

RESPONSE – ERICSSON AUSTRALIA (27 August 2002)

Standing Committee on Science and Innovation

**Inquiry into Business Commitment to Research and
Development in Australia**

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ERICSSON AUSTRALIA

“Ericsson is shaping the future of Mobile and Broadband Internet communications through its continuous technology leadership. Providing innovative solutions in more than 140 countries, Ericsson is helping to create the most powerful communication companies in the world.”

Ericsson is the leading provider for 2G and 3G mobile services providing industry leading edge total system elements; infrastructure; terminals, applications and expertise.

Ericsson globally expends annually in excess of 15% of turnover on research and development (\$US6bl) which places it in the top 10 of global corporations in commitment to research. This sustained investment underpins Ericsson's global leadership in a range of communications technologies. The Ericsson AsiaPacificLab based in Melbourne is Australia's largest private sector research centre and employs over 400 scientists/engineers.

This document contains the views of Ericsson on the appropriate policy directions for Australia to enhance its commitment of research and development. Comments will be made in the context of the ICT sector but many of the conclusions are germane to the broader industry sector. Initial comments will focus on the particular key questions of the submission before the wider discussion. The more general comments will highlight the significant restructuring underway within the global ICT industry, particularly the telecommunications sector arising from the adverse investment environment.

Ericsson is a strong supporter of such innovation focussed packages such as “Backing Australia's ability” and in particular the focus on competency development. However consideration of future policy directions needs to be cognisant of the current global “nuclear winter” applying to significant sectors of the industry with resultant implications for global investment flows and maintenance of existing activities.

What would be the economic benefits for Australia from a greater private sector investment in R&D?

Recent reports by the Chief Scientist have highlighted benefits to Australia of greater private sector investment in R&D namely “innovation is the driver of every modern economy – it is the key to competitiveness, employment growth and social well being... We must have leading edge capabilities so that we can develop pioneering technologies that will ensure the competitiveness of our industry in the global marketplace of the future.” (The Chance to Change – Chief Scientist Nov 2001).

From an Ericsson position we would stress additional that R&D investment plays a role that is much more pivotal than suggested by just the raw employment numbers. A MNC such as Ericsson, which has more than just a sales/marketing presence in Australia but encompasses R&D and regional support services contributes in a range of direct but less easily recognised ways to the broader economy and the ICT specific infrastructure. These include:

- International Market access and intelligence
- Skills/training including through international transfers and formal training programs
- Technology diffusion
- Introduction to contemporary management techniques
- Support for general infrastructure such as in the areas of education, transport, finance

- Anchor tenants in economic clusters
- Demand for the products of SME's etc
- Partnerships with SME's
- Direct investment
- Testing of new products and services in Australia, providing opportunities for Australian suppliers to increase their technical capacity ahead of roll-out of these systems across the firm globally.

What are impediments to business investment in R&D?

Many Government R&D programs are of limited assistance to Ericsson because IP ownership is vested in our overseas parent. Ericsson has no argument with this approach but would highlight given the distance from the Swedish HQ, core technology R&D can only be sustained/allocated in Australia where we have a clear competency advantage in a pre-existing critical mass that can be augmented by appropriate graduates for growth if necessary. This is the prime criterion. It is assumed that we will be cost effective and this simply mitigates the tyranny of distance. These issues are covered in more detail in the following sections.

What steps need to be taken to better demonstrate to business the benefits of higher private sector investment in R&D?

From an Ericsson perspective we believe it is important as a long term priority that the fundamentals of doing business in Australia are sound in such areas as tax, skills, regulatory environment.

In the current highly competitive and difficult investment climate for the ICT sector, it is essential that public demonstrations of commitment to an Australian based ICT industry are of vital importance.

On a long term basis and to compliment the above suggested short term initiatives Ericsson believes, on the basis of its experiences and commitments, that the following areas need primary attention:

- Significantly increased support for competency/skills development including greater flexibility in funding arrangements at the Higher education level and for the encouragement of increased specialisation and the pursuit of excellence (further details at Ericsson's response to Discussion Paper on Higher Education at Crossroads).
- Increased support to universities for pure research
- Increased linkages between industry and universities in curriculum development and in handling IP development.
- Persons retraining from industry sector to another to be eligible for taxation concessions (as is the case for re-training within the one sector)
- Support for the facilitation of improved links between multinational companies and SME's.
- Development of a strong and focussed investment attraction (and retention, in the short term) strategy.
- Liberalised regulatory environment which encourages the take-up of new services such as broadband and is technology neutral (i.e. not like current differential treatment of spectrum for broadcasting and telecommunications).
- Resolution of ESOE and share remuneration issues.

ADVERSE GLOBAL ENVIRONMENT IMPACTING ON R&D LEVELS

The current ICT environment is driven by risk avoidance behaviour arising from the significant stockmarket re-rating of the sector and arguably significant over capacity in many sub-sectors particularly telecoms. This reaction to the decline in value on

markets has been significantly compounded by recent major corporate collapses (eg Global Crossing, Worldcom).

As a consequence decision on investment and research and development are being made to very short time frames with requirements for almost immediate payback. MNCs are rationalising operations driven by cost and control concerns. Implications being that activities are retracting to few centres closer to major markets and centres of management or locations with compelling cost advantages (i.e. China). These trends emerged most quickly in the Telco sector but are now widely evident across the broader ICT industry.

Major Factors at work

- Skittish equity markets with no confidence around the timing of any recovery.
- Declining product prices, significant industry overcapacity and resultant competitive pressures on all participants.
- Cost cutting and structural corporate re-organisation (divestment of non core activities and shifting of manufacturing).
- Stock market valuations and perceptions, financing, cash-flows, spectrum auction (perceptions of overpayment).
- Technology platform indecision and supplier selection in the Telco sector
- Convergence (e.g. mobility) and divergence.
- For incumbents leveraging legacy investments and for new entrants (and investors) digesting past over-investment in new delivery technologies (without market demand).
- Competence shift requirements such as move to IP world.
- Consolidation back to key markets.

ICT companies are responding to the above pressures by slashing costs (employment), reducing R&D and investments, outsourcing non-core activities, establishing new joint ventures. Estimates are that in 2001 the market capitalisation of the US Telco sector (carriers, suppliers, start-ups) declined by \$2.5 trillion and 500,000 employees were laid off.

The end result is that the industry is in a survival mode with a close examination of all activities to ensure they are closely aligned with corporate activities, which generally is cash flow related.

IMMEDIATE IMPLICATIONS FOR AUSTRALIA

For Australia the net result of this global turmoil has been the closure or reduction in size of a number of major multinational investments in both production and research. There should be no expectation that the jobs and investments once lost will be recaptured or that there is any existing or new high technology activity in Australia on the horizon to ensure that the national skills resource represented by these people won't be dissipated.

This has seen a flow-on reduction in investment to the broader industry including SMEs, research bodies (eg CRCs, universities) as well as to local institutions be it academia, research units (eg Circuit, CTIN). This fall in the industries capacity to provide resources to external research entities, be they private or public, has occurred in an environment where the expectation on those institutions is that they will attract more private sector support.

WHERE TO FOR AUSTRALIA

Ericsson, almost alone amongst the major telecommunications MNCs is maintaining a significant investment in Australia particularly in the research field and in servicing the region. It is our view that in this environment of short term corporate focus that at the policy level a dual focus be maintained – long term policy continuity in such areas as skills etc whilst promotional/marketing activities in the short term as to Australia wanting to maintain MNC investment. The latter needs to be done with a greater sense of urgency than appears the current case where for example the outcomes of the Blackburn Investment Review of late last year are yet to be significantly implemented.

MNC investment is important for a variety of reasons – it plays a role that is much more pivotal than suggested by just the raw employment numbers. A MNC such as Ericsson, which has more than just a sales/marketing presence in Australia but encompasses R&D and regional support services contributes in a range of direct but less easily recognised ways to the broader economy and the ICT specific infrastructure. Restating benefits as shown on p1, they include:

- International Market access and intelligence
- Skills/training including through international transfers and formal training programs
- Technology diffusion
- Introduction to contemporary management techniques
- Support for general infrastructure such as in the areas of education, transport, finance
- Anchor tenants in economic clusters
- Demand for the products of SMEs etc
- Partnerships with SME's
- Direct investment
- Testing of new products and services in Australia, providing opportunities for Australian suppliers to increase their technical capacity ahead of roll-out of these systems across the firm globally.

The loss of value adding activities by any leading ICT MNC therefore represents the loss of far more than just the direct activity. As a sophisticated participant in the global industries these MNCs represent a crucial window into contemporary market directions for every other Australian company with whom they do business.

MAKING AUSTRALIA ATTRACTIVE TO MULTINATIONALS

It is vital to understand that the nature of decision making in MNCs about where to locate (or maintain) activities has fundamentally and permanently changed in recent years. The present market conditions have, arguably, accelerated trends that were already becoming evident in that MNCs are much more likely to look at the total operating environment when making investment decisions.

Key factors when looking at competing locations for long-term growth/investment are:

- Leading edge customers to stimulate demand, innovation
- Pre-competitive research support
- World class skills availability with a focus on excellence in vocational training/teaching/research
- Quality of opportunity and diversity in the workplace.
- A willingness by Government to engage with industry
- Culture/training in entrepreneurship
- Brand image for the economy
- Policy continuity (bi-partisanship) and national consistency (state/fed) to reduce duplication of effort/brand dilution

In addition from an Ericsson perspective we support broader issues for the ICT industry with a focus on SMEs such as:

- Empathetic legal/financial/taxation environment
- Balanced govt purchasing framework to increase SME access recognising that the 'enterprise' market is only a subset of the broader ICT industry
- Encouraging student / researcher mobility to seek out excellence
- Maturity/awareness/clustering of ICT in supporting industries

As the global ICT market further slows and MNC's are forced to reconsider all future investments, both short and long term, the imperative of this policy attention becomes sharper. In addition to these policies that need to be addressed there are some elements of the Australian environment that present real or potential disincentives to MNCs deeper engagement such as:

- MNC "bashing" in the face of a somewhat more buoyant / less ICT dependant local economy.
- Overestimating the industry's capacity to fund public research; such funding by MNC's will be under greater stress with global cut backs.
- Failure in market engagement in upstream research; industry engagement with CSIRO, the ICT CoE and other research groups becomes more important even if this can only be 'in-kind'.
- Failure to embrace all commercialisation options; VC is but one path.
- Failure to focus/lack of critical mass at all levels including the thinning ranks of MNC's themselves and the question that must raise amongst those that remain.

It is important that policy initiatives are effectively communicated to all stakeholders, under a common Australian 'brand' both here and overseas to redress the above.

POLICY OPTIONS

From an Ericsson perspective we believe it is important as a long term priority that the fundamentals of doing business in Australia are sound in such areas as tax, skills, regulatory environment.

In the current highly competitive and difficult investment climate for the ICT sector, it is essential that public demonstrations of commitment to an Australian based ICT industry are of vital importance.

In this respect continuing and vocal acknowledgement of the importance of ICT to Australia and the Government support for ICT investment and development is of great importance. Such support should be expressed across all levels of Government including at the highest level. It is also important to be seen as seeking new investment from existing players (not just new investment from new players) and to be seen as seeking advice/involvement from a diversity of markets (and not just the US).

Current promotional efforts by such agencies as Invest Australia need to be re-focussed, re-prioritised with a focus on ICT.

Restating p2, on a long term basis and to compliment the above suggested short term initiatives Ericsson believes, on the basis of its experiences and commitments, that the following areas need primary attention:

- Significantly increased support for competency/skills development including greater flexibility in funding arrangements at the Higher education level and for the encouragement of increased specialisation and the pursuit of excellence (further details at Ericsson's response to Discussion Paper on Higher Education at Crossroads).
- Increased support to universities for pure research

- Increased linkages between industry and universities in curriculum development and in handling IP development.
- Persons retraining from industry sector to another to be eligible for taxation concessions (as is the case for re-training within the one sector)
- Support for the facilitation of improved links between multinational companies and SME's.
- Development of a strong and focussed investment attraction (and retention, in the short term) strategy.
- Liberalised regulatory environment which encourages the take-up of new services such as broadband and is technology neutral (i.e. not like current differential treatment of spectrum for broadcasting and telecommunications).
- Resolution of ESOE and share remuneration issues.

The following matrix represents policy prescriptions and the appropriate areas for consideration noting the current range of reviews into areas of relevance to ICT. These include the Framework for the Future, Broadband Advisory Group, Higher Education at the Crossroads and the ongoing policy interests of Departments such as DCITA/NOIE and the Industry portfolio.

	F3	Crossroads	DITR	NOIE/DCITA	Broadband
ESOP	√	√		√	
UCLP/CGT	√			√	
Converged reg. Environ.	√		√	√	√
Research Concentration	√	√	√	√	
Pre-comp Research Partnering	√	√	√	√	
Tax incentives – self - Education	√	√	√	√	
More commercial higher Education (Concentration on excellence)	√	√			
SME/MNC Linkages	√		√	√	
Govt as customer/Procurement	√	√	√	√	
Focused invest attraction	√		√	√	
Entrepreneurship training	√	√	√	√	
Liberalised trading environment	√		√	√	
National brand	√	√	√	√	
Concentration of NAT. Effort (willingness to cluster)	√	√	√	√	
Support for compet. development	√	√			

CONCLUSION

Adoption of the recommendations contained within this paper will provide the basis for sustaining investment by leading MNC's in Australia. Meeting the challenges of

the current environment wont be easy and require a greater sense of urgency in such areas as Investment attraction etc.