

Digital Broadcasting in Japan - Year 2011

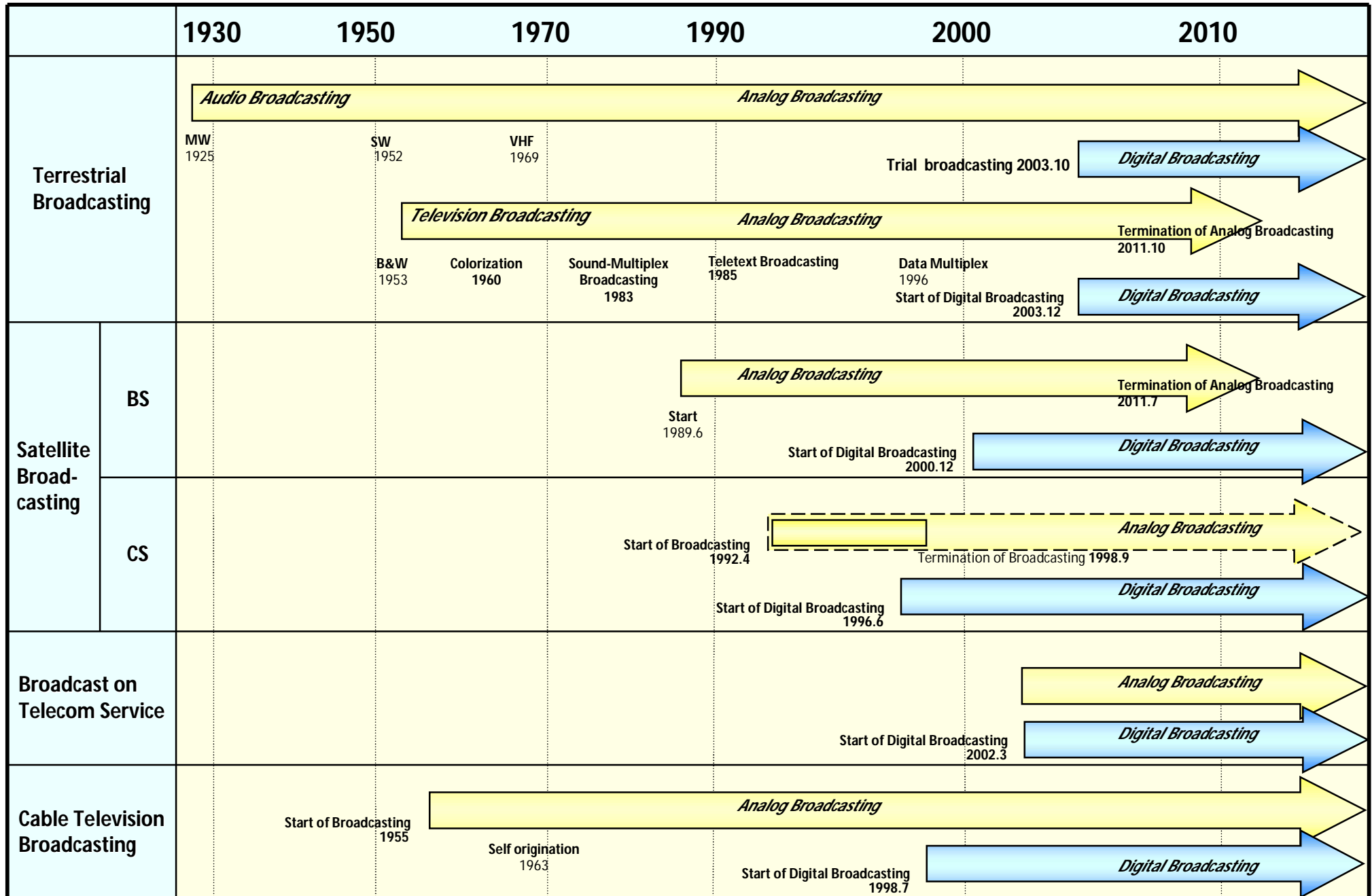
Yasuo SHINOZAWA

April 2009

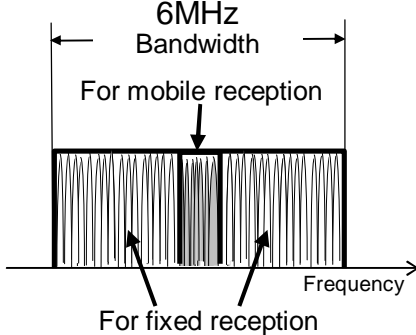
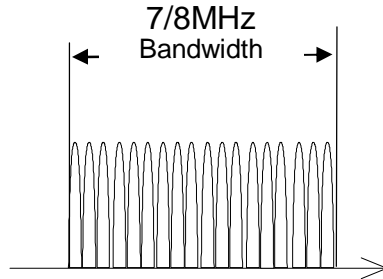
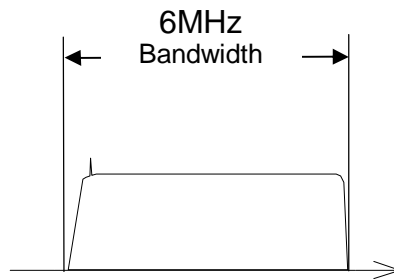
Second Secretary
Embassy of Japan in Hungary

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Ministry of Internal Affairs and Communications, Japan

Broadcast Media Development in Japan



Three Digital TV Systems

System Characteristics	Japan/Brazil (ISDB-T)	EU (DVB-T)	USA (ATSC)
Transmission System	 <p>6MHz Bandwidth For mobile reception</p> <p>For fixed reception</p> <p>Frequency</p> <p>Multi-Carrier + Time Interleaving + Segmented Structure</p>	 <p>7/8MHz Bandwidth</p> <p>Multi-Carrier</p>	 <p>6MHz Bandwidth</p> <p>Single-Carrier</p>
Robustness (c/ indoor antenna)	Excellent	Medium	Poor
HDTV reception in movement	High Performance	Fragile	Poor
Dual service for FREE in only one channel: FIXED y PORTABLE RX	Implemented	Possible	Not standardized

ISDB-T: Free Digital TV

In addition to complete catalogue of the assistances :

➤ Major Economic Efficiency

- ✓ **Dual Services** fixed and mobile with a single transmitter
- ✓ **Able to avoid the duplication of investment for the Operators**
- ✓ **Not to the corporate economic interests by selling products such as transmitters, mobile devices, subscriptions, etc...**

➤ MORE COVERAGE WITH PORTABILITY

- ✓ **Essential tool for mass outreach:** Advertisements in national chain, alerts on weather, natural disasters and / or emergencies.
- ✓ **DUPLICATES THE HEARING**-mobile and fixed
- ✓ **GREATER ACCESSIBILITY** next to the immunity of the signal

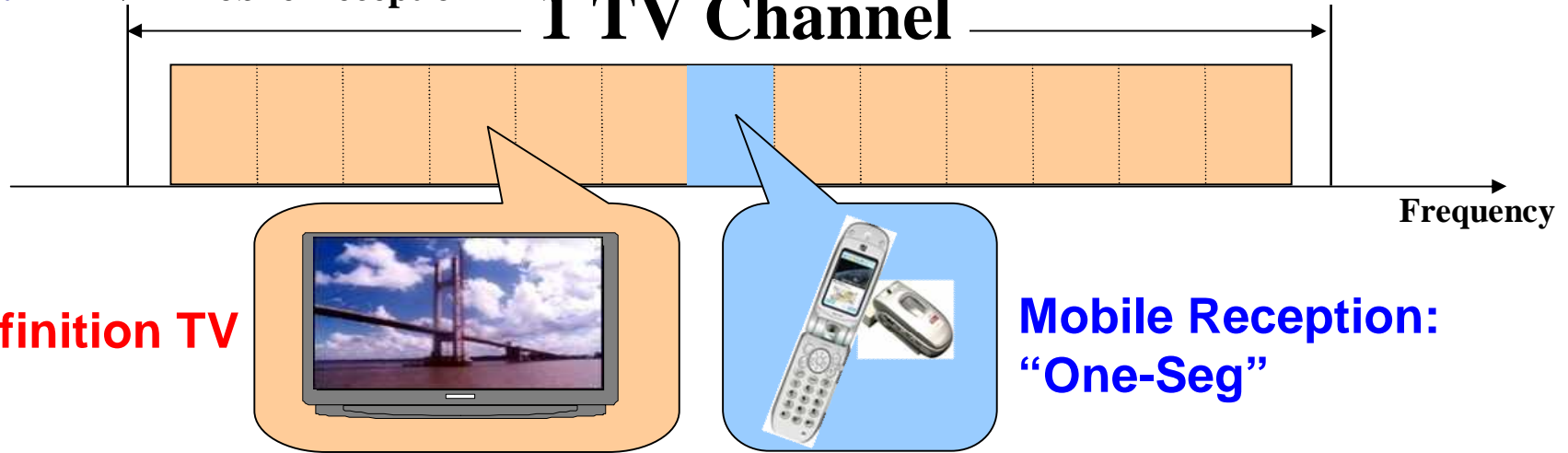
➤ Free Mobile Reception

- ✓ **Massive and direct benefit to users**
- ✓ **Does not require fertilizer the mobile reception**
- ✓ **Does not require citizens to pay for it**

Flexibility of ISDB-T

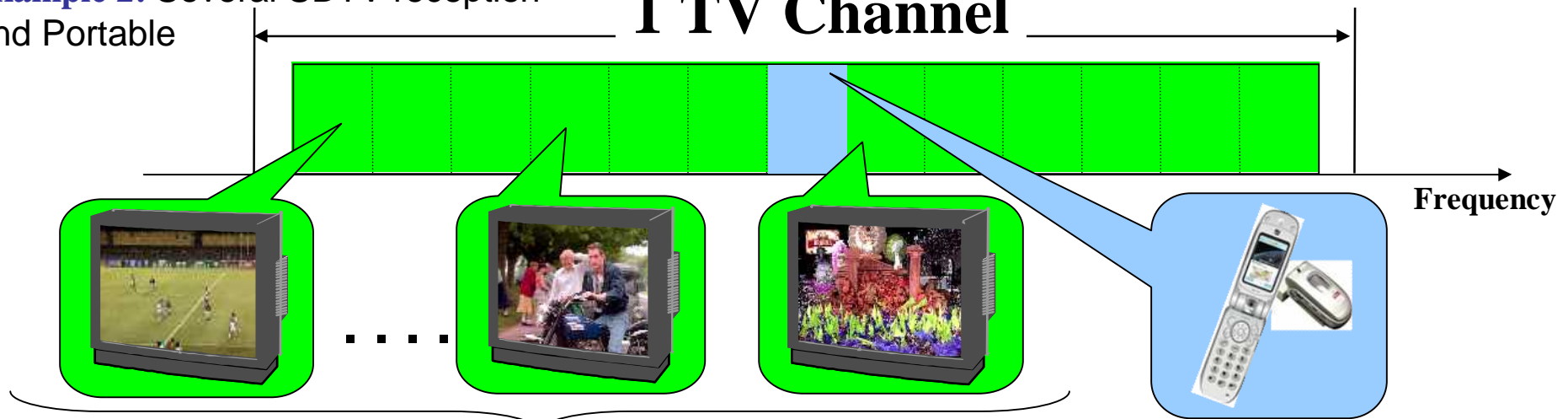
Example 1: HDTV + Mobile Reception

1 TV Channel



Example 2: Several SDTV reception and Portable

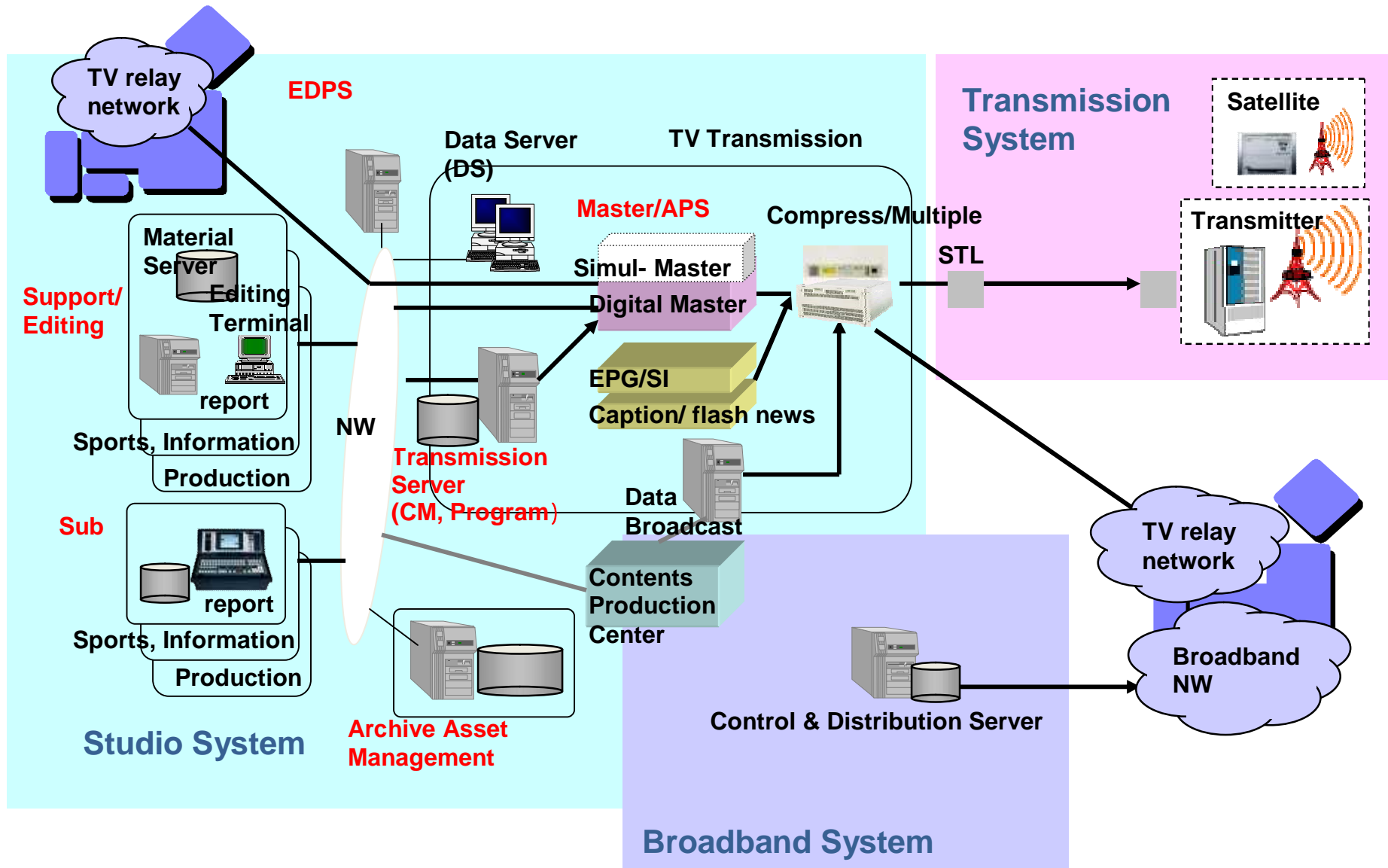
1 TV Channel



Up to 8 programmes in SDTV

Segmented Structure: A unique feature of ISDB-T

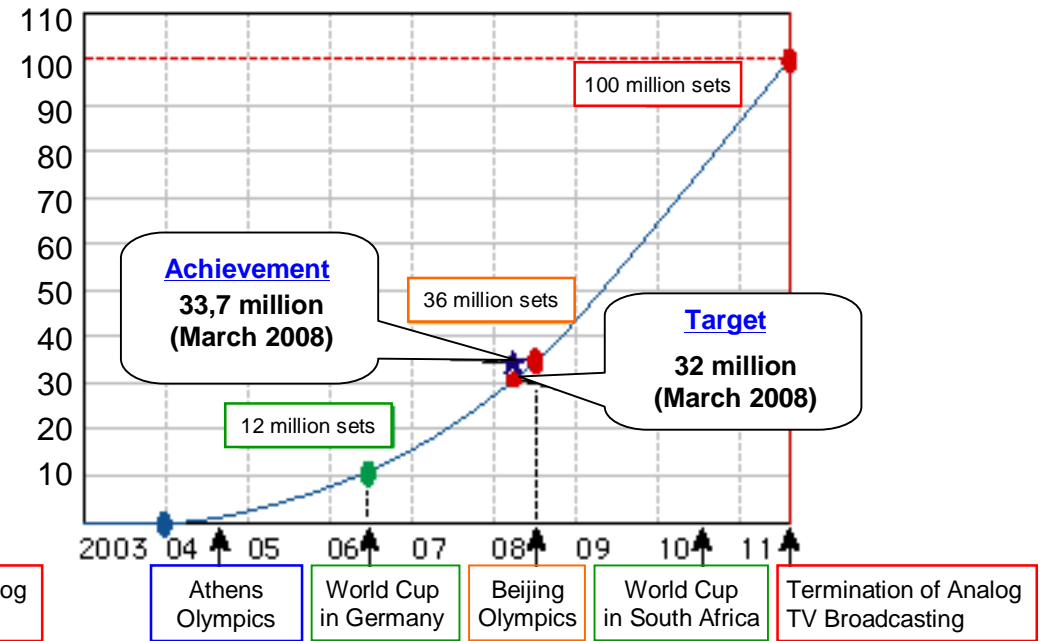
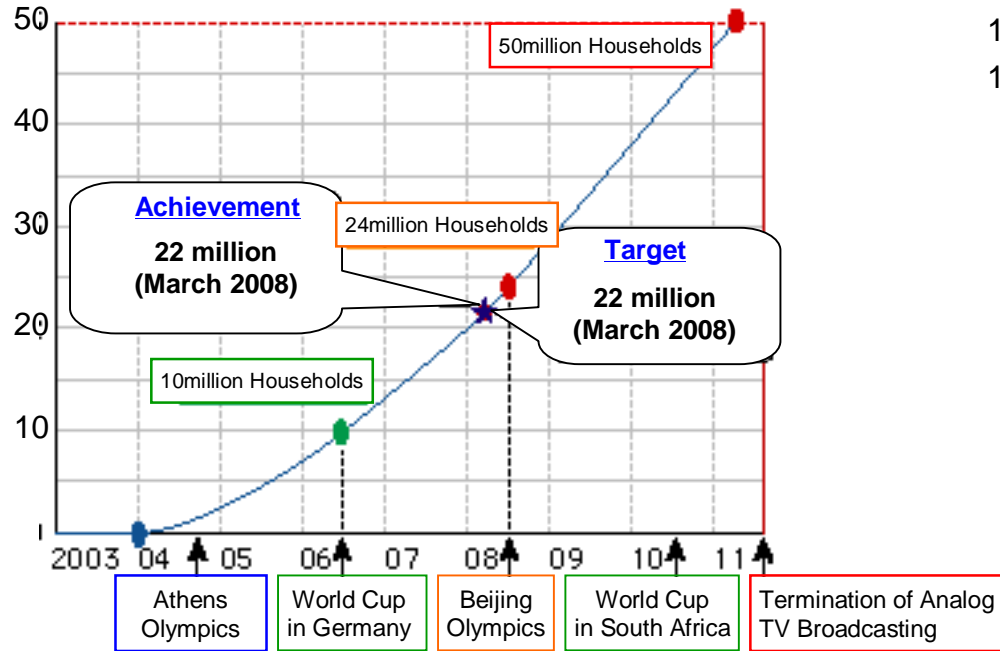
Broadcasting Systems



Diffusion Road Map in Japan

Target and Achievement for the penetration rate for households

Target and Achievement for the penetration of Television sets



Coverage/Households

(December 2003)
25 %

↓

(December 2006)
84 %

↓

(December 2008)
96 %

Cumulative Shipments

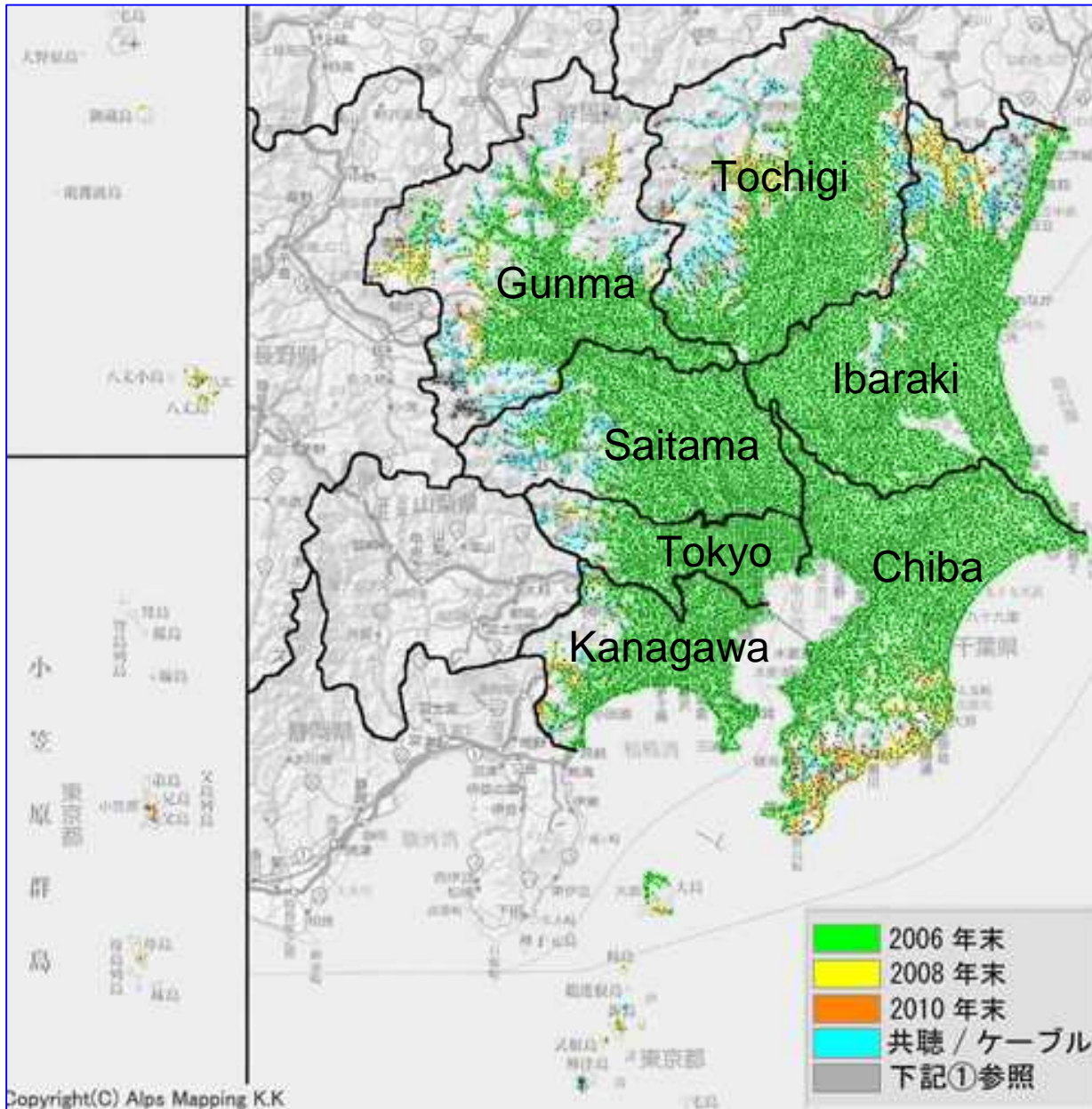
Digital Tuner for Television
(September 2008) 41,2 million sets

One-Seg Mobile Phone
(September 2009) 43,6 million sets

In Car Digital Broadcasting system
(February 2009) 2,5 million sets

Source: JEITA

Coverage Area (Example)



Coverage/Households
Kanto Region, Japan

Broadcaster	Prefecture	2008.12 Radio wave	2008.12 Cable/Public
NHK	Ibaraki	98.7 %	0.8 %
	Tochigi	95.8 %	2.3 %
	Gunma	97.4 %	2.0 %
	Saitama	99.4 %	0.4 %
	Chiba	99.0 %	0.3 %
	Tokyo	99.9 %	0.1 %
	Kanagawa	99.3 %	0.3 %



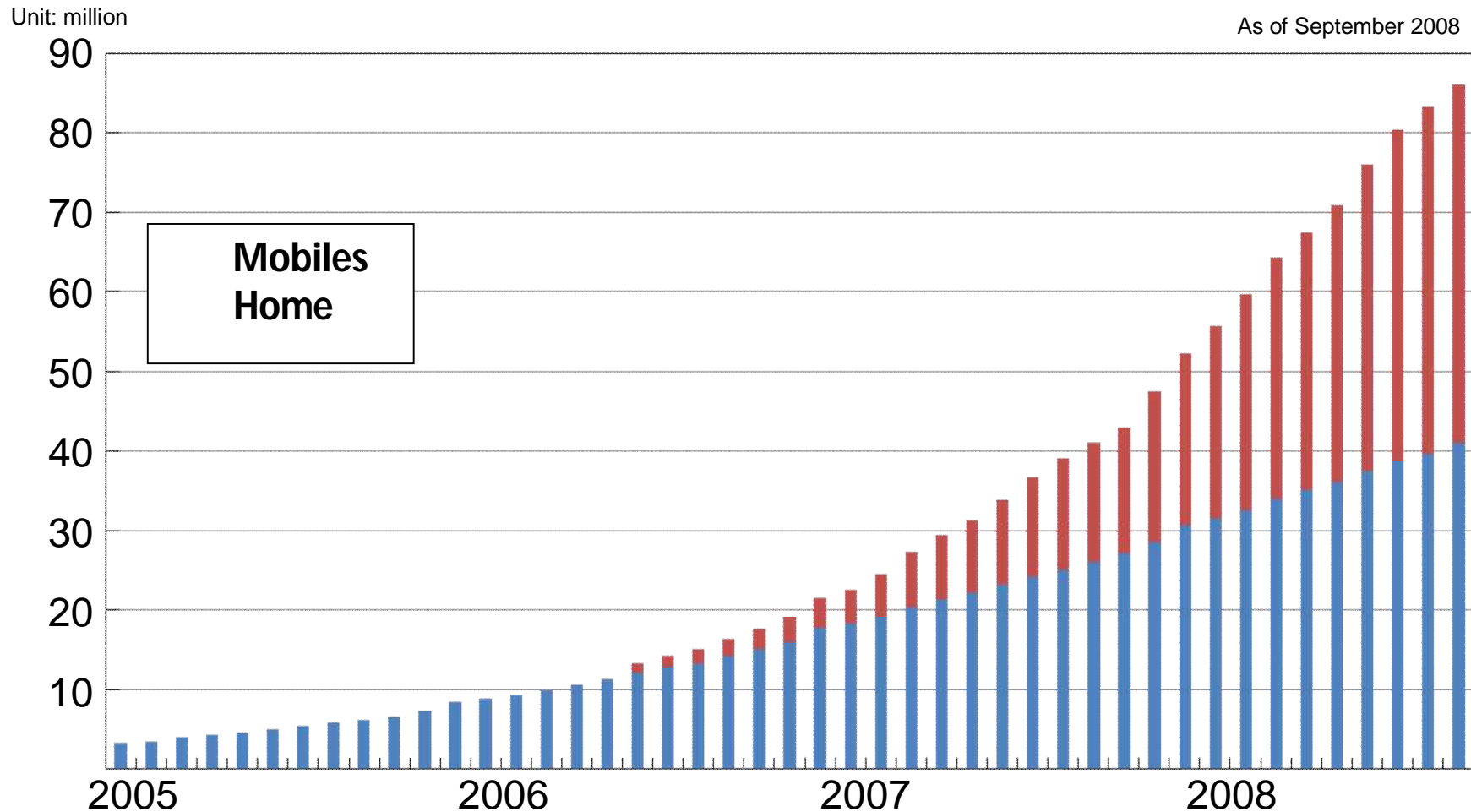
Japan

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Source: Dpa

Digital Terrestrial TV in Japan

84.8 million receivers on the market



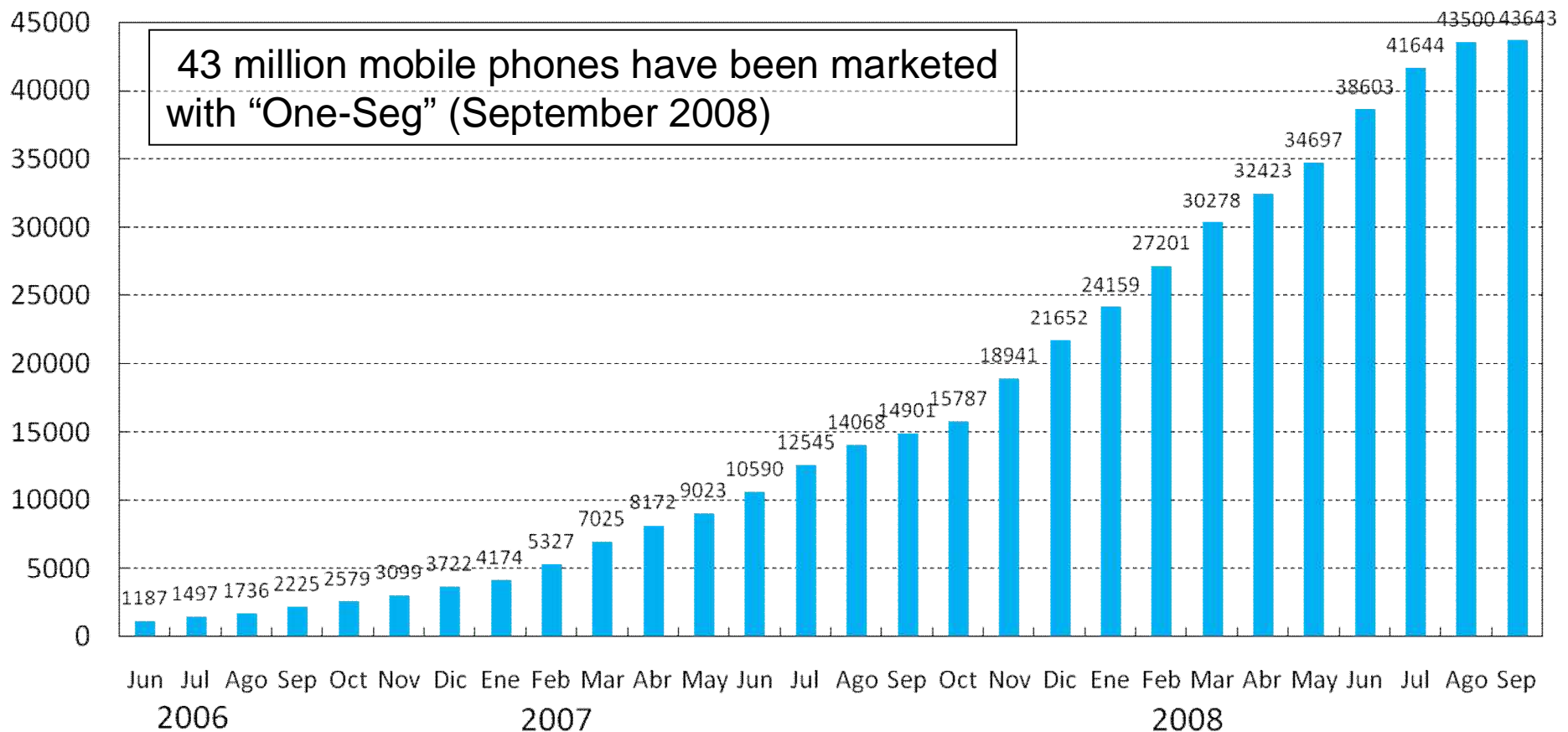
43.6 million sets of mobile phones have been shipped until late September 2008.
41.2 million sets of homes have been installed with until late September 2008.

Source: JEITA

Expansion of "One-Seg"

- The service called "One-Seg" was launched in April 2006.
- More than 43 million cell phones have been sold in 30 months.
- **The "One-Seg" is fully compatible with both GSM and 3G.**

(Unit: thousands)



Digital Broadcasting Provides Advanced Service

High-Definition Images (Hi-Vision) and High Quality Sound

- The quality images on the wide, 16:9 aspect ratio screen
- CD-quality sound make you feel as if you were there.



Data Broadcasting

- News, weather and other practical information is available on data broadcasts by touching the remote control.
- The two-way net link enables viewers and listeners to enjoy participation in interactive programs.



Subtitling

- Subtitling can be enjoyed as a standard feature of digital reception.
- Subtitles are available even for some live broadcasts.



Mobile Service

- The One-Seg service sends images with little deterioration to mobile phones, car TV's, personal computers etc. so that you can also enjoy digital terrestrial broadcasts on the go.
- This can also be an important safeguard for life and property in case of emergency, because reliable information about evacuation routes, the safety of family members etc. can be received even when the phone lines are congested.



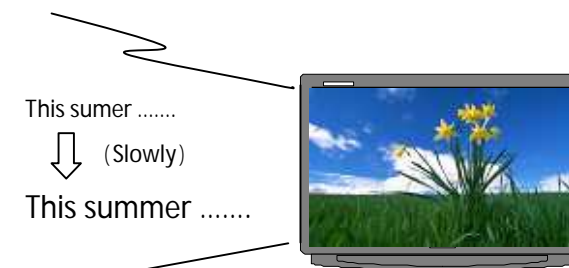
Multiple Use

- You can see the programme schedule seven days in advance. Recording settings immediately respond to schedule changes.



Speech Speed Alteration

- Some receivers offer a slow speed option.



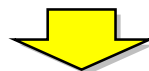
General Procedure for Promoting Digital Terrestrial Broadcasting

Regarding terrestrial television broadcasting, analog terrestrial broadcasting will be removed from service by July 24, 2011, to complete the transition to digital terrestrial broadcasting. Considering the report, MIC has decided the measures to be taken toward the transition to digital terrestrial broadcasting and has put them together as a general procedure for promoting digital terrestrial broadcasting.



“ General Procedure for Promoting Digital Terrestrial Broadcasting ”

- I. Actions for helping people understand Digital Broadcasting (July 2008, Revised January 2009)
 - Try hard to keep everyone informed through Broadcasting
 - Improvement of the consulting system
- II. Actions by receiving side
 - Diffusion of receiver
 - Installation of receivers to public facilities
- III. Actions by transmitting side
 - Promotion of Relay station
 - Usage of CATV
- IV. Actions for the termination of analog television broadcasting
 - Plan for the termination of Analog Broadcasting
 - Consolidate the system for the termination of Analog Broadcasting



Examples of the Action

- Give information through broadcasting on using “Analog Mark” (July 2008-)
- MIC Television Viewer Support Centers”Digisapo” (11 locations across Japan in October 2008. All prefectures from February 2009)
- Financial Support to buy receivers for the people who are exempt from TV reception fee of NHK (2009-)





THANK YOU!

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