



India to contribute 22% to the Global ER&D sourcing market by FY30: nasscom - BCG Report

- ER&D spending will grow at an 8-9% CAGR from 2023 to 2030 on a global scale
- *Software, Automotive, and Semiconductor sectors are expected to contribute 60%+ of India's share of ER&D sourcing by FY30.*
- *Focus on skills synchronicity and emerging geo contenders will be key for India to achieve this growth and remain globally competitive.*

New Delhi, October 12, 2023: nasscom in partnership with BCG today has launched a report titled ***“Seizing the ER&D Advantage: Frontiers for 2030”***. As per the report, India remains a preferred destination for global Engineering Research and development (ER&D) sourcing, driven by its vast pool of digital talent, a rich and vibrant ecosystem, and a mature ER&D ecosystem. India will likely contribute 22% to the Global ER&D sourcing market by FY30. *Software, Automotive, and Semiconductor sectors are expected to contribute 60%+ of India's share of ER&D sourcing by FY30.*

Global ER&D to grow at a pace of 8-9% CAGR till FY30

Globally, business ER&D spending has experienced a 7-8% CAGR from 2020 to 2023. ER&D spending is expected to grow at an 8-9% CAGR from 2023 to 2030 due to stability in the market and emphasis on digital innovation worldwide. The market size is expected to grow to a size of \$1.8 trillion, fueled by renewed interest in the segment, demand for digital products and services, and the adoption of new technologies. The automotive, software, healthcare, and medical devices sectors are expected to be the top three contributors to the growth of ER&D spending by 2030. The semiconductor industry is also expected to play a significant role, driven by increasing demand and investment. It is anticipated that digital engineering will be the primary driving force behind the accelerating ER&D spending, accounting for approximately 65% in 2030, up from 45% in 2023.

The India ER&D Advantage

Amidst the global landscape, India is strategically positioned to claim a significant share of the global ER&D sourcing market. India's economic value proposition and its capacity to provide talent on a large scale underscore its pivotal role in the overall growth of the ER&D segment. The report reveals that India's share in the global business ER&D sourcing is projected to increase from \$44-45 billion in 2023E to \$130-170 billion by FY30.

Semiconductor ER&D sourcing share is expected to see the highest jump from 9% share in FY23E to 12% share, to become the 3rd highest contributing sector by FY30. This is further driven by the global push to use India as a base for Semiconductor manufacturing, further accelerating a consolidated design plus manufacturing ecosystem in India. In line with the global sourcing trend, software will continue to retain the highest share, followed by the Automotive sector. Furthermore, the report suggests that the industry may find additional growth opportunities within the segment, particularly with support from sectors like aerospace & defense, Telecommunications, energy & utilities, etc.

KS Viswanathan, Vice President (Industry Initiative) at nasscom, said, “India's position in the global ER&D sourcing arena is truly unique, driven by our remarkable combination of ER&D innovation expertise, and ability to provide scalable talent. As we navigate the transformative megatrends in this space collaboration among government, industry, and academia becomes pivotal. Together, we need to establish robust infrastructure, craft effective policies, enhance ER&D skillsets, and provide industry-tailored training, thereby ensuring employability and the highest quality of research, boosting India's position as the ER&D hub for the world.”



Snehil Gambhir, Partner & Director, BCG said, “India is poised to command a global leadership role in shaping the ER&D sourcing story. It has a talent pool that brings deep capabilities, an innovation spirit, all at scale, allowing organizations to craft meaningful capability footprint strategies to support their growth agenda. India is not alone in seeking to be the knowledge capital of the world, and must address critical challenges head on – develop and curate research oriented industry academia partnerships, raise the bar on employability of our technical graduates with application oriented curriculum and coop programs, and fostering a strong infrastructure and policy framework. Effective branding and promotion are also pivotal facets of India's journey toward ER&D excellence.”

Amit Kumar, Managing Director & Partner, BCG said, “India will play an increasingly important role on the global ER&D arena by helping drive next-gen ER&D agenda across sectors – key ER&D accelerators for India include Automotive (xEV, Connected Vehicles, and Infotainment); Energy, Utilities, Oil & Gas (Climate and Sustainability, and Digital Operations) and MedTech (Remote Patient Monitoring Devices and Advanced Imaging). These will take India’s ER&D contribution from estimated \$45B in 2023, to nearly \$150B by 2030. Therefore, India is expected to increase its share of Global ER&D Sourcing market to 22% (2030) v/s 17% in 2023. Prominence of Digital in Engineering will also continue to increase, and will likely contribute 48% of all ER&D spend by 2030, and will increasing drive convergence of Software and Traditional Engineering stack.”

Essentials for India’s ER&D growth journey

India holds a prominent position as a key contributor to the global ER&D sourcing market to achieve the expected growth. It needs to focus on two key growth challenges – Skills Synchronicity and Emerging Geo Contenders. Minimizing these requires laser sharp focus on identifying the necessary ER&D skillsets required for industries and developing an ecosystem to train people for these skills at scale, while at the same time working towards enhancing India’s global competitiveness in terms of demographic advantage and skill expertise.

The report highlights three key growth imperatives to foster a large and more diversified ER&D segment in India. These include improving policy and infrastructure required for ER&D to attract new collaboration opportunities and drive innovation; providing support for branding and marketing for ER&D across sourcing markets while promoting a common collaborative agenda from the Indian industry; and lastly building a collaborative environment between Industry, Academia and Government to improve talent employability and research quality.

About nasscom

nasscom is the premier trade body and chamber of commerce of the Tech industry in India and comprises over 3000-member companies. Our membership spans across the entire spectrum of the industry from startups to multinationals and from products to services, Global Capability Centers to Engineering firms. Guided by India's vision to become a leading digital economy globally, nasscom focuses on accelerating the pace of transformation of the industry to emerge as the preferred enabler for global digital transformation. Our strategic imperatives are to reskill and upskill India's IT workforce to ensure that talent is future-ready in terms of new-age skills, strengthen the innovation quotient across industry verticals, create new market opportunities - both international and domestic, drive policy advocacy to advance innovation and ease of doing business, and build the industry narrative with focus on Talent, Trust, and Innovation. And, in everything we do, we will continue to champion the need for diversity and equal opportunity.



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