

ITO: Engineering Services Outsourcing; Aerospace, Automotive and Electronics Sectors Continue to Drive ESO Growth

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Engineering work is becoming more and more internationalized and engineering companies are becoming increasingly global. There is increasing pressure on the part of European companies to reduce costs, which requires more innovative solutions from suppliers in order to keep a stable price level.

As the global spending on overall engineering services (which includes design, manufacturing and field engineering areas) increases, many IT-BPO service providers have added specific engineering services to their offerings portfolio.

These companies acquired the skill-sets, tools and experience from generic IT software and services, to evolve from providing basic data conversion, through 2D and 3D CAD/CAM/CA E, advanced simulation, prototyping, testing, PLM, product design (engineering), process engineering, plant automation and asset management services.

Analysts note that companies in the electronics industry have recently become comfortable with outsourcing. "In the past three years, more work is getting outsourced," says Mukesh Dialani, Research Manager at IDC in Framingham, Mass. "At some level, confidence has grown in what engineering vendors have to offer. Outsourced engineering has been validated with successful outsourcing engagements."

For some companies, particularly large manufacturers in the United States, design firms have become a source of specialized expertise. "One of the key benefits for Fortune 500 companies is the qualified engineering labor they get through outsourcing," says Dialani. "They go to third parties because they can get qualified labor and manage it cost effectively."

"In some sectors such as aerospace, defense, and medical, companies are dealing with the aging workforce in the United States," said IDC's Dialani. "They don't have the people to take over when the older engineers retire, so they're turning to outsourcing."

As per Dataquest research, during the calendar year 2009, out of total Engineering R&D Services revenues, 58% was contributed by third party Indian service providers(HCL Tech, TCS, Wipro) and 40% by captive engineering services units, while the rest 2% by non Indian IT players.

Some of the largest deals in the last two quarters:

Deals

- Meggitt-UK, an international group specializing in aerospace equipment signed an estimated \$50 million 5-year engineering management outsourcing contract with HCL in January 2010.

- Infotech Enterprises and Hamilton Sundstrand signed a 4-year multi-million dollar avionics contract in January 2010 to provide embedded software and electronic engineering design services worldwide.
- Mahindra-Satyam and Saab signed an estimated 10-year \$300 million contract in November 2009 to develop solutions in India for the global defense and homeland security market.
- QuEST Global and Belgian aerospace major SABCA announced in November 2009 that they signed a ten-year deal worth \$100 million to manufacture metallic parts and provide assembly work for Airbus A-350 XWB aircraft's flap track structures.
- In August 2009, Bombardier announced its decision to outsource engineering services worth \$200 million overseas over the next few years.

According to a research report by cbi.com, two developments in the demand for ESO can be observed as a result of the economic crisis. On the one hand, interest in outsourcing is increasing as companies want to reduce costs to strengthen their competitive position. On the other hand, there is less work to outsource as a result of the shrinking economy.

The global spending for engineering services, which is currently estimated at \$750 billion per year, is nearly equal to India's entire GDP. According to NASSCOM-Booz & Co recent report, the worldwide spend on engineering services is expected to grow to over \$1 trillion by 2020.

Of the \$750 billion spent today, only \$10-15 billion is currently being offshored. India gets about 12 percent of offshored market, which it currently shares with Canada, China, Mexico, and Eastern Europe. Experts say that these opportunities will not only be captured by large companies in developing countries, but SMEs will also take market share.

Good product designs are produced in Asia by large software firms in India or ODMs (original design manufacturers) in China that concentrate on designing and producing high-volume commodity-like products such as cell phones and notebook PCs. Whereas India is developing design services, mostly on the software development side, ODMs are doing their design in Taiwan and their manufacturing in China. Global customers are now paying attention to India due to the large number of engineers available here but India requires to work on some areas to provide engineering services.

GH Rao, Corporate Vice President and Head, Engineering and R&D Services, HCL Technologies says, "If Indian IT companies increase domain knowledge, the core product development would be outsourced more. Sectors such as telecom, semiconductors and automotive have been the biggest revenue generators for the industry with embedded software design contributing almost 40 percent to the revenue base. An indicator of this growth is the increase in the number of offshore development centers (ODC) that provide dedicated ER&D services, which has gone up significantly since 2006."

He also adds, “Technical capabilities in the mechanical & electronic areas in India need strengthening. Service providers are looking at long term strategic partnerships with the buyers to address the same. Another major challenge arises from operational issues such as attrition & wage inflation. In order to maintain their cost leadership, Indian IT companies are looking at operational efficiencies through internal & external benchmarking or continuous monitoring or improvement.”

Germany is by far the largest importer and exporter of engineering services. Other large importing countries are Italy, Belgium, the Netherlands, the United Kingdom, Poland, Austria, Sweden and France. The countries that export the most engineering services are Germany, UK, Italy, Belgium, the Netherlands, Austria, France, Poland and Sweden. Many Western European companies are making use of engineering services from Eastern Europe.

Engineering work is becoming more and more internationalized and engineering companies are becoming increasingly global. As European companies experience low profit margins and tight competition in Europe, they enter the developing markets, which offer large opportunities to capture construction projects. According to UNCTAD, nowadays 70% of engineering opportunities are found in developing countries (especially in the field of infrastructure).

For the coming years, employee shortages are expected in the European engineering industry. There is increasing pressure on the part of European companies to reduce costs, which requires more innovative solutions from suppliers in order to keep a stable price level.

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