Research needs looking into

Universities are under pressure to show commercial success from their activities, writes **Peter Roberts.**

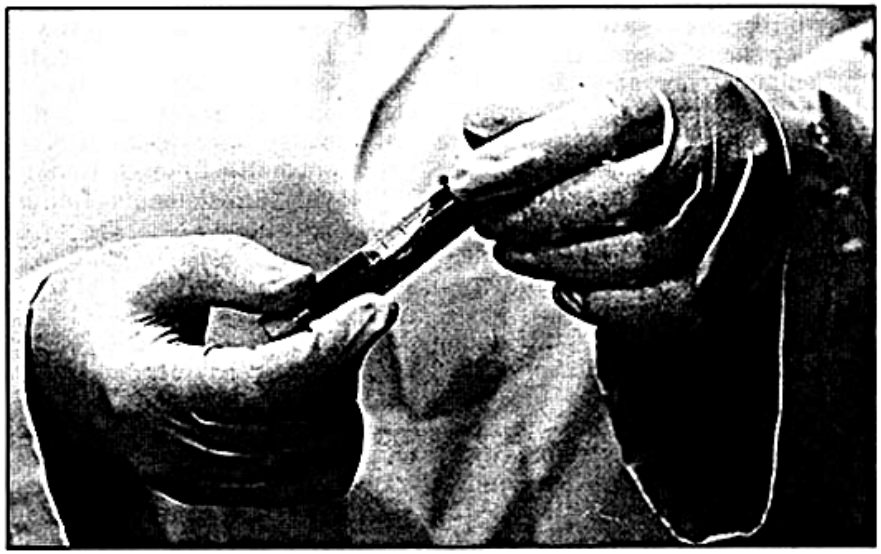
Universities and other publicly funded bodies face far more rigorous review of their commercialisation efforts as the federal government moves to require a bigger economic return for its research dollar.

A series of reports, including one on the Metrics of Commercialisation, which was handed to the federal government on Friday, question the reliance by the research sector on measures such as income universities earn from technology licensing and the number of patents lodged or spin-off companies established.

"When you measure patents or license income it just measures activity," the report's author, Rob Muir, says. "It doesn't indicate if you are going in the right direction."

Muir, the head of Prometheus Equity Partners, says a university could file a lot of patents but not generate a lot of business activity. Or it could earn royalty income when a better economic output might have come from establishing a company.

His recommendations, which are likely to influence funding levels through the Research Quality Framework now under development, include an expanded definition of commercialisation to include "commercial benefit".



Knowledge should be thought of as a commodity. **Photo** Louie Douvis

He proposes 14 metrics covering research activities and economic outcomes in areas of intellectual property, research contracts and consultancies, skills development and transfer.

Business outcomes through intellectual property, for example, could be measured by the new products, services or business processes created as an outcome of research, or the number, capitalisation and revenue achieved by floats of research-generated businesses.

Regarding research contracts, Muir, a former head of commercialisation at nuclear research group, Ansto suggests measuring repeat business achieved with clients as well as the gross revenue earned.

Regarding skills, he suggests measuring research postgraduate income and the number of postgraduates employed in spin-out companies.

"We have been measuring commercial potential, not commercialisation," Muir says. "We need to look at how it [research] affects trade and investment."

The Metrics of Commercialisation report drew on a second report on The Emerging Business of Knowledge Transfer by consultant John Howard that also suggested commercialisation metrics were too narrow.

"What we are talking about is much broader than just commercialisation," he says.

"There are a whole range of knowledge transfer processes that we need to be measuring."

Howard, of consultants Howard Partners, suggests research output should be measured in four areas:

- ☐ Knowledge production through academic publication, patenting and licensing, and the formation of spin-offs.
- ☐ Knowledge diffusion such as extension and education activities, and involvement in standards setting.
- ☐ Knowledge relationships through contract research and the flow of business people and research staff between industry and research.
- ☐ Knowledge engagement through joint ventures with business and the holding of events of economic significance.

Howard says the federal government is increasingly looking at publicly funded research as a driver of future economic development.

"Knowledge is a commodity if you like," he says. "What's important is understanding how knowledge is transformed into economic outcomes."

Mark Crowell, associate vice-chancellor for economic development at the University of North Carolina, says that universities need expertise in technology assessment, protection, market analysis and business development. He says a technology transfer person to bridge the gap between technical and business areas was the best person to bring focus on commercial aspects.

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