

Computer Aided Engineering - Company Evaluation Report, 2025

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Abstracts

The Computer-Aided Engineering Companies Quadrant is a comprehensive industry analysis that provides valuable insights into the global market for Computer-Aided Engineering. This quadrant offers a detailed evaluation of key market players, technological advancements, product innovations, and emerging trends shaping the industry. MarketsandMarkets 360 Quadrants evaluated over 100 companies, of which the Top 15 Computer-Aided Engineering Companies were categorized and recognized as quadrant leaders.

Computer-aided engineering (CAE) is undergoing a significant transformation, driven by the growing complexity of product designs, increased digitalization, and the integration of advanced technologies across various industries. CAE software tools have evolved considerably in response to the demand for faster time-to-market, lower development costs, and more precise virtual testing. Organizations are increasingly adopting simulation-driven design to improve product performance, cut down on prototyping expenses, and reduce design errors, which in turn is accelerating the use of CAE software tools.

According to Siemens, computer-aided engineering (CAE) involves the use of computer software across different industries to simulate product performance in order to enhance designs or solve engineering challenges. This encompasses the simulation, validation, and optimization of products, processes, and manufacturing tools.

The 360 Quadrant maps the Computer-Aided Engineering companies based on criteria such as revenue, geographic presence, growth strategies, investments, and sales strategies for the market presence of the Computer-Aided Engineering quadrant. The top criteria for product footprint evaluation included By OFFERING (Software Tools,

Services), By DEPLOYMENT MODE (Cloud, On-Premises), By ORGANIZATION SIZE (SMEs, Large Enterprises), and By VERTICAL (Automotive, Aerospace & Defense, Healthcare & Life Sciences, Electronics & Semiconductor, Architecture, Engineering & Construction (AEC), Marine & Offshore, Heavy Industrial Equipment, Energy & Process, Other Verticals).

Key players in the Computer-Aided Engineering market include major global corporations and specialized innovators such as Ansys + Synopsys, Dassault Systèmes, MathWorks, Siemens + Altair, Keysight, CAE, Inc., Emerson, Autodesk, Hexagon AB (MSC Software), PTC, Honeywell, BETA CAE Systems (Cadence), AspenTech, COMSOL, and Gamma Technologies. These companies are actively investing in research and development, forming strategic partnerships, and engaging in collaborative initiatives to drive innovation, expand their global footprint, and maintain a competitive edge in this rapidly evolving market.

Top 3 Companies

Synopsys + Ansys

Synopsys + Ansys leads the CAE market with a strong emphasis on developing a comprehensive multiphysics simulation platform. The company expands its capabilities through strategic acquisitions, such as Rocky DEM and partnerships with tech giants like NVIDIA and AWS. Known for its accuracy and depth of capabilities, Synopsys + Ansys delivers immense value through enterprise-wide integration and its focus on cloud, AI, and digital twin technologies. The company's right to win is anchored in its leadership in finite element analysis (FEA), computational fluid dynamics (CFD), and electromagnetics (EM) simulation domains.

Siemens + Altair

Siemens + Altair stands out for its end-to-end digital thread offering that integrates CAE, PLM, and CAD platforms. The company emphasizes digital twins and predictive engineering to support Industry 4.0 applications. Significant investments in simulation tools and the ability to offer cloud-based solutions with flexible pay-as-you-go pricing enable Siemens + Altair to support collaborative engineering. The strategic synergy between Siemens and Altair enhances their coverage across multiple industrial applications, contributing to a substantial share in the CAE market.

Dassault Systèmes

Dassault Systèmes excels with its 3DEXPERIENCE platform, providing a unified collaborative environment for CAE applications. The company is committed to offering

robust solutions through virtual twin experiences and a focus on cloud deployment. Dassault's right to win is strengthened by its strong integration of CAD, CAE, and PLM systems, making it a trusted solution provider across regulated industries like aerospace and life sciences. This strategic approach ensures Dassault remains pivotal in supporting complex product engineering and innovative solutions.

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