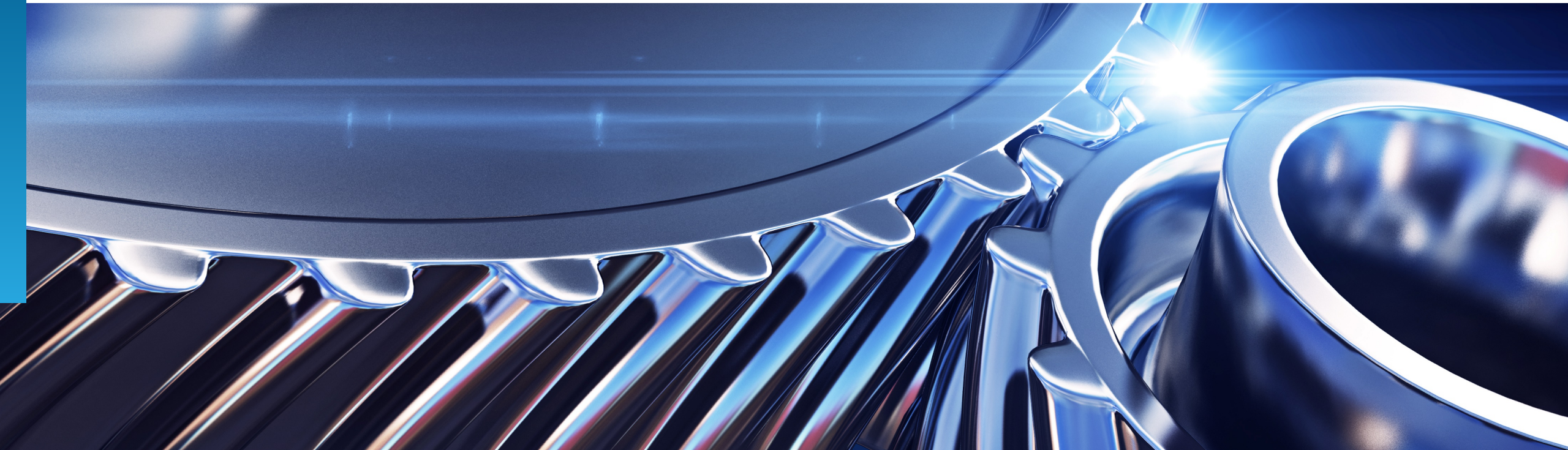


Leading the Pack: Trends for the Top 200 Engineering Research & Development (ER&D) Enterprises 2021

September 2021: Complimentary Abstract / Table of Contents



Our research offerings

This report is included in the following research program(s):

Engineering Services

- ▶ Application Services
- ▶ Banking & Financial Services BPS
- ▶ Banking & Financial Services ITS
- ▶ Catalyst™
- ▶ Clinical Development Technology
- ▶ Cloud & Infrastructure
- ▶ Conversational AI
- ▶ Contingent Workforce Management
- ▶ Cost Excellence
- ▶ Customer Experience Management Services
- ▶ Cybersecurity
- ▶ Data & Analytics
- ▶ Digital Adoption Platforms (DAP)
- ▶ Digital Services
- ▶ Engineering Services
- ▶ Enterprise Platform Services
- ▶ Finance & Accounting
- ▶ Financial Services Technology (FinTech)
- ▶ Global Business Services
- ▶ Healthcare BPS
- ▶ Healthcare ITS
- ▶ Human Resources
- ▶ Insurance BPS
- ▶ Insurance ITS
- ▶ Insurance Technology (InsurTech)
- ▶ Insurance Third-Party Administration (TPA) Services
- ▶ Intelligent Document Processing (IDP)
- ▶ Interactive Experience (IX) Services
- ▶ IT Services Executive Insights™
- ▶ Life Sciences BPS
- ▶ Life Sciences ITS
- ▶ Locations Insider™
- ▶ Market Vista™
- ▶ Mortgage Operations
- ▶ Multi-country Payroll
- ▶ Network Services & 5G
- ▶ Outsourcing Excellence
- ▶ Pricing-as-a-Service
- ▶ Process Mining
- ▶ Procurement
- ▶ Recruitment Process Outsourcing
- ▶ Rewards & Recognition
- ▶ Service Optimization Technologies
- ▶ Supply Chain Management (SCM) Services
- ▶ Talent Excellence GBS
- ▶ Talent Excellence ITS
- ▶ Technology Skills & Talent
- ▶ Trust and Safety
- ▶ Workplace Services
- ▶ Work at Home Agent (WAHA) Customer Experience Management (CXM)

If you want to learn whether your organization has a membership agreement or request information on pricing and membership options, please contact us at info@everestgrp.com

Learn more about our
custom research capabilities

Benchmarking

Contract assessment

Peer analysis

Market intelligence

Tracking: service providers, locations, risk, technologies

Locations: costs, skills, sustainability, portfolios

Contents

1. Introduction and overview	4
• Background and scope of the research	6
• Summary of key messages	8
2. ER&D trends by industry, based on the top 200 companies	9
• Software products & internet	14
• Automotive	19
• Consumer electronics	24
• Semiconductors	29
• Industrial products	34
• Telecom Equipment Providers (TEPs)	39
• Aerospace & defense	44
• Medical devices	49
• Telecom Service Providers (TSPs)	54
3. Appendix	59
• Glossary	60
• Research calendar	61

For more information on this and other research published by Everest Group, please contact us:

Akshat Vaid, Vice President

Nishant Udupa, Senior Analyst

Aditi Garg, Senior Information Specialist

Nitish Dayal, Analyst

Background and scope of the research

Background of the research

- The COVID-19 pandemic disrupted the way businesses functioned in 2020, with enterprises compelled to adopt remote working models and roll out new software offerings to continue to cater to consumer needs and stay relevant in the market
- COVID-19 has had a varying impact across verticals, with enterprises in verticals such as software products & internet, semiconductors, and consumer electronics having increased their ER&D spending, while enterprises in verticals such as automotive and aerospace & defense had to postpone their ER&D initiatives
- This research was conducted for the top 200 ER&D enterprises, most of which (99%) fell into nine key verticals as mentioned below. The enterprises were analyzed by factoring in their ER&D spend growth trends and key investment areas for 2020
- This report captures the key investment areas of enterprises in 2020 across each of these nine verticals. The report also provides insights into ER&D spend intensity (ER&D spend as a percentage of revenue) for enterprises across verticals and assesses the impact of COVID-19 on the assessed nine verticals
- The focus of this research is only on business-financed ER&D spend. It excludes non-ER&D spend (e.g., clinical ER&D expenditure in pharmaceuticals and biotechnology and molecular development ER&D expenditure in chemicals) as well as government-sponsored ER&D spend
- Enterprises that do not specifically report ER&D expenditure in their annual reports have been excluded from this analysis. Enterprises cutting across more than one industry have been featured under the industry where the proportion of ER&D spend is the highest

Scope of this report:

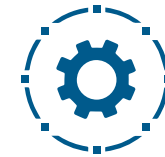


Geography
Global



Industry

Market trends across nine industries: software products & internet, automotive, consumer electronics, semiconductors, industrial products, TEPs, aerospace & defense, medical devices, and TSPs



Services

Engineering services

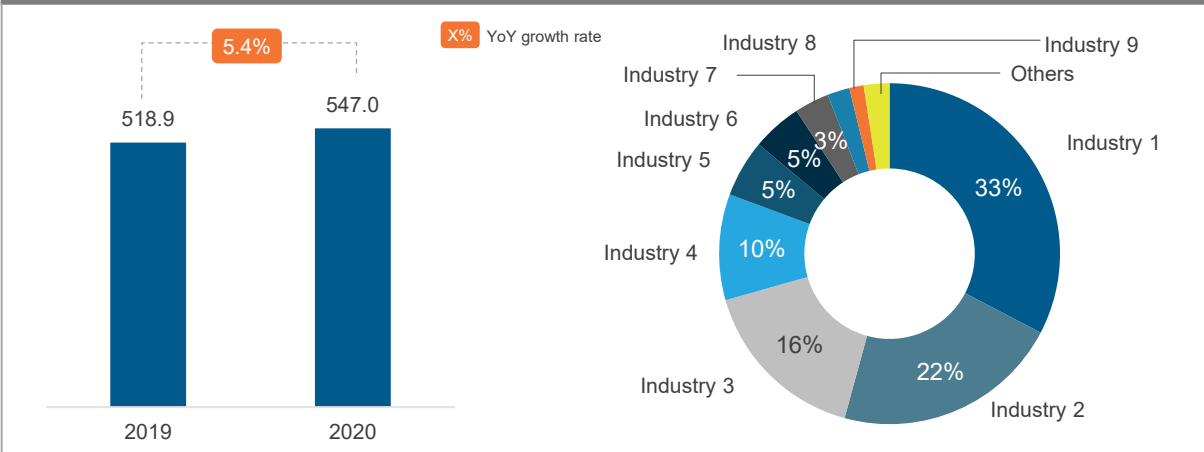
Summary of key messages

- Enterprises in the ER&D top 200 list across the nine verticals spent US\$547 billion on ER&D in 2020, an increase of 5.4% from 2019. The top 200 enterprises accounted for 43.5% of the total business ER&D spend
- In 2020, the software products & internet vertical recorded the highest ER&D spend of US\$178.7 billion at a YoY growth rate of 14.3%, the fastest among all the industry verticals. The automotive and aerospace & defense verticals on the other hand, experienced a decline in their E&RD spend, primarily because of COVID-19
- The ER&D top 200 enterprises spent an average of 9.3% of their revenue on ER&D. Enterprises from the software products & internet, TEPs, and semiconductor verticals had an ER&D spend intensity of more than 15% while the enterprises from the medical devices, consumer electronics, automotive, and aerospace & defense had a spend intensity of around 6%
- Automotive vertical had the highest number of enterprises (43) featuring in the ER&D top 200 list, followed by software products & internet (40). Consumer electronics and semiconductor verticals both had 25 enterprises in the top 200 list
- Enterprises across all nine verticals continued to increase spending on digital technologies such as cloud, AI/ML, IoT, and cybersecurity to develop next-generation smart solutions for customers. Among the asset-heavy industries, connected products and electrification continued to remain a relevant investment theme

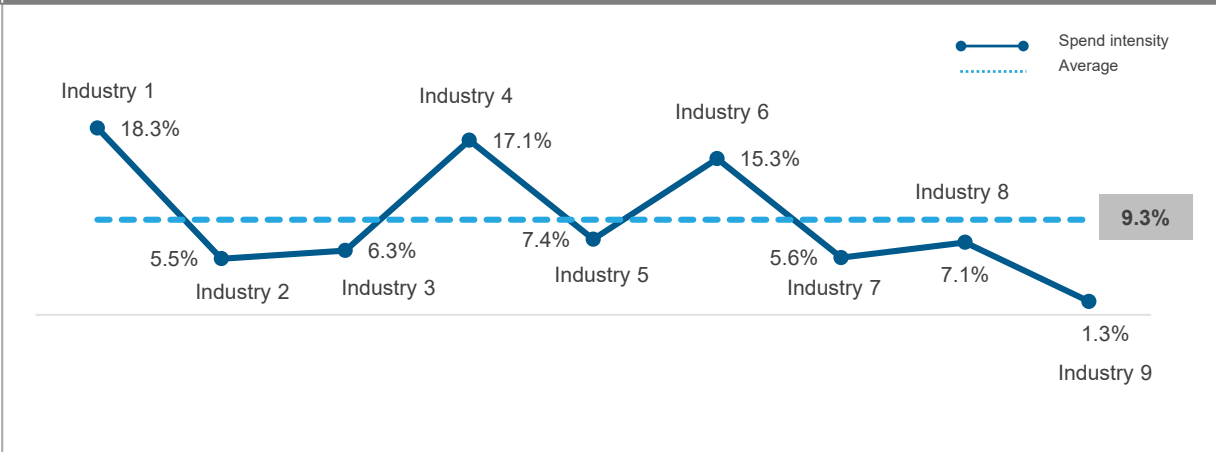


This report includes ER&D spend analysis along with insights on key investment priorities for enterprises across nine key industries

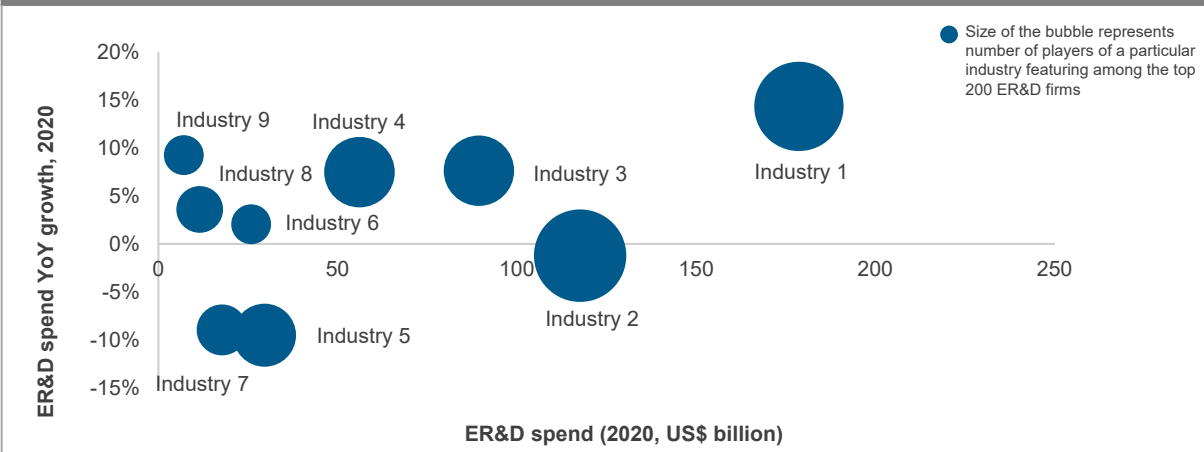
ER&D top 200 overview



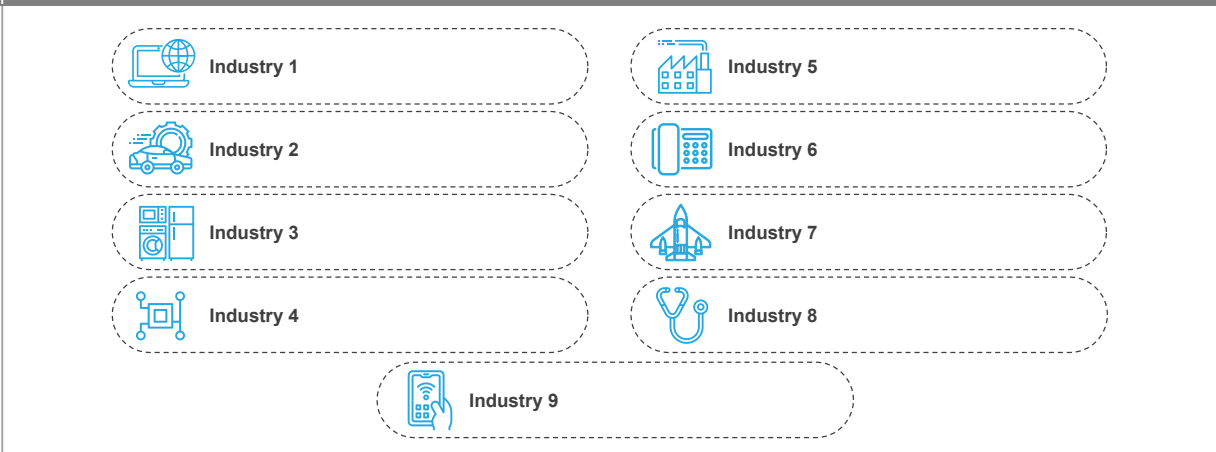
Spend intensity for industry verticals



ER&D YoY growth and spend snapshot by industry



Key ER&D investment priorities across sectors



Research calendar

Engineering services

■ Published
 ■ Planned
 ■ Current release

Flagship reports

	Release date
Reaching New Frontiers in Experience-centricity and Resilience: Software Product Engineering Services PEAK Matrix® Assessment 2021	March 2021
Semiconductor Engineering Services PEAK Matrix® Assessment 2021: Enabling the Hyper-connected Intelligent World	March 2021
A Transformational Leap in Cyber-physical Convergence – Industry 4.0 State of the Market Report 2021	April 2021
Automotive Engineering Services PEAK Matrix® Assessment 2021	August 2021
Medical Devices IoT Services PEAK Matrix® Assessment 2021	Q3 2021
5G Engineering Services PEAK Matrix® Assessment 2021	Q3 2021
Digital Engineering Services PEAK Matrix® Assessment 2021	Q4 2021

Thematic reports

	Release date
Engineering R&D (ER&D) in 2021	February 2021
Digital Twins and their Adoption Across Industries	February 2021
The Role of Global Business Service (GBS) Organizations in the Automotive Industry: What Lies Ahead?	March 2021
Engineering Services Enterprise Pulse: Are Engineering Enterprises Truly Happy with Their Service Providers?	April 2021
Engineering Services Top 50	June 2021
Extended Reality and its Application Across Industries	August 2021
Leading the Pack: Trends for the Top 200 Engineering Research & Development (ER&D) Enterprises 2021	September 2021
Trailblazers: Cloud Engineering Service Providers	Q4 2021
Engineering Services Talent Handbook – APAC	Q4 2021

Note: For a list of all of our published ES reports, please refer to our [website page](#)



Everest Group is a research firm focused on strategic IT, business services, engineering services, and sourcing. Our clients include leading global companies, service providers, and investors. Clients use our services to guide their journeys to achieve heightened operational and financial performance, accelerated value delivery, and high-impact business outcomes. Details and in-depth content are available at www.everestgrp.com.

Stay connected

Website

everestgrp.com

Social Media

 [@EverestGroup](https://twitter.com/EverestGroup)

 [@Everest Group](https://www.linkedin.com/company/everestgrp)

 [@Everest Group](https://www.facebook.com/EverestGroup)

 [@Everest Group](https://www.youtube.com/EverestGroup)

Blog

everestgrp.com/blog

Dallas (Headquarters)

info@everestgrp.com

+1-214-451-3000

Bangalore

india@everestgrp.com

+91-80-61463500

Delhi

india@everestgrp.com

+91-124-496-1000

London

unitedkingdom@everestgrp.com

+44-207-129-1318

Toronto

canada@everestgrp.com

+1-647-557-3475

This document is for informational purposes only, and it is being provided "as is" and "as available" without any warranty of any kind, including any warranties of completeness, adequacy, or fitness for a particular purpose. Everest Group is not a legal or investment adviser; the contents of this document should not be construed as legal, tax, or investment advice. This document should not be used as a substitute for consultation with professional advisors, and Everest Group disclaims liability for any actions or decisions not to act that are taken as a result of any material in this publication.