

## SPECIAL REPORT: ENGINEERING SERVICES OFFSHORING

- India expected to get \$40 billion engineering services offshoring business by 2020
- Global market size expected to grow to \$150 billion - \$225 billion
- India enjoys strong position in automotive and high tech / telecom engineering services

This might be the next big thing for India's outsourcing story. The offshoring of engineering services presents a \$40 billion opportunity for the Indian IT industry by 2020, according to a study released by National Association of Software and Service Companies (NASSCOM), the industry body representing about 900 Indian IT services companies, and management consulting firm Booz Allen Hamilton. The study called "Globalisation of Engineering Services – the Next Frontier for India" says that while in FY 2004-05, only \$10 billion - \$15 billion of engineering services was offshored, the market is expected to grow to \$150 billion - \$225 billion by 2020. The study estimates that the potential engineering market in India could exceed \$40 billion by 2020. India is well positioned to increase its market share of engineering offshoring from 12% to 30% by 2020. NASSCOM suggests that achieving the \$40 billion mark in the segment might not be difficult for India with its talent pool and existing experience in engineering services. India comprises 28% of the suitable global talent pool for offshoring services, and 12% of the total engineering workforce is currently in India as per the NASSCOM data.

India has already started catching up on the high end of offshoring services. Indian technology companies are now doing a number of engineering jobs for global automotive and aerospace companies. The global companies that have outsourced some work to India include Ford Motor Company, a leading global automobile company, General Motors, world's largest automaker, Boeing, world's leading aerospace company, Airbus, world's leading aircraft manufacturer, etc.. The list also includes a number of consumer electronic companies including mobile phone makers, and almost all the semiconductor-manufacturing companies. The demand from global customers is coming for designing engineering parts, virtual testing, and embedded software for devices.

Current spending on engineering services (\$750 billion in 2004) is projected to increase to \$1.1 trillion by 2020, says the NASSCOM–Booz Allen Hamilton study. The market is highly fragmented by industry, with Automotive at 19%, Aerospace at 8% and Utilities at 3% in 2004. High-Tech/Telecom is the dominant and fastest growing sector, with 30% of the market. The study has found that CEOs are increasingly viewing offshoring as a way to counter market forces that are exerting pressure on engineering services. While cost control remains a concern, companies are also seeking access to a high quality talent pool that can grow engineering capacity and increase productivity. Locating engineering services in emerging markets also provides access to a growing market of customers, and can decrease time to market.

India enjoys a relatively strong position in the automotive and high-tech/telecom engineering services market. This segment offers a \$25 billion opportunity for India by 2020. Aerospace offers the greatest potential for expansion, though it is also one of the toughest opportunities to tap because of its close association with the defense sector. The Indian IT industry has already stepped up its efforts to get a bigger share in the pie of aerospace technology outsourcing. HCL Technologies, the fifth largest IT services company of India, made their debut at 45<sup>th</sup> Farnborough International Air-show in Farnborough, U.K. this year. The current market size of the aerospace technology outsourcing market in India is about \$150 million, which can grow to \$1 billion in the next four years, according to NASSCOM estimates.

The NASSCOM–Booz Allen Hamilton study has also analysed India's position in terms of value propositions at present and the expected levels by 2020. It says that India dominates the talent pool needed to support offshoring and this will remain as a strong point for it. Though the talent pool capable of meeting global standards is neither weak nor a strong point for India currently, but it is expected to develop this value proposition as its strong point by 2020. India is also expected to improve its situation in terms of having a vibrant and expanding supply base and offering an economic way of expanding technical capacity. On the cost advantage front, however, India may lose some of its advantage by 2020.

The study has also suggested that India needs to adopt a multi-pronged strategy to realise this opportunity. India needs to build the "Engineered in India" brand, build domain expertise through symbiotic relationships with experts, focus on infrastructure creation, undertake initiatives to improve workforce, leverage local industry 'offsets', and align government policy and incentives.

Acquiring design houses in the U.S., Europe and Japan to gain the key expertise will also be an important strategy for Indian companies. Wipro Technologies, the Global IT Services Division of Wipro Limited, India's



leading diversified business conglomerate, had announced in May 2006 signing a definitive agreement to acquire U.S. based Quantech Global Services LLC and the India based Quantech Global Services Ltd. in an all cash deal of about \$10 million. Quantech, a 16 year old company, is a leading provider of Computer Aided Design and Engineering services to the Fortune 500 companies, particularly in the Automotive, Aerospace and Consumer Goods Industries. Quantech has over 500 employees located in India and the U.S.. Mahindra & Mahindra (M&M), a diversified Indian group having interests in automobile and infotech, had acquired 88.4% stake in Plexion Technologies India Ltd, a high end engineering services firm in the automotive, aerospace and manufacturing sectors from its promoters JP Morgan group, a leading global investment managing company in December 2005.