Submission No 22

Inquiry into Australia's Relations with the Republic of Korea; and Developments on the Korean Peninsula

Organisation: **Department of Communications, IT and the Arts**

Contact Person: General Manager
 International Branch

Address: **GPO Box 2154
Canberra ACT 2601**

our reference M2005/0654

Mr John Carter
Secretary
Foreign Affairs Sub-Committee
Joint Standing Committee on Foreign Affairs, Defence and Trade
Department of the House of Representatives
Parliament House
CANBERRA ACT 2600

Dear Mr Carter

I refer to your letter of 13 April 2005 regarding the Joint Standing Committee's Inquiry into Australia's relationship with the Republic of Korea and developments on the Korean peninsula.

The Department of Communications, Information Technology and the Arts would like to thank the Committee for the opportunity to provide a submission on Australia's relationship with the Republic of Korea. In addition, we greatly appreciate the extra time granted to the Department by the Secretariat to enable us to complete the submission.

I am pleased to be able to attach the Department's submission for the consideration of the Committee. The Department has noted the Committee's Terms of Reference and addressed them in terms of the portfolio's key interests wherever possible. I hope it will prove useful to your inquiry.

If the Committee requires any further information or clarification, please contact the General Manager, International Branch, on 6271 1893.

Yours sincerely

R J Badger
A/g Secretary

3 June 2005

**Department of Communications,
Information Technology and the Arts (DCITA)**

submission to the

Joint Standing Committee on Foreign Affairs, Defence and Trade

on

Australia's relationship with Korea

3 June 2005

CONTENTS

1. Introduction

The Department of Communications, Information Technology and the Arts (DCITA) provides strategic advice and support to the Australian Government in relation to the communications, information technology, arts (including cultural industries) and sports through the divisions of: Telecommunications; Broadcasting; Information and Communications Technologies (ICTs); Information Economy; and Arts and Sport.

Through these divisions, the Department administers legislation, regulations, grants, and incentives to industry and the wider community.

The Department plays an active role in international affairs in the communications sector. This includes participation in the:
- APEC Telecommunications and Information Working Group (APEC TEL);
- International Telecommunication Union (ITU);
- World Trade Organisation General Agreement on Trade in Services (WTO GATS);
- Asia Pacific Telecommunity (APT);
- Organisation for Economic Cooperation and Development (OECD);
- Government Advisory Committee (GAC) to the Internet Corporation for Assigned Names and Numbers (ICANN); and
- World Summit on the Information Society (WSIS).

Korea, like Australia, is a member and an active participant in these organisations. DCITA is therefore familiar with Korean activities in these fora as well as through bilateral contacts. DCITA maintains a 'watching brief' on developments in Korea given its importance in the region, its status as a progressive information society and its relationship with Australia as a trading partner.

In keeping with DCITA's responsibilities, expertise and dealings with Korea, this submission focuses on Korean activities and achievements in the areas of communications, information technology and the arts. As such the submission primarily addresses the economic and cultural criteria of the Committee's Terms of Reference and is structured accordingly. It is designed to complement the more general submission of the Department of Foreign Affairs and Trade (DFAT).

The submission is based on information available within DCITA as a result of our day-to-day work in relation to Korea.

Following this introduction, the submission covers three areas:
- sectoral arrangements in Korea relevant to the portfolio;
- Australia-Korea trade in areas relevant to the portfolio; and
- the portfolio's engagement with Korea.

Some key points for Australia's relationship with Korea arising from this submission are that:
- Korea is an innovator in ICTs and Australia has much to gain – technologically, economically and culturally - from interaction with Korea in this area;
- Australia and Korea have areas of relative advantage that are recognised in existing positive relationships (eg. collaborative arrangements in broadband) and provide a basis for further mutually beneficiary relationships;

- Korea and Australia have common interests in many areas (eg. spam, broadband, R&D, trade, regional development) and there is scope and value in Australia and Korea collaborating in pursuing these interests;
- as a major supplier of telecommunications and other ICT equipment to Australia, Australia has a strong interest in the position Korea takes on international ICT standardisation; and
- Australia would benefit from continuing to strengthen interaction and information-sharing with Korea, particularly in the area of ICTs.

2. Sectoral arrangements in Korea relevant to the portfolio

2.1 Institutional Arrangements

The **Korean Ministry of Information and Communication (MIC)** is responsible for information services, communications, broadcasting, and postal and postal financial services.

The **Korean National Internet Development Agency (KNIDA)** is a non-profit statutory organisation subsidiary to the Ministry of Information and Communication. KNIDA has responsibility for allocating & managing Internet addresses in an efficient manner, and conducting research and development activities designed to increase the use of Internet.

The **Korean Broadcasting Commission (KBC)** had its functions reorganised and expanded with enactment of the Broadcasting Act of 2000 (the new 'Act'). Since then the KBC has taken over administrative functions from the Ministry of Culture and Tourism and the Ministry of Information and Communication such as licensing and authorisation of terrestrial broadcasters, cable broadcasters, satellite broadcasters, relay cable operators and music broadcasters. Its expanded role also includes regulation of broadcasting content (including Internet broadcasting content).[1]

The **Korean Information Strategy Development Institute (KISDI)** is a leading research agency in Korea dedicated to strengthening Korea's position as an advanced IT nation through national policies in areas of the IT industry, telecommunications & broadcasting convergence, fair competition, postal services and international cooperation. It has an interest in methods to bridge the digital divide, and is committed to strengthening cooperative relationships not only within Korea, but also between Korea and other countries.[2]

The **Korean Culture Media Bureau** of the Ministry of Culture and Tourism develops policies related to the media industry, promotes media education, develops policies for new media services, and provides the technical support for new media contents.

The **Korean Culture and Arts Foundation** promotes the development and preservation of cultural heritage and arts in Korea by providing a wide variety of services, programs and supports for individual artists, art groups, researchers and the general public.

The **Korea Association of Information and Telecommunication** is a representative organisation that channels and enables cooperation between the government and the industry.

---

[1] Korean Broadcasting Commission, http://www.kbc.go.kr/english/
[2] Korean Information Strategy Development Institute, http://www.kisdi.re.kr/wwbs/eng/main.html

2.2 ICT Research, Development and Manufacturing

The Korean ICT industry employs 525,000 people, while a total of 1.215 million are employed in the wider IT field (including companies classified outside ICT).

A study by the International Telecommunications Union (ITU) in 2003 stated that the ICT sector contributed 13% of Korea's GDP for the five years to 2001 and 50% of the growth in GDP for 2000.[3]

Major ICT companies are Samsung, KT (Korea Telecom), SK Telecom, and LG Electronics.

There are eight strategic IT industrial clusters spread throughout Korea, at Digital Media City, Seoul (digital content, media and entertainment); Daedeok Techno Valley, Daejeon (new materials, sophisticated electronics); Songdo Inpia, Incheon (SW, service, mechatronics); Chuncheon; Daegu; Jeonju; Guanju and Busan.

Major foreign companies have a presence in the Korean industry, for example IBM opened a telematics and embedded software R&D centre in 2002, investing USD16 million (approximately AUD21.14 million) and employing 100 people. Intel is considering an R&D centre focusing on wireless communications and digital home networks (2003 information).

Even major Korean companies have substantial foreign participation – for example, foreign equity levels are Samsung 52%, KT 45%, SK Telecom 40%, and LG 21 %.

Korea sees a role in these partnerships as "mutually beneficial economic cooperation with Pacific Coast Rim countries".

2.3 Korea's IT 839 Strategy

In 2004, the Korean Ministry of Information and Communication announced the *IT 839 Strategy* as part of its vision to promote economic growth in Korea through IT. This aims to encourage collaboration among IT services, infrastructure and manufacturing, to research and deliver next generation devices and services. The Strategy is highly integrated with the development of broadband.

The title of the Strategy refers to:

- Rollout of **8 new services** – WiBro (portable internet), DMB (satellite and terrestrial digital multimedia broadcasting), home networks (video on demand and networked appliances), Telematics, RFID-based services (radio frequency identification), W-CDMA (wireless internet and video telephony), terrestrial digital TV and internet telephony (VoIP).

- Investment in **3 infrastructures** – Broadband convergence network (next generation network), U-sensor network (incorporating an electronic chip into objects and connecting them with the internet so as to recognise them and manage the surrounding environment) and Internet protocol version 6 (IPv6) – and their effects on related industries – semiconductors, next generation mobile communications, digital TV, software, content and others.

- Nurturing **9 new growth engine sectors in IT** (devices and components) – 4G mobile telecommunications, equipment and devices for DMB, home network devices, systems on a chip, next-generation PC ("wearable computers"), embedded software and solutions, digital

---

[3] ITU, March 2003, "Broadband Korea: An Internet Case Study", www.itu.int/ITU-D/ict/cs

content, telematics devices and software (mobile office in a vehicle) and intelligent service robots (humanoid robots)[4].

2.4 Basic Telecommunications

Korea is rapidly developing as one of the most competitive telecom markets in the world, with advanced infrastructure and high usage levels. Korea's telecommunications sector is highly liberalised, with multiple operators in each sector. The availability and take-up of basic telecommunications services are high.

For example, in 2003:
- Fixed line penetration in Korea was 48.3%, ranking it 4th in the Asia-Pacific region behind Taiwan (57.6%), Hong Kong (55.3%) and Australia (52.1%).
- Korea ranked 5th in mobile penetration at 68.9%, behind Taiwan (111.1%), Hong Kong (102.9%), Singapore (79%) and Australia (76.9%).
- Korea was 2nd in Internet penetration with 64%, behind only Singapore with 73.9%[5].

2.5 Broadband Services

Korea is a world leader in many areas of the ICT industry, perhaps most notably in broadband take-up. According to OECD data for December 2004, Korea had 24.9 broadband connections per 100 inhabitants, giving a total of 11,617,825 connections and placing Korea first in the OECD. This equates to a household broadband connection rate of around 75%. By comparison, Australia had 7.7 broadband connections per 100 inhabitants, giving a total of 1 548 300, and placing it 21st in the OECD.[6] Broadband services in Korea also generally operate at higher speeds. Broadband connections per 100 inhabitants, by technology, in December 2004 are set out in Table 1.

Table 1: Broadband connections per 100 inhabitants, by technology, in December 2004[6]					
	DSL	Cable	Other	Total	Rank
Korea	14.1	8.5	2.2	24.9	1
Australia	5.7	2.0	0.1	7.7	21

Korea has the most mature broadband market, and recent growth has slowed accordingly. Uptake of broadband since 2003 has remained fairly steady, without the dramatic increases seen in previous years. This suggests the market is reaching saturation point.[5] However, by year end 2004 it topped the OECD for Internet penetration for the fourth consecutive year.[7] In Australia, broadband take-up is continuing to grow.

In addition, business use of broadband in Korea is strong, with 25 units of broadband per 100 people, compared with 21 for Hong Kong and 17.5 for the Netherlands.[8] By December 2004, no other OECD country had reached the penetration rate Korea had recorded back in March 2002 (19.1%).

Several factors have contributed to the strong growth of broadband in Korea. There was already wide usage of Internet services through the Internet cafes (called *PC Baangs*) that began to open in 1998 and quickly grew to over 21,000 by 2001.[9] *PC Baangs* provided the public with early access

---

[4] Ministry of Information and Communication, www.mic.go.kr/eng/index
[5] Business Monitor International (BMI), 'South Korea Telecommunications Report Q1 2005', January 2005
[6] OECD, 'Broadband Statistics 2004', at http://www.oecd.org/document/60/0,2340,en_2825_495656_2496764_1_1_1_1,00.html
[7] Ministry of Information and Communication, www.mic.or.kr/eng/index
[8] National Internet Development Agency, 2004 Report, www.nida.or.kr
[9] DTI/Brunel University, October 2002, "Investigating Broadband Deployment in South Korea"

to high capacity PCs and introduced many users to the benefits of broadband. They offer thousands of users 24 hour access to broadband services and are most commonly used for file sharing, email, music and video downloads, chatting and online gaming.

Demographic and geographic conditions were conducive to the proliferation of broadband service. Korea's population is two and a half times the population of Australia, but in an area almost 80 times smaller. Around 80% of Koreans live in densely populated areas, and close to 50% live in large apartment complexes[10]. This enabled relatively easy and cost-effective deployment of broadband infrastructure and services.[11] High competition in the market between the many service providers meant the focus was keeping access costs low and increasing new subscribers quickly.[12]

The Korean broadband market is backed by strong government support. The Government has stimulated the rollout of infrastructure in metropolitan areas by issuing USD1.5 billion (approximately AUD1.98 billion) in direct backbone investment in the early stages, and a series of very low-interest loans to broadband operators. Over USD1 billion (around AUD1.32 billion) has been invested in loans to Hanaro Telecom, Powercomm, Korea Telecom and Dacom, for the deployment of broadband infrastructure. These loans have now been extended to support the rollout of broadband in less densely populated and rural areas.[10]

The Korean Government has set a target of having 84 per cent of households connected to 20Mbps broadband services by 2006. The total budget for this program is USD15.28 billion (around AUD21.19 billion) of which USD12.99 billion (around AUD17.17 billion) is to be private sector funds.

In July 2003, the Korean government announced it would commit USD2 billion (approximately AUD2.64 billion) to broadband research over the following 4 years to improve the broadband market. In November 2003 the government committed to funding a project in cooperation with a number of telecommunications firms to develop ultra-fast broadband technology. The proposed technology would have a data transfer speed up to 1000 times faster than ADSL, and is expected to be on line by 2006.[13]

In addition, the Government's 'light-touch' regulation of all operators has facilitated a supportive environment for broadband.[10]

Broadband access costs in Korea are among the lowest in the world, and installation costs are also very low. If usage is high, it is cheaper to install broadband than use dial-up services.[14]

Considering in particular the geographic and demographic differences between the countries, experiences with broadband and approaches to broadband policy are going to differ, but there is still great scope for Australia to study Korea's success.

2.6 Internationalised Domain Names (IDN)

IDN is an enabling Internet technology that supports Internet domain names (eg. www.aph.gov.au) using non-Roman scripts and languages other than English (eg. Chinese, Hindi, Arabic). The use of such scripts significantly enhances the ability of non-English speakers and users of non-Roman

---

[10] DTI/Brunel University, October 2002, "Investigating Broadband Deployment in South Korea"
[11] Ministry of Information and Communication, "IT Policy 2002", www.mic.go.kr/eng/index
[12] Korea Information Society Development Institute, "IT Industry Outlook of Korea 2003", www.mic.go.kr.
[13] Budde, Paul, 28/4/04, "Broadband Networks and Services"
[14] OECD 2004 data, www.oecd.org

scripts to access the Internet. Deployment of IDN has been identified as an area of action by the World Summit on the Information Society (WSIS). As a user of non-Roman script, Korea has been a leader in the development and deployment of IDN solutions.

The Korean Network Information Centre (KRNIC) along with the Network Information Centres of Japan, China and Taiwan, established the Joint Engineering Team in July 2000 to develop and implement IDN technology. JET is responsible for drafting Request for Comment (RFC) 3743, that is commonly known as JET Guidelines for Chinese, Japanese and Korean IDN. It is referenced by the Internet Assigned Numbers Authority (IANA) Registry, the ICANN IDN Guidelines and is also implemented by many domain name registries.

To date, IDN registration has been launched in .cn, .jp, .kr, .tw and many other European country code top level domains as well as other generic top level domain names. More than 1 million IDNs have been registered since 2000.

Korea continues to be active in promoting the deployment of IDN internationally. For example, in April 2005 it presented on IDN deployment to ICANN's Government Advisory Committee. KRNIC, along with other JET partners, has also written an open letter to Microsoft asking it to incorporate IDN technology in its Internet Explorer web browser.[15]

IDN deployment raises important issues about Internet accessibility globally and current Internet operation, including processes for implementing IDN, Internet stability and security, intellectual property rights across languages and the reliability of domain name data (WhoIs) of use to law enforcement agencies.

2.7 Internet Governance

Internet governance broadly refers the standards, rules, practices, processes and institutions that determine how the Internet operates and how it is used. Future Internet governance arrangements are currently being debated in the UN World Summit on the Information Society (WSIS). A key issue is the role of ICANN in future Internet governance arrangements.

As noted, Korea is an active member of the Government Advisory Committee to the ICANN. Korea is also a participant in WSIS.

2.8 IPv6

Consistent with its strategic focus on ICTs, the broadband convergence network (BcN) and its goal of ubiquitous connectivity, Korea is also giving high priority to the deployment of IPv6 (Internet Protocol version 6), the next generation of Internet addressing.

Today's Internet employs IPv4 (Internet Protocol version 4), a network-layer protocol which uses 32-bit addresses and provides around 4.3 billion addresses. Ultimately demand for IPv4 addresses will exceed this supply and IPv6 has been developed by the Internet Engineering Taskforce (IETF). IPv6, which uses 128 bit addresses, exponentially increases addressing capacity. As well as increasing addressing space, IPv6 supports a streamlined header format, extensibility of protocols and built-in security at the IP layer.

---

[15] JET, Open letter to Steve Ballmer, Microsoft, 4 April 2005, at http://www.circleid.com/article/1025_0_1_0_C/ (25/5/05)

IPv6 technology is seen as fundamental to Korea's IT839 Strategy and its vision of u-Korea – ubiquitous Korea – where high speed access is always available.

In accordance with a comprehensive road map drawn by Korea's IPv6 Strategic Committee at the end of 2003, the Korean National Internet Development Agency (KNIDA) committed to early acquisition of IPv6 addresses and had achieved this goal by August 2004. This made Korea the eighth largest holder of IPv6 addresses in the world and only second to Japan in the Asia-Pacific region.

At the same time, KNIDA built an IPv6 .kr DNS pilot system that enables provision of existing IPv4-based applications such as Web and e-mail services on IPv6. This project is designed to enable application services using .kr domain names on the new IPv6 system without glitches.

Domestic IPv6 .kr DNS system was internationally recognised in July 2004 when IANA approved IPv6 DNS services for the national domains of Korea and Japan.[16]

2.9 Next Generation Networks

With the world's highest penetration of broadband networks, Korea is also active in the development and standardisation of emerging communication services. IP-based broadband networks that internationally are known as "next generation" networks (NGNs) are being developed in Korea under the banner of a "broadband convergence network – BcN".

Around the world, the conversion of carrier networks to IP-based switching – the technical basis of next generation networks – is driven largely by cost savings and efficiency benefits. In Korea, broadband investment has reached the point where high speed internet is already widely available and is used for broadcasting, gaming and other internet-based services. The challenge for telecommunications carriers and their competitors is to capture a larger share of the business opportunities for providing content and services over an established broadband network.

As a result, Korea, like Japan, provides one of the world's leading test beds for evaluating the market response to the opportunity to provide a wide range of services over a 'next generation' network, and also for managing the associated challenges of building effective business models with appropriate billing systems, providing reliable quality of service and security, and managing the flow of traffic between networks. In that respect, they have contributed to international consideration of flow-based traffic analysis, measurement and charging. A senior officer of Korea Telecom, Mr Chae-Sub Lee also chairs the ITU's Focus Group on Next Generation Networks.

2.10 Broadcasting

The Korean broadcasting industry has experienced significant changes in terms of both scope and scale over the last two decades. An oligopolistic structure of two public broadcasting networks existed in the 1980s (the Korean Broadcasting System (KBS) and Munhwa Broadcasting Corporation (MBC)). The Korean broadcasting industry since 2002 has been composed of three network broadcasters, and eight regional terrestrial broadcasters, many of which also broadcast on radio[17]. In 2002, Korea also launched digital satellite television, which is airing 97 channels.

The Korean Ministry of Information and Communication announced on 22 February 2005 that it will spend about AUD230 million (177.7 billion won) to strengthen competitiveness in the nation's

---

[16] Kim, Won (NIDA), 'Korea Pioneers Next generation Internet', Korea Times, 9/8/04, at
http://times.hankooki.com/lpage/special/200409/kt2004090816461611440.htm (25/5/05)
[17] Korean Broadcasting Commission, http://www.kbc.go.kr

broadcasting industry. About AUD78 million (59.7 billion won) will be used to develop technologies for wireless communications and digital broadcasting. Another AUD39 million (30 billion won) will be spent to encourage consumers to switch from analogue to digital television.[18] The Government of Korea is committed to transitioning the country to digital terrestrial, digital cable, and digital satellite TV broadcasting by 2010.[19]

In October 2001 the Korean Ministry of Information and Communication announced that Korea Broadcasting System (KBS), the national public broadcaster, would implement a trial digital radio service, using the Eureka 147 standard in early 2002. The Eureka 147 platform was trialled for digital radio services over a period of months.

A number of Korean companies and organisations have recently developed, and are on the verge of implementing, the Terrestrial – Digital Media Broadcast (T-DMB) system which is an extension of Eureka and allows for the broadcast of high resolution video services to handheld devices as well as transmission of digital radio. Licences are expected to be granted in mid-2005 for 6 multiplexes using Channels 8 and 12 in VHF Band III. Services will initially be limited to the capital (Seoul/Gyeounggi) district.

Perhaps the most interesting development to arise from the investigation of T-DMB by Korea is the AAC+ coding standard, currently under consideration by WorldDAB, the international, non-governmental organisation tasked with co-ordinating the implementation of Eureka digital radio services, for inclusion as part of the Eureka 147 system. The T-DMB technology has been developed in conjunction with a range of new coding standards, (which can be operated as part of the Eureka 147 system), and is currently being considered for ratification by the European Telecommunications Standards Institute (ETSI).

Outside of Korea, the Government announced in January 2005 it would spend about AUD2.2 million (1.31 billion won) to finance Korean language broadcasters overseas – the first financial support of its kind to help external Koreans hear news about their home country.

2.11 Postal Services

The Office of Postal Services, trading as Korea Post, is an office within the Ministry of Information and Communications. It establishes basic postal policies and rates; promotes sales activities; ensures safe management of post & parcels; issues postage stamps; handles postal savings and insurance; and executes other matters relating to postal services and finances. There are 2,800 post offices in Korea.[20]

2.13 Arts

Korea has a strong cultural tradition, and a variety of bodies work to protect and enhance Korean cultural heritage. Only some key aspects are described here.

The Ministry of Culture and Tourism is one of the most important Government agencies, and is responsible for affairs in the areas of culture, the arts, religion, tourism, sports and youth. It aims to promote cultural identity and heritage and sporting competitiveness in Korea and globally. It has a

---

[18] Ministry of Information and Communication, www.mic.go.kr/eng/index
[19] Budde, Paul, 16/9/2004, "Broadcasting"
[20] Korea Post, at http://www.koreapost.go.kr/english/ (25/5/05)

number of subsidiary organisations, including the National Academy of Arts, the National Museum of Korea, and National Center for Korean Traditional Performing Arts.[21]

2.12.1 Music, dance and theatre

Korea has a rich history in traditional song and dance, and in modern times has also embraced some Western styles. Traditional dances include the 'spirit-cleansing dance', Buddhist ceremonial dances and mask dances.

The Korea Philharmonic Orchestra Society, Korea's first national orchestra, was established in 1945. The Korean Broadcasting System (KBS) Symphony Orchestra and the Seoul Philharmonic Orchestra were founded in the 1950s, and since then the number of orchestras has rapidly increased. A total of 31 orchestras are presently operating in Seoul and other cities.[22]

The National Opera Company was established in 1968 under the patronage of the National Theater, and eight additional groups have been inaugurated since, through either private or local government funding.

The Seoul Arts Center is the largest performing complex in the country, housing a recital hall, a concert hall, an opera house, an intimate "in the round" style drama theatre, art and calligraphy galleries, shops and restaurants. It houses its own full-time orchestra and the Korean Symphony Orchestra, and offers rehearsal space for the National Ballet, the National Chorus, and various other performance groups.[20]

2.12.2 Cinema

Korea has experienced a boom in its film industry since the early 1990s. This "new wave" of Korean cinema has been characterised by increasingly innovative, artistic and liberal films. Korean productions still benefit from a Screen Quota system, brought in 1959 to protect the industry from Hollywood film imports. The quota guarantees that two fifths of screenings are devoted to Korean films. In 2003, 70 domestic films were released in Korea, compared to 23 in Australia, with investment in Korean films totalling USD210 million[23] (approximately AUD277.49 million). Korea increased production to 74 domestic films in 2004.[24]

The film "Birthday Boy", nominated for the Short Animated Film Oscar at the 2005 Academy Awards was directed by Sejong Park, a Korean director, and funded by the Australian Film and Radio School, of which Sejong Park is an alumni. The political significance of the Korean film industry cannot be understated, with famous director Lee Chang-dong holding the position of the Minister of Culture and Tourism for 16 months from 2003-2004.

2.13 Digital Contents Industry

The Ministry of Information and Communication (MIC) announced early in 2005 that it plans to promote the digital contents industry in 2005, with the injection of approximately AUD28 million (21.5 billion won) into the digital contents industry this year to become one of the world's top five digital contents providers by 2010.

---

[21] Ministry of Culture and Tourism, at http://www.mct.go.kr/english/index.jsp (25/5/05)
[22] Korea.net, Gateway to Korea, at http://www.korea.net/korea/korea.asp (25/5/05)
[23] Australian Film Commission, www.afc.gov.au
[24] http://koreanfilm.org

Digital contents include online and video games, animation, mobile content and programs and software for digital multimedia broadcasting, e-learning, telematics systems, intelligent robots and home network.

The Korean digital contents industry has recorded an average annual growth rate of 35.7 percent over the past four years since 2001, which is about two times faster than the average growth rate of the overall Korean information technology industry[25].

3. Australian-Korean trade

Korea is a major exporter of ICTs to Australia. In 2003-04, the main sources of ICT imports into Australia were China (AUD2.5 billion), the United States (AUD1.7 billion), Republic of Korea (AUD1.5 billion).

Major Korean ICT exports to Australia in 2001-2002 were:[26]

Commodity	Value (AUD million)
Telecommunications equipment	769
Computers	202
Televisions	161

Information from Invest Australia indicates that:

- Korea ranked 15th in inwards foreign direct investment into Australia in 2002, with investment of AUD 500 million in 2001-02 (all sectors).

- Korean investment in Australia has increased substantially over the 1990's to AUD 617 million at December 2003. This figure had shown rapid growth from AUD 473 million in 2001.

- There were two ICT companies included in the eight Korean companies with investments in the top 2000 companies in Australia in 2002: LG Electronics (AUD 173 million assets in Australia) and Samsung (AUD 44 million). Both are primarily sales and distribution operations.

4. Portfolio Engagement with Korea

Against the background described in section 1, the Communications, Information Technology and Arts portfolio engages with Korea in a number of ways on a range of issues. The key areas of interaction are described in this section.

4.1 Memorandum of Understanding on the Information Industry

In July 2001 an MoU was signed between the former National Office of the Information Economy (Australia) and Ministry of Information Economy of the Republic of Korea concerning Cooperation in Information Industries. This MoU, which will conclude in July 2006, aims to encourage broad cooperation in areas of IT, including but not limited to e-government, software development, e-commerce and information security. As a result of the MoU, a number of delegations have travelled between the economies, and an Asian IT Summit and e-Government High-level Symposium were held in Korea in late 2002.

---

[25] Ministry of Communication, www.mic.go.kr/eng/index
[26] As cited in: http://www.dcita.gov.au/__data/assets/pdf_file/10451/Overview_of_the_Australian_ICT_Industry_02-03.pdf

4.2 Bilateral Relations

Korea is actively engaged in ICT policy development and capacity building within the Asia-Pacific Region. Departmental officials have participated in a number of activities hosted by Korea. We also regularly host delegations of Korean officials interested in the Australian communications policy and regulatory framework. Recent visits have focused in particular on broadcasting and postal arrangements.   A delegation from the Ministry of Information and Communication visited the Department late in 2004 to discuss a range of broadcasting issues. In March 2005, delegates from Korea Post visited the department to discuss postal reform issues.

In recent years Australia and Korea have forged strong links in the area of information and communications technology. This spirit of cooperation and collaboration is articulated in the July 2001 MoU to encourage cooperation in information industry matters described in 4.1.

An earlier Joint Statement on Electronic Commerce with the Republic of Korea concerned cooperation in promoting the development of electronic commerce in both countries, in September 1999. It includes a section on government services.

4.3 APECTEL and APT

Like Australia, Korea is an active participant in the APEC Telecommunications and Information Working Group (APEC TEL). Korea assumed the Chair of the TEL at APEC TEL 31 in April this year. Korea is particularly active in APEC TEL activity to address the digital divide and encourage the uptake of new technologies and applications.   Korea is also a participant in the APEC Mutual Recognition Arrangement on Conformity Assessment for Telecommunications Equipment (MRA), which facilitates trade in the region.

In APEC TEL, Korea has taken the lead on a number of significant projects including a Flow-Based Internet Traffic Measurement and Analysis project that will enable Internet service providers, telecommunications service providers, and regulatory authorities in the region to obtain clear and accurate information on Internet traffic patterns. This feeds into work being undertaken in the ITU. DCITA has supported and assisted this initiative.

Korea is also active in the Asia-Pacific Telecommunity (APT), participating in, and hosting, events. For example, in July 2005, Korea is scheduled to host the APT Operator's Forum.

4.4 Telecommunications Liberalisation under the GATS/WTO

Like Australia, Korea joined the World Trade Organisation in the year of its inception, 1995. Australia and Korea are active in the WTO General Agreement on Trade in Services (GATS) negotiations and both believe that not only are telecommunications services important economic drivers in their own right but they are also key enablers to trade. Along with many of other WTO Members, in 1997, Korea made its first WTO GATS commitments in basic telecommunications. Under these commitments, Korea was obligated to open up its telecommunications market to foreign carriers and service providers as outlined below.

- **Facilities based telecommunications services:** Allows foreign providers to supply telecommunications services on a cross border basis, subject to the foreign provider entering into commercial arrangements with a Korean service supplier. Allows for the provision of in-country telecommunications services on the basis of the provider being recognised as a licensed Korean juridical person. From 2001, allowed the granting of licenses to a juridical person so long as this entity does not allow more than 49 per cent of the aggregate voting shares by a

foreign government or a foreign person. Also provides for aggregate foreign shareholding of no more than 33 per cent and no more than 3 per cent for individual person.

- **Facilities-based mobile data and digital cellular services:** as per facilities based telecommunications services.

- **Resale based telecommunications services:** Allows foreign providers to supply telecommunications services on a cross border basis, subject to the foreign provider entering into commercial arrangements with a Korean service supplier. Allows for the provision of in-country telecommunications services on the basis of the provider being recognised as a licensed Korean juridical person. From 2001, 100 per cent foreign shareholding is permitted.

- **Value-added services:** As part of its accession agreement in 1995, Korea provided full, unrestricted access for all value-added services. Also specifically allowed value-added service providers to supply data transmission services.

- **Reference Paper on basic telecommunications:** Makes a full commitment to the principles of the Reference Paper. The Reference Paper is a set of pro-competitive principles that aim to encourage transparent and consistent application of telecommunications regulation. WTO Members may choose to take on the Reference Paper as an additional commitment, which Korea has chosen to do.

As part of the current WTO Doha Development Round of negotiations, Korea has submitted a non-public services offer which improves and extends its existing commitments. While we would like Korea to remove all its restrictions, we are nonetheless encouraged by Korea's initial offer.

4.5 International Internet Charging

The relationship between Korea and Australia within international telecommunications organisations has been important in achieving a global consensus on guidelines for international internet charging.   These guidelines have been adopted by the International Telecommunication Union to provide for fairer international arrangements which can be used by Internet operators to help negotiate fairer agreements.

In particular, the Korean government has fostered support for these guidelines through an R&D project to devise and implement an Internet traffic measurement and analysis system. This project has been funded, in part, by APEC with support from Australia.

4.6 Broadband Services

As noted above, the Korean broadband services market is one of the world's most mature and innovative broadband markets, characterised by a high level of service penetration and with service providers operating competitive infrastructure and delivering very high bandwidth services at low prices. The Korean Government, in close cooperation with the domestic ICT sector, is committed to a number of forward-looking strategies and policies. Its objective is for broadband connectivity and services to become part of the every day life of the population. The Korean Government has also recognised that wide spread deployment of advanced broadband connectivity is integral for the development and commercialisation of new information and communication technologies.
The development of Korea's broadband market provides useful insights into a number of the current challenges that are before the Australian market in terms of encouraging the take up of broadband services and facilitating investment in broadband infrastructure. Given the innovative and more advanced nature of the Korean broadband market and the proactive nature of the policies being developed and implemented by the Korean Government, Korea also provides a valuable insight into

emerging/future market trends and the challenges and opportunities that these present to Australian commercial operators and, in turn, the Australian Government.

In addition to less formal interaction, the primary vehicle for engagement with the Korean Government on broadband issues, including the development of digital content and developments in fixed, wireless and mobile services has been through the Korea-Australia Summit process described below.

4.7 Australia-Korea Collaboration in Broadband

Two Broadband Summits between Australia and Korea are encouraging industry collaboration on issues of mutual interest in broadband networks, applications and services. The first Summit, in Australia in May 2003, produced a number of commercial and research outcomes and is being followed up with a second Summit in Korea in June 2005.

4.7.1 First Broadband Summit, Korea-Australia: Australia, 9 May 2003

The first Korea-Australia Broadband Summit, sponsored by the Australia-Korea Foundation, was attended by the then Minister for Communications, Information Technology and the Arts, Senator the Honourable Richard Alston, and the Korean Minister for Information and Communication, Dr Dae-je Chin. It was attended by over 100 senior representatives, including Ministers, commercial organisations (40 Australian and 21 Korean) and government representatives from both countries.

The objective of the first Summit was to encourage industry collaboration on issues of mutual interest in broadband networks, applications and services.

The first Summit identified opportunities for collaboration in broadband networks, applications and services based on the complementarity of the Australian and Korean sectors, including the use of broadband services in health, education, e-security and new media. Outcomes included:

- an MoU between the Australian Cooperative Research Centre (CRC) on Photonics and the Korean Institute of Information Technology on the joint development of Ubiquitous Sensor Networks and CDMA;
- a contract for the production of a multiplayer game for the international market by a small Australian company, Auran, for leading Korean publisher Hanbitsoft;
- an MoU between the Australian Electronics and Engineering Manufacturers Association (AEEMA) and the International Cooperation Agency for Korea IT to support ongoing commercial linkages;
- an MoU on the countering of Spam between by the Australian Communications Authority (ACA), The Korea Information Security Agency (KISA) and the former National Office for the Information Economy (NOIE);
- a commercial partnership in the Australian market between m.Net Corporation (established through the Australian Government's Advanced Networks Program) and WiderThan.com from Korea; and
- establishment of joint research projects involving CSIRO and the Korean Electronics and Telecommunications Research Institute (ETRI).

4.7.2 Second Broadband Summit, Korea-Australia-New Zealand: Seoul, 9-10 June 2005

The second Broadband Summit, to be held in Seoul on 9-10 June 2005, will follow on from the first Summit. The second summit will include participation from New Zealand, and has consequently had its name changed to the Korea-Australia-New Zealand (KANZ) Broadband Summit.

The second Summit is being sponsored by Minister Chin and the Korean Ministry of Information and Communication. It is intended to extend and expand on the outcomes of the first Summit by bringing together the key Korean players with interested Australian companies. The Summit will be attended by the Australian Minister for Communications, Information Technology and the Arts, Senator the Hon Helen Coonan, and Minister Chin

The Summit will cover various aspects of the Korean and Australian broadband experiences, including the broadband networks and government broadband initiatives of both countries, applications for wired and wireless broadband networks (e.g. e-health and e-learning), digital content (including Australia's Digital Industries Action Agenda), industrial and research collaboration and lessons learned so far.

Direct industry-to-industry matching sessions in Seoul will be facilitated by Austrade in addition to the formal Summit proceedings. Around 20 Australian companies and organisations will participate in the Summit.

4.8 MoU on Countering Spam

Australia has continued in its successful collaborative partnership with Korea in undertaking measures to reduce the volume and impact of spam. A Multilateral Memorandum of Understanding (MoU) on Cooperation in Countering Spam – the Seoul-Melbourne MoU – was signed in April 2005 by twelve communications and internet agencies representing ten countries across the Asia-Pacific region, with the provision for additional signatories in the future. Involved countries are: China, Malaysia, the Philippines, Taiwan, Hong Kong, Japan, New Zealand, Thailand, Korea and Australia.

The Seoul-Melbourne MoU resulted from a strong cooperative relationship between Australia and Korea, and built upon the 2003 MoU between the ACA, NOIE and KISA, the prime focus of which was cooperation in the regulation of spam and relevant policy development. Both countries have been actively promoting the memorandum in the region.

The Seoul-Melbourne MoU on Spam extends regional cooperation to include educational and technical solutions. While appropriate policies to regulate spam are important, it is also important to ensure that these are complemented by community education on how to reduce spam, and on the provision of technical solutions to identify and report spammers.

4.9 OECD

Korea has been an active participant in several OECD activities in which Australia has also had an interest. These include work to counter spam. Korea hosted the second OECD Workshop on Spam in Busan in September 2004, and has been a participant in the subsequent OECD Task Force on Spam. Australia and Korea entered into one of the first bilateral agreements on spam cooperation, in 2003, which subsequently formed the basis of a broader multilateral MoU, as outlined above.

4.10 Digital Radio and Media Broadcasting in Korea

Current developments in South Korea and Asia more generally will have implications for Australia's consideration of digital radio, as these countries are developing new coding standards that could be implemented as part of the Eureka system for audio services. The Eureka 147 system trialled in Korea in 2002 is currently being trialled in Australia, and at this stage is the likely candidate technological platform for the introduction of digital radio services.

Further development and implementation of T-DMB in Korea, China and other countries in the Asia region could have implications for the availability (in the Australian market) of low cost digital radio receivers capable of operating with more advanced and more efficient transmission (compression) technologies.

International developments in digital television are of general interest, and therefore Korea's policy approach to the conversion to digital television is of interest. However, Korea has adopted a different technical standard for digital TV which is incompatible with that adopted in Australia. For this reason opportunities for technical co-operation in relation to digital television broadcasting are likely to be limited. However, Korean electronic manufacturers contribute a large amount to the global inventory of digital television reception equipment, including that imported to Australia.

4.11 Arts

The National Library of Australia is making its own submission to the Committee. This section will therefore highlight some other areas of the portfolio's engagement with Korea on cultural issues, which has several dimensions.

The Department of Communications, Information Technology and the Arts (the Department) provides strategic advice to the Australian Government on cultural matters and supports the portfolio cultural agencies in meeting their objectives. The Department has an interest in international cultural affairs and is represented on the Australian International Cultural Council (AICC), established by the Minister for Foreign Affairs, the Hon Alexander Downer MP. The Minister for the Arts and Sport, Senator the Hon Rod Kemp, is also a member of the AICC.

The Department's key objectives in relation to the arts and cultural sectors are to encourage excellence in, and access to, cultural activities in Australia. The Department also influences international cultural relations through its work with the national cultural agencies and as a provider of policy advice to the Minister(s) and other portfolios on cultural issues.

The national cultural agencies operate at "arms' length" from Government. The "arms' length" principle underlies much of the Government's cultural policy. The Department supports the cultural agencies, ensures compliance with key accountability requirements and is, as stated above, is a significant source of advice for the Minister. Agencies pursue their cultural activities independently in accordance with their objectives.

The Department supports the development of strong relationships with Korea across cultural areas. The Department facilitates consultative fora to enable agencies to share information on important emerging issues. These fora provide an opportunity to discuss the agencies' roles in international activities and to share information on target markets.

4.11.1 Cultural Agreement between Australia and Korea

The Cultural Agreement between the Government of the Commonwealth of Australia and the Government of the Republic of Korea came into force on 9 July 1972. The Agreement formalised and encouraged cultural cooperation between Australia and Korea in the 1970s. The Agreement made official the beginning of strong cultural ties between the two countries at a time when cultural relationships between Australia and Asia were in their infancy. While the Agreement is no longer actively drawn upon, the cultural cooperation it encouraged in the 1970s underpins ongoing strong cultural ties between Australia and Korea.

4.11.2 Digital Content Industry Action Agenda

The Minister for Communications, Information Technology and the Arts launched a Digital Content Industry Action Agenda in 2004, a process led by industry, which is developing proposals to be undertaken by industry, with the support of government, to build the long-term sustainability of the Digital Content Industry. At the 2nd Korea-Australia New Zealand Broadband Summit in Seoul on 9-10 June, this Action Agenda will be profiled alongside key ICT initiatives.

In Australia, the digital content industry is increasingly important in economic terms and as a means of expressing Australia's unique cultural identity. The sector is estimated to have generated output worth AUD18 billion in 2002-03 or about 3.3 percent of Australia's total industry product,[27] and the potential for further growth is considerable.

The Action Agenda is expected to report later in the year taking account of findings by working groups focusing on key areas such as investment attraction, skills, export markets and research and development.

4.11.3 Australia Council

The Australia Council is the Australian Government's arts funding and advisory body. It performs a crucial role in supporting Australian artists and arts organisations to create and present their work. In 2003-04 it made 1,879 grants totalling over AUD132 million. The Australia Council makes a substantial investment in support of the presentation of the arts internationally. It spends approximately AUD6 million on International Projects annually through both the Audience and Market Development Division and its Boards and works closely with the Australia International Cultural Council.

Literature Board of the Australia Council

The Literature Board has funded Asialink Tours for authors to Korea for the last couple of years (AUD18,000). In November last year, children's book authors Alison Lester and Matt Ottley attended the Educare Fair, in Seoul. The program included three stands presenting Australian children's books at the Educare Fair Seoul, set up by the Choicemaker Agency, featuring 500 Australian picture books, early childhood titles, board books, novelty, educational and reference titles - all with rights available in Korea. Asialink advises that the Educare Fair is the biggest fair for children's education in South Korea with around 250,000 visitors over four days.

Visual Arts & Craft Board (VACB) of the Australia Council

The VACB has funded the following initiatives in relation to Korea:

Gwangju Biennale
The Gwangju Biennale is one of the priorities of the VACB International Visual Arts Strategy.

---

[27] *Australian Digital Content Industry Futures*, Centre for International Economics, March 2005, p7

In October 2004, Sukwon Chang, Artistic Director of the Gwangju Biennale visited Australia on the Visual Arts/Craft Board's invitation. During his visit Mr Chang met with artists, curators and representatives from public institutions and commercial galleries in Sydney, Melbourne and Brisbane. As a result of this visit, The Kingpins (a group of four artists who work collaboratively) were selected to participate in the 2004 Gwangju Biennale in Korea from 23 August to 9 September.

The Kingpins created a performance work in the city centre in the lead up to the Biennale opening and exhibited a video installation in the main exhibition space. The Kingpins produced a new version of their work, "Welcome to the Jingle", involving a performance at Starbucks in Gwangju and a collaboration with a traditional Korean drummer.

Busan Biennale
Rosemary Laing and Emil Goh participated in the Busan Biennale, Korea from 21 August to 31 October 2004. Emil Goh presented a video triptych entitled 'Re-make Ring' and Rosemary Laing showed 3 photographs from her 'bulletproofglass' series. The exhibition featured 91 artists from 38 countries.

Asialink
Asialink is supported by VACB to manage and tour exhibitions in Asia including Korea. The Manager of VACB, Anna Waldmann, visited Korea in late August 2004 for the opening of the Kwangju Biennale. She also spent a few days in Seoul visiting contemporary art spaces and travelled to Busan to view the Busan Biennale.

Music Board of the Australia Council
The following recent music tours to South Korea have been funded, assisted by the Music Board's International Pathways initiative.

(All dollar values in AUD)

Chamber Made Opera - $8,000.00
A tour of the production of Recital to South Korea, further developing international connections to re-establish the company's presence on the touring circuit, 16 to 30 March 2004.

Gracemusic Pty Ltd - $5,000.00
Mark Isaacs' performance and TV appearance in South Korea, performances and collaborations with American drummer Brian Melvin and Estonian bassist Toivo Unt at the RigasRitmi Festival in Latvia and the International Festival Nomme Jazz, Estonia, 27 June to 9 July 2004.

Michelle Nicolle Quartet - $15,000.00
A 28-day performance and media promotional tour to Korea, Taiwan, Singapore and Thailand, performing at prominent festivals and venues, and to assist in securing effective promotion in these territories for ABC Jazz CDs, 2 September to 4 October 2004.

Dualplover - $2,500.00
Performances at the No Fun Festival in New York, USA, and also in Japan, South Korea and Taiwan, 1 March to 24 April 2005.

4.11.6 Australia Film, Television and Radio School (AFTRS) activities

In 2002 AFTRS substantially strengthened ties in the Asia-Pacific region with initiatives in a number of countries. In relation to South Korea:

- 'Samsung Scholars' from the Samsung Foundation of Culture were sent to AFTRS;
- Korean Broadcasting System requested a specialized television training program; and
- Korean Culture and Contents Agency sought to invest in online film and television education.[28]

With the opening up of new markets in the East Asian region (China, Hong Kong, Taiwan, Japan, South Korea, Singapore, Malaysia, Indonesia and Thailand), conditions are more conducive to the development of co-ventures. From May to September 2005, the Australia Film, Television and Radio School (AFTRS) is offering two-day forums, 'Doing Business With Asia', to assist Australian media producers either working from, or doing business with, East Asia. The forum's aim is to give an overview of how the film and television industry works in East Asia and a practical analysis of the processes and procedures necessary to successfully conduct a co-venture in the East Asian Market.[29]

4.12 Sports

The Australian Government is a member of the World Anti-Doping Agency (WADA) Executive Committee, and together with New Zealand represents the Oceania region on the WADA Foundation Board. The Department has limited ongoing contact with Korean officials through the Korean Government's representation on the Foundation Board of WADA.

The Korean Government was represented at meetings of the International Intergovernmental Consultative Group on Anti Doping in Sport (IICGADS) which the Australian Government co-chaired with Canada. The Australia Government hosted the 1999 International Summit on Drugs in Sport in Sydney, which Korean officials also attended.

In 2003, representatives of the **Australian Sports Drug Agency (ASDA)** visited Korea to undertake drug testing on behalf of the Drug Free Sport Consortium. During this visit they also held discussions with representatives from the Korean Olympic Committee about anti-doping.

With the high profile of the Sydney 2000 Olympic Games, there was great interest in Australian sport and practice in the lead up to and the period shortly after the Games. During this time, there was a range of activities and cooperation between Australia and Korea, including the following:

4.12.1 Visits by Delegations/Officials

A number of delegations from Korea undertaken visits to the **Australian Sports Commission (ASC)** and the **Australian Institute for Sport (AIS)**, including members from: the Korean National Council on Sport for All; the Korea Sport Science Institute (KSSI); the Korea Sport Council; and the Korea Sports Industry Co Ltd (which manages the national training facilities in Korea). Discussions have been on a variety of issues, including AIS practice and programs, biomechanics, talent identification, athlete support services and coach education.

---

[28] AFTRS, 'About AFTRS, 2000+', at http://www.aftrs.edu.au/index.cfm?objectid=9542B3F6-D0B7-4CD6-F94144C87A0EFB43 (25/5/05)

[29] AFTRS, 'Doing Business With Asia', at http://www.aftrs.edu.au/index.cfm?objectID=AF4497B6-2A54-23A3-646017EA4F83517B (25/5/05)

In addition, there have been visits to the ASC from members of the KSSI to discuss the Active Australia program and sports science and medicine. ASC officials have also visited Korea on a number of occasions, primarily to speak with Korean officials about the Aussie Sport program.

4.12.2 Sports Exchanges and Visits

A number of Australia-Korea exchanges have taken place, including for members involved in taekwondo, archery, volleyball and the sports science field. A number of Australian teams visited Korea for training and competition, including a taekwondo team, table tennis team and Judo team. The Korean Archery team and a number of Korean baseball and basketball teams have also visited Australia.

5. Conclusion

Australia has much to gain technologically, economically and culturally, from its relationship with Korea. As well as being an innovator in information and communications technologies, broadband and digital radio, Korea also has common interests with Australia in the areas of spam, research and development, and trade in telecommunications and information and communications technologies.

As a result of these common interests, Australia's relationship with Korea is one of mutual benefit with there being much scope and value in Australia and Korea collaborating in pursuing these interests further.