Key Points of the 2014 White Paper on Information and Communications in Japan

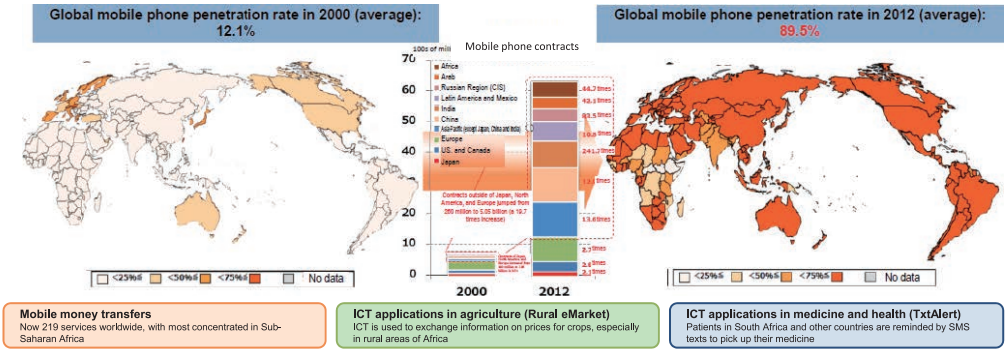
Key Points

Part 1
Special Theme: The Global paradigm Shift Caused by ICT

Chapter 1
ICT Proliferation on a Worldwide Scale

◯The Internet, mobile phones, and other forms of ICT have rapidly spread on a worldwide scale, in both developed and developing nations. Developing nations are using ICT to solve various social issues.

Figures: Global penetration rates of mobile phones and ICT proliferation in developing nations

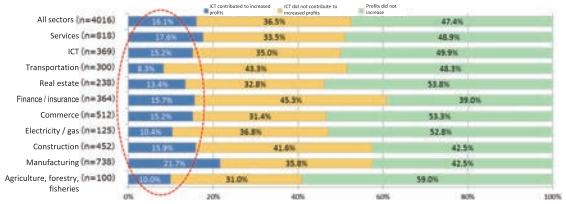


Chapter 2
Harnessing ICT to Boost Growth and International Competitiveness

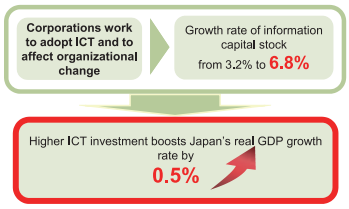
◯Sixteen percent of corporations are harnessing ICT to raise profits, but many corporations have room to improve their business performance with ICT. Corporations expanding their ICT investments will contribute to the growth of Japan's economy.

◯Japanese corporations invest in ICT more to cut costs than to increase sales.

ICT contributions to corporate profits



Economic growth driven by ICT investment

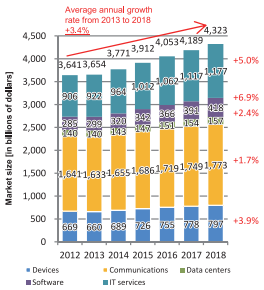


◯The ICT market, which continues to enjoy solid growth worldwide, is shifting from hardware to software.

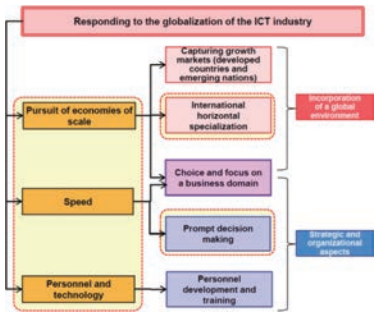
◯An analysis of transitions and changes at leading ICT corporations around the world underscored the importance of the pursuit of economies of scale, speed, and personnel and technology.

◯Japan's ICT corporations view India, China, and the ASEAN region as the most promising.

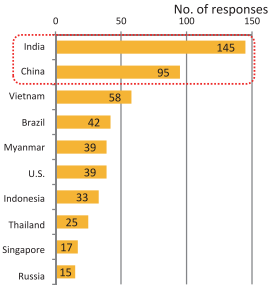
Global growth rate of the ICT market (estimated)



Key Factor for Success in the ICT industry



Countries and regions with the most future promise according to ICT corporations



Chapter 3
The Future Society Shaped by Data

◯Domestic data distribution in 2013 was about 8.7 times higher than eight years ago, and the application of data is generating all kinds of new value, such as boosting sales by 60.9 trillion yen in 2012.
◯The convergence of geospatial information and ICT is expected to engender new lifestyle transformations.

Figure: Transitions in domestic data distribution

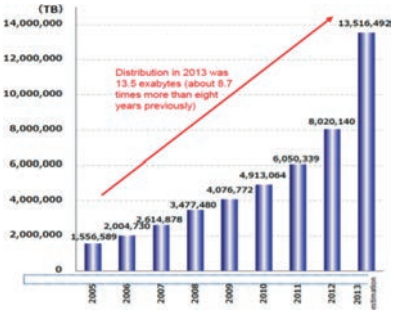


Figure: Estimate of data-use benefits in sales (2012)

Total for all industries was ¥60.9 trillion

Equivalent to 4.6% of sales by all industries in 2012 (¥1,335.5 trillion)

Breakdown
Distribution industry (wholesale and retail) ¥28.1 trillion
All other industries ¥32.8 trillion

Figure: Promising fields for GIS application expansion

◯Corporations have strong needs for open map data, but provision from municipalities is still at the development stage.
◯Japanese citizens have a high acceptance of providing personal data in disasters and emergencies or when the purpose is to save lives.

Figure: Public data being provided or being considered for provision as open data

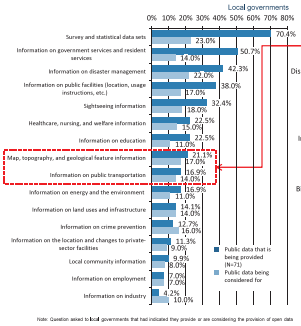


Figure: Public data needed as open data

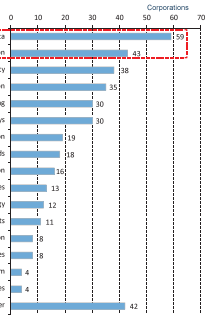
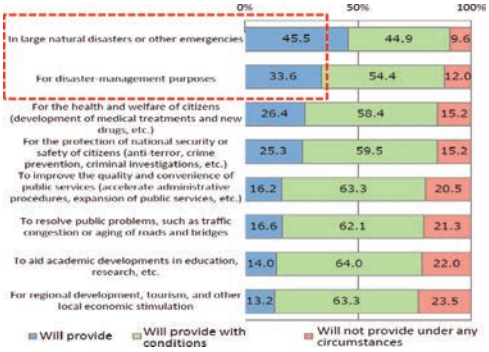


Figure: Situations where it is acceptable to provide personal data (by purpose of use)



Chapter 4
The Social Impact of Rapid ICT Advancement

◯Japanese smartphone owners make greater use of social networking services, video watching, e-commerce, and other services.
◯Although corporations are establishing ICT environments, telework adoption rate is 10% or the like. On the other hand, a majority of men and women are interested in using telework.

Figure: Comparison of service usage by smartphone, feature phone, and tablet

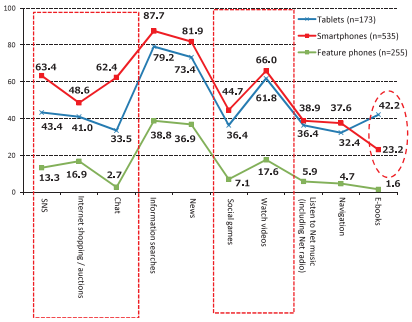
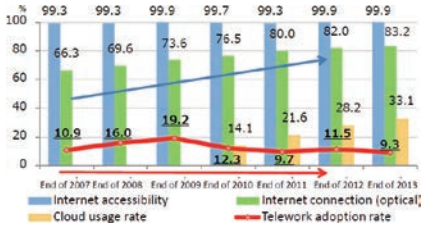


Figure: Establishment of ICT environment and telework adoption rates in corporations



Key Points

Chapter 4
The Social Impact of Rapid ICT Advancement

Figure: Changes in the frequency of service use after purchasing a smartphone

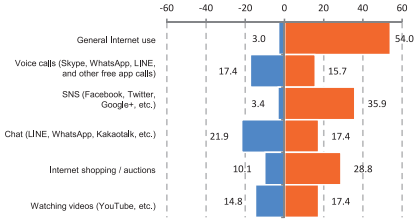


Figure: Comparison of Internet purchases versus in-store purchases by product and country

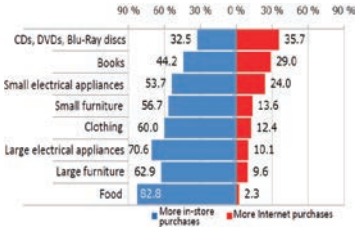
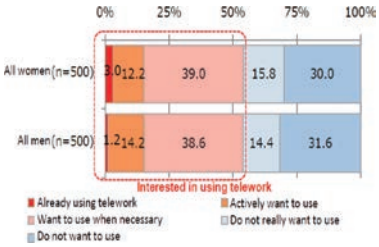


Figure: Telework usage intentions



◯The social security and taxation My Number system is expected to be used in a broad range of fields.
◯There are rising expectations for ICT town developments, centered on the safety and security field and the healthcare and nursing field.

Figure: Services local governments want after the My Number system is in place

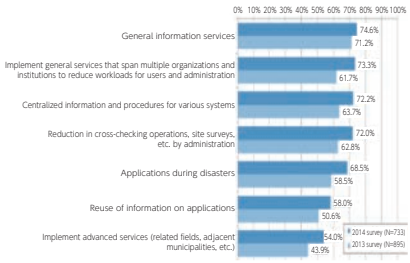


Figure: Initiatives in the area of ICT Town Development (survey of local governments)

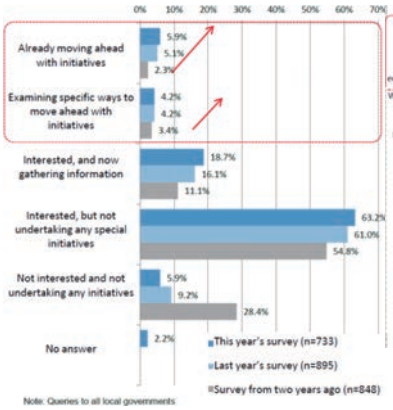
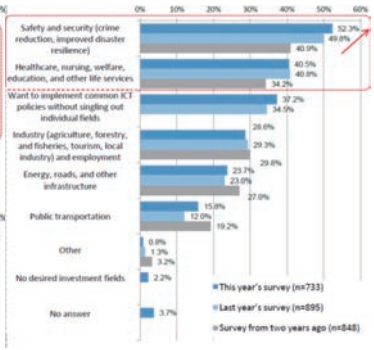


Figure: Anticipated areas for ICT Town Development (survey of local governments)



◯Japan does not have as high a tendency toward Internet addiction as in other countries. There are significant benefits to SNS and smartphone use.
◯Japan's rate of anonymous SNS use is high, but the awareness of the risk of being identified even with anonymous use is also high.

Figure: Internet addiction tendencies

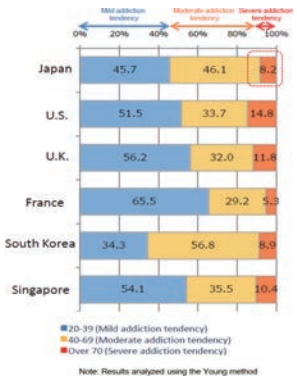
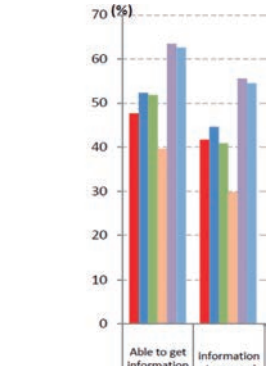
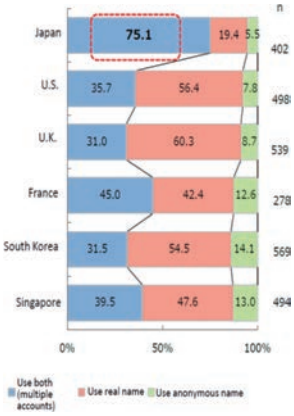


Figure: Benefits of social networking services use

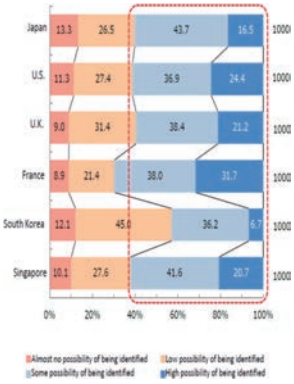


	Able to get information quickly	Information Increased
Japan (n=386)	47.7	41.7
U.S. (n=558)	52.3	44.6
U.K. (n=548)	51.9	40.9
France (n=517)	39.7	29.8
South Korea (n=759)	63.5	55.6
Singapore (n=816)	62.6	54.5

Figure: Use of anonymous names versus real names on Twitter



Awareness of the risk of being identified even with anonymous use



Chapter 4
The Social Impact of Rapid ICT Advancement

Key Points

◯About 50 percent of users use more accounts and passwords after purchasing a smartphone, but around 80 percent reuse passwords on multiple sites and only 10 to 20 percent change their passwords regularly.

Figure: Changes in accounts and passwords after owning a smartphone

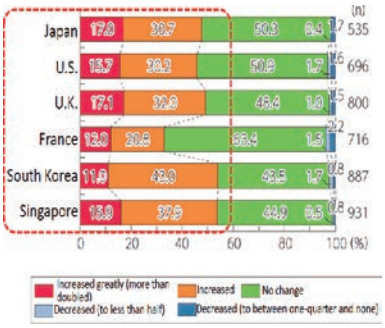


Figure Reuse of passwords

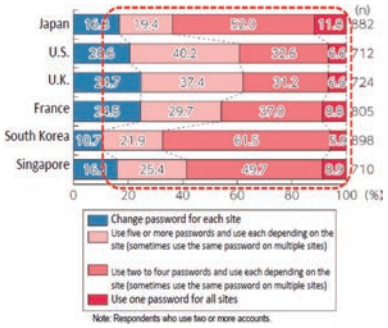
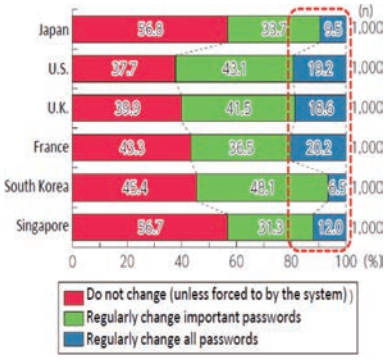


Figure: Frequency of changing passwords



Key Points

Part 2
Current State of ICT and Policy Trends

Chapter 5
Current State of ICT

ICT Industry Trends

◯ Japan's ICT industry was valued at 81.8 trillion yen in 2012, accounting for about 8.9 percent of all industries, the largest share of any industry. The ICT industry employed 3.968 million people, 7.1 percent of all industries.

◯ Production operations by the ICT industry in 2012 produced an economic spillover effect, in the form of added value, of 87.4 trillion yen, the largest spillover effect of any industry in Japan.

Figure: Market sizes of major industries (based on nominal domestic production) (breakdown) (2012)

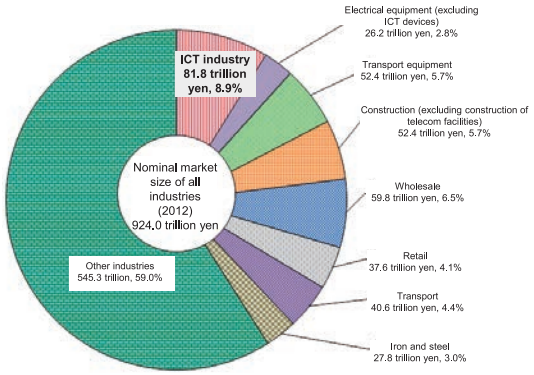
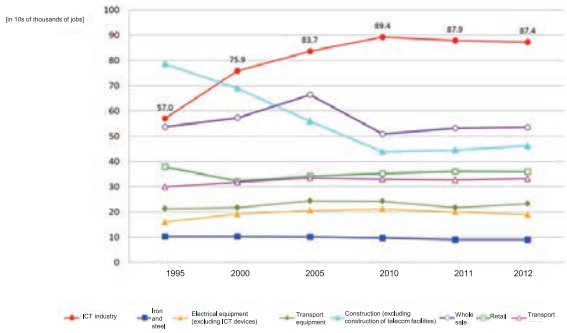


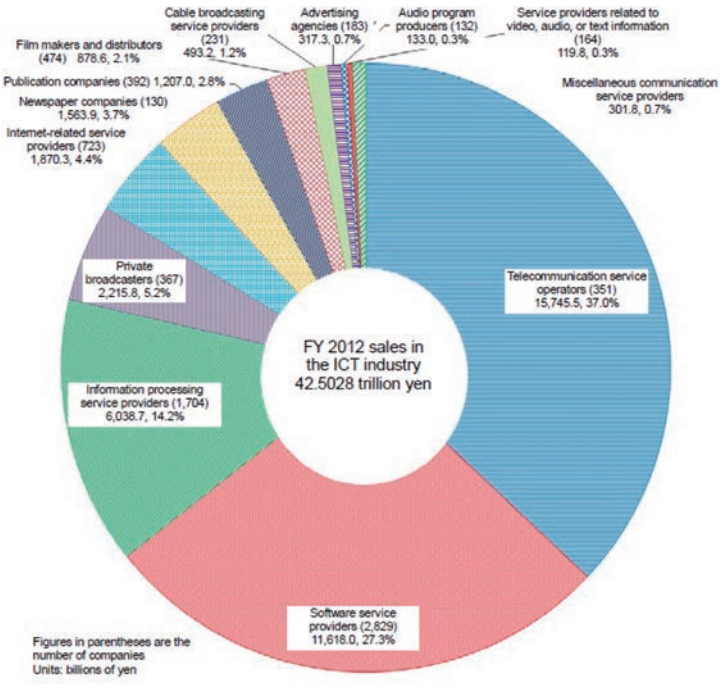
Figure: Transitions in economic spillover effects (induced added value and jobs) of major industries' production operations



State of enterprises engaged in ICT business operations

◯ There were 5,496 enterprises engaged in ICT business operations, with FY 2012 sales of 42.5028 trillion yen.

Figure: ICT industry sales



Chapter 5
Current State of ICT

Key Points

Internet usage trends

◯The number of Internet users at the end of 2013 reached 100.44 million, a year-on-year increase of 4.1 percent, and the Internet penetration rate as a percent of the general population was 82.8 percent, up 3.3 percentage points. The household ownership rate for smartphones shot up to 62.6 percent, a jump of 13.1 percentage points from the previous year.

Figure: Transitions in the number of Internet users and the penetration rate among the general population

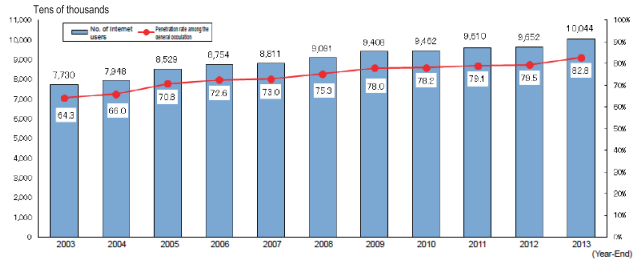
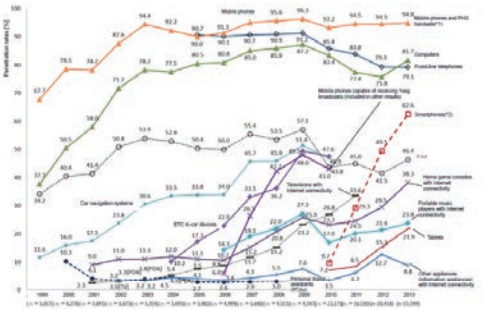


Figure: Transitions in household penetration rates for ICT devices



Cloud service usage trend

◯The percentage of enterprises using cloud services at the end of 2013 rose to 33.1 percent from 28.2 percent at the end of 2012. The most commonly used service was email.

Figure: State of cloud service usage in Japan

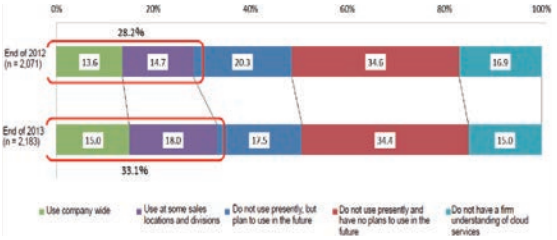


Figure: Breakdown of cloud service usage

Telecommunications business

◯Sales in the telecommunications business in FY 2012 were 12.9551 trillion yen, with mobile communications accounting for more than half. By service category, the share for data transmission services has been rising year by year.

◯Broadband development and usage in Japan are processing every year. Ultra-high-speed broadband services were available at 99.4 percent of Japanese households at the end of March 2013.

Figure: telecom carriers' sales breakdown by fixed-line communications and mobile communications

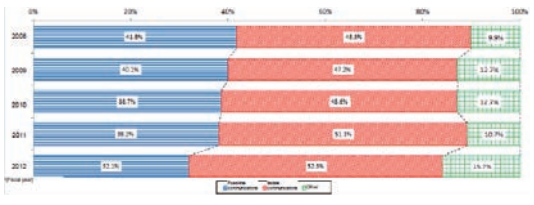


Figure: Transitions in sales breakdowns by service category

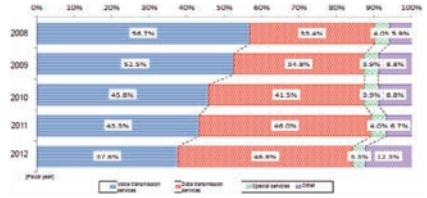
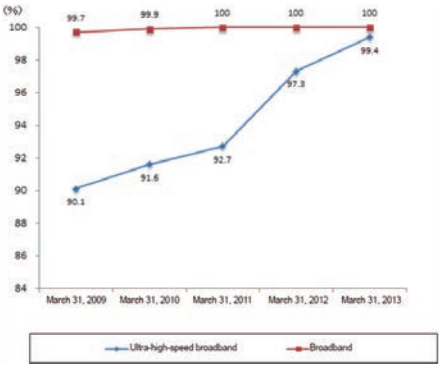


Figure: Transitions in broadband infrastructure



Key Points

Chapter 5
Current State of ICT

Broadcasting business and content market

◯Broadcaster sales totaled 3.8915 trillion yen in FY 2012. In recent years, satellite-based broadcasters' share of sales has expanded.
◯The Japanese content market was valued at 11.2401 trillion yen, which broke down to 49.1 percent from video content, 43.6 percent from text-based content, and 7.3 percent from audio-based content.
◯The market for digital content for PCs or mobile phones grew to 2.1210 trillion yen, accounting for 18.9 percent of the entire content market.
◯The export value of Japanese broadcast content topped 10 billion yen in FY 2012.

Figure: Transitions in and breakdown of the broadcasting sector market size (total sales)

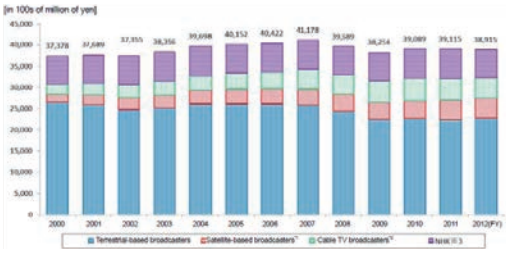


Figure: Breakdown of Japan's content market (2012)

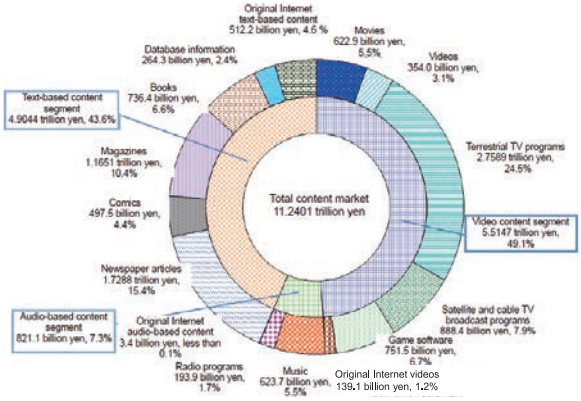
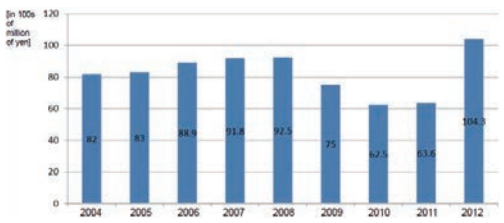


Figure: Export value of Japanese broadcast content

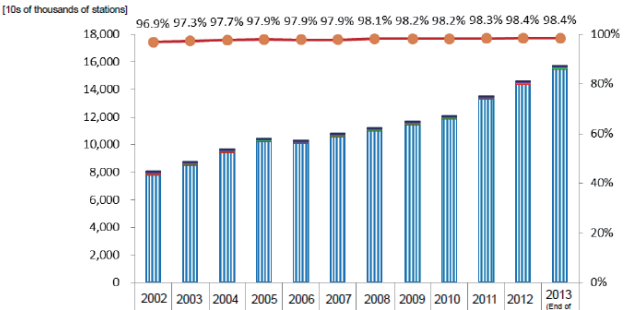


Note: From FY 2012 onward, merchandising rights, video and DVD rights, format and restaging rights, Internet distribution rights, and similar rights will be included along with program broadcast rights in the export value of broadcast content. Figures prior to FY 2012 are the export value for program broadcast rights only.

Radio spectrum use

◯The number of radio stations in Japan continued to increase, reaching 157.24 million at the end of FY 2013 (a year-on-year increase of 7.5 percent). This total included 154.72 million mobile phones and other land mobile stations (a year-on-year increase of 7.5 percent). This category accounted for a huge 98.4 percent of all radio stations.

Figure: Transitions in the number of radio stations



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 (End of FY)
Other	33	33	34	36	41	49	49	48	46	43	46	50
Base stationsther	76	74	67	62	62	63	41	41	54	58	63	68
Convenience stations*2	67	65	64	65	66	68	70	72	74	77	84	90
Amateur stations	72	66	60	56	53	51	49	47	45	44	44	44
Land mobile stations*1	7,793	8,499	9,439	10,212	10,059	10,573	10,993	11,448	11,879	13,266	14,388	15,472
Percentage of land mobile stations	96.9%	97.3%	97.7%	97.9%	97.9%	97.9%	98.1%	98.2%	98.2%	98.3%	98.4%	98.4%

Research and development by the ICT industry

◯The ICT industry spent 3.8835 trillion yen on research in FY 2012, accounting for 31.9 percent of all corporate research spending. The ICT industry employed 182,037 researchers, or 37.8 percent of all corporate researchers.

Chapter 6
Outlook for Information and Communications Policies

Comprehensive strategy promotions

○The Japanese government in January 2011 set up the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (IT Strategic Headquarters), which undertakes various policies. In June 2014, the government revised the Declaration to be the World's Most Advanced IT Nation and its associated roadmap that defines each ministry's role and attainment targets.

Developments in information and communications policy

○Efforts were made in the following policy areas:
- Telecommunications business policy: examined approaches to information and communications policy for the 2020s, promoted IPv6 adoption, established fair competition environments
- Broadcasting policy: promoted the export of broadcast content, worked on technical advancements in broadcast services, worked to make broadcast networks more resilient
- Radio policy: promoted effective radio spectrum usage, examined 4G mobile communication systems, promoted Intelligent Transport Systems, established radio usage environments

Consumer affairs administration in telecommunication services

○Launched the Study Group on the Safety and Security of ICT Services in February 2014 to examine how to address expected issues needed to support mid-to-long-term systems, such as enhancing consumer protection rules.

Improving the quality of citizens' lives and the natural environment through ICT use and application

○MIC is promoting policies to use and apply ICT in a variety of fields, such as education, healthcare, regional development, training ICT personnel, and addressing global environmental problems.

Promoting ICT applications in government services

○In addition to promoting e-government, MIC is promoting e-local government with, for example, the deployment of cloud-based local government services.

Promoting research and development

○MIC promotes research and development that will drive the next generation based on the Fourth Science and Technology Basic Plan (decided by the Cabinet in August 2011), which is Japan's basic policy for science and technology.

Promoting international strategies

○MIC strives to expand Japan's ICT overseas, such as encouraging the adoption of Japan's standard for terrestrial digital TV in other countries, as well as promotes various multilateral and bilateral contributions and collaborations.

Developments in postal service administration

○MIC ensures the universality of postal services while steadily promoting Japan Post privatization. MIC is also putting energy into the overseas deployment of postal infrastructure systems using Japan's superb postal business knowledge.