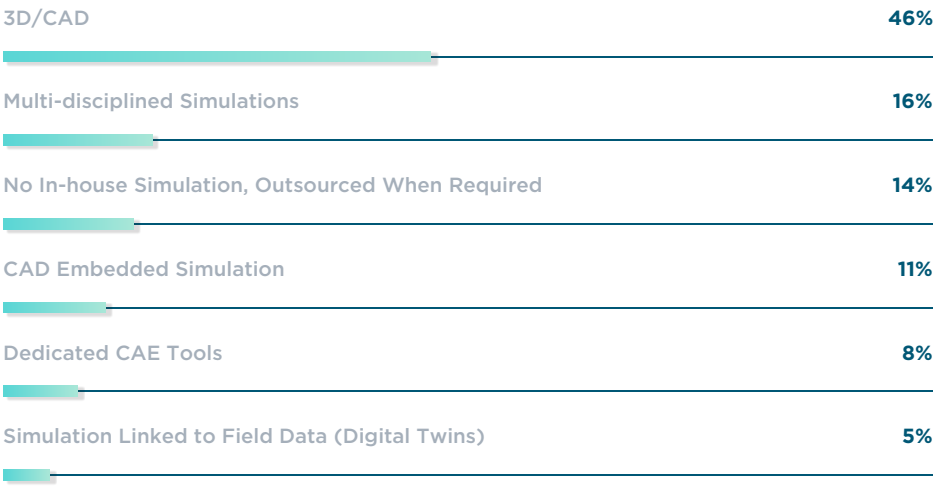
SIMULATION AND DIGITAL TWIN ADOPTION: 2021 SMX EXECUTIVE REPORT

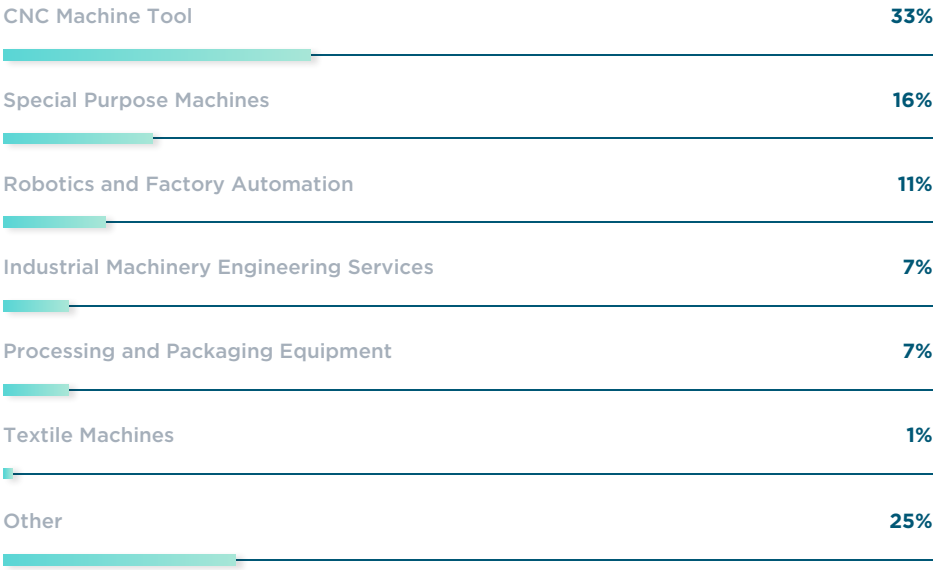
Altair sponsored an SME audience survey to learn more about the adoption of engineering simulation and digital twin initiatives within the field of industrial manufacturing. This poll of 124 manufacturing professionals produced some interesting findings about how companies currently use simulation as well as what the biggest roadblocks are in the way of future technology adoption, including the use of digital twins.

Over four-in-five respondents (86%) indicated that their company performs in-house simulation, with almost half of respondents (46%) using 3D/CAD. The primary simulation business goals are reduction in development times and project risk, as well as achieving higher operational efficiency, while the primary engineering goals are increased machine performance and product quality. One-quarter of respondents (26%) indicated their company plans to undertake a digital twin initiative in the next five years, primarily to increase business agility and increase the number of first-time right products. The skills gap surrounding digital twin and simulation are the primary barriers to entry respondents indicated for their company.

Current Level of Engineering Simulation Adoption



Primary Machine Segment



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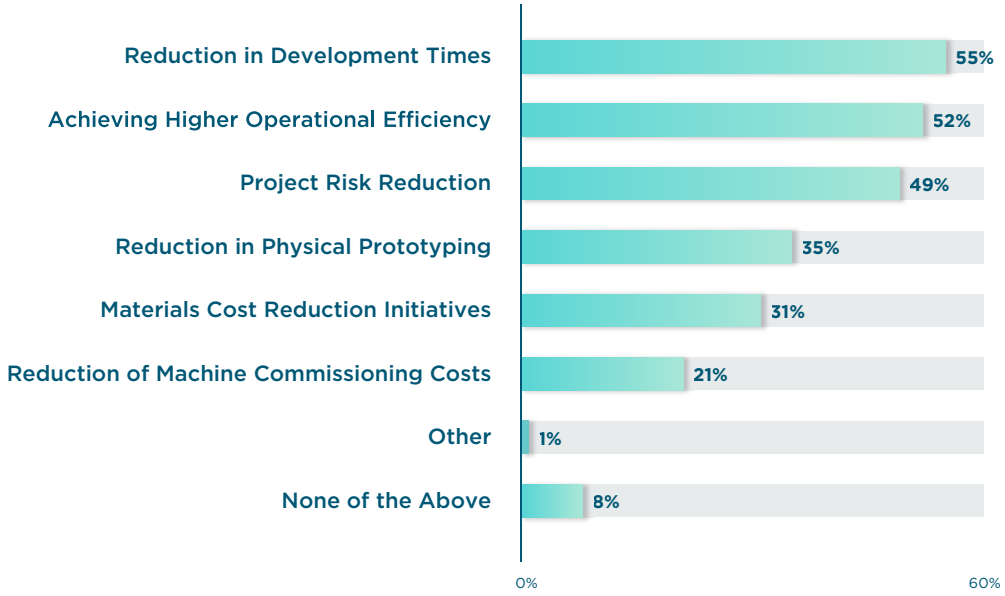
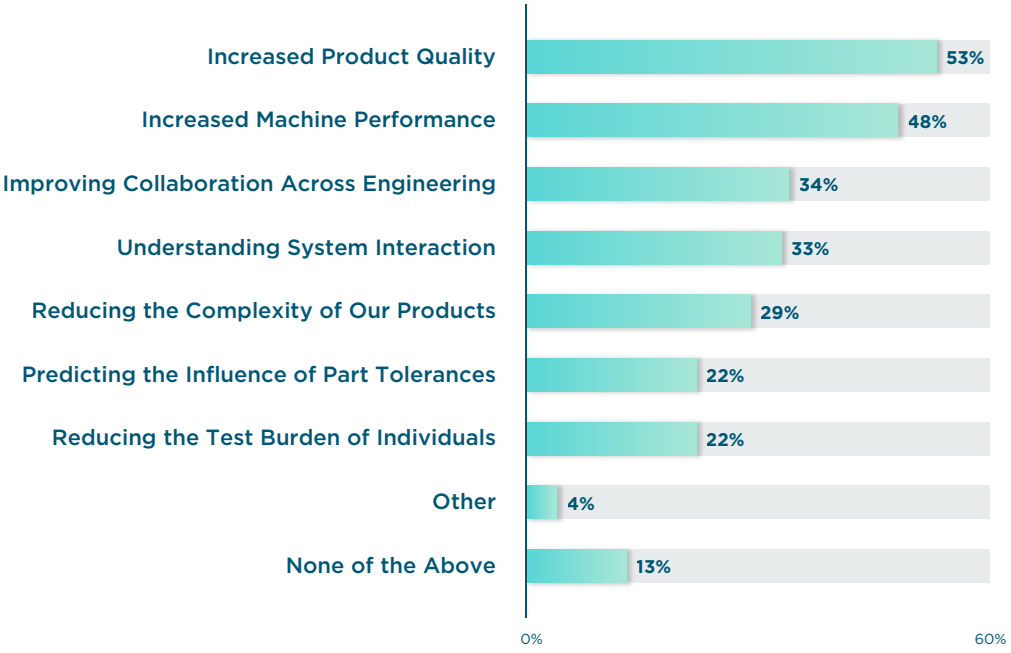
Simulation Adoption Business Goals



Simulation Adoption Engineering Goals



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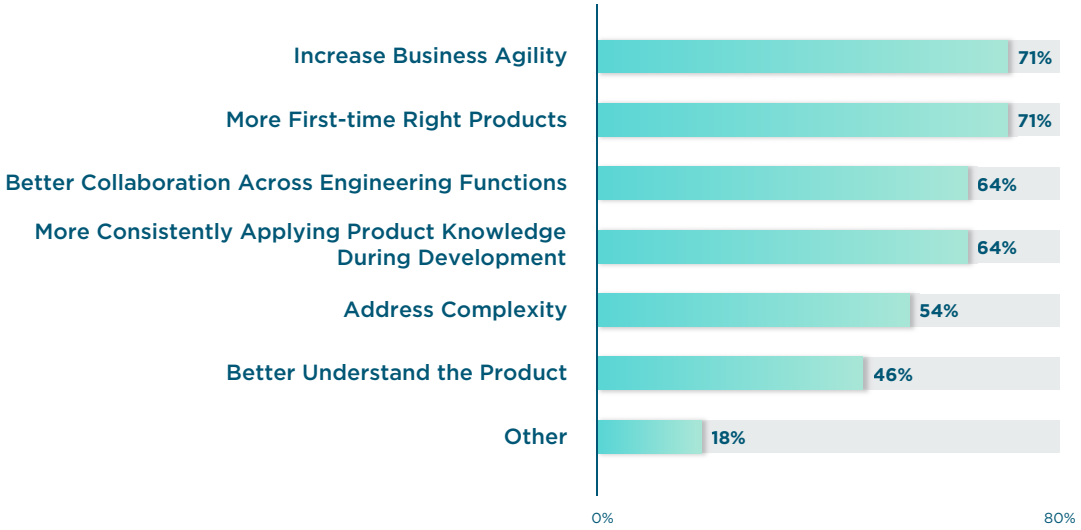
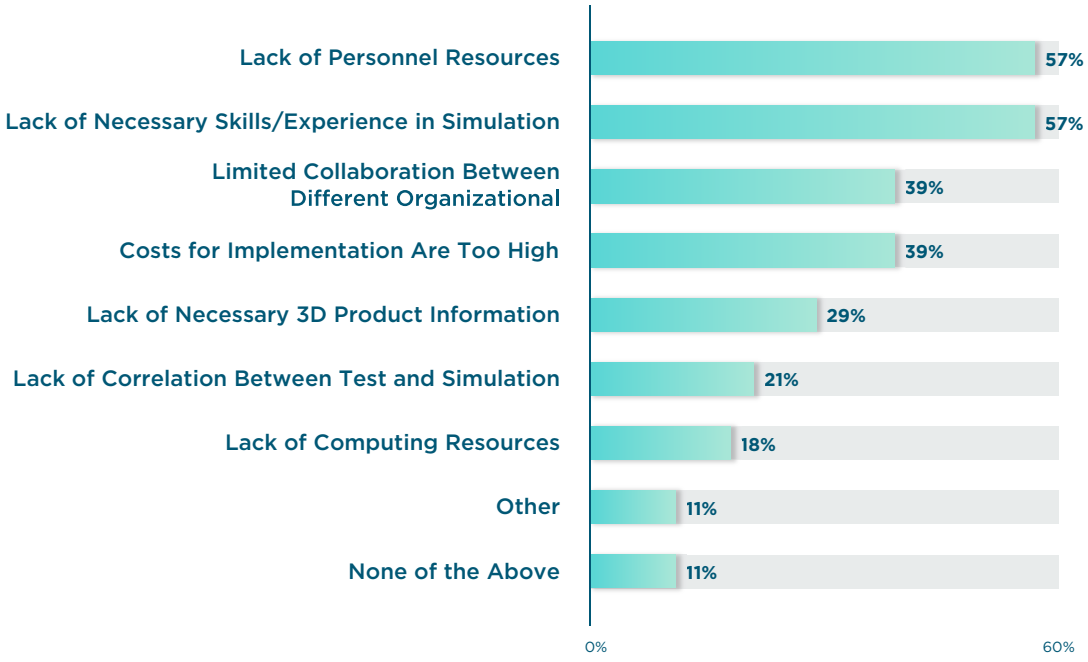
Digital Twin Adoption Benefits



Barriers to Digital Twin Initiatives



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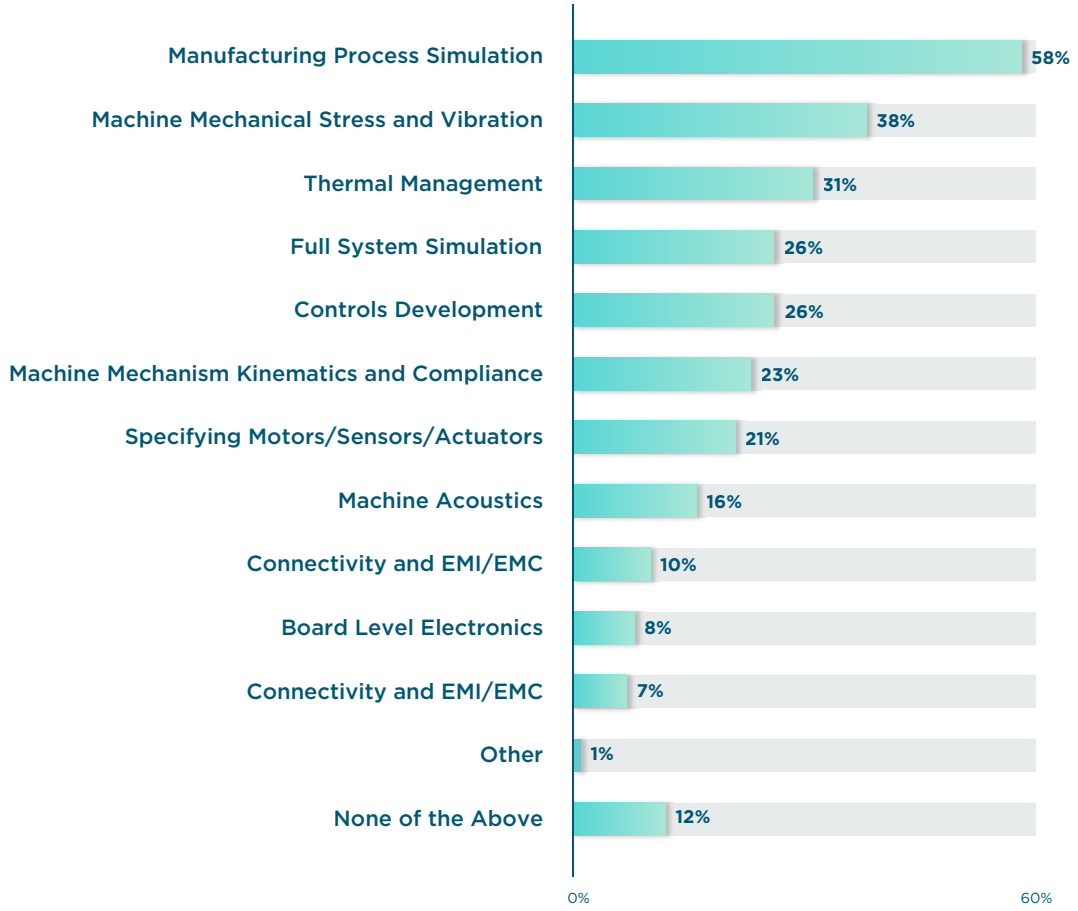
Simulation Use Machine Performance Benefits



Next 5 Years:
Digital Twin Initiative

26%

- Target Audience: SME Database (Company mgmt/Corp Exec/Owner, Manuf eng. Mgmt & dept, Product design & development; Control eng.; NAICS: Mach. Mfg & Trans. Mfg.)
- Survey Method: Online
- Fielding Dates: March 3 – March 16, 2021