

# *State aid and support*

## Telecommunications management & strategy

Ewan Sutherland

**GSTIT.edu.et**

Graduate School of Telecommunications & Information Technology

# Introduction

- Industry policy
- Interventions by communities
- Pro-competitive policies
- Promotion of technologies
- Promotion of geographical areas
- Conclusions

# U-Japan

- World's most advanced ICT nation by 2005
- U for Ubiquitous
- “Any time, anywhere, by anything and anyone”
  - friendly
  - close to people
- Next Generation Networks plus:
  - Radio Frequency Identification (RFID) tags
  - sensor networks
- Today:
  - more than half mobile customers on 3G (~45 M)
  - 25 million broadband lines (~50/3 Mbps)

# IT 839 – u-Korea

- Government's active efforts
- To change the lifestyle of the citizens through IT
- The IT839 Strategy was a new development strategy for:
  - the introduction and development of eight new IT services
  - in turn encourage investment in three key network infrastructures
  - based on the infrastructures, nine promising sectors
- Together enjoy a synergy as a result of concurrent growth through cooperation among:
  - government
  - private sector
  - research institutes
- To raise GDP per capita to more than US\$ 20,000

# Korea IT839 – 8 services

- WiBro (Wireless Broadband)
  - 9 million users (medium term)
- Digital Multimedia Broadcast (DMB)
  - nationwide terrestrial DMB
- Home network
  - provide 1.5 million households with BcN/IPv6 interworking (2005)
  - 10 million households (medium-term)
- Telematics
  - service in Jeju island (2005)
  - 4 million vehicles (medium-term)
- RFID
  - pilot projects in the 9 sectors
  - adopt u-Life in daily lives
- W-CDMA
  - networks in 23 major cities
  - nationwide network in cities
- Terrestrial DTV
  - provide digital broadcasting to cities and towns
  - nationwide digital broadcasting
- Internet Telephony (VoIP)
  - interconnection system
  - 1 million users (2005)

# Japan – Korea

- Population  
128 millions, 48 millions
- GNI per capita  
US\$ 37,180, US\$ 13,980
- Government prioritization of ICT 6.1, 5.4 (out of 7)
- Telephone main lines (per 1,000)  
531, 467
- Mobile subscribers (per 1,000)  
669, 760
- Population covered by mobile telephony 99%, 99 %
- Internet users (per 1,000)  
606, 656 per 1,000
- Personal computers (per 1,000)  
425, 558

## Price baskets

- fixed line (per month)  
US\$ 26.0 US\$ 7.3
- mobile (per month)  
US\$ 29.1 US\$ 2.1
- Internet (per month)  
US\$ 21.1 US\$ 9.7
- 3 min. call to United States  
US\$ 1.66, US\$ 0.76

[http://devdata.worldbank.org/ict/jpn\\_ict.pdf](http://devdata.worldbank.org/ict/jpn_ict.pdf)  
[http://devdata.worldbank.org/ict/kor\\_ict.pdf](http://devdata.worldbank.org/ict/kor_ict.pdf)

# European Union rules

- Strong regulatory framework in place:
  - horizontal measures (competition law and consumer protection)
  - sector specific measures (control of dominance and universal service)
- Additional rules for the use of aid for telecoms in finance or in kind by governments at all levels
- To promote the development and structural adjustment of regions strengthening economic and social cohesion, i.e. bridging economic and social disparities in Europe
- Infrastructure projects must be connected with the objectives of regional economic development, i.e. economic growth, regional competitiveness

[http://europa.eu.int/comm/regional\\_policy/sources/docoffic/working/doc/telecom\\_en.pdf](http://europa.eu.int/comm/regional_policy/sources/docoffic/working/doc/telecom_en.pdf)

## *de minimis rule*

- The total aid granted to any one firm shall not exceed EUR 100 000 over any period of three years
- The ceiling applies irrespective of the form of the aid or the objective pursued, i.e. it is cumulative
- Then aid is exempted from the rules



# Boosting demand

- Modernising the public sector (e.g., demand aggregation)
- Stimulating demand in the private sector (e.g., small and medium-sized enterprises)
- Developing content
- Raising digital skills

# Infrastructure

- In support of a regional development plan
- Targeted towards areas that would otherwise be neglected under free market conditions
- Strict adherence to the principle of technology neutrality
- Consistent with the regulatory framework and the competition rules accompanied by clear open access obligations
- Limited to infrastructure, i.e. installations (dark fibre, ducts, masts, etc.) and equipment which is open to all operators and service providers
- Contracts should be awarded through open calls for tender
- Support should be limited to the necessary amounts of resources for the provision of the service

# Catalunya broadband

- In 2003, up to 95 per cent of the population in the province had access broadband (512 kbps or higher)
- 'Pla Director d'Infraestructures de Telecomunicacions (PDIT)' will deliver:
  - 2 Mbps to 100 per cent of the population
  - 10 Mbps to 80 per cent
- To raise from 50% to 100% the municipalities with access to broadband
- To raise from 34.6% to 65% of the population with a computer on the Internet
- Development spending 2005-2010:
  - ❖ €234M fixed broadband
  - ❖ €55.3M mobile communications
  - ❖ €86.5M PCs and internet connections in schools



<http://www.uoc.edu/in3/pic/eng/pic1.html>

# France GSM *zones blanches*

- Despite significant construction of GSM networks, some areas remained:
  - ❖ 9% of the country
  - ❖ 2% of the population
- Complaints by rural citizens of a further isolation
- The wish of the central government and regions was to cover these areas
- It was not technology neutral
- Competitively neutral since the infrastructure is available to all GSM operators
- Clear economic and social goals

# USA Wi-Fi disputes

- Many cities in the USA have expressed an interest in constructing Wi-Fi networks
  - Cincinnati and Philadelphia
  - San Francisco and Silicon Valley
  - New York City
- Concern to develop high-tech image
- Concern to avoid “red-lining”, i.e., not exclude the poor
- Adding the capability to roam between networks

# Incumbent operators

- Actively resisted municipal efforts
- Sought state-level legislation to forbid municipal initiatives
- Argued it:
  - is anti-competitive
  - pre-empts commercial efforts

# Competition and markets

- Is there a market failure?
- Will there be changes to:
  - business models?
  - technologies?
- Will investments be wasted?
- What is the level of risk to:
  - investments?
  - competition?

# Conclusions

- Different levels of government can play a beneficial role
- Everyone will benefit from:
  - careful research
  - open consultations
  - transparency in the rules
  - sharing experiences
- Support can and does help to boost adoption
- Care is required to avoid anti-competitive effects
- The aim should be the minimum needed to achieve the intended results
- Technology neutrality is a sound principle



# Ewan Sutherland

- <http://.www.3wan.net/teaching/strategy2006/>
- 3wan [at] 3wan.net
- ewan [at] gstit.edu.et
- skype://sutherla