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THE LONG PLATES atop the wings of an aircraft may be called spoilers, for they disrupt the airflow over the wings. But far from spoiling a flight, these flaps ensure that an aircraft lands and takes off smoothly. The plates need to be resilient to high wind speeds and, at the same time, be light-weight. It is a tricky proposition for aircraft manufacturers.

Over the years, they have turned to offshore service providers to analyse and test parts such as wing spoilers—virtually—before redesigning them. This is a more efficient way to reduce costs of producing and testing than spending on several physical prototypes.

Bangalore-based QuEST (Quality Engineering and Software Technologies) is one such independent service provider in the large aerospace engineering design community in India, which has been the preserve of major IT companies such as Wipro, TCS and Infosys.

Garage-To-Riches Story

QuEST, a \$50 million engineering services provider today, was founded by two friends, Ajit Prabhu and Aravind Melligeri. Both were graduates from Karnataka Regional Engineering College and were working in the US with Ford and General Electric, respectively. In 1997, they started QuEST in New York. The company focused on engineering consulting services, and bagged its first contract worth \$20,000 from GE Power System. In a year, they set up its India base in Bangalore.

In 1999, the company acquired Detroit-based Lexel Engineering to develop its automotive expertise in computer-aided engineering. The case for engineering services offshoring (ESO) was gaining currency among IT services players at the same time, and QuEST found itself in the company of giants like Infosys and TCS to pick the bones of ESO. Infosys today has 5,500 engineers globally, with engineering contributing 10% of its revenues. By comparison, niche players like QuEST have teams that are less than a quarter the size of the Infosys'

The Quest Goes On

How much should an air-bag inflate? QuEST makes money by answering such queries—virtually

RICH SPREAD:
QuEST COO Ajit Prabhu says they have diversified across sectors in the last three years



engineering design team.

Initially, QuEST had expertise only in two sectors: automotive design, and power and energy. But in the last three years, the company has diversified, both across geographies and sectors. Today, QuEST's portfolio of services extends across aerospace, transportation, civil engineering, industrial, oil and gas, and power generation. More interestingly, its geographical spread now has a larger slice of Europe. In 2005, the US formed 70% of QuEST's business, with Europe contributing 20% and Asia 10%. Today, Europe contributes 40%, while the Asia slice is about the same. Crucially, the dependence on North America has come down to about 50%.

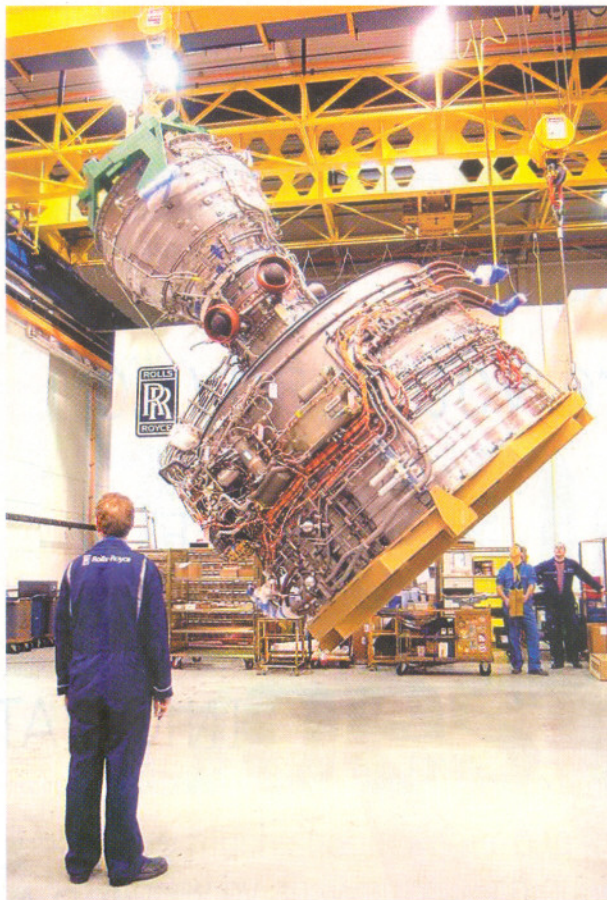
The nature of projects undertaken by QuEST include design automation, design and 3D modelling, embedded systems development, engineering analysis, plant design and reengineering. It has consciously kept high-volumes business at bay, focusing instead on high-end projects from marquee names like civil and defence aircraft engine manufacturer Rolls Royce, an account it bagged in November 2005. "This is a very cost-sensitive industry. So, our focus has been on high-end activities," says Ajay Prabhu, Chief Operating Officer of QuEST. "Typically, there is a lot of investment from both sides in the first year. Within the first three years, we cut their costs by 30%. Over a period of five years, it could be up to 40% reduction on a sustained basis," he explains, referring to how QuEST supports Rolls Royce's engine business.

No Surrender

Over the past year, QuEST has made two marked moves to assert its independence. First, in October 2007, QuEST bought back the stake held by private equity fund Carlyle Asia Venture Partners II. This was at a time when larger Indian players like Mahindra Engineering and INCAT were on an acquisition spree.

The Carlyle investment in September 2003 meant \$6 million, which fuelled QuEST's global growth into an enterprise of 1,500 people. Immediately after the buyback, it announced a 300-acre special economic zone (SEZ) in Belgaum, Karnataka, with dedicated infrastructure for aerospace and precision machining industries.

The ESO landscape in India, estimated



QuEST is looking to help aircraft engine manufacturer Rolls Royce cut costs by up to 40% over five years

to be \$5 billion in 2010, is still competitive. Global companies' captive operations are well-entrenched in the country. So, QuEST's independence, confidence to expand and timing will count for a lot. For instance, the global aviation industry is under tremendous pressure to optimise costs. The Belgaum SEZ, built entirely on internal accruals, is focused on aerospace and aircraft manufacturers' engineering services requirements. It already has big accounts like Rolls Royce and Magellan Aerospace.

"Our aim is to create an eco-system for aerospace manufacturing and competence in precision machining," says Ajay Prabhu. "We have joint ventures in the aerospace segment for material procession and various other manufacturing technologies.

Over time, we see global aerospace companies finding it useful to operate within that," he says. Manufacturers in a recession-hit global economy will look to offshore engineering services to cut costs.

QuEST has three development centres in the US, two in Europe and one each in Japan and China. However, its biggest centre is in Whitefield, Bangalore (for services and manufacturing), and the SEZ is the latest addition. A lot of this expansion was fuelled by the Carlyle investment in 2003. "It also helped us with discipline in execution, apart from building competencies in new areas of interest," notes Prabhu. The Carlyle thrust enabled growth and access to new markets when peers in the aerospace domain like Plexion were becoming vulnerable to buyouts. Since 2005-end, there have been a spate of buyouts of engineering and design firms in entirety or part. The latest was this July when \$116 million KPIT Cummins acquired the mechanical design services business of Harita TVS. Larger players like INCAT hope to touch \$500 million with more acquisitions.

Making A Difference

So, how has a niche player like QuEST with a size of \$50 million prevailed? "Our differentiation has been very critical: more end-to-end, design-to-build kind of differentiation is what we have in the organisation," feels Prabhu. In effect, QuEST dabbles in niche projects like optimisation of air-bag inflation and improvement of gear box design to reduce noise, among other things. "The typical jobs or activities in engineering design engagements are pretty low-end like localising foreign models. We are picky with our projects, focusing only on those with an element of innovation and some that are core to each domain," he explains.

Global spend on engineering services is expected to cross \$1 trillion by 2020. And according to industry analysts, global OEMs, which have seen India and China as global sourcing centres for components, continue to analyse areas such as support function, and beyond. "What is core today for auto OEMs today will become non-core tomorrow," agrees Prabhu.

Considering that QuEST's growth has been largely organic and its greenfield project in Belgaum is complete, it is well placed to continue growth as the world looks to cut costs. ■