

# The world is our oyster

The talent war has gone global—and so have talent shortages

**T**HE Infosys campus on the outskirts of Bangalore looks like a chunk of the rich world that has been reassembled amidst the dust and debris of India. The echoes of Silicon Valley are everywhere. The journey there involves a wild ride along dirt roads, but the 22-hectare (54-acre) campus itself is all cut grass and neatly planted flowers. It has every possible amenity, from gyms to yoga studios, from banks to bowling alleys. The restaurants serve 14 different cuisines. Many of the buildings are in the low-slung Californian style, but some of the largest are modelled on Western icons, such as the Sydney Opera House, the Louvre pyramid or Rome's Basilica of St Peter.

Infosys Technologies was started in 1981 by seven Indian entrepreneurs with 10,000 rupees (about \$1,000 at the time) between them. The software giant now has annual revenues of \$2.2 billion and 58,000 employees. But it is just one of a hundred companies in Bangalore's Electronics City. Bangalore is India's software capital, with 140,000 software engineers (more than in Silicon Valley, the locals boast), and Electronics City is a custom-built high-tech haven. The signs are a list of the world's biggest IT companies, from multinationals such as Hewlett-Packard and Motorola to home-grown giants such as Infosys and Wipro.

Electronics City is the meeting point of the West's demand for high-tech services and India's supply of brain power. The dramatic fall in the cost of communications made it possible for Western companies to outsource services, and a newly liberalised India could offer a huge supply of cheap brain workers. Every year India produces around 2.5m university graduates, including 400,000 engineers and 200,000 IT professionals. India's National Association of Software and Service Companies (NASSCOM) calculates that the country has 28% of the world's IT offshore talent.

Indians point to the advantages that they bring to the market. They work while the West sleeps; they speak (splendid) English; they can throw huge numbers of people at a job. But at the heart of the boom is a simple sum. The cost of an Indian graduate is roughly 12% of that of an American one.

Indian graduates also work more: an average of 2,350 hours a year compared with 1,900 hours in America and 1,700 in Germany. The bottom line is that you can buy almost ten Indian brains for the price of one American one.

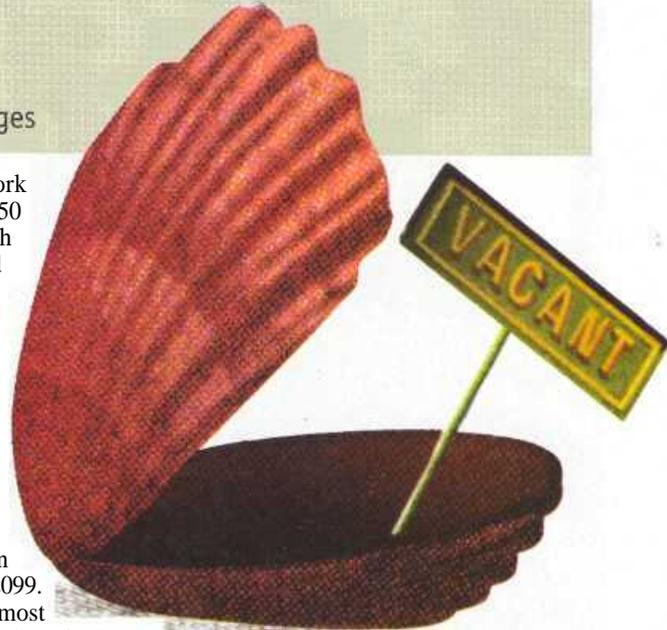
The outsourcing boom shows no sign of slowing. Gartner, a research firm, estimates that global spending on IT outsourcing will rise from \$193 billion in 2004 to \$260 billion in 2009. But there are caveats. The most important is that Indian-based companies themselves are encountering severe skills shortages. Wage inflation in India's IT sector is about 16% a year, and turnover is 40%. NASSCOM predicts that India's IT sector will face a shortfall of 500,000 professionals by 2010. GE Capital has posted signs in its Indian offices saying "Trespassers will be recruited".

Skills shortages are at their most acute among managers. Several Indian companies have had to bring in Western CEOs: the Tata Group, for example, has put Raymond Bickson, a Hawaiian, in charge of its hotel business. Good middle managers are rare: annual wage increases for project managers in IT have averaged 23% a year over the past four years.

## Aspiring to world class

How can a country with a billion people suffer from talent shortages? Some reasons are familiar. The number of people with relevant skills is tiny: only 11% of the relevant age group go on to higher education, and older people have had their management skills blunted by the old licence raj. Moreover, growth is so fast that it would strain any educational system, let alone one as ramshackle as India's. For example, in the four years to March 2006 Infosys increased its payroll from about 10,700 to over 58,000—a compound annual growth rate of 53%.

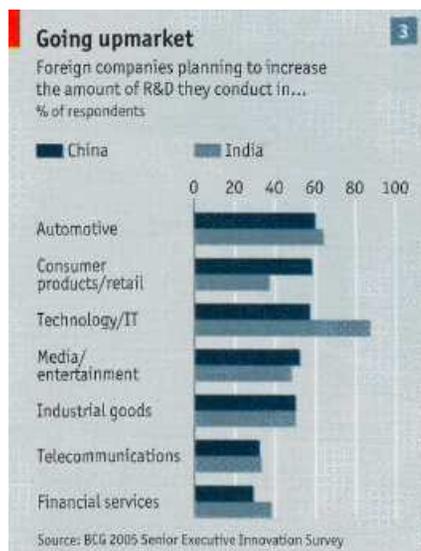
The second caveat is that Indian-based companies are determined to move up-market. They have mastered the basics: al-



most 400 of the companies ranked highest by the Software Engineering Institute at Carnegie Mellon University are in India. Now they want to become world-class. This means pushing into more sophisticated areas such as "integrated solutions" and consulting. It also means adopting the latest productivity-boosting techniques, such as applying lean-manufacturing techniques to software development, a favourite strategy at Wipro. At the same time Western multinationals are exporting more and more complicated tasks.

The looming skills shortage and the drive upmarket have made companies obsessive about finding and holding on to the right people. They are investing heavily in education and training, partly to attract the best talent and partly to keep their existing workers up to speed. "We're investing in training like the Dickens," says Nandan Nilekani, Infosys's CEO. The company has increased its training budget from \$100m to \$125m. It has also moved one of its board members, T.V. Mohandas Pai, from chief financial officer to director of human resources to show that it means business. In the year to March 2006 Infosys screened 1.4m applications, tested 164,000 applicants and interviewed 48,700 to make 21,000 appointments.

Companies are also getting much more imaginative about identifying new sources of talent. Wipro has different training programmes for different talent pools, ▶▶



tracted to the developing world by the low price of talent, they have now moved on to other considerations. Srini Koppolu, the head of Microsoft's India Development Centre (MSIDC), explains that one reason why Microsoft established a development centre in Hyderabad was to gain an edge in the talent war. Being in India gives you access to first-rate techies who do not want to move abroad. MSIDC has grown from 20 employees in 1998 to over 900 today.

The other advantage is local knowledge. Vijay Mahajan, a former dean of the Indian School of Business, which sits next to Microsoft's campus, points out that the developing world is a booming market as well as a huge labour pool. GE calculates that 60% of its growth over the coming decade will come from the developing world, compared with 20% over the past decade. And the only way to understand the new market is to be immersed in it.

Many Western companies thought that their goods would almost sell themselves in the developing world. They reckoned without complicated distribution systems, feisty local competitors and idiosyncratic local habits. Packaged-goods companies found that customers did not want their jumbo packets, for example, because they had little money and little storage space. Local people could have told them that.

Hewlett-Packard has set up research facilities in India in the hope of building a stripped-down 5,000-rupee (\$109) computer. Electrolux Kelvinator has developed a refrigerator that will stay cold even after a six-hour power failure. Nokia has produced a mobile phone that includes a built-in flashlight and a dust-resistant keypad. In GE's John F. Welch Technology Centre in Bangalore, 2,200 highly

qualified engineers work as part of digitally connected global teams on products as diverse as aircraft engines, power and transport systems and plastics. Cisco's and Motorola's Indian research centres are their largest outside America.

Most of these companies have research arms in China as well. Microsoft's development centre in Beijing is a world leader in graphics, handwriting recognition and voice-synthesis. Motorola has 16 R&D centres in China. Samsung has set up a handset laboratory with a staff of 300 in Beijing, and Siemens has moved a chunk of its mobile R&D to China.

### Think global

This R&D boom in the developing world is part of a bigger trend: the globalisation of R&D. This allows companies to plug into national clusters of excellence (South Korea has been a trailblazer in digital displays, for example, and Israel has an edge in wireless telecoms). It gives multinationals access to once secretive university labs in Shanghai and Moscow. And it speeds up innovation, because global teams can work around the clock.

Still, it is one thing to send humdrum work to Electronics City and supervise high-tech drudges, quite another to outsource bits of your core business and manage world-class skills. That involves much more than co-ordinating activities across geographical boundaries. For example, how do you disperse innovation around the world without weakening your corporate culture? How do you motivate high-flyers from different cultures? And how do you manage prima donnas across borders? You need world-class management talent, and that, too, is extremely scarce. •

> including one to help people get a university degree while working for the company. Mr Pai describes Infosys as a "human-capital supply-chain company". But to keep the supply chain going, India must improve its universities.

Versions of Bangalore's Electronics City are in evidence in a number of developing countries, and so are skills shortages. China is seeing double-digit wage inflation and labour turnover in its IT sector. Senior managers are particularly scarce: two in three companies report difficulties in filling senior positions. Shanghai Automotive, China's biggest carmaker, and Lenovo, its biggest computer-maker, have recently hired American bosses. But other skills are also in short supply: Chinese airlines, for instance, are importing pilots.

If Western companies were initially at-