



27 April 2005

Dr Anna Dacre
Secretary
House of Representatives Science and Innovation Committee
Parliament House
Canberra ACT 2600

Dear Dr Dacre,

**Submission to the inquiry on 'marketing our innovations –
how can we do it better?'**

On behalf of Citrix Systems, I am writing to formally lodge a submission to the House of Representatives Science and Innovation Committee's inquiry into improving the pathways from innovation to commercialisation, which I have forwarded with this letter.

As a company built on innovation, Citrix is committed to strengthening and improving our products through the substantial research and development that we conduct in Australia and also at other sites around the world.

Through this submission, we would like to share with the Committee our experiences as a multinational technology company operating a software research and development centre in Australia, and to expand upon some of the fundamental elements that we believe influence and facilitate the path from innovation to commercialisation.

Citrix strongly believes that commercially driven innovation is an important contributor to economic and societal success, and we welcome and appreciate the opportunity to participate in this inquiry. To this end, I would also be happy to discuss Citrix's submission in person, should the Committee find this useful.

Should the Committee have any questions or wish to engage in further discussion, I can be contacted on 02 8870 0831 or via email at martin.duursma@citrix.com.au.

Yours sincerely,

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**Submission to the
House of Representatives Science and
Innovation Committee inquiry into:
'Marketing our innovations – how can we
do it better?'**

Citrix Systems

April 2005

CITRIX®

Introduction

Citrix Systems (Citrix) welcomes the opportunity to participate in the House of Representatives Science and Innovation Committee's inquiry into how Australia can improve the pathways from innovation to commercialisation.

Citrix is a company built on innovation. Our deep commitment is reflected in the amount we invest globally in research and development (R&D) each year, which in 2004 amounted to USD\$86.4 million or 12 per cent of revenues. Our driving motivation is to continuously evolve our products with new and better features and capabilities that will improve and strengthen our customers' businesses.

On a wider scale, it is recognised throughout the world that innovation is a fundamental driver of economic success. Many of the world's most successful economies are underpinned by industries that are characterised by a strong disposition towards R&D.

Anecdotally, one only has to look to countries like the United States where innovation based organisations like Pfizer have come to be the very symbols of American success. Likewise, Europe's Airbus Industries stands at the cutting edge of aircraft manufacturing and is responsible for driving greater wealth into the communities in which the company operates. Locally, organisations like Cochlear, Alcatel Australia, Canon Australia and the Commonwealth Science and Industry Research Organisation (CSIRO) represent Australia's ingenuity and initiative.

Through this submission, Citrix will share its experiences as a technology-based multinational organisation operating a R&D facility in Australia. We will also expand upon the factors that we believe fundamentally impact upon the pathway from software innovation to commercialisation.

Who is Citrix?

Citrix Systems is a global technology leader, providing access to business applications via a centrally located server. Citrix technology gives workers secure, easy and instant access to applications and information from anywhere, at anytime, using any device, over any connection.

More than 160,000 organisations worldwide rely on the Citrix technology to do their jobs. These organisations include the world's most successful companies – 100 per cent of the Fortune 100, 99 per cent of the Fortune 500, 97 per cent of the Fortune Global 100, and 92 per cent of the Fortune Global 500.

Citrix's Australian R&D activities

Citrix has a long-established R&D presence in Australia, the origins of which lie with a local company called Datapac. Datapac was created in the late 1980s in partnership with the now defunct Wang Corporation (a manufacturer of computer hardware and software) and a venture capitalist, under the auspices of a federal government program known as the 'Partnership for Development'.

Essentially an industry development initiative, the purpose of the Partnership for Development was to encourage multinational IT companies to foster industry development in Australia through collaboration with local organisations.

The newly formed joint venture company proceeded along a course of researching, developing and building multi-user operating system software for the retail and point of sale markets.

In 1991, a management buy-out occurred and Datapac was transformed into an independent, private company. Datapac went from strength to strength, exporting its product to the world and experienced substantial growth.

In the mid 1990s, Datapac developed a strong relationship with Citrix Systems, a Florida based technology vendor, and was eventually acquired by Citrix in 1997. This transaction crystallised Citrix's presence in the Asia Pacific and the multinational company was mindful to retain Datapac's Australian focus and capability in R&D.

As Citrix's presence in the Asia Pacific matured, the Australian subsidiary came to be viewed as a centre of excellence in R&D. There was widespread recognition within the company of the significance of the Australian R&D capability and the deep contribution that it was making to Citrix in a global context.

The Centre, which employs 30 engineers, is considered to be the innovation engine of Citrix's product range. Its mission is to investigate technologies that are two to three years ahead of the current engineering cycle. This entails but is not limited to the investigation and examination of emerging concepts and technologies and also involves monitoring and providing input into industry standards bodies. The Centre's mission is to develop the sophistication and value of Citrix's product range and, in turn, deliver an enhanced experience for our customers.

Citrix's Sydney R&D facility and the wider *Advanced Product Group* (a business unit of which the facility is a part) have enjoyed multiple successes since inception. Today, many of the innovative features that can be found within Citrix's product range directly result from the research activities that we undertake in Australia.

An example of our successful research is embodied in a technology called 'Secure Gateway'. This is a product that boosts the security of information exchanges across the internet and provides Citrix's customers with a robust level of confidence that their information will be protected against infringement.

The *Advanced Products Group* is headquartered in Sydney and also maintains R&D facilities in the United States (Redmond) and the United Kingdom (Cambridge).

Factors that influence innovation - the establishment of R&D facilities

The foundation of commercially driven innovation rests to a substantial degree on R&D. In deciding where to locate a R&D facility, there are a plethora of factors that are taken into account. Arguably one of the most important, from a corporate perspective, is the requirement for a strong underlying business case that provides a commercial justification for undertaking R&D in a particular location.

Cost

Invariably there are many factors that play into, and influence this decision. However, a fundamental consideration for any commercially run organisation is cost. More particularly, for many organisations the largest component of the research cost base will be labour – this is certainly the case for Citrix and many of its peers.

To some degree the cost of undertaking R&D can also be influenced by external and largely uncontrollable factors, like exchange rates. For those multinational organisations that operate R&D facilities outside of their home jurisdictions, exchange rate fluctuations can translate into a powerful but unpredictable dynamic.

Australia provides a good case in point. During the course of 2001 and 2002, the Australian dollar devalued substantially against the United States' currency. This precipitous decline delivered both upsides and downsides. From an R&D perspective it imparted Australia with a considerable advantage because cost savings in the region of 30 per cent, as compared with the United States, became achievable.

As it panned out, these savings would prove to be short-lived. The subsequent appreciation of the Australian dollar in recent times has conspired to erode the country's exchange rate related competitiveness. More poignantly, it has also played into the hands of countries like India and China, who regained an additional competitive edge upon their already low cost bases.

But in any discussion of cost, overheads must also be factored into the equation. In this respect, some countries, like China and India, may actually suffer from higher overheads that result from cultural, language and communication barriers. Conversely, English-speaking countries like Australia, New Zealand and Canada, which have relatively homogenous but nonetheless unique cultures, benefit from their stable social and political systems. This translates into savings in overhead costs, particularly as they relate to communications, and therefore acts as an indirect benefit to countries like Australia that are traditionally characterised by their higher cost bases.

Quality of labour

The quality and skill of labour also features as a central ingredient in the decision-making process. While Australia has lost some of its exchange rate related cost advantage in recent years, the nation still maintains an 'intellectual' edge against many of its regional competitors. Australia's intellectual prowess is best exemplified by the quality of its researchers and software engineers.

Nonetheless, our position as an intellectual leader is not, unfortunately, an unassailable one. Australia's regional neighbours, like India and China, are producing ever greater quantities of software engineers and this enthusiastic response is helping them to close the gap. Conversely, Australian universities are now reporting considerable shortfalls in the number of students enrolling for computer engineering and technology related courses. Moving forward, there can be little doubt that Australia will face stiffer competition from the Asia Pacific region.

By locating our R&D facility in Sydney, Citrix is benefiting from Australia's rich pool of research talent and expertise. One way in which we are leveraging this pool is via our relationship with the University of Technology Sydney (UTS), where we sponsor PhD research and also provide employment opportunities for research students.

Elsewhere in the world Citrix has forged solid relationships with tertiary institutions in the United States and the United Kingdom, our purpose being to enmesh a strong and enriched network of intellectual capital into our commercial R&D programs. Enduring bonds between universities, often the 'hotbeds' of R&D, and the private sector is crucial to laying the pathway between innovation and commercialisation.

Leadership

Running a R&D facility is more than the archetypal view of a group of researchers in white coats beavering away in a sterile laboratory. Within the multinational, R&D facilities are viewed as business units and as such they require leaders who are well versed in business and management. Moreover, tenacious entrepreneurial leaders are better equipped to drive successful R&D facilities, whether they be in Sydney, Dublin or Singapore, and ultimately to sell the benefits and achievements of that facility back to corporate headquarters.

Regulatory environment

Australia's exacting standards on corporate regulation and a robust legal regime for the protection of intellectual property underpins a strong foundation to conduct commercial R&D. Like any other type of property, the leap from innovation to commercialisation profoundly depends upon a strong regulatory framework for the ownership of ideas and inventions. It incentivises people and companies to create market driven innovation within an environment that acknowledges the importance of proprietorship and commercial return.

Likewise, Australia's well-regulated corporate environment provides for stability and transparency. Multinationals that chose to conduct R&D in Australia do so knowing that they are operating in a regulatory environment on par with the world's leading economies.

Regulatory incentives

Within a wider business context, regulatory incentives can play a positive role in creating a conducive environment in which to conduct R&D. The Australian Government's *Backing Australia's Ability* policy provides a comprehensive package of measures that frame the nation's innovative and entrepreneurial spirit.

For a multinational, regulatory incentives can enhance and impact upon R&D activities. This will vary according to the specific circumstances of each organisation. However, as an observation, it is worthy to note that some measures are less accessible to multinationals (headquartered in a foreign jurisdiction) as compared to their domestic peers.

An example of this is the R&D tax concession, which in practice can prove to be difficult for a multinational to take full advantage of. In Citrix's case, our R&D facility exists as a separate legal entity and typically, this Centre will generate minimal profits and dividends for its holding company. When applied to this small profit, the R&D tax concession produces minimal savings, which are largely marginal in nature when sent back in the form of a dividend to our corporate holding company. As such, the full impact of the measure in alleviating the cost of undertaking R&D in Australia by a multinational cannot be realised.

Creating a conducive climate for commercial innovation – broad themes

Generating commercially viable software innovation

Australia possesses a healthy innovation culture coupled with a 'can-do' attitude to software R&D. But there is also pressing need to focus on one of the more basic tenets of commercialisation – that is, innovations must be developed with a strong eye towards a commercial outcome. Moreover, we need also to expand our vision beyond the Australian market and ensure that our innovations have relevance in the global marketplace.

Generating critical mass through international co-operation

Australia's economy, though dynamic, resilient and wealthy, is a comparatively smaller market on the world stage. Our smaller population means that we face an inherent challenge to generate the economies of scale, in revenue terms, that commonly underlines the successful commercialisation of innovative software ideas. In this respect Australia stands at a disadvantage to countries like the United States and economic trade blocs such as the European Union, where a ready made market of many millions of consumers provide comprehensive market opportunities.

Viewed from a generalised microeconomic perspective, a small start-up software company that possesses a new product or innovation would commonly face a challenge to achieve critical mass, in revenue terms, in the Australian market. Invariably this creates an emphasis for a company to find new ways in which to upsize its revenue streams. For many, the ultimate solution lies in forging commercial relationships with multinationals, accessing foreign markets and even harvesting funds from offshore sources.

Providing innovators with a helping hand

How does a smaller company with limited resources do this? Australia has adopted a number of respectable and credible tactics. For example, federal government agencies like AusIndustry, Austrade and Invest Australia work on behalf of the ICT industry to facilitate international relationships and financial support. But far from resting on our laurels there is ongoing scope for us to more emphatically promote and advance ourselves in key financial markets as a sophisticated repository of ideas, ICT innovation and ingenuity.

Financing issues also pose a serious impediment to commercialisation, particularly for smaller entities. The Federal Government's seed funding initiatives, like BITS, are designed to give our commercially driven innovators a helping hand. These initiatives should be applauded but there is also room to expand upon the current package of incentives, for example, by encouraging angel investing.

An angel investor is an individual or company who injects funds into a start up company at its inception, commonly when the company is in a high risk or precarious phase. Typically the company's product development cycle is in its infancy and sometimes there is no product but merely an idea or concept in existence. An angel investor will inject capital at the 'ground floor' to kick the company off. Once the company has matured somewhat - say a product has been developed or customers have been signed up - then a venture capitalist may chose to become involved.

The nature of innovation is that it is a risky business and angel investors, who are less risk adverse than venture capitalists, perform an important function. In Australia, there are many start-ups who have new and organic initiatives but face an uphill battle to obtain funding. Unfortunately there is little in the way of private angel investing forthcoming, due partly to the high rates of risk involved but more pertinently because there is minimal financial incentive, for example in the form of tax concessions, to do so.

Hypothetically, the introduction of tax concessions, perhaps commensurate with the amounts invested under an angel arrangement, could provide Australia's innovators with much needed capital and drive a better rate of research commercialisation. It may also have the effect of unleashing dormant funds into productive, intellectual property generating investments.

Partnership with multinationals

Partnership and collaboration with multinationals also plays a productive and beneficial role in the journey from innovation to commercialisation. For example, the recent establishment of the nation's flagship ICT research body, National ICT Australia, has resulted in solid research partnerships with IBM and Microsoft. Looking at examples from further afield, the economy of the Republic of Ireland has been rejuvenated in recent years because of its willingness to embrace and encourage enduring partnerships with multinational technology companies.

Citrix believes that multinational R&D facilities bring with them a wealth of international expertise and experience that value-add to the economies in which they operate. Apart from providing skilled employment opportunities and direct investment, multinational facilities also help to train and educate local software developers to develop products for the world platform. With access to unique resources and relationship networks, and sophisticated product development cycles, multinationals also have the ability to partner with smaller Australian companies and start-ups to take their innovations to market.

Conclusion

Citrix thanks you for taking the time to review our submission. We are a strong believer in Australia as a place to undertake software research and development. Australia's culture of innovation and entrepreneurial determination underpins the nation's wealth and prosperity. Looking forward, Australia can build upon its achievements by nurturing a vibrant ecosystem of 'technopreneurs', ensuring that we create the right mix conditions to incubate our potential. Collaboration is key but so is our ability to look outwards to the world and harness the opportunities that await.