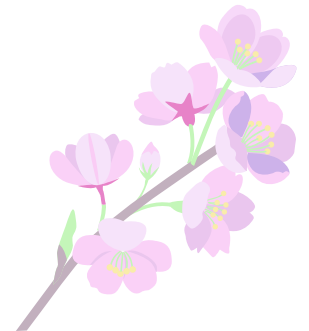
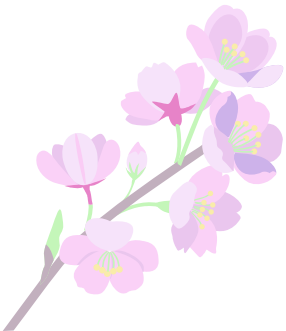


Digital TV Broadcasting in Japan

27th. Feb. 2008

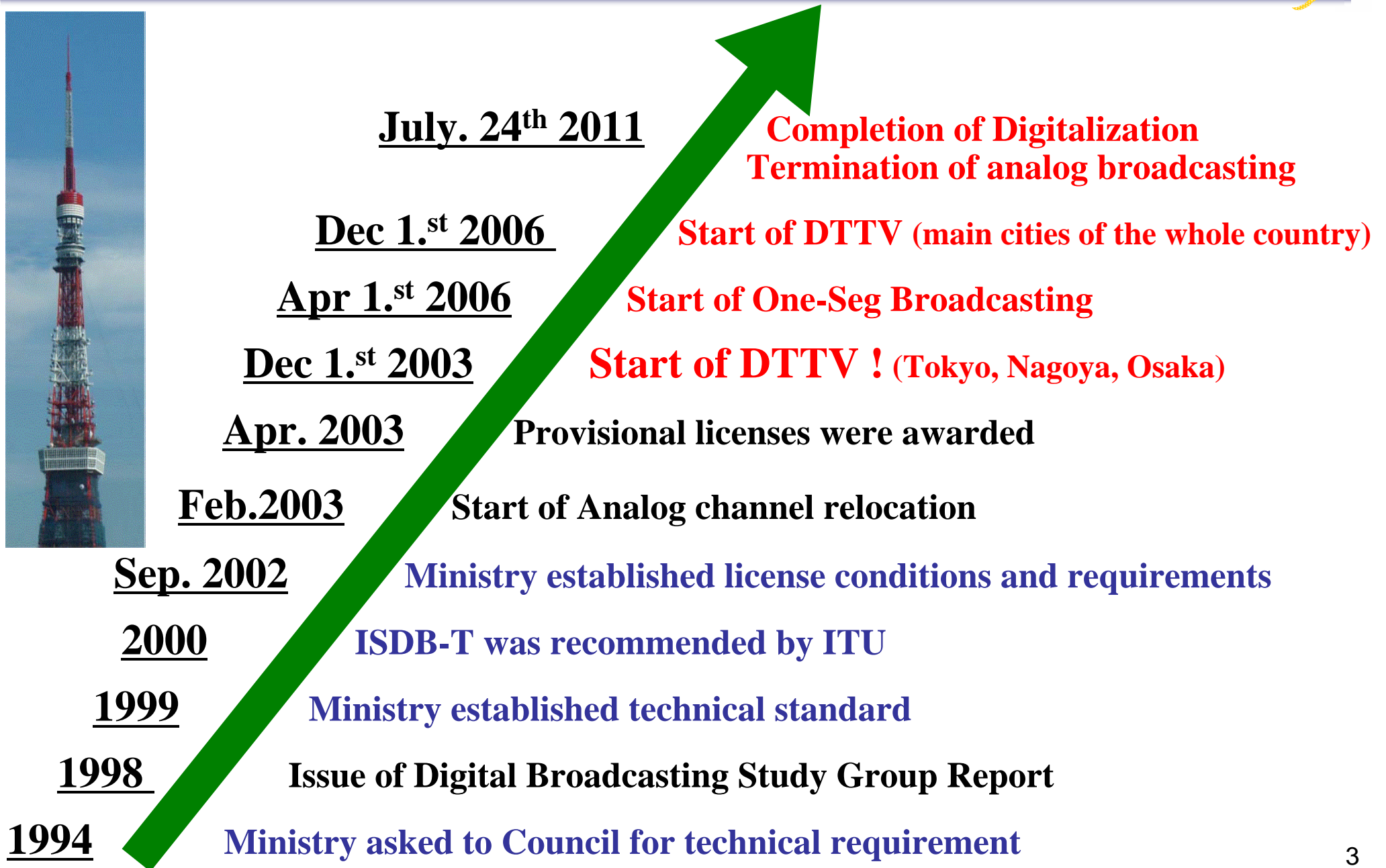
Tetsuo YAMAKAWA

Ministry of Internal Affairs and
Communications Japan



- **Current situation of digital terrestrial TV broadcasting (DTTB) in Japan**
- **Feature of ISDB-T**
- **Japanese assistance plan**

Current situation of digital TV broadcasting in Japan



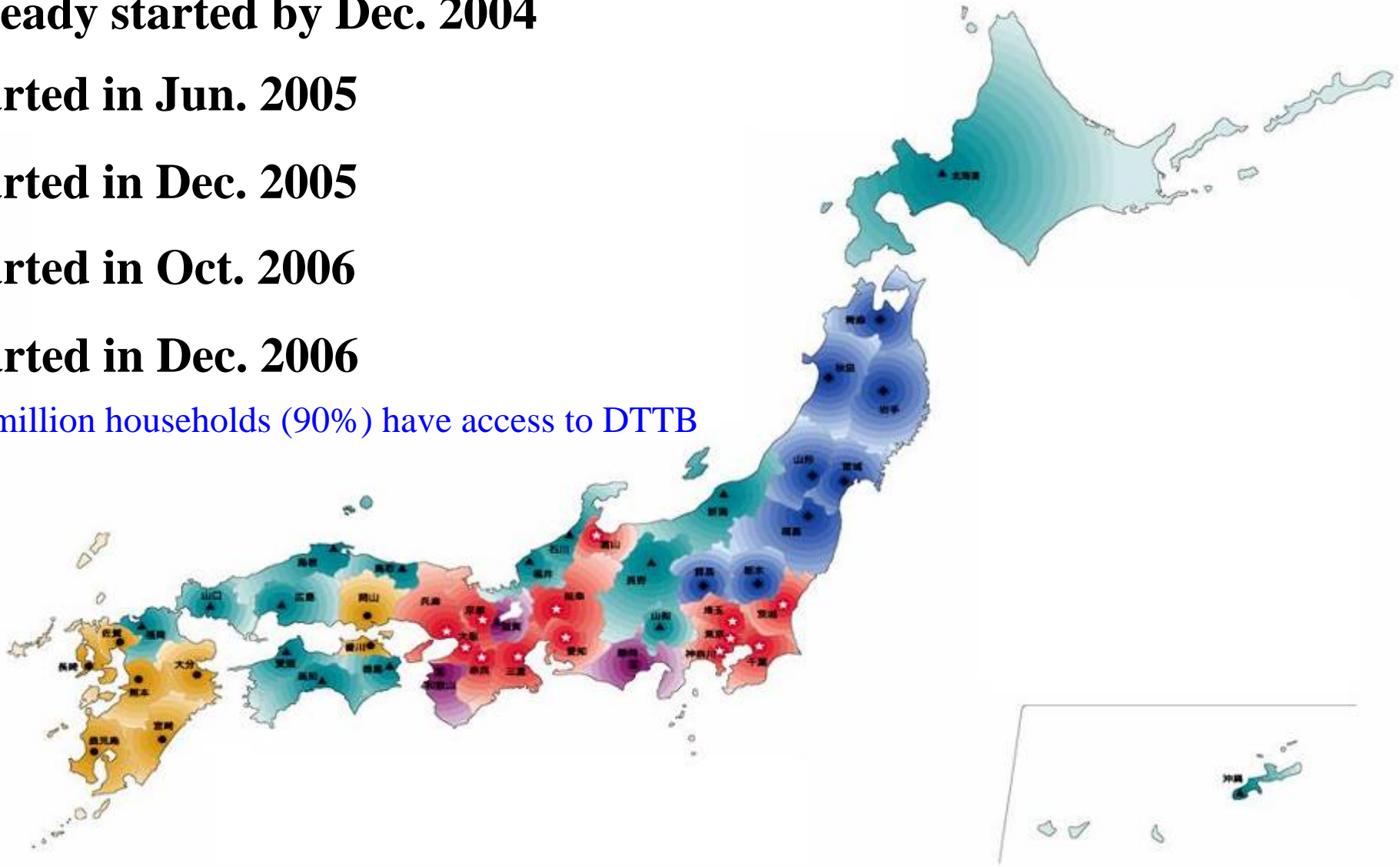


Expansion Schedule for DTTB in Japan



-  already started by Dec. 2004
-  started in Jun. 2005
-  started in Dec. 2005
-  started in Oct. 2006
-  started in Dec. 2006

Over 40 million households (90%) have access to DTTB





Diffusion of Digital Broadcasting Receivers



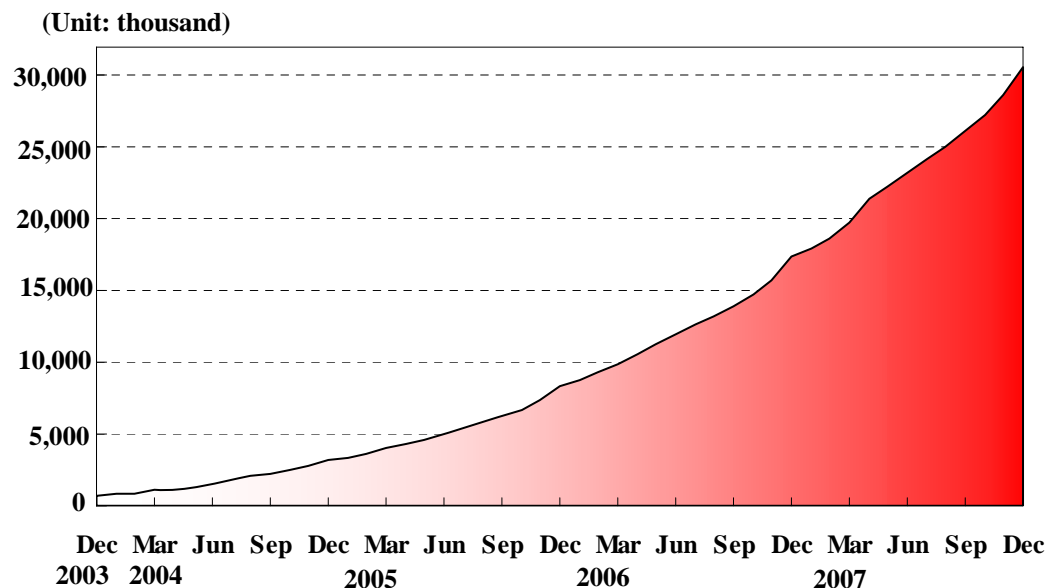
Dec. 2003 Start of digital TV broadcasting in three metropolitan areas

Dec. 2006 Nationwide accessibility of digital terrestrial television broadcasting

Jul. 2011 Termination of analog broadcasting

Digital Terrestrial Broadcasting Receivers

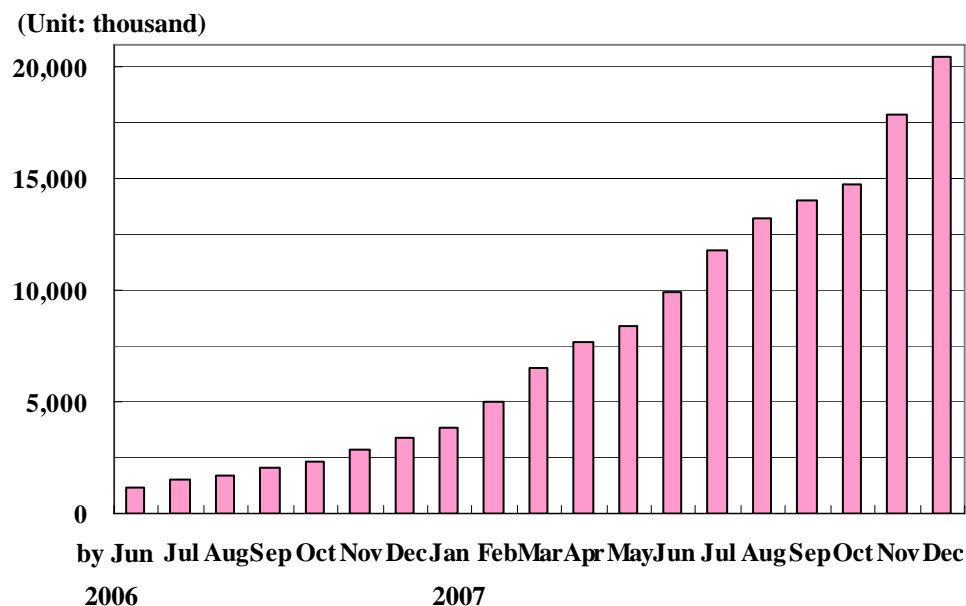
30.6 million digital terrestrial broadcasting receivers were shipped (by the end of Dec. 2007).



Source: Japan Electronics and Information Technology Association (JEITA), Japan Cable Laboratory

Mobile TV Phones

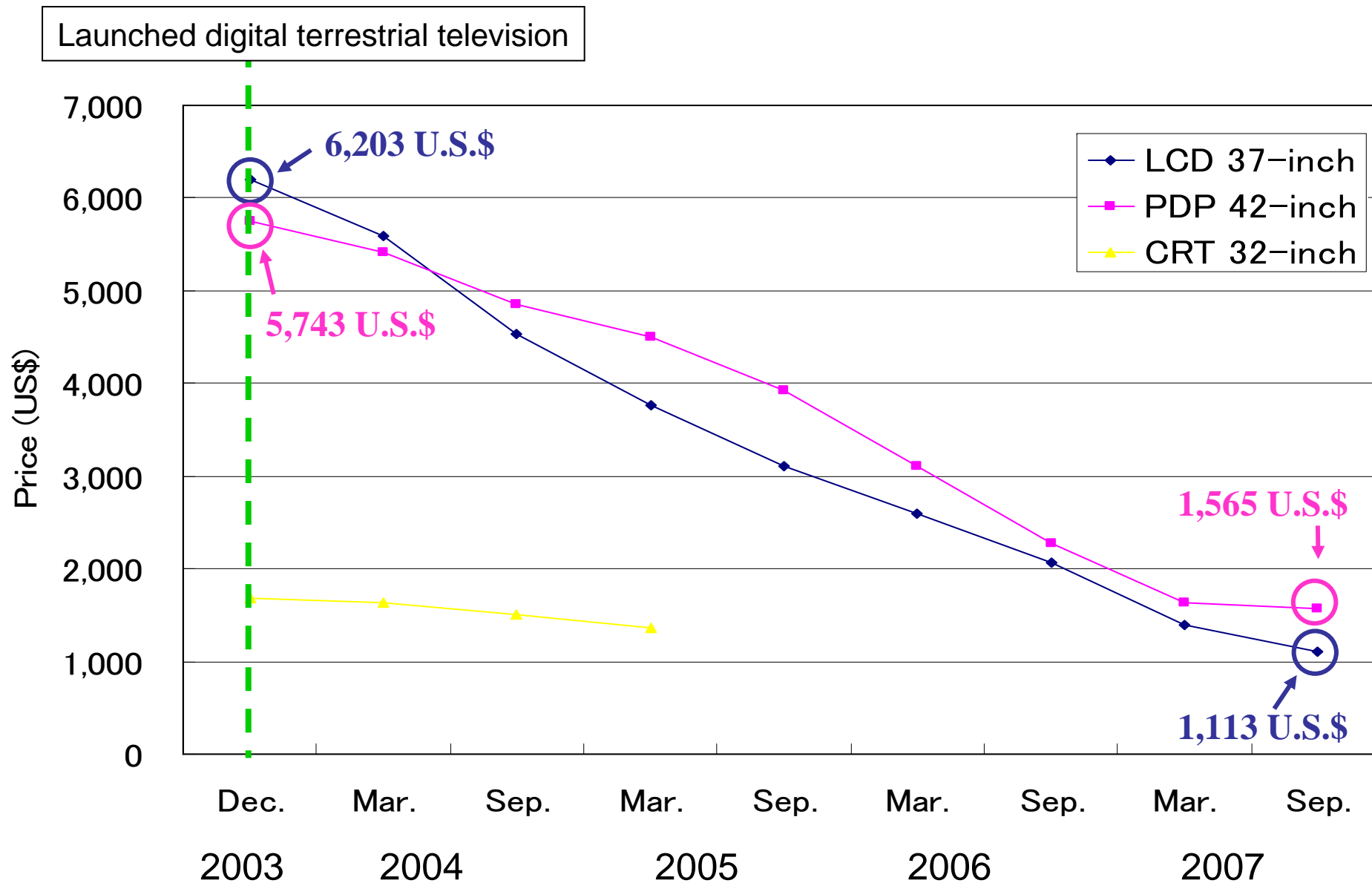
20.5 million mobile TV phones were shipped (by the end of Dec. 2007).



Source: Japan Electronics and Information Technology Association (JEITA)

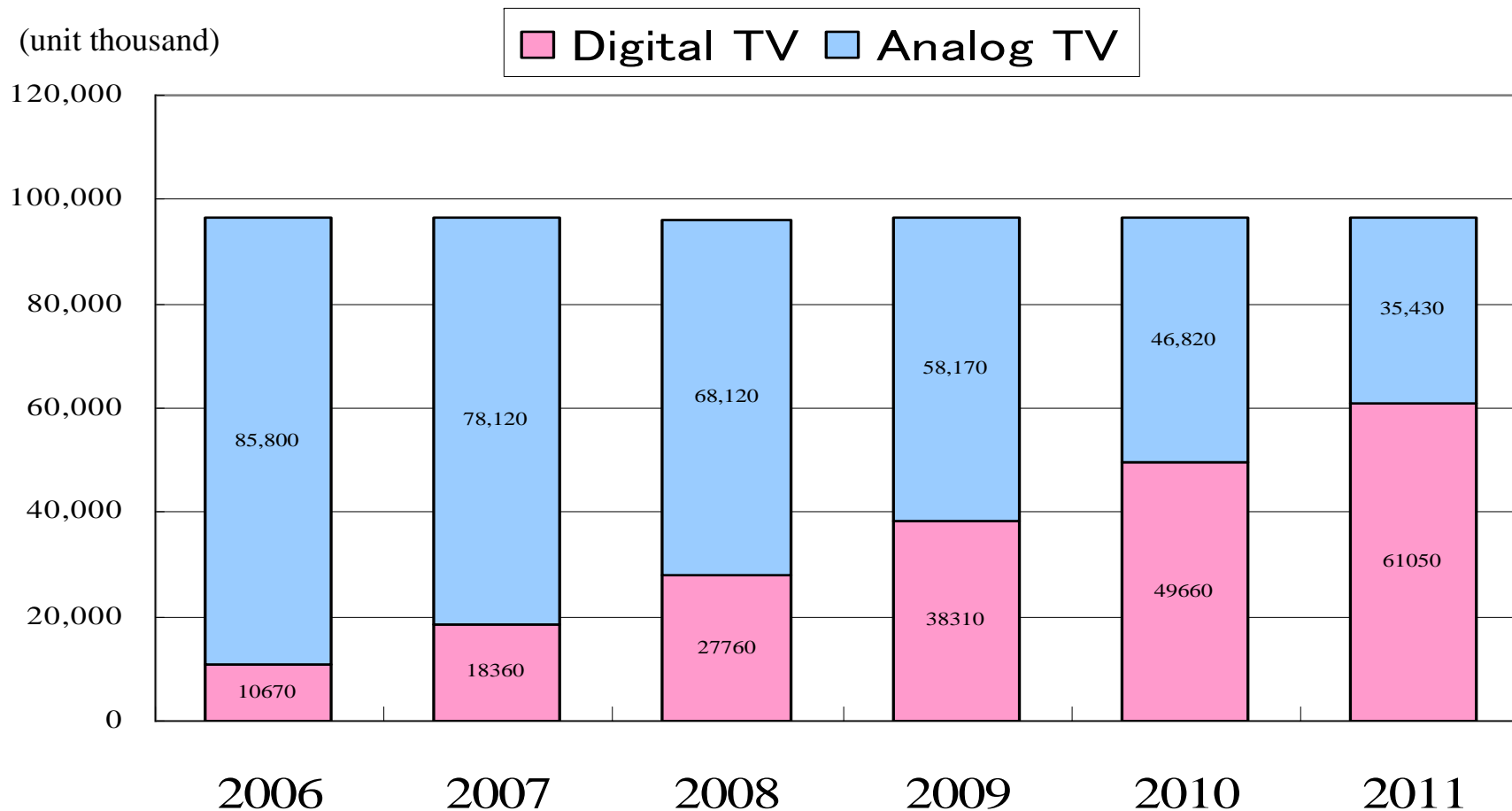


Change in Price of Major Flat Panel Displays (FPD)





Prediction of Analog TV Persisting in 2011



About 35 million analog TVs will be persisted in Japan by 2011, when transition of analog to digital broadcasting will be completed, especially in the field of public institution (e.g. schools, hospitals, and nursing homes etc..).



Very-low-price, Small-sized Set-Top Box



This set-top box for only 50 U.S. dollars is now under development



[main spec]

Item		Spec
Signal output	Video Audio	Video: Standard Definition Audio: (L, R) two devices (close-captioned)
Frequency band		VHF and UHF
Electric power		21W
Size		H100 × W25 × D131 (mm)








Receiver shipments of the countries and region assign the 6 MHz bandwidth to one TV channel



As of in December 2007

Digital Terrestrial TV Broadcasting System	Countries and Region	Receiver Shipments
ISDB-T  	<i>Japan</i> <i>Brazil</i> (※)	<u>Over 30,000,000</u> (Brazil is not included)
DVB-T 	<i>Taiwan</i>	<u>2,000,000</u>

※ Many countries examine adoption of ISDB-T positively.

Feature of ISDB-T



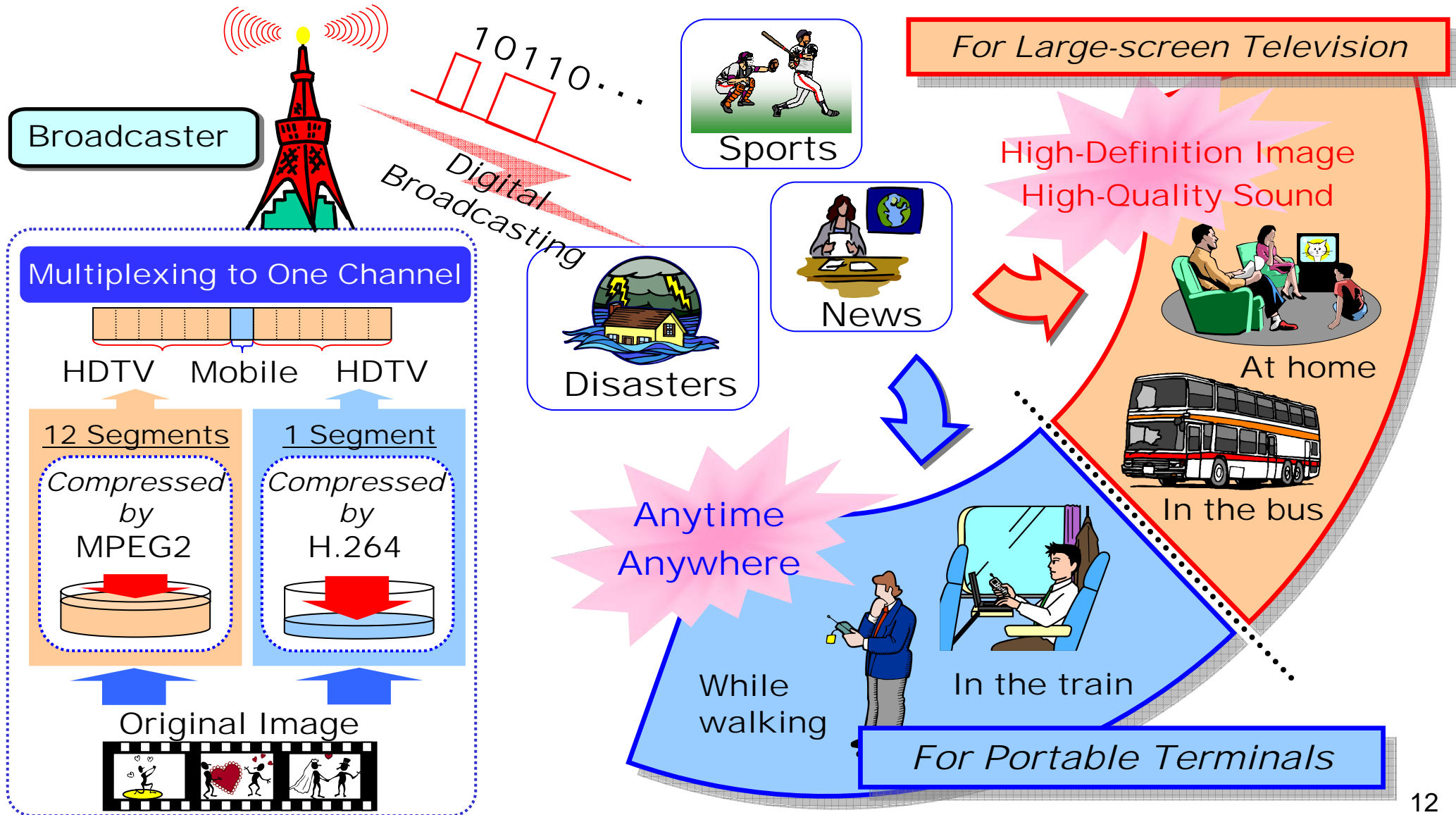
Comparison of Three DTTB Systems



System Features	Japan (ISDB-T)	EU (DVB-T)	U.S. (ATSC)
Service start time	2003	1998	1998
Multi-channel SDTV service	possible	possible	possible
HDTV service	possible	trial	possible
HDTV reception while moving	possible	impossible (only SDTV)	impossible
Portable reception using the same system as fixed reception	possible	impossible	impossible
Emergency Warning Broadcasting System	possible	impossible	impossible



HDTV, Mobile Reception, and Data (Multimedia) Broadcasting are necessary for Next Generation Broadcasting.



Japanese assistance plan



Dispatch of Japanese experts

Japanese experts will be dispatched to the Philippines for technology transfer to promote implementation of digital broadcasting. These experts hold seminars and workshops, and make lectures to Filipino Engineers and officers.

Invitation of Filipino Engineers to Japan

Filipino Engineers and students will be received in Japanese private companies which research new technology in broadcasting field.

Financing Plan

JBIC has existence schemes for financial support to import facilities which accompanies the implementation of digital broadcasting.

JBIC: Japan Bank for International Cooperation

URL: <http://www.jbic.go.jp/english/index.php>



Thank you !



➤ **Ministry of Internal Affairs and Communications
(MIC) :**

http://www.soumu.go.jp/joho_tsusin/eng/index.html

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