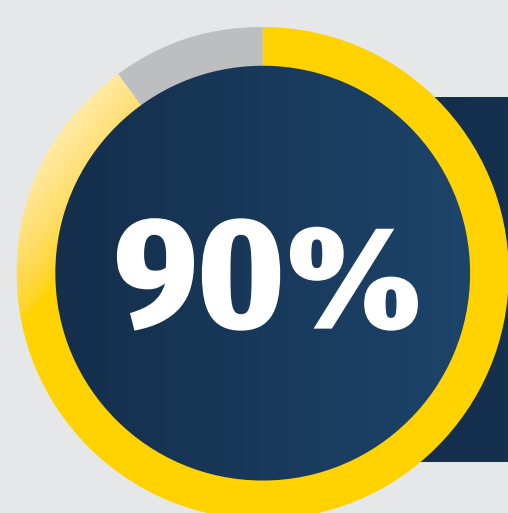




Advancement in the Aerospace Industry

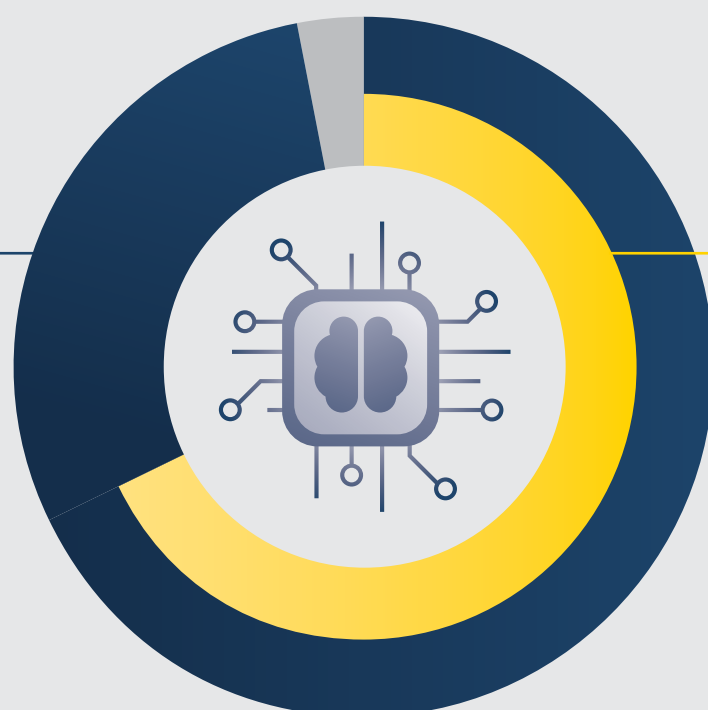
Digital Transformation



of A&D companies believe they have entered an era of technology advancement marked by an exponential rate of change.

97%

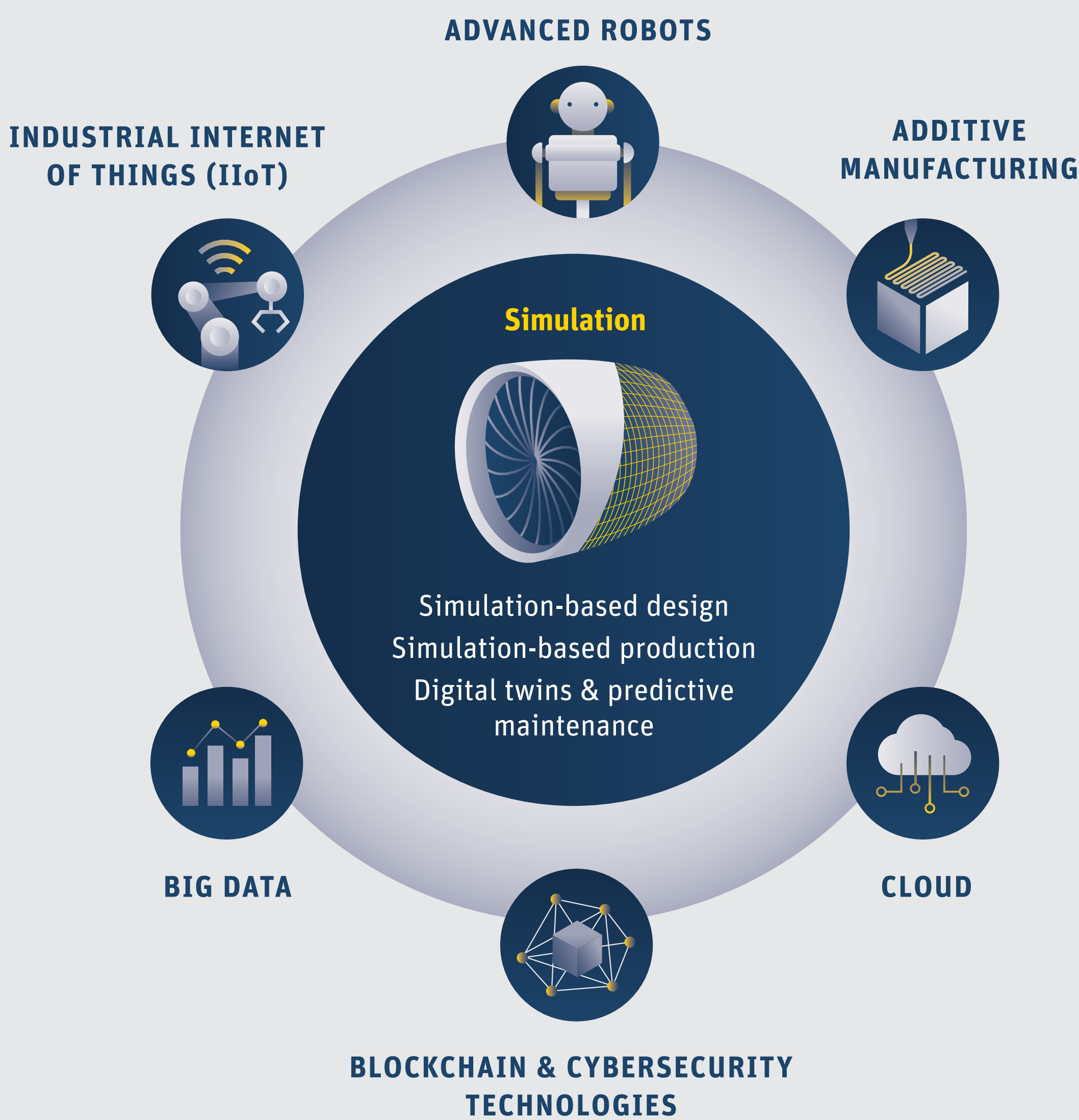
of aerospace executives are willing to digitally reinvent their businesses



But only 68%

of aerospace companies are already investing in digital technologies as part of their overall business strategy

Simulation Enables Major Disruptive Forces in A&D



Speed Up Innovation Through Simulation

IMPACT OF SIMULATION

IMPACT ON THE INDUSTRY

<p>18% weight reduction 10-100x volume reduction</p>	<p>~\$1.3 billion cost savings for each 1% reduction in mass</p>
<p>4.5% drag reduction</p>	<p>~\$10 billion saved in fuel consumption due to winglets</p>
<p>15% fuel burn reduction</p>	<p>~\$27 billion saved from reduction in fuel burn</p>
<p>50% reduction in development time</p>	<p>\$6 billion - \$8 billion associated program cost growth resulting from delays in development of 2-4yrs</p>