

# Economists do not have all the answers when it comes to patents

In September 2007 *Political Economy of Patent Policy Reform in the United States* was published. Written by FM Scherer, Aetna Professor Emeritus at the John F Kennedy School of Government, Harvard University, the paper is the latest in a string of attacks on the US patent system by economists.

Scherer traces the movement towards greater protection for patents in the US from the late 1970s onwards; explores how the US has emphasised the importance of IP rights in international trade agreements; and argues that the term intellectual property itself should be seen as a piece of propaganda designed to convey a sense that patents and trademarks are somehow more worthy of protection than would otherwise be the case.

The professor's overall thesis is summed up in the abstract at the beginning of the work: "This paper explores a paradox: the extensive tilt toward strengthened patent laws in the United States and the world economy during the 1980s and 1990s, even as economic research was revealing that patents played a relatively unimportant incentive role in most large companies' research and development investment decisions."

To support his point, the professor quotes work done in the 80s and 90s which was based on asking R&D and laboratory managers how important the existence of

patent protection was in stimulating R&D efforts that would lead to the creation of new products and processes. In most industries, outside the life sciences, the answer was that they were not that important; and were certainly less so than being first-to-market, having superior sales services, being able to maintain secrecy and having the right manufacturing capabilities.

On the face of it, that would seem very persuasive. But think about it a little more carefully and maybe this is not the slam dunk that at first sight it appears to be. R&D and lab managers may be working on the coal face, but they do not typically control the purse strings. Instead, strategic R&D expenditure decisions are taken further up the corporate ladder. Who says that the existence of patent protection is not a key factor for the money men? Shouldn't they have been asked whether they would actually release funds for R&D in the first place if there were no patents available to protect what came out at the other end?

Another argument Scherer makes is that while patent applications have risen substantially as greater protection has become available, especially since the creation of the Court of Appeal for the Federal Circuit (CAFC) in 1982, there has been no

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## The 2007 EU Industrial R&D Scorecard and European innovation policy

Each year in its *Industrial R&D Scorecard*, the European Commission identifies spending on research and development by both EU and non-EU companies as set out in their annual reports. It does not look at percentage of income spent on R&D so clearly favours large, multinational corporations over smaller SMEs, which are not capable of spending hundreds of millions or even billions of euros on such activities.

However, what the 2007 scorecard does show is that while more is being spent on R&D generally, the rate of growth among EU companies is lower than among non-EU companies, especially those from the US. Indeed, according to the research, the US is the R&D hotbed of the world with 40% of all spending identified done by American companies. The top four investors in R&D all come from the US, as do 21 of the top 50. The global top 10 is as follows:

- 1 Pfizer (approx Euros 5.8 billion)
- 2 Ford Motor (approx Euros 5.5 billion)
- 3 Johnson & Johnson (approx Euros 5.4 billion)
- 4 Microsoft (approx Euros 5.4 billion)
- 5 Daimler Chrysler (approx Euros 5.3 billion)
- 6 Toyota Motor (approx Euros 5.2 billion)
- 7 Glaxo Smith Kline (approx Euros 5.1 billion)
- 8 Siemens (approx Euros 5 billion)

- 9 General Motors (approx Euros 5 billion)
- 10 Samsung Electronics (approx Euros 4.7 billion)

In addition to global rankings, the scorecard also produces two tables which detail the top 1,000 companies in Europe and then the rest of the world. Judging by the results published for the European table, German and French companies seem much keener to make R&D investments than those from the other big European economies – the UK and Italy; while the Nordic countries and the Netherlands all fight above their weight. As for the rest; there are four Belgian, three Spanish and two Irish companies, as well as one from Luxembourg, in the top 200 – and absolutely nothing from elsewhere.

Given this, is it actually possible to build a single vision for Europe along the lines set out in the Lisbon Agenda? Despite years of closer political ties and ever-freer trade, the economies of EU member states, and the ways their companies do business, still differ so widely. What is good for Germany may not be that effective for, say, Greece or Portugal; while the incentives that British or Italian companies may need to make greater R&D commitments are not necessarily going to be those required by businesses based in France.

### Erratum

In the article "Small but perfectly formed", published in issue 26 of *IAM* (October/November 2007), the caption under the photograph of John Raley on page 23 describes him as an intellectual asset manager with Dow. Mr Raley, in fact, works for Cargill.

On page 22, Bruce Story should have been described as Senior Director of Intellectual Capital Management for Critical Capabilities, Licensing and Expanding Geographies at Dow.

*Economists continued*

equivalent jump in the growth in R&D spending. This leads the professor to conclude that there is no evidence that increased protection has stimulated R&D activity; which is fair enough. But, what he does not say is that, equally, there is no evidence that it has not. What is pretty unarguable, however, is that the passing of the Bayh-Dole Act in 1981, the creation of the CAFC and the introduction of new types of patent protection in areas such as biotechnology and computer software, which also occurred in the US during the 1980s and 1990s, have coincided with one of the most creative periods of commercialised American innovation there has ever been.

This could be coincidence, no doubt. But, if it is, why is it the case that there has not been as much innovation in

other parts of the world, such as Europe for example, where there is no central patent court, no general equivalent to Bayh-Dole and not the same level of patent protection for biotechnology and computer software? Ironically, in the same week Professor's Scherer's paper was published, the European Commission produced research showing how much more the biggest American companies spend on R&D than their European equivalents (see box on page 5).

Furthermore, while there have been no big leaps forward in R&D spending since the 1980s, according to the professor, maybe this is actually because companies have become more patent-savvy and are actually targeting resources in areas where there are fewer patents to muddy the water. It could be, for example, that companies are deciding that US\$10 million spent

on R&D in areas where it is still possible to carve out a really differentiating niche is more effective than putting the same US\$10 million into areas where patents are clustered tightly together. Certainly, a number of companies now look very carefully at the patent landscape before making R&D investment decisions and tend to funnel their resources into areas with low patent density. In this way, the existence of patents actually incentivises targeted R&D, meaning that not only do companies not have to spend so much money in order to get good returns, but that patents also lead to more innovation in newer areas, not less.

Although all scrutiny of the patent system – whether it be focused on the US or elsewhere – is to be welcomed, there is also a need to be far more sceptical about work, such as Scherer's, that is ultimately based on theory and

speculation. Those who advocate radical change have an obligation to provide hard evidence that this will be positive. They need to demonstrate that weaker patents, or none at all, would lead to greater levels of innovation; that more would have been achieved in terms of the spread of scientific knowledge and development; and that the products and processes developed by companies enjoying patent protection over the last 30 years would have been developed anyway and that, in fact, there would have been even more progress. No ifs, no buts, no maybes; just plain, solid, irrefutable proof. If this proof is not forthcoming, surely making fundamental changes is just too much of a risk. After all, what happens if those that propose these changes without solid proof actually turn out to be wrong? ■

*Murky waters continued*

being taken in the Secretariat that you will sacrifice yourself Big Brother when, with the situation deadlocked as a result of the multiple candidacies you are soliciting, your allies will come and ask you to accept a third term! Delaying tactics, electoral schemes, your allies have already been briefed. Who do you think you are fooling without your letter of resignation signed sealed and delivered?"

Of course, this may all be in the imagination of Cincinnatus and its members but, while there is no official word of the current director-general's plans, such speculation will continue. And it will continue to damage WIPO, just as the persistent rumours surrounding Kamil Idris's conduct have damaged WIPO over the last few years.

The Sudanese has proved a controversial figure since it emerged that he had not given his proper age when applying for

the post of director-general of the organisation and had continued to state that he was born in 1945 until it was revealed in a Swiss newspaper report that he was actually nine years younger. There have also been allegations made about the way in which Idris has managed staffing and financial issues at the organisation's offices in Geneva. These were examined by external auditors Ernst & Young in 2005, with no concrete conclusions emerging.

Matters came to a head at the beginning of October when a group of countries from the developed world – including the US and many European states – blocked approval of WIPO's budget and demanded that Idris step down. In off-the-record briefings, US officials also let it be known that withdrawal from WIPO was a possibility if things were not resolved – something which would have had a significant impact on WIPO's role as a supplier of IP-related thought

leadership and as a key venue for the formulation of global IP policy. A stand-off ensued, as many countries from the developing world continued to support the director-general, who had himself also proved very combative in defending his position.

Idris's email of 13th November followed by the US statement seemed to indicate that the crisis was over. By delaying his presumed departure for a year, the director-general was being allowed to leave with his dignity – and maybe his pension – intact; while the industrialised countries could be content in the knowledge that they had got their man and come out on top in a trial of strength with the increasingly assertive developing countries. But now, everything seems a lot less certain.

What is clear to any neutral observer, however, is that Kamil Idris cannot continue as the director-general of WIPO beyond next year. To prevent it slipping

into irrelevance, Idris has to understand that, whether he likes it or not, his time is up at the organisation. And, having understood that, he needs to make it clear publicly and unequivocally. For whatever reason, Idris will be *in situ* for another 12 months, but his position is weakened beyond repair. Until he goes, WIPO will have to tread water, waiting for a new person to take over. Any other course of action will only lead to more argument, more dissatisfaction and a further diminishing of WIPO's status.

WIPO can play a key role in the development of the global IP system; it has levels of expertise that should mean it is providing thought-leadership across a range of IP-related issues. But while Idris remains in office, the chances of being able to do either are almost non-existent. A new broom is needed in Geneva and the sooner it starts sweeping away the damage done by the last few years, the better. ■