Part II

Update on ICT and Policy Outlook

Chapter 4

Update on ICT

Section 1
Trend of Internet Utilization

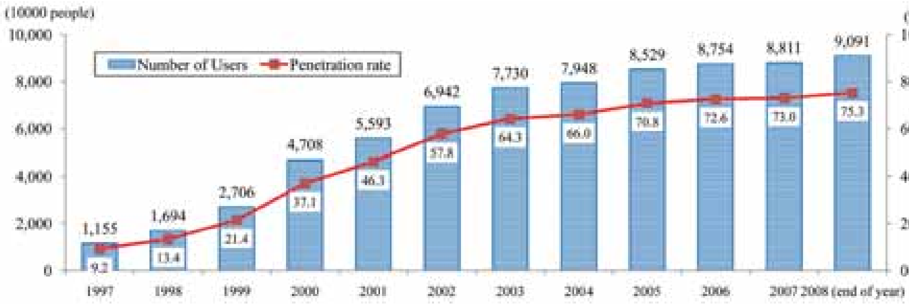
1. Status of Internet utilization

The number of internet users reached 90.91 million people as of the end of 2008, an increase of 2.8 million people from 2007 (year-on-year increase of 3.2%), with an Internet penetration rate of 75.3% (2.3 percentage point increase from the previous year) (figure 4-1). With respect to terminals for Internet use, users of mobile terminals increased by 2.19 million people from the end of 2007, reaching 75.06 million people. The number of PC users increased by 4.42 million people, reaching 82.55 million people.

2. Challenges for safe and secure Internet utilization

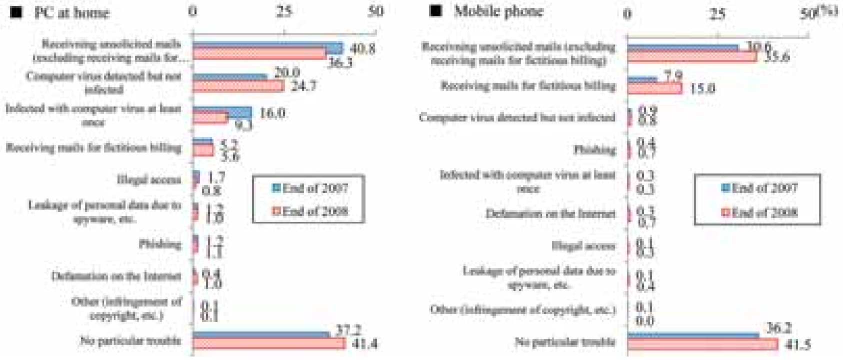
With respect to problems associated with using the Internet at home, "receiving unsolicited mails" is the most frequently cited response at 36.3%, followed by "computer virus detected but not infected" (24.7%) (figure 4-2). As for problems associated with mobile phones, "receiving unsolicited mails" is the most frequent response at 35.6%, followed by "receiving mails for fictitious billing" at 15.0%.

Figure 4-1 Changes in the number of Internet users and the penetration rate



(Source) Survey on ICT Utilization (2008), Ministry of Internal Affairs and Communications

Figure 4-2 Problems associated with Internet utilization in households



(Source) Survey on ICT Utilization (2008), Ministry of Internal Affairs and Communications

Section 2
ICT Industry Trend

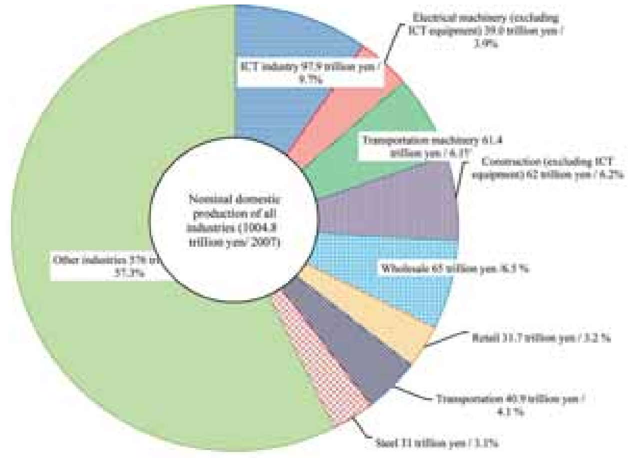
1. Economic size of ICT industry

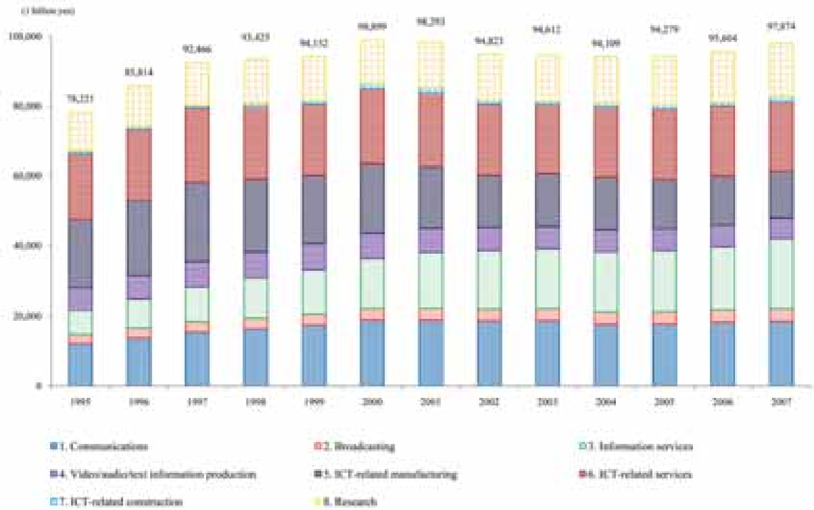
Based on 2007 nominal domestic production, the ICT sector registered 97.9 trillion yen, which accounts for 9.7%, the largest of all industries (figure 4-3). When looking at the changes in its size from 2005 onword, even though it increased, it did so by a smaller increment than other sectors such as transportation machinery or steel.

2. Contribution of ICT industry to economic growth

The degree of contribution of the ICT industry to Japan’s real GDP growth rate (2.4%) in 2007 was 0.8% (figure 4-4). The average contribution rate over the latest five years was about 34%. It is therefore fair to say that the ICT industry has consistently functioned as the engine of Japan’s economic growth.

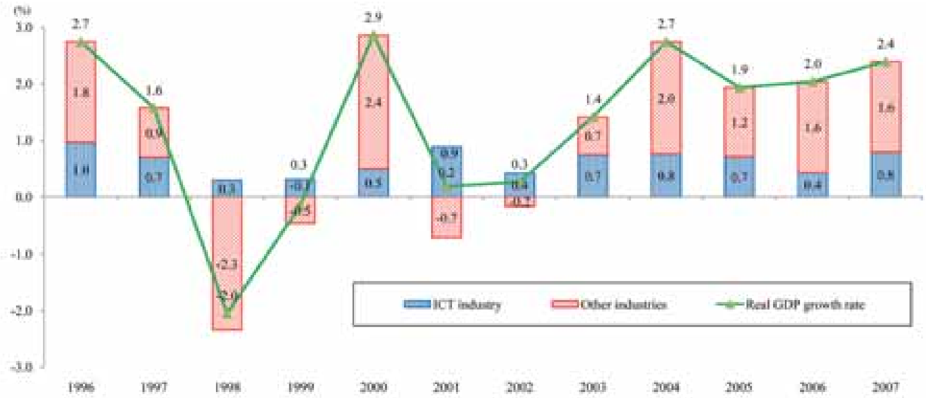
Figure 4-3 Nominal domestic production of major industries (breakdown) and changes in nominal domestic production of ICT industry (2007)





(Source) Survey on Economic Analysis of ICT (2009), Ministry of Internal Affairs and Communications

Figure 4-4 Contribution of ICT industry to growth rate of real GDP



(Source) Survey on Economic Analysis of ICT (2009), Ministry of Internal Affairs and Communications

Section 3
Telecommunications Sector

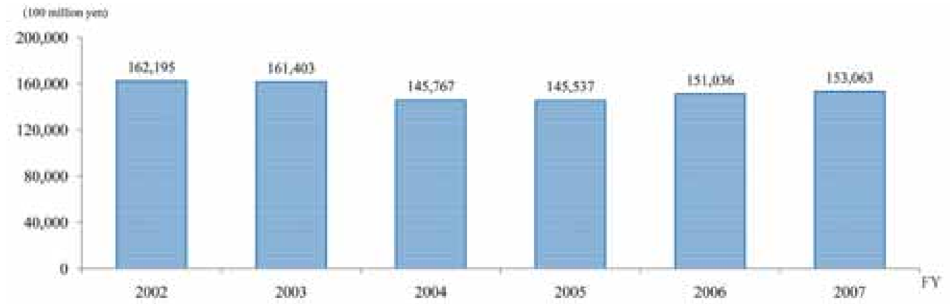
1. Telecommunications market

Sales of Japan's telecommunications sector remained largely unchanged in 2007, with 15.3063 trillion yen (year-on-year increase of 1.3%) (figure 4-5).

2. Telecommunications service

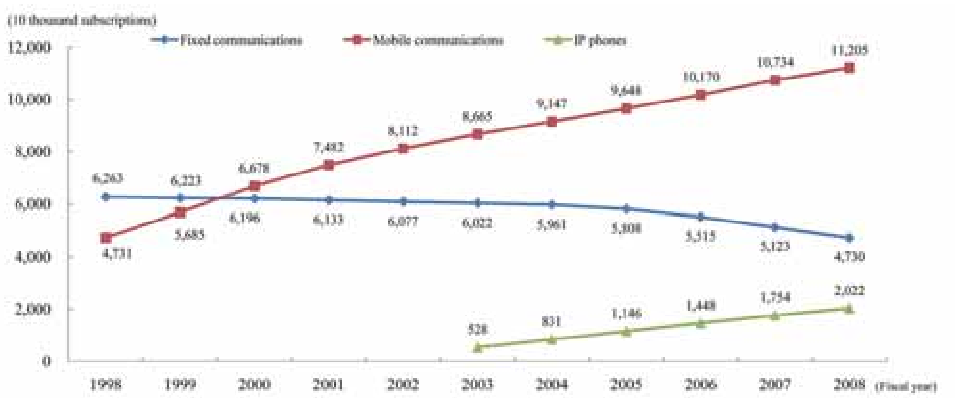
When looking at the number of subscriptions for telecommunications services, fixed communications (subscription telephone and ISDN) are decreasing, whereas IP phones and mobile communications subscriptions (cellular phones and PHS) are on the increase. At the end of fiscal year 2008, the number of mobile communications subscriptions (112.05 million subscriptions) reached approximately 2.4 times of that of fixed communications subscriptions (47.30 million subscriptions) (figure 4-6).

Figure 4-5 Changes in the sales of telecommunications sector



Compiled from the 2007 Basic Survey on the Communications and Broadcasting Industry, Ministry of Internal Affairs and Communications

Figure 4-6 Changes in the number of subscriptions to fixed communications and mobile communications



Compiled from the Subscription to Telecommunications Services (end of March 2009), Ministry of Internal Affairs and Communications

Section 4
Broadcasting Sector

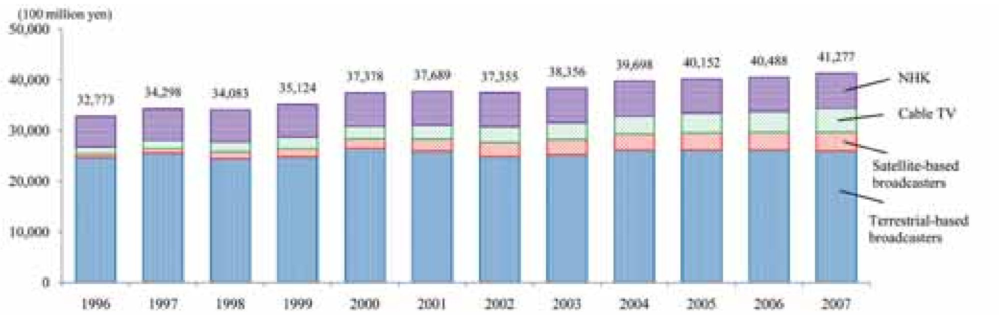
1. Broadcasting market

Total sales in the broadcasting sector, including revenue from broadcasting and non-broadcasting business activities, showed an increase for the fourth consecutive year, reflecting an increase in the number of pay-TV subscribers, marking 4.1277 trillion yen (a year-on-year increase of 1.9%) (figure 4-7).

2. Status of broadcasting media uses

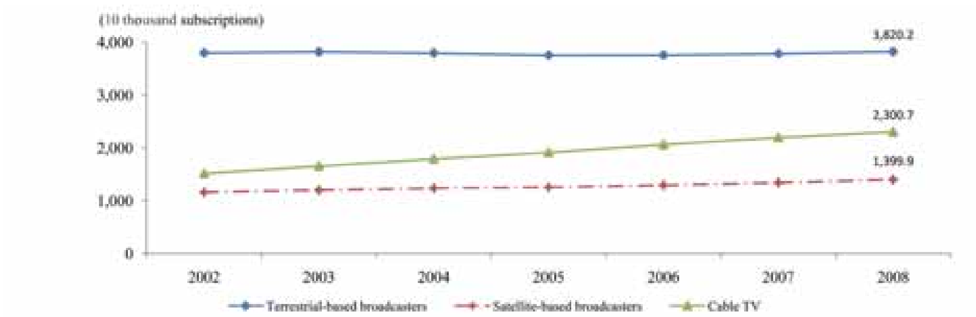
The total number of subscriptions to broadcasting services increased from last year, and in FY 2008 the number of subscriptions to terrestrial broadcasting services[57] was 38.2 million, to satellite[58] 23.01 million and to cable TV[59] 14 million (figure 4-8).

Figure 4-7 Changes in the market size of broadcasting industries



Compiled from materials provided by the Ministry of Internal Affairs and the NHK yearbook of respective years

Figure 4-8 The number of subscriptions to broadcasting services



Compiled from materials provided by Japan Cable Laboratories, NHK, and the Ministry of Internal Affairs and Communications

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[57] The number of subscriptions to NHK (terrestrial broadcast) is the number of subscription to all forms of NHK services

[58] The number of subscriptions to satellite is the number of subscriptions to NHK's satellite services

[59] The number of subscriptions to cable TV is the number of subscriptions to authorized facilities that provide independent broadcasting services

Section 5
Trends of Contents Market

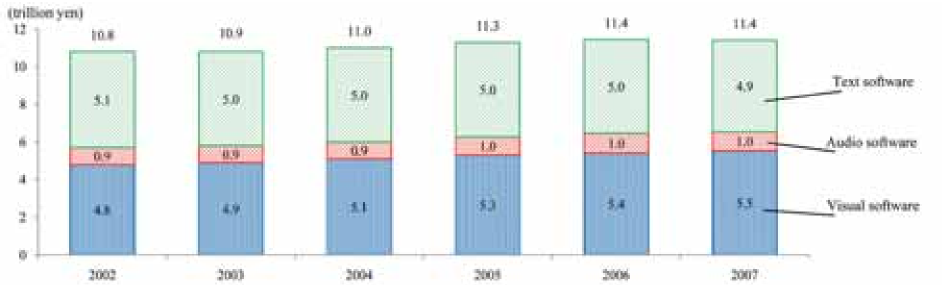
1. Trends of Japan's contents market

The size of Japan's contents market remained largely unchanged in 2007, with 11.411 trillion yen (year-on-year decline of 0.3%). By type, the size of the visual software market was 5.342 trillion yen (year-on-year increase of 2.1%), with the audio software market at 1.002 trillion yen (year-on-year decline of 3.2%), and the text software market at 4.8748 trillion yen (year-on-year decline of 2.4%) (figure 4-9).

2. Market size of the mobile contents industry

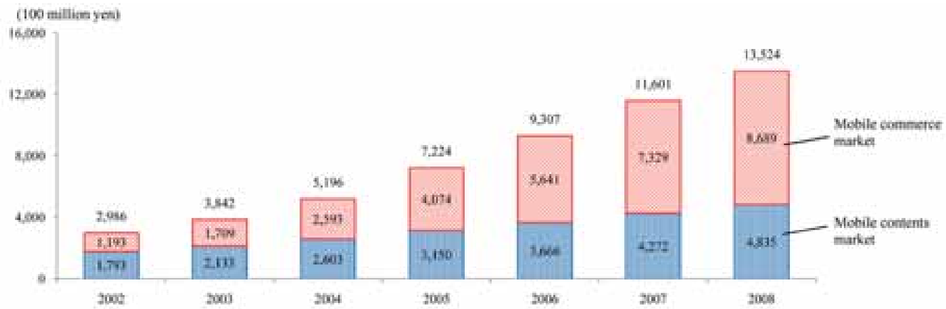
In 2008, the market size of Japan's mobile contents industry, consisting of the mobile contents market and the mobile commerce market, registered 1.3524 trillion yen (year-on-year increase of 16.6%). By market, the size of the mobile contents market was 483.5 billion yen (year-on-year increase of 13.2%) and that of the mobile commerce market 868.9 billion yen (year-on-year increase of 16.6%), showing a drastic increase, similar to in 2007 (figure 4-10).

Figure 4-9 Changes in the size of contents market



(Source) Survey on Production and Distribution of Media Software (2009), Institute for Information and Communications Policy

Figure 4-10 Market size of mobile contents industry



(Source) Survey on Market Trends of the Mobile Contents Business (2009), Ministry of Internal Affairs and Communications

Section 6
Research and Development (R&D)

1. Research in information and communications industry

Out of total corporate R&D spending (13.8304 trillion yen), research spending by the information and communications industry (4.7209 trillion yen) accounts for 34.2%. Research spending for ICT equipment and tool manufacturing makes up the majority of research spending by the information and communications industry (figure 4-11).

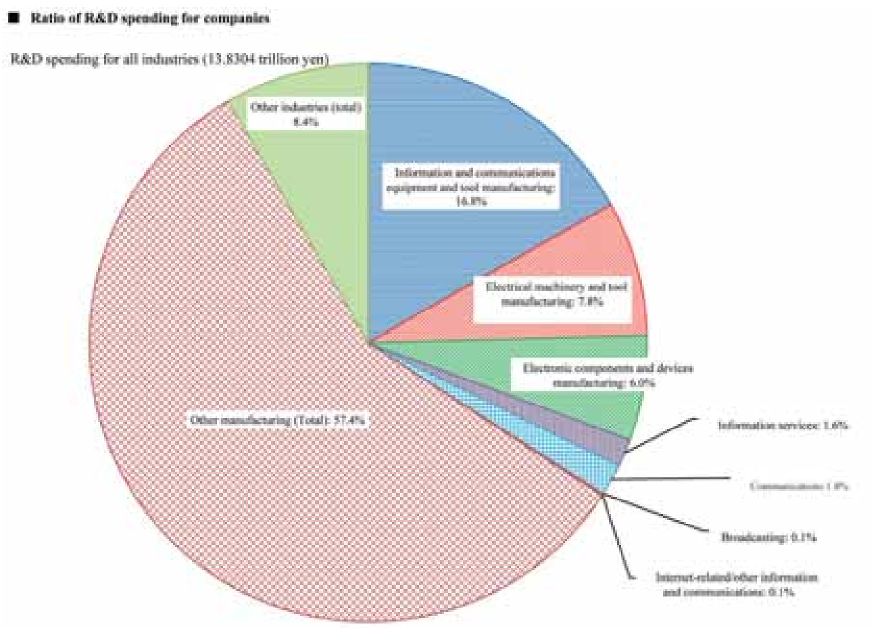
2. Technology trading

In 2007, the value of exports of technology of Japan's ICT industry was 470.9 billion yen (year-on-year increase of 6.4%) accounting for 19.0% of all industries. On the other hand, the cost of importing technology was 422.3 billion yen (year-on-year decrease of 7.6%), accounting for 59.4% of all industries. Although there was a surplus in exports for the total amount of technology training, there was a surplus of imports for the ICT industry.

3. Number of Researchers

Out of total number of corporate researchers (483,728 researchers), the number in the ICT industry is 196,043 researches, accounting for 40.5%. The majority of researchers in the ICT industry are in information and communications equipment and tool manufacturing.

Figure 4-11 Ratio of R&D spending for companies (FY2007)



Compiled from 2008 Research Investigation Report on Science and Technology, Ministry of Internal Affairs and Communications

Section 7
Postal Service

1. Postal service

There are 24,539 post offices as of the end of fiscal 2008. The breakdown of this figure shows that there are 20,237 directly managed post offices and 3,939 post office agencies, and that 24,176 of all post offices are in operation and 363 are out of operation (figure 4-12).

Net income of fiscal 2008 was 29.8 billion yen.

2. Correspondence delivery business

Following the establishment of the Law Concerning Correspondence Delivery by Private-Sector Operators in April 2003, although no entries have been made to the general correspondence delivery business, the number of new entrants to the special correspondence delivery business has seen steady growth, with a total of 283 new entrants as of the end of FY2008 (figure 4-13).

Sales of special correspondence delivery operators in fiscal 2007 came to 2.9 billion yen, registering an increase of 32% over the previous year.

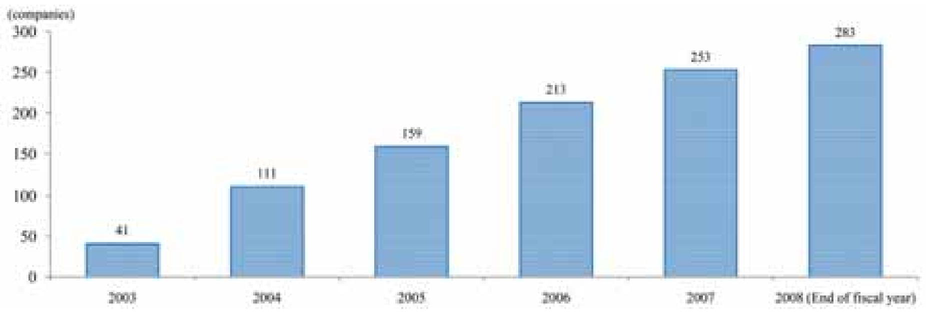
Figure 4-12 Breakdown of the number of post offices (end of FY2007)

(Unit: office)

Post office in operation				Post office out of operation				Total
Directly-managed post office		Post office agency	Subtotal Total	Directly-managed post office		Post office agency	Subtotal Total	
Post office	Branch			Post office	Branch			
20,201	36	3,939	24,176	9	0	354	363	24,539

Compiled from materials provided by the Ministry of Internal Affairs and Communications

Figure 4-13 Changes in the number of special correspondence delivery operators



Compiled from materials provided by the Ministry of Internal Affairs and Communications

Section 8
Overseas Trends

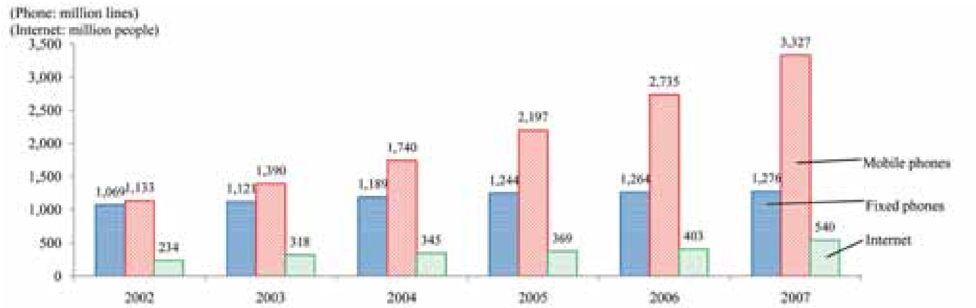
1. Penetration of global communications services

The number of lines for fixed phones in 2007 was 1.28 billion lines, with an average growth rate of 3.6% per annum over the period 2002-2007. The number of mobile phone subscriptions was 3.33 billion lines, with an average growth rate 24.0% per annum over the period 2002-2007 (figure 4-14).

2. Internet penetration rate by region

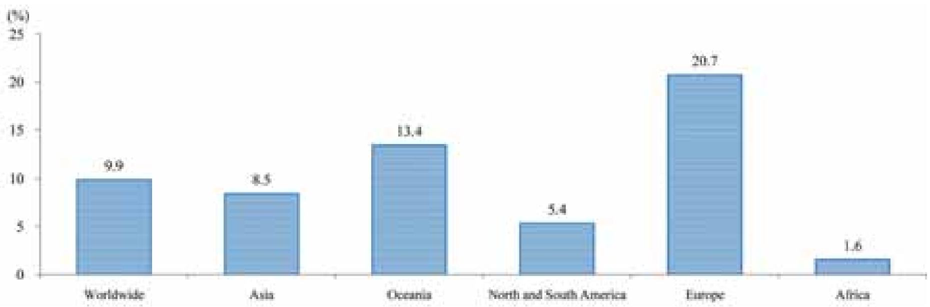
The number of Internet users worldwide was 540 million in 2007, with an average growth rate of 18.2% per annum over the period 2002-2007. The average international internet penetration rate in the world is 9.9%. By region, Europe has the highest penetration rate, at 20.7%, followed by Oceania (13.4%) and Asia (8.5%) (figure 4-15).

Figure 4-14 Number of subscriptions to fixed phones, mobile phones and the Internet



Compiled from World Telecommunication/ICT Indicators database 2008 (12th Edition, Updated on February 2009), ITU (2009)

Figure 4-15 Internet penetration rate by region (2007)



Compiled from World Telecommunication/ICT Indicators database 2008 (12th Edition, Updated on February 2009), ITU (2009)