

# **Usage, Collection & Dissemination of Telecommunication / Infocomm Infrastructure & Access Data in Singapore**

**ITU Regional Workshop**

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# Background

- > **Various types of telecommunication licensees in the infocomm sector today**
  
- > **2 broad licence categories:**
  - **A Facilities-based Operator (FBO) operates its own network(s) to provide telecommunication services or sell to other operators**
    - **Fixed telecommunication networks**
    - **Mobile communications networks**
  
  - **A Services-based Operator (SBO) leases network elements from FBOs to provide services or resell services of others**
    - **Internet access services**
    - **IP telephony services**
    - **Resale of telephone services**

# Data Sources

## > Administrative data:

- Requirement of licence condition for FBO/SBO licensees to provide information stipulated by IDA
- Information requirement depends on the type of licensees and the nature of services provided
- Frequency: mostly annually/quarterly/monthly; or ad-hoc once-off

## > Complemented by annual survey findings from:

- Infocomm Industry Survey
- Infocomm Manpower and Usage by Enterprises



The screenshot shows the iDA Singapore website with a navigation menu and a sidebar. The main content area displays a table titled "Statistics on Telecom Services for 2007 (Jul - Dec)". The table has columns for CATEGORY, JUL, AUG, SEP, OCT, NOV, and DEC. The data is as follows:

CATEGORY	JUL	AUG	SEP	OCT	NOV	DEC
<b>Fixed Line (Direct Exchange Lines)</b>						
Total Fixed Line Subscriptions	1,844,100	1,847,100				
Total Residential Line Subscriptions	1,085,900	1,085,600				
Total Corporate Line Subscriptions	758,200	761,500				
Fixed Line Population Penetration	39.4%	39.5%				
Fixed Line Household Penetration <sup>1</sup>	95.2%	95.2%				
<b>Mobile Market</b>						
Total Mobile Subscriptions(20+30) <sup>2</sup>	5,078,800	5,180,800				

# Objectives

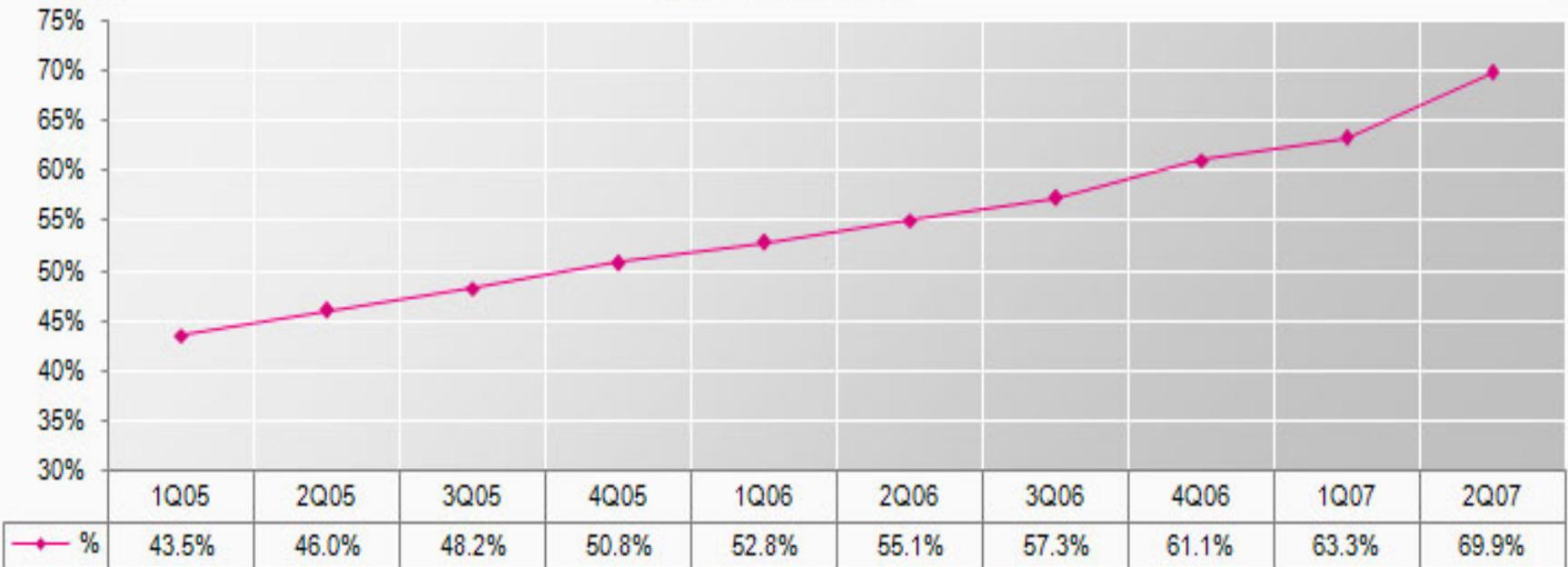
- > **Monitoring and analysis of trends and development in Singapore's infocomm landscape**
  - International benchmarking
- > **Policy formulation and review by relevant government agencies**
- > **Raise industry awareness and general public understanding of the state of infocomm development and trends**

# Monitoring of Infocomm Trends & Development

## > Example: Household Broadband Penetration, 1Q05-2Q07

Penetration Rate

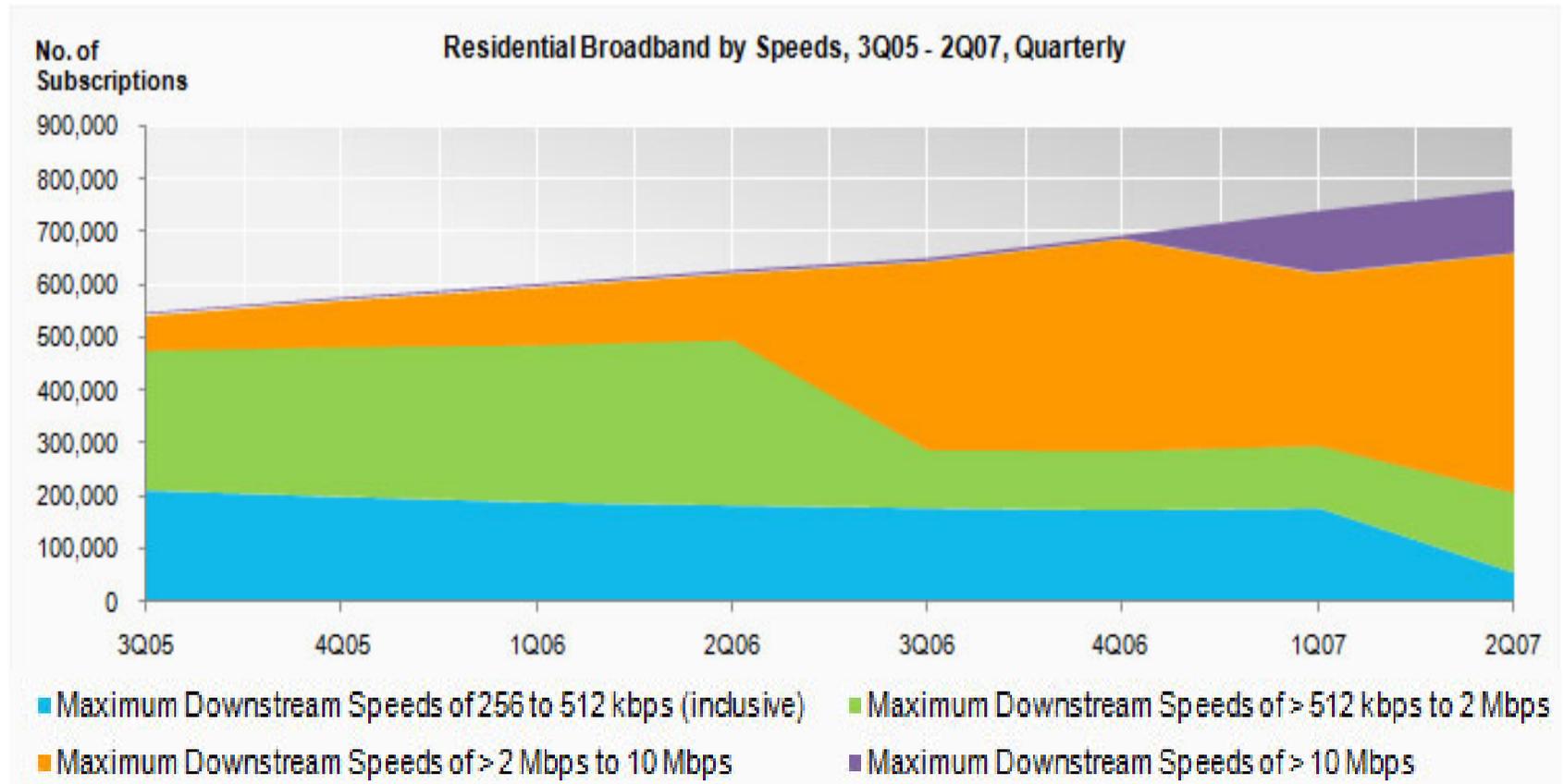
Household Broadband Penetration Rate (Singapore)  
2005 - 2007, Quarterly



Source: IDA POI.

# Monitoring of Infocomm Trends & Development

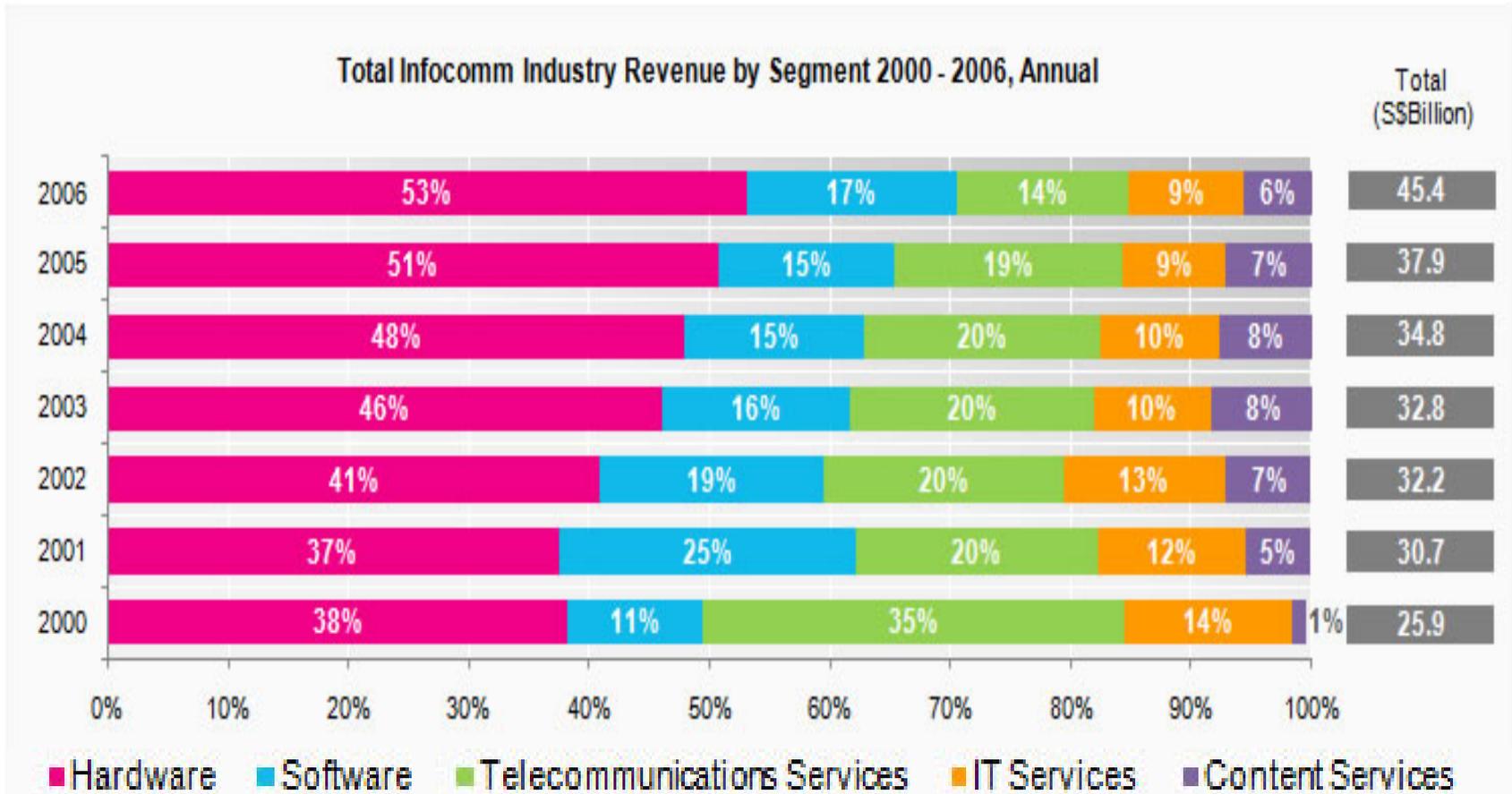
## > Example: Residential Broadband Take-up by Speeds, 3Q05-2Q07



Source: IDA POI

# Monitoring of Infocomm Trends & Development

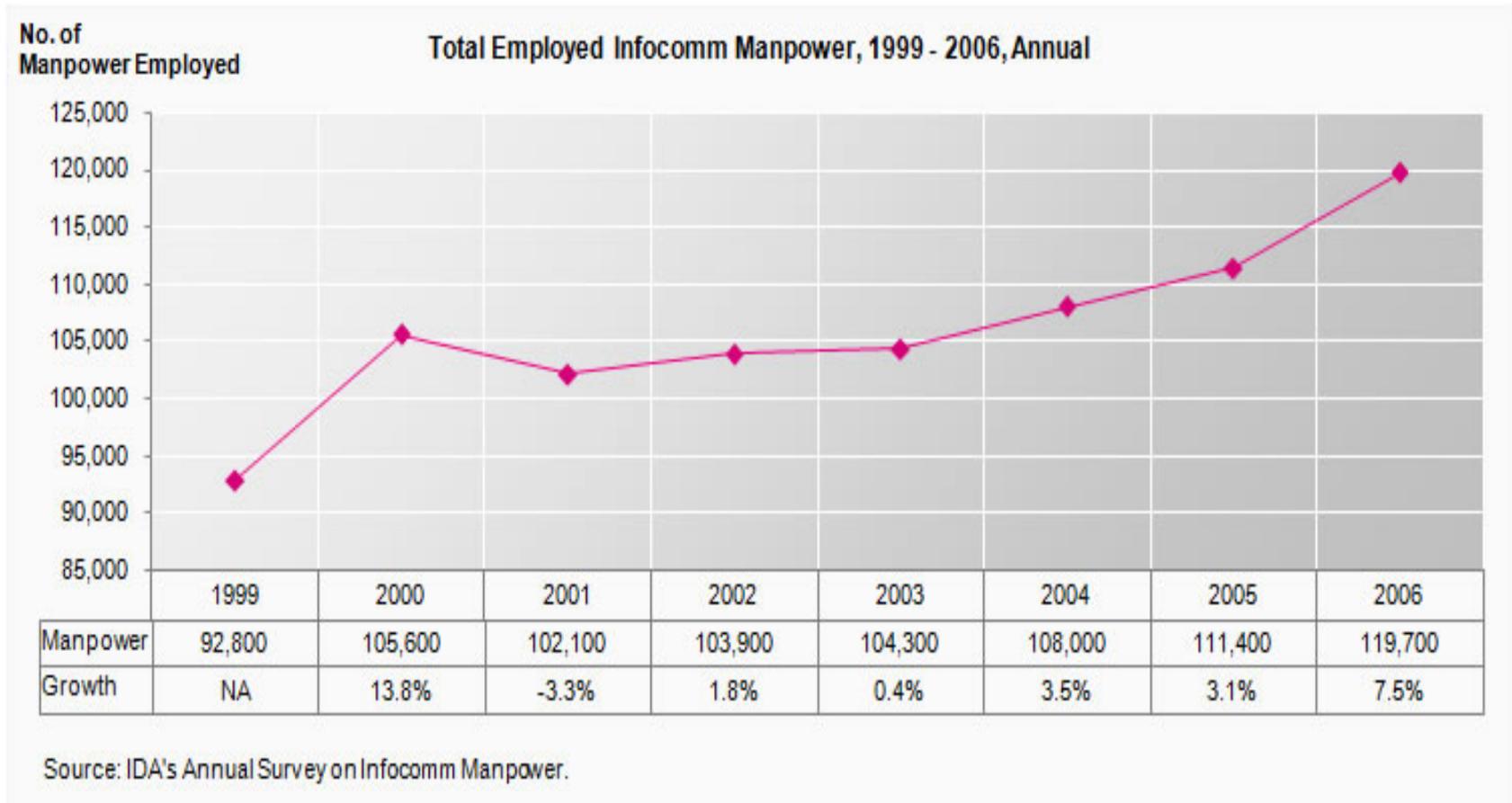
## > Example: Infocomm Industry Revenue, 2000-2006



Source: IDA's Annual Survey on Infocomm Industry

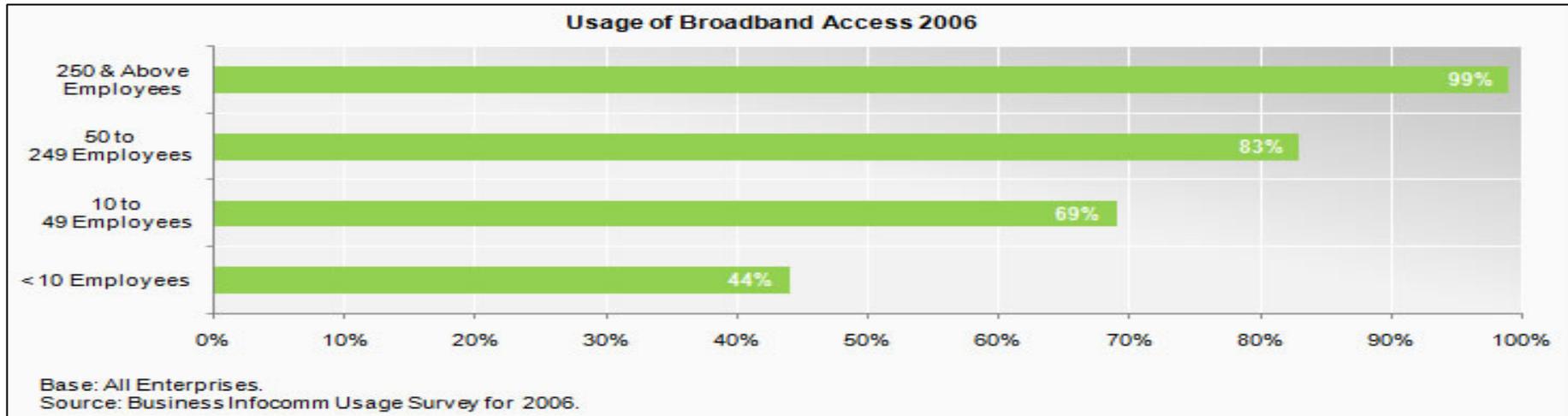
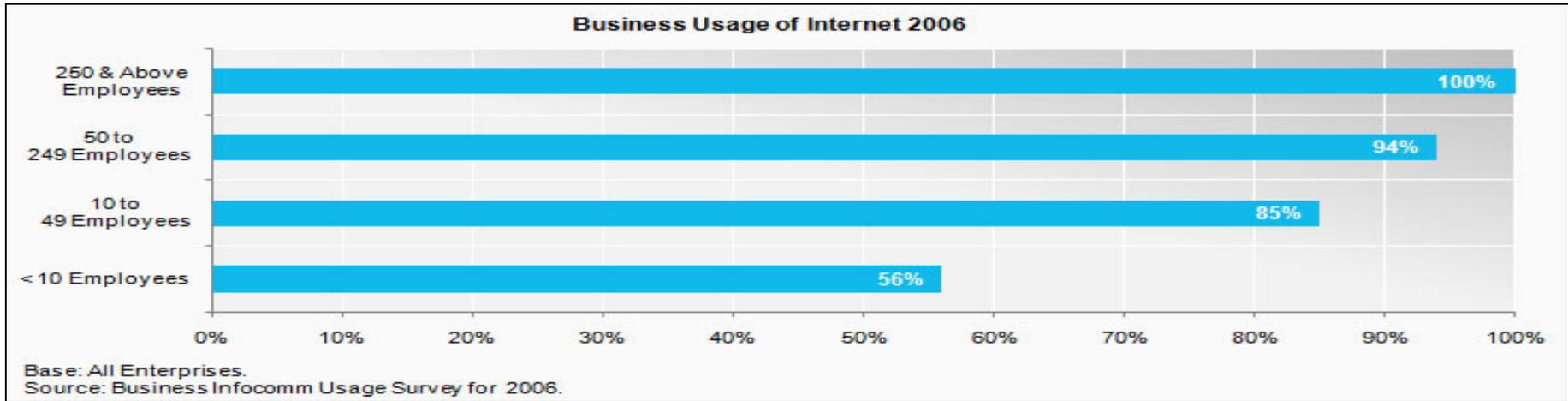
# Monitoring of Infocomm Trends & Development

## > Example: Infocomm Manpower, 1999-2006



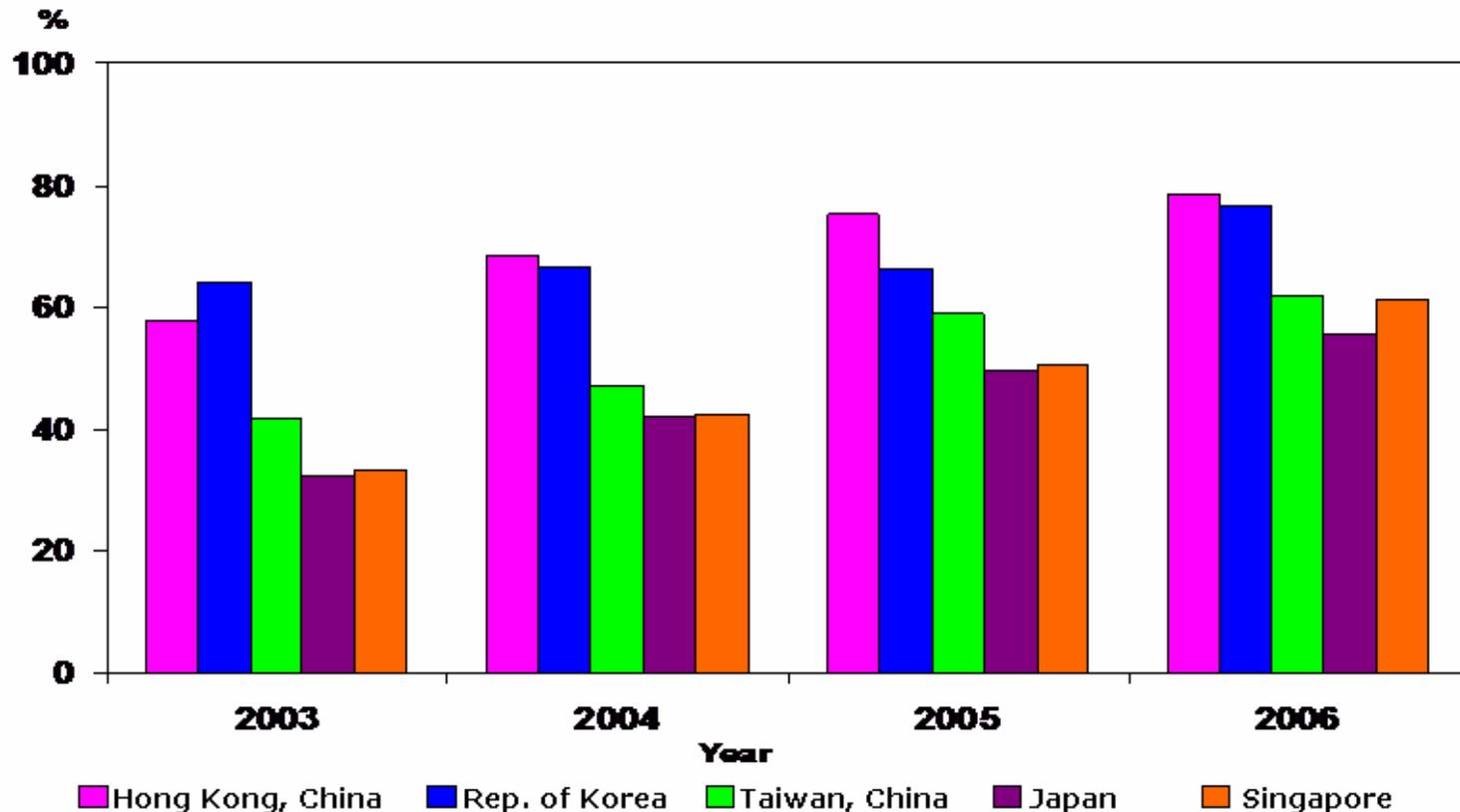
# Monitoring of Infocomm Trends & Development

## > Example: Infocomm Adoption by Enterprises, 2006



# International Benchmarking

- > Example: Household Broadband Penetration amongst Hong Kong, South Korea, Taiwan, Japan and Singapore, 2003-2006



Source: 1. Hong Kong as a Knowledge-based Economy - A Statistical Perspective 2007 2. 2007 Korea Internet White Paper 3. Industrial Development Bureau, the Ministry of Economic Affairs (IDB), Taiwan, China 4. Information & Communications in Japan White Paper 2007 and Statistical Handbook of Japan 2007 5. IDA POI

# Policy Formulation & Review

## Intelligent Nation 2015 Masterplan (“iN2015”)

- Latest 10-year infocomm masterplan released by IDA in June 2006
- Target-setting for iN2015:

By 2015,

# **1** in the world in harnessing infocomm to add value to the economy and society

**80**,000 additional jobs

**2** -fold increase in value-added of infocomm industry to S\$26 billion

**90**% of homes using broadband

**3** -fold increase in infocomm export revenue to S\$60 billion

**100**% computer ownership in homes with school-going children

# Dissemination of Infocomm Indicators

- > **Internal audience**
  - via detailed management reports
  
- > **External audience**
  - via infocomm statistics posted on the IDA Internet website

The screenshot shows the 'iDA Pulse' website with a navigation menu on the left and a main content area. The 'Infocomm Statistics' section is highlighted, featuring a table with four columns: Surveys, Telecom and Postal Statistics, KPIs, and Useful Materials. Each column contains a list of links to various reports and data sets.

Surveys	Telecom and Postal Statistics	KPIs	Useful Materials
<ul style="list-style-type: none"> <li>• Households &amp; Individuals Usage</li> <li>• Business Infocomm Usage</li> <li>• Infocomm Manpower</li> <li>• Infocomm Industry</li> <li>• Business Expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Current Telecom Statistics</li> <li>• Past Telecom Statistics</li> <li>• Current Postal Statistics</li> <li>• Past Postal Statistics</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate</li> <li>• Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Reports</li> <li>• Statistical Tools</li> <li>• Links</li> </ul>
	<b>International Rankings</b> <ul style="list-style-type: none"> <li>• Accolades</li> <li>• Reports &amp; Papers</li> </ul>		

The screenshot shows the 'Publications' section of the IDA website. It features a sidebar with navigation links and a main content area with several data tables and sections. The 'Infocomm Industry' table shows revenue and growth data for 2005 and 2006. The 'Infocomm Usage' section includes a table for household and individual access to computers and the internet. The 'Infocomm Manpower' table shows the number of employees and growth rates. Other sections include 'Telecommunications', 'Postal Sector', and 'Consumer Information'.

	2005	2006
Infocomm Industry Revenue (\$billion)	37.9	45.4
Annual Growth (%)	8.9	19.9
Domestic Revenue (%)	42	36
Export Revenue (%)	58	64

	2005	2006
Households with Access to Computer (%)	74	78
Households with Internet Access (%)	66	71

	2005	2006
Infocomm Manpower	111,400	119,700
Annual Growth (%)	3.1	7.5

# Challenges Faced & Measures Adopted

## > Relevance of data:

- Ensure type of data collected remains meaningful to monitor and track infocomm trends and development
  - Example: Breakdown of residential broadband by speed:
    - The current breakdown of take-up by broadband speeds is becoming less relevant given the range of broadband offerings being increasingly offered in the market for speeds higher than 10 Mbps

## > How we cope:

- Periodic reviews and industry consultations to ensure data collected continues to be relevant and takes into consideration information provision burden on licensees and respondents to surveys
- Supplement with administrative data where possible

# Challenges Faced & Measures Adopted

## > **Timeliness of data:**

- **Timely accurate data submission by licensees**
- **Timely aggregation of data submitted by licensees**
- **Timely dissemination of indicators**
- **Timely completion of surveys with high response rate**

## > **How we cope:**

- **Institutionalise framework for provision of information and dissemination**
  - **Standardised information templates for ease of submission by licensees**
  - **Revamp of IDA's Internet web page "Facts & Figures" to improve user-friendliness in accessing and using indicators**
- **Better project management of surveys**
  - **Relationship building with respondents**
- **Exercise of regulatory powers where appropriate**

# Challenges Faced & Measures Adopted

## > Confidentiality of data:

- Maintenance of confidentiality of data

## > How we cope:

- Clear demarcation within IDA between officers with access to data of individual licensees and other officers
- IDA's commitment to strictly safeguard of confidentiality data
- Dissemination of data only on aggregated basis

# Summary

- > **Data collection and submission from licensees/survey respondents is resource-intensive for both industry and IDA**
  - **Indicators generated should be carefully considered and the overall data provision and collection framework designed accordingly to maximise the efforts**
  - **Systematic process needs to be implemented, monitored and reviewed to ensure outcomes achieved**
  
- > **Sharing of indicators generated is important and helps to foster better awareness and understanding of infocomm developments**

# SINGAPORE: AN INTELLIGENT NATION, A GLOBAL CITY POWERED BY INFOCOMM

[www.ida.gov.sg](http://www.ida.gov.sg)

[www.infocommsingapore.sg](http://www.infocommsingapore.sg)

