Taiwan is no longer a cheap manufacturing facility but a technological centre vital to the industry.

Practice makes perfect

I'm currently sitting in a hotel room in Taipei, having spent the past few days attending the Computex 2000 exhibition. Computex is an annual exhibition dedicated to the IT industry in Taiwan and it draws manufacturers and distributors from all over the world looking for the latest technology.

As I was entering the main exhibition hall on the first day of the show I spotted an interesting billboard depicting four cyclists all dressed up in full race gear, but with no bicycles beneath them. The caption read, 'Without Taiwan where would the sport be?'. The poster was highlighting the fact that Taiwan produces the majority of bicycle parts in the world.

Although most large, big-name bike firms still keep their research and development labs in the US and Europe, much of the production is done in Taiwan, with only the very high-end equipment being handmade in the West. Add to this the fact that many Taiwanese bicycles firms, such as Univega and Giant, have been gaining critical acclaim across the globe for design and quality and it's easy to see that the sport would indeed be in big trouble without Taiwan.

However, even though the bicycle industry may rely heavily on Taiwan, it pales by comparison to how much the IT industry relies on this small, Far Eastern island. The extent to which this is true is quite scary, especially when you consider that the island suffered a major earthquake last year.

Although most people who follow the IT industry are aware that almost every motherboard is designed and manufactured in Taiwan, it should also be noted that the only serious competitor to Intel's motherboard chipsets is VIA. But VIA isn't limiting itself to motherboard chipsets: on its stand it was showcasing the latest 266MHz SDRAM DDR memory architecture. Like the DDR memory currently seen on graphics cards, these SDRAM modules perform two instructions per clock cycle, dramatically increasing the memory bandwidth. It was also showing off the latest fruits of its takeover of Cyrix, in the form of a Celeron-compatible CPU that it plans to sell for below the already cheap Celeron price point. And whereas the Celeron is stuck with a 66MHz FSB, this latest Cyrix CPU will run with a bus frequency of 133MHz. Although this new chip is aimed at the low end of the market, it's good to see another horse enter the CPU Derby.

But motherboards, memory and CPUs are far from the end of the Taiwanese story. The island is responsible for major volume in graphics cards, networking products, system cases, CRT and LCD screens, PDAs, keyboards, mice, optical drives and notebooks.

Without Taiwan the notebook industry would find itself in dire straits. It's no coincidence that notebooks from various manufacturers all look similar, since the chances are that they all rolled off the same production line in Taiwan before being rebadged by the reseller. Even tier-one giants such as Dell and HP rebadge Taiwanese notebooks, although you'll probably find they'll make cosmetic changes to differentiate themselves from other resellers. And since the tier-one players are investing in these Taiwanese manufacturers, the quality is getting better all the time.

Taiwan is starting to become the hub of the IT

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industry, with companies such as Acer coming close to being able to build a complete PC using only its own components. Only the CPUs and hard disks aren't produced in-house, although I wouldn't be surprised if that didn't change at some point. Also, the amount of technology companies in Taiwan is staggering, with only a few of the major players currently exporting to Europe. That said, all of the companies I spoke to said that they were working on setting up European distribution. So we can expect to see even greater saturation of the Western IT market by the Taiwanese.

Gone are the days when Taiwan was a cheap manufacturing facility for Western companies. It has now become a major technological development arena in its own right and it's getting stronger each year. So, where would the IT industry be without Taiwan? Probably back in the technological dark ages.

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