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Manufacturing creates value

The Association for the British Pharmaceutical Industry (ABPI) reports that there are 67,000 jobs in the pharmaceutical industry in the UK and that those employed in the sector generate one of the highest value contributions to our economy of £206,000/employee. This is way ahead of the contributions made from the employees of other high value adding sectors, such as the engineering, automobile or aerospace sectors. As an example, the UK automobile sector contributes about £80,000 gross value added (GVA)/employee.

Of the 67,000 pharmaceutical employees, the ABPI reports about 25,000 are researchers who spend R&D money rather that make it, at least in the short and medium term. In fact recently, as the pharmaceutical new product pipeline shows, the R&D performance of most pharmaceutical companies has been abysmal, with fewer new drugs coming to market today than 10 years ago. So, in fact, it is the 42,000 manufacturing related UK employees that make money for the sector. The actual GVA these employees generate is therefore closer to £382,000 of GVA/employee. This makes the value created by the 11000 pharmaceutical workers in the Northeast of England closer to £4bn/year.

One third of the UK's pharmaceutical manufacturing industry is based in the NE of England. Across the UK, this sector generates nearly £14bn of GVA in total for the UK economy. It is unfortunate that national statistics used by politicians and other decision makers do not show the reality of this situation. This is because of the 'branch office' reporting effect and other inaccuracies in recording detailed company data across our industrial sectors.

What this analysis shows is that it is the companies and employees that manufacture goods that really create the value. I hope this realisation has not come too late for the UK economy. For too

[Pharma manufacturing in the UK's northeast] generates nearly £14bn of GVA [gross value added] for the economy

many years, the UK has relied too much on the service and finance sectors. Governments of all parties have allowed the real value creation activity of manufacturing to be exported from our country.

The pharmaceutical industry faces a number of challenges. The sector is dominated a by a few huge corporations. The top 10 pharmaceutical companies dominate the sector with almost 60% of sales. The top 50 companies take this up to 80% of the sales. This is a tough industry in which to be an new company and it also results in industry systems that have been developed to reduce risk, also making it a tough industry in which to become a new supplier.

The Asian Tiger has already escaped, and economies like India have seen companies with new business models beginning to enter the big company charts. Some that began life as generic manufacturers have already begun to challenge the industry on the research front. The top 10 Indian companies – Cipla, Ranbaxy, Dr Reddys, Sun Pharma, Lupin, Aurobindo, Piramal Healthcare, Cadila Health, Matrix Labs and Wockhardt – have a combined turnover of $30bn, which combined would already elevate them into the world top 10.

Over the years, the industry has also been subject to unhelpful R&D hype that has not yet delivered the goods. Much has been written about new technologies such as 'high throughput screening' and also new drugs from 'biotechnology' and the 'genome'. The protagonists suggest these technologies would boost both the speed of new product introduction as well as the number and efficacy of new drugs reaching the market. With hindsight, and looking back at the industry data, nothing could be further from the truth. In 1996, when straightforward medicinal chemistry dominated the R&D labs of the major companies, over 50 new chemical entities entered the pharmaceutical market. This now looks like a golden era for the industry – with only 12 new products approved in 2012.

This poor R&D performance is verging on a disaster for many large pharmaceutical companies that have built business strategies based on profits from bringing new products to market. We have already seen the impact this has had in the UK, with a fall in R&D capability, such as the withdrawal of Pfizer research almost completely from the UK.

Pharmaceutical companies must get new products into existing and new markets rapidly in order to maximise the benefit from a limited patent life. The higher profits made on new products are justified by the huge development costs, which the UK's ABPI has estimated can exceed $800m/drug. Unfortunately, excellence in science is not enough to be successful as most new drugs have failed due their inability to climb regulatory barriers put in place by those that oversee public health.

Cleary, focusing on an industry strategy that relies on innovation alone is not working for the pharmaceutical Industry. Competitive strategy guru Michael Porter of Harvard University, US, has said that 'innovation is the central issue in economic prosperity'; unfortunately, the results achieved in recent years by an R&D strategic focus by the pharmaceutical industry sounds more like Thomas Eddison who said: 'I have not failed. I've just found 10,000 ways that won't work.'

This industry needs some radical new thinking and a focus on the things that really create value rather than frittering value away on under-productive research projects.