

# Highlights of the Japanese Mobile Market

---

Akihisa Kodate, Associate Professor  
Department of Computer Science, Faculty of Liberal Arts  
Tsuda College, JAPAN  
E-mail: [kodate@tsuda.ac.jp](mailto:kodate@tsuda.ac.jp)

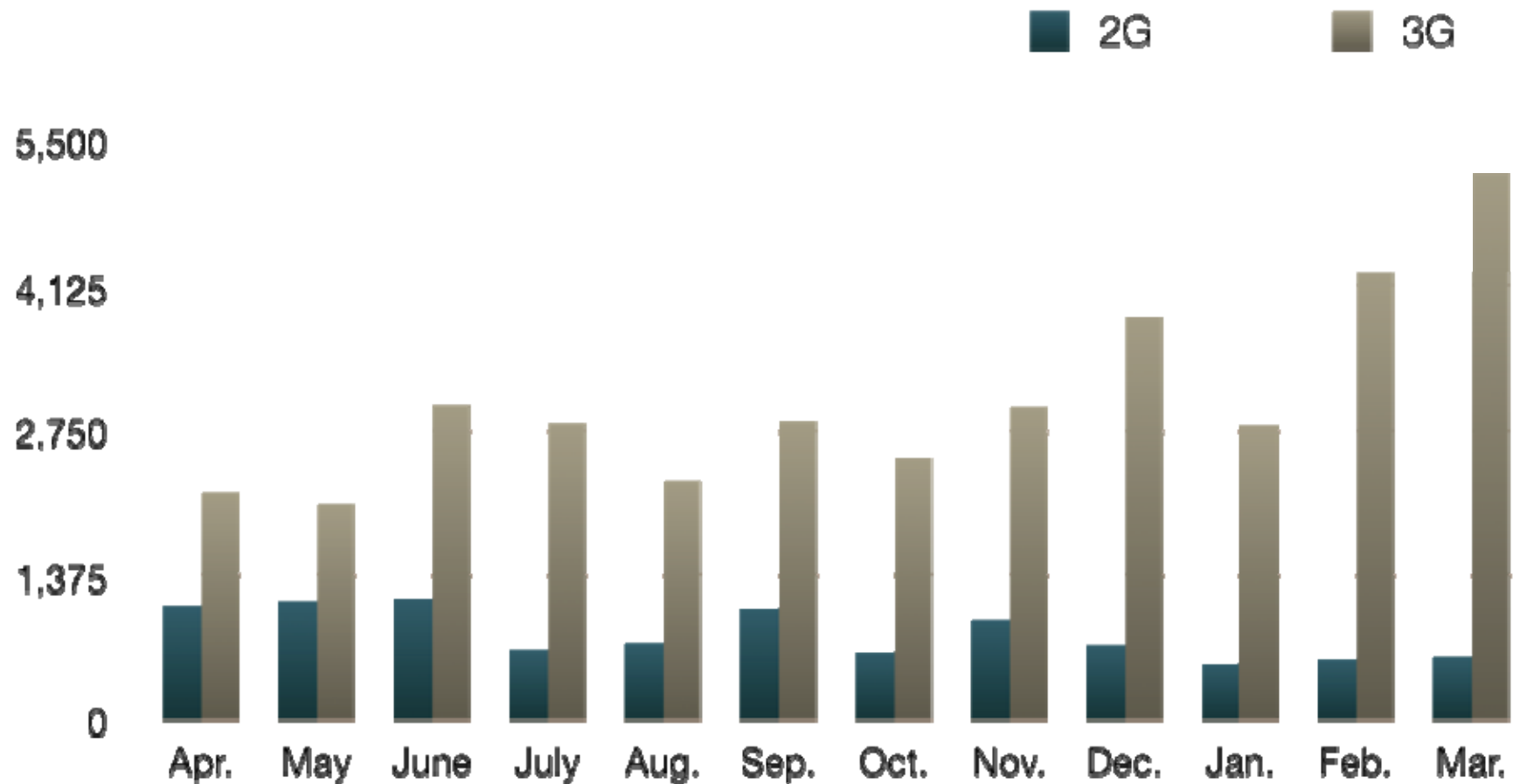
# Presentation Outline

---

- Current status of Japanese 3G Mobile Market
- Introduction of New Services and Handsets
- Toward “Ubiquitous Networking Society”

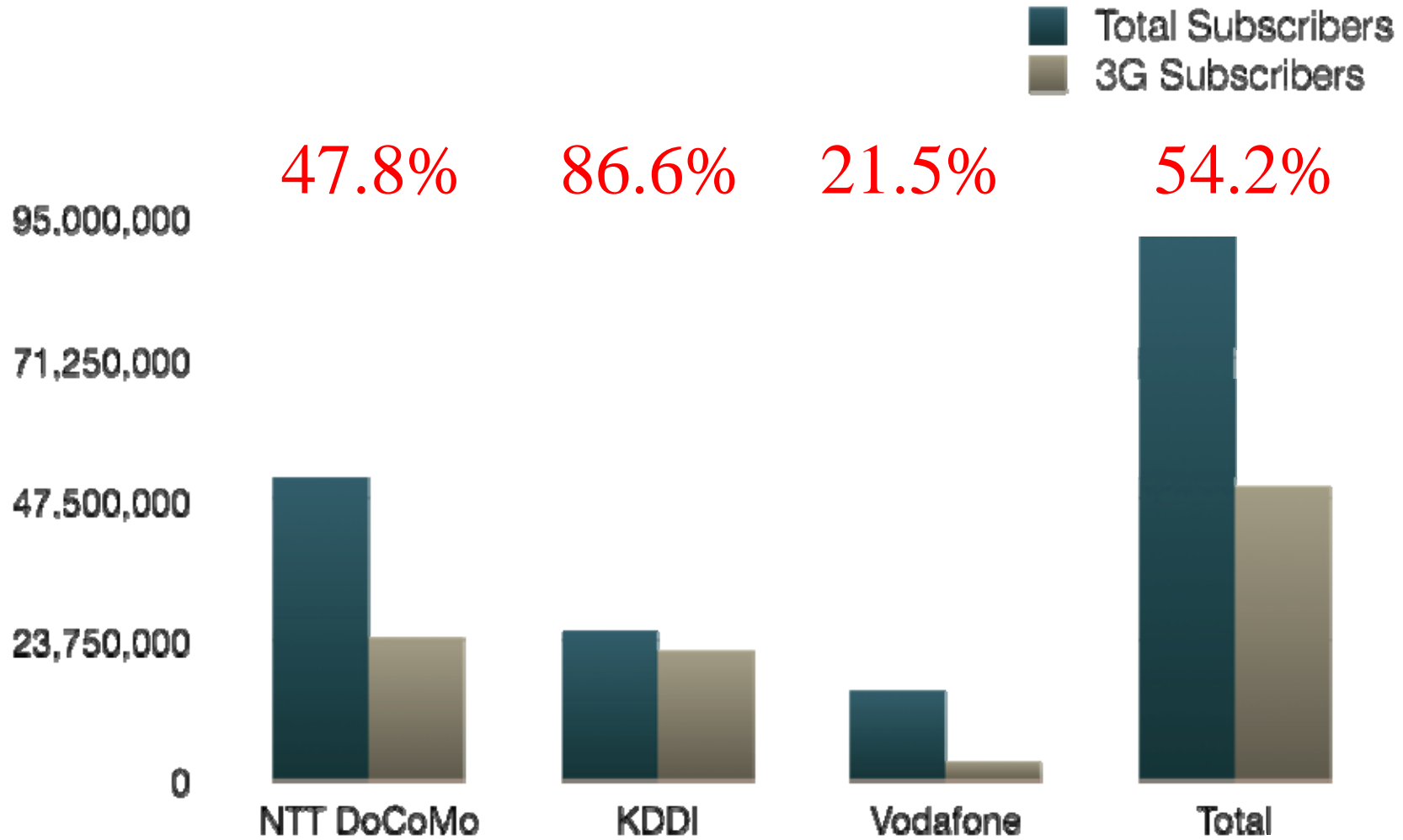
# Domestic Shipments of 2G/3G Mobile Handsets

---



Source : Japan Electronics and Information Technology Industries Association

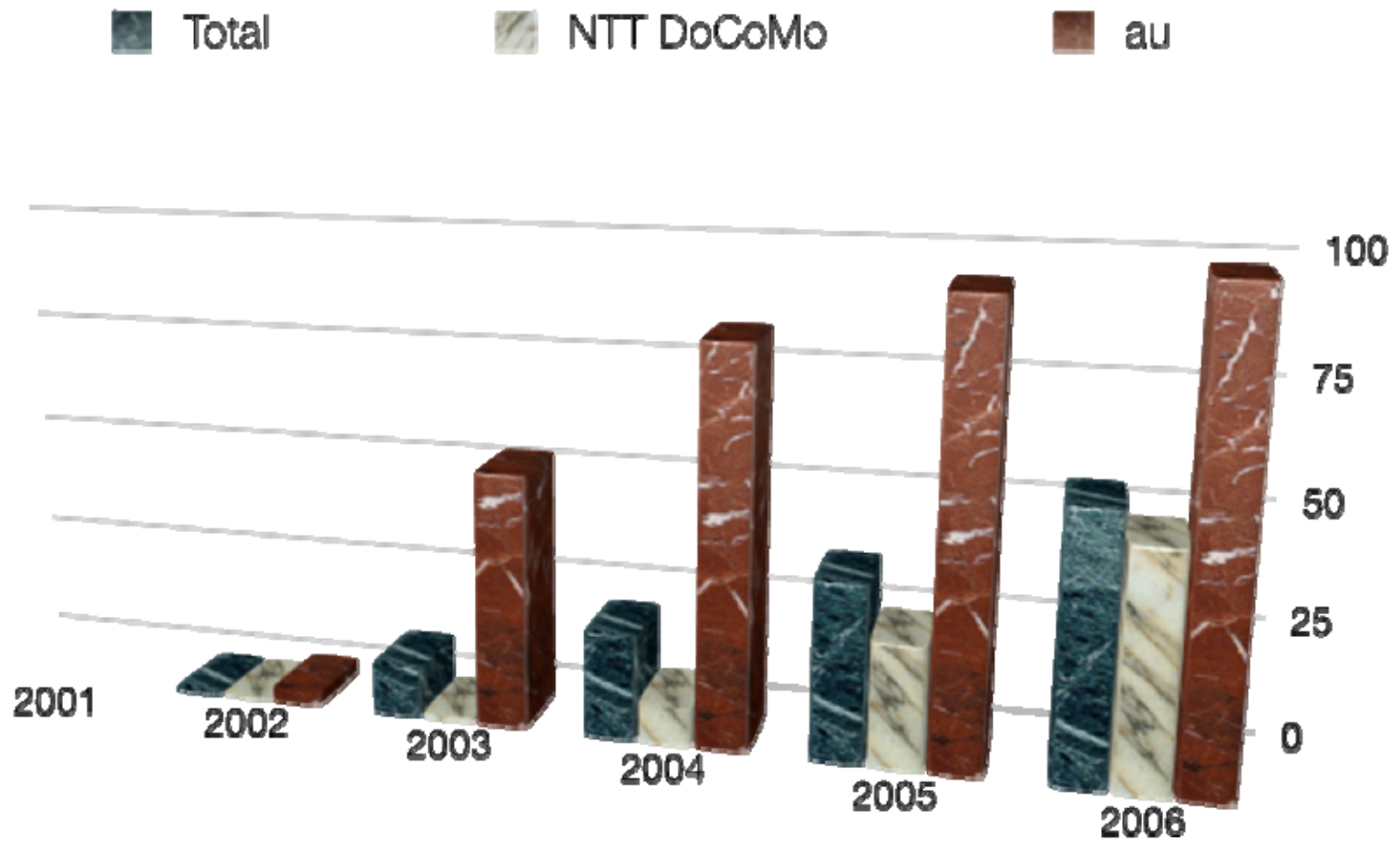
# Rate of 3G Service Subscriptions per Carrier



Source: Telecommunications Carriers Association of JAPAN, March 2006

# Growth of 3G users rate in the last 6 years

---



# DoCoMo's Case : Path of 3G dissemination

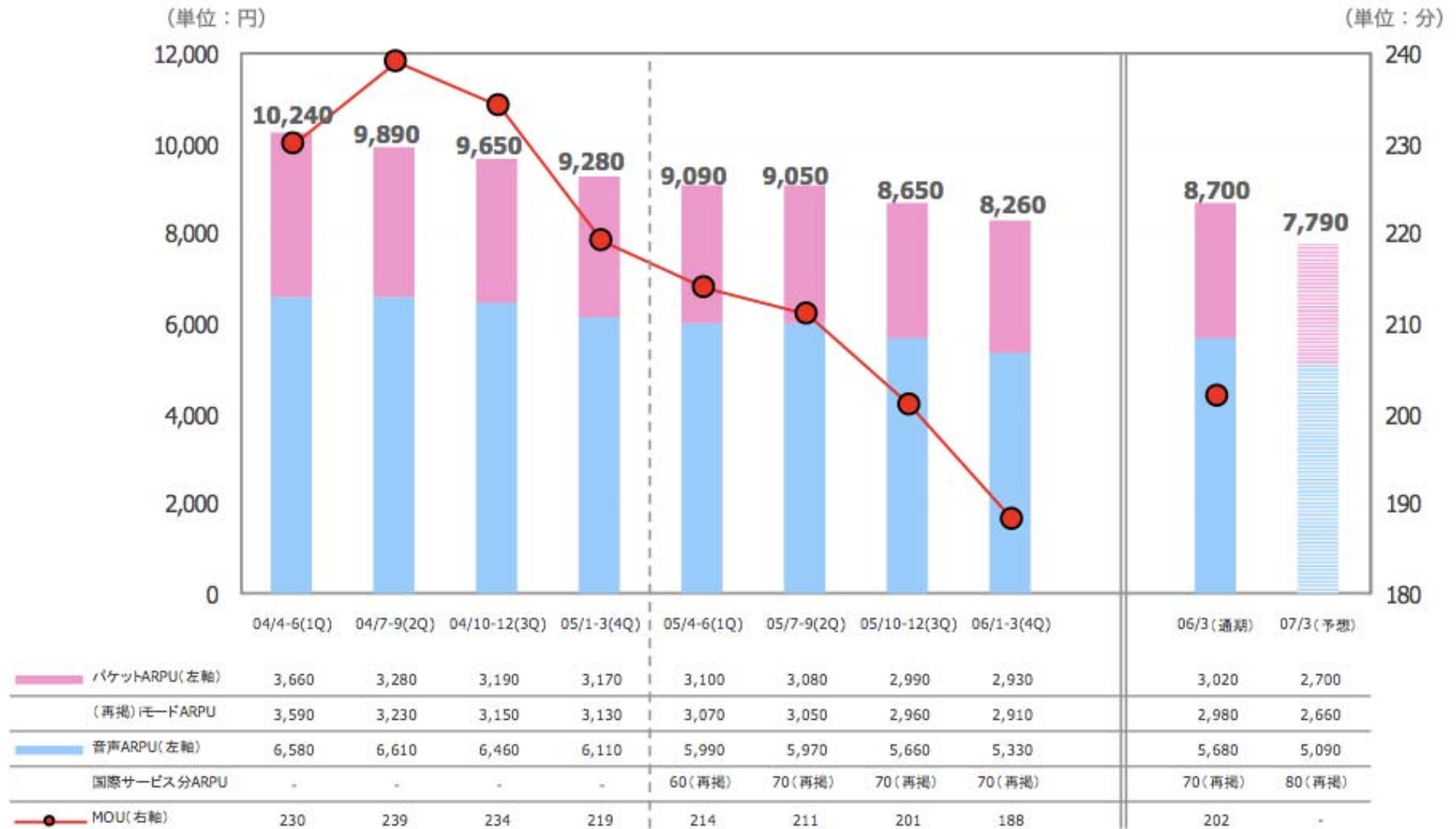
---

- Launched in October, 2001, difficult campaign in the beginning
- Big smash in 2003 by N2701 and P2101v
  - downsized, longer battery life similar to 2G(PDC) handsets
- Shift to more market-oriented design
  - Change of product name “N2701” → “N900i” (3 digit product number) and easy-to-understand lineup of low-end, high-end and “Concept Model”
  - Introduction of design-aware handset (following the success of KDDI “au design project”)
- Extension of Coverage



3G user : 47.8% (March, 2006)

# DoCoMo's Case : ARPU & MOU of FOMA(3G)



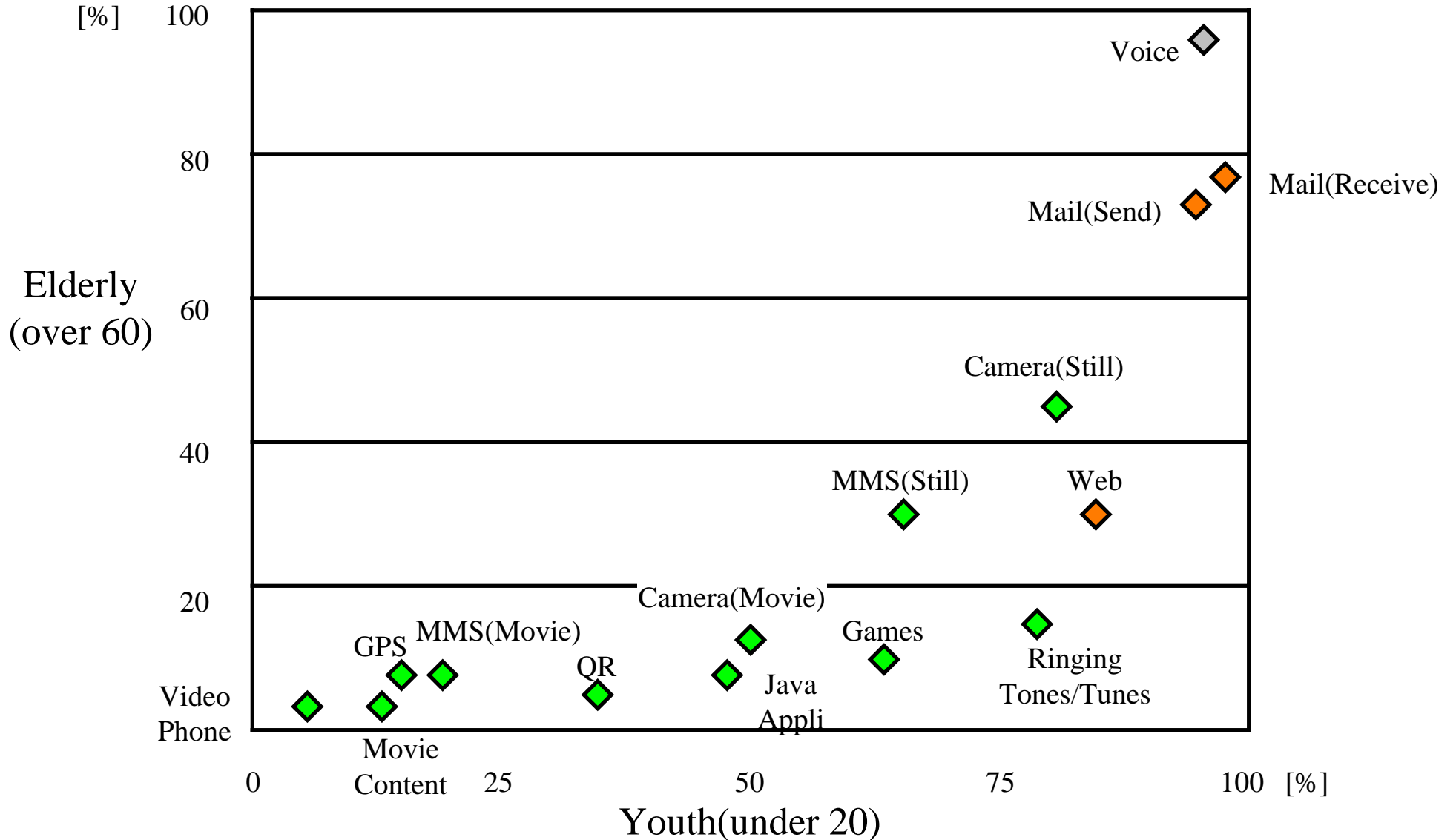
Source:NTT DoCoMo, March 2006

# DoCoMo's Case : ARPU & MOU of mova(2G)



Source:NTT DoCoMo, March 2006

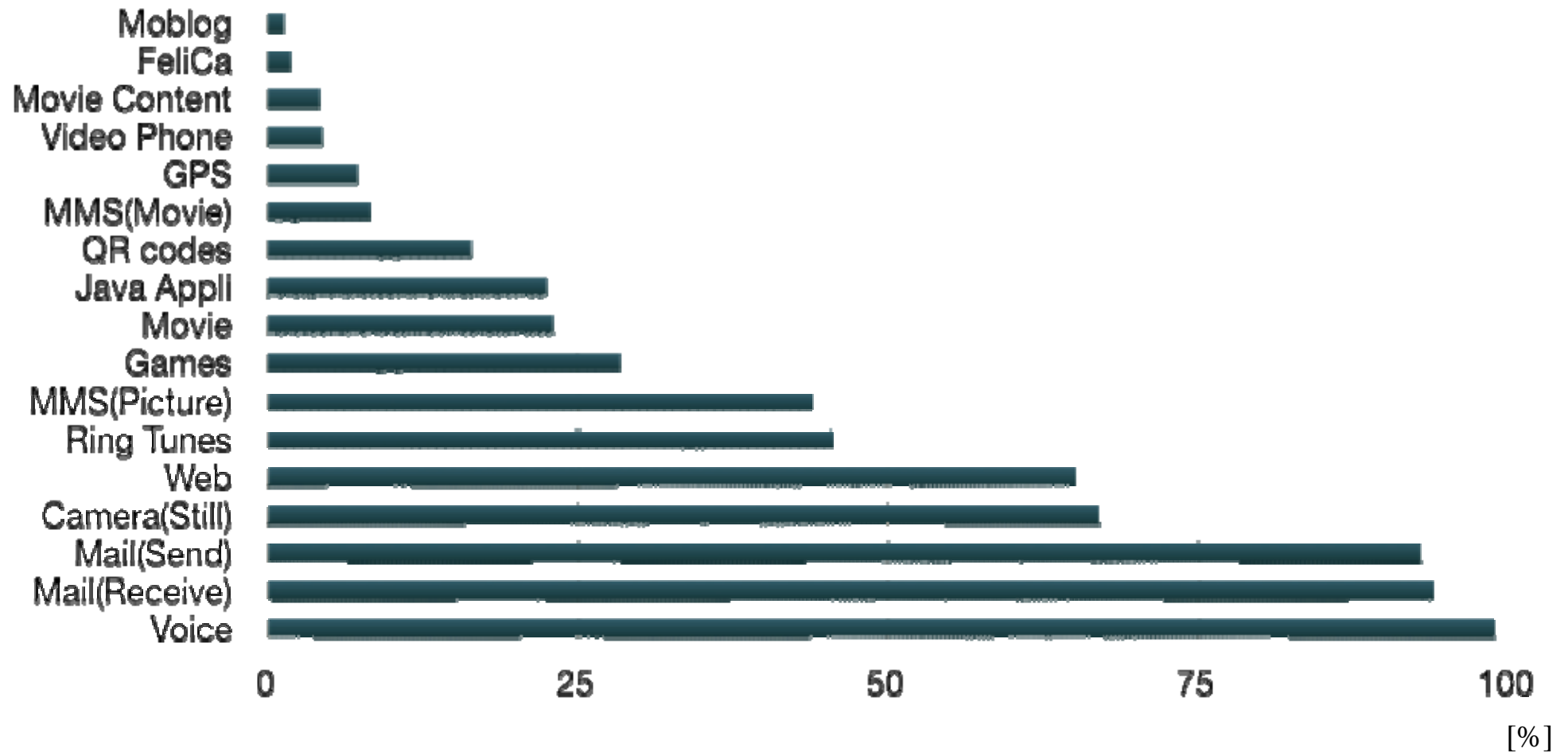
# Mobile Service Usage - Comparison Elderly-Youth -



Source: White Paper on Mobile Society 2005

# Mobile Service Usage : All age groups

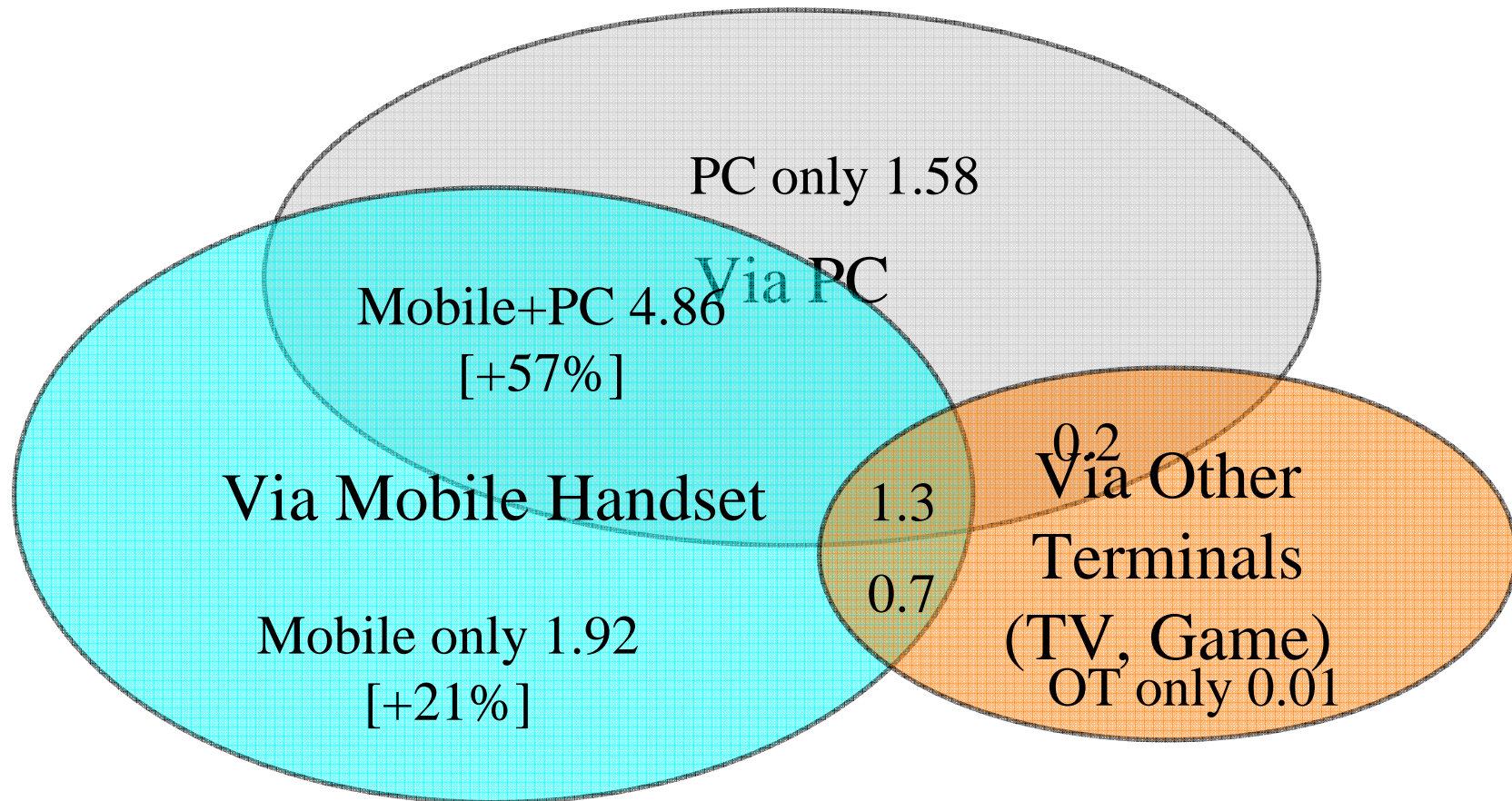
---



Source: White Paper on Mobile Society 2005

# Terminals to the Internet

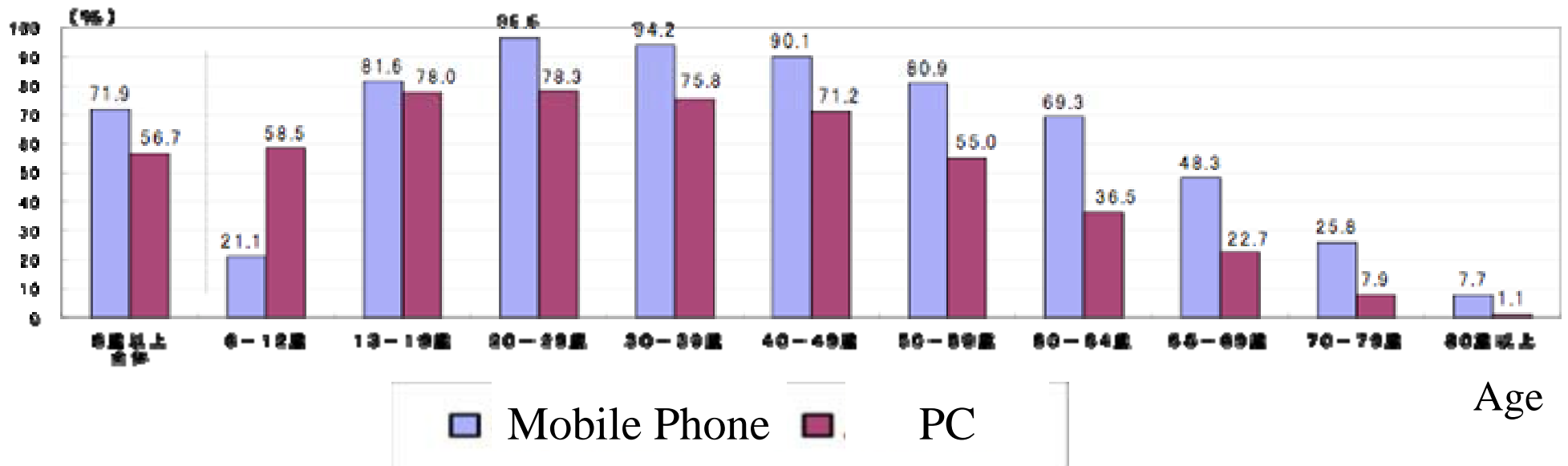
“Mobile only” + “Mobile + PC” (69.2) > “PC only” + “PC + Mobile” (66.0)



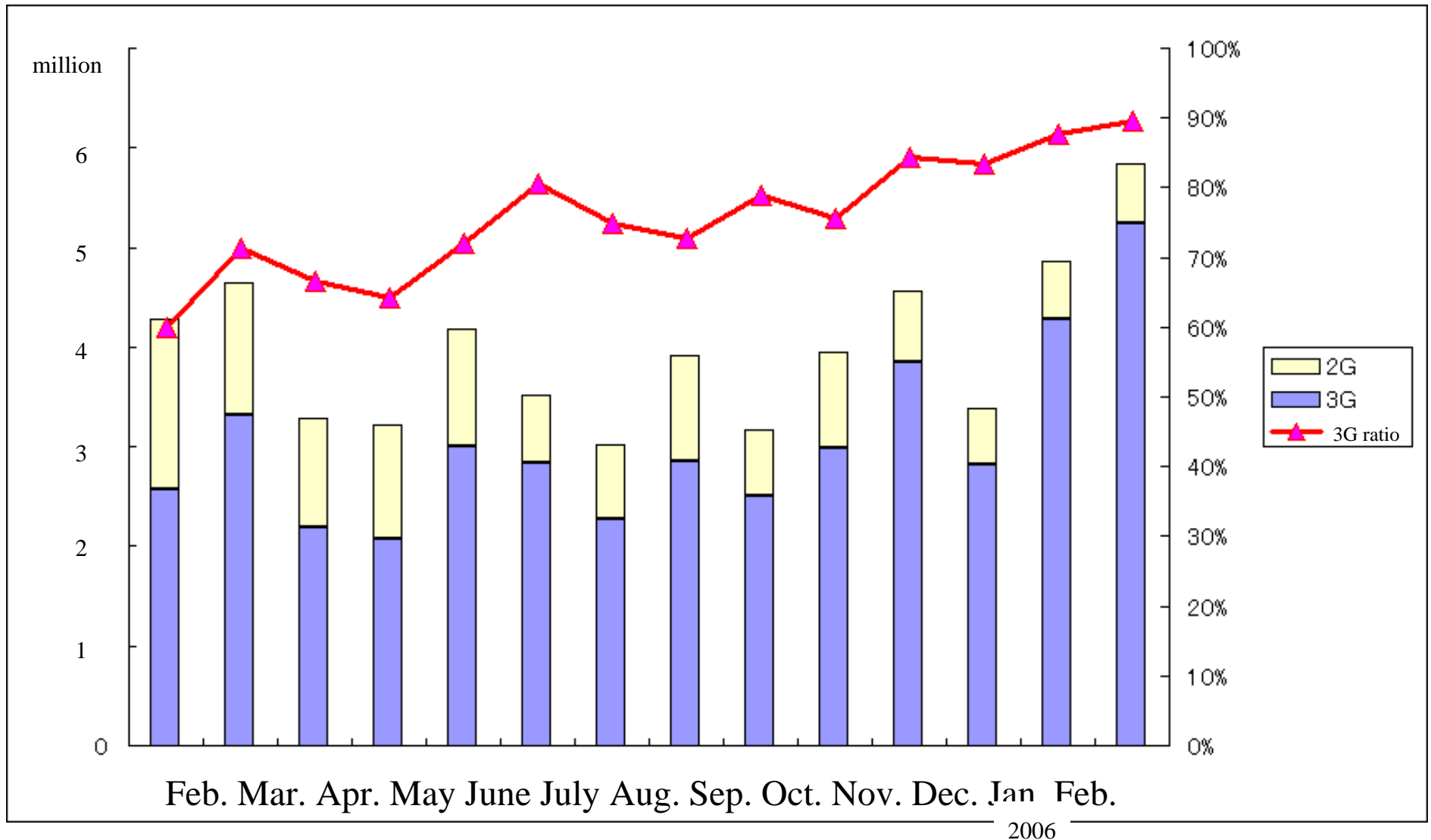
Total 853 [million]

# Use of Mobile phone and PC by Age

More Mobile phone users than PC users



# Domestic Shipments of 2G/3G Handsets of 2005



Source : Japan Electronics and Information Technology Industries Association

# New Services

---

- Contactless Smart Card(FeliCa) + Mobile Handsets
- Digital TV Broadcast (One-Seg)
- Handset with Large Memory for Multimedia Service
- Kid's Keitai
- High Speed Downlink Packet Access (Summer, 2006)
- Mobile Number Portability(October, 2006)

# Service Analysis from IQ(Information Quality) perspectives

---

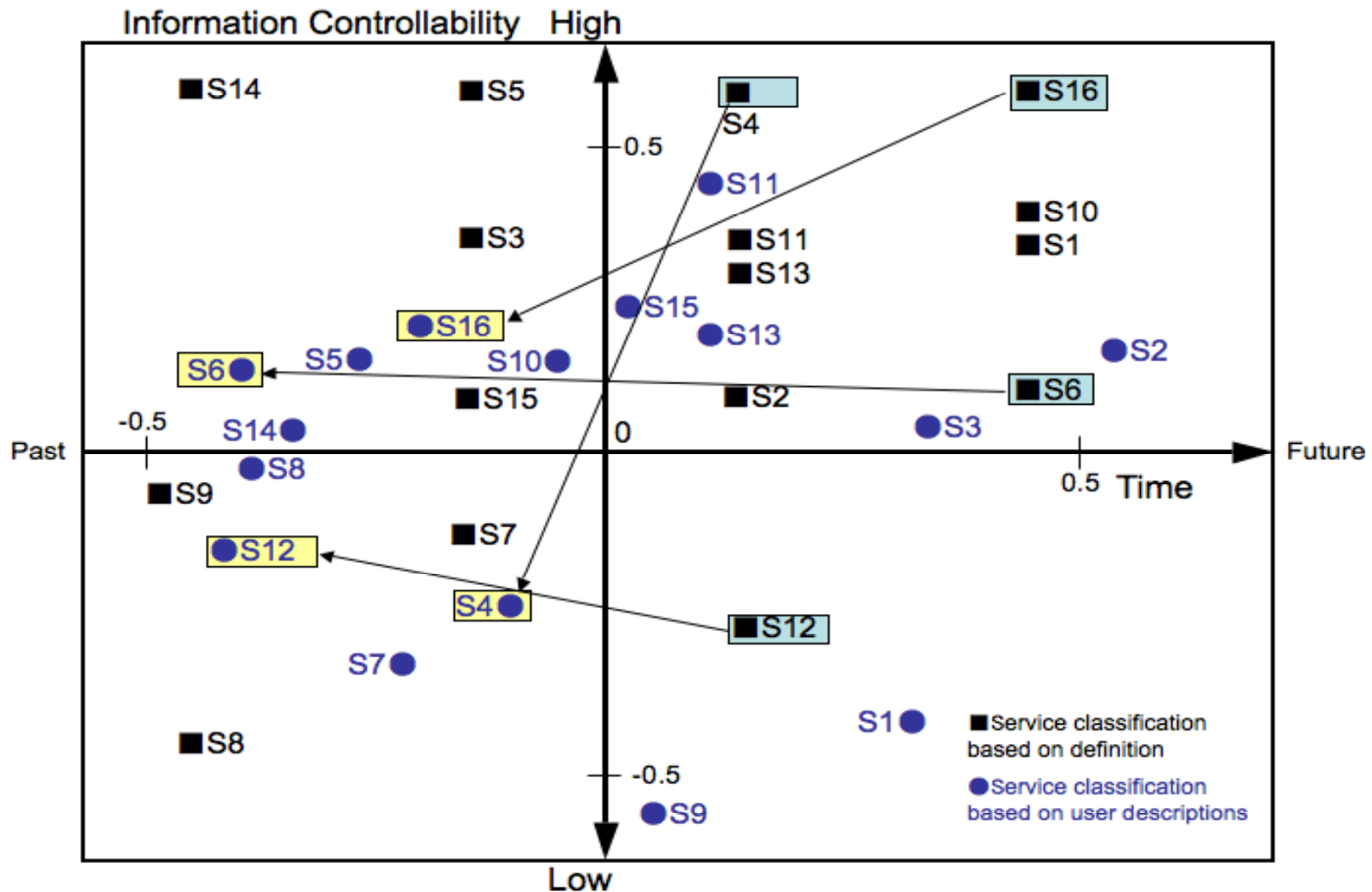
- 3-year project, part of Ubila Project
  - Research on Ubiquitous Network Control and Management headed by KDDI (supported by Ministry of Internal Affairs and Communications, Japan)
  - One of the Three MIC sponsored projects (total ¥25 hundred million = \$20 million) for 2003-2008
  - Primarily on Technical R&D support on Ubiquitous Service Environment
- Purpose : Analysis from the social aspects on “light and shadow” of ubiquitous networking society
- Adopted Concept and Theory of Information Quality, developed in the field of information management study

# Our Approach

---

- Information Quality depends on “Expected information quality” and “Real information quality”
- Information Quality can be measured by factors such as Interpretability, Timeliness, Accessibility, Traceability, Appropriate amount of information ( Source : R. Wang and D. Strong, “Beyond accuracy: What data quality means to data consumers?”, Journal of Management Information Systems, Vol. 12, No.4, pp.5-34, 1996 )
- Service classification into a) presence type of service, b) context based service and c) personal profile based service
- Focus on “expected information quality” for “Ubiquitous Service Provider(Mobile service operator)” and their service subscribers
- Distributed questionnaires and analyzed by a) correspondence analysis and b) AHP(analytic hierarchy process)

# Result : Gap of service understandings



# Conclusions

---

- Stable Transition to 3G
- Diversification of mobile services with new functionalities, such as intergrated contactless smartcard, biometrics personal identification and HSDPA
- Complete control of services is getting more difficult, which may lead to degradation of information quality
- Continuous support for wide variety of users will be necessary for secure service operation
- Proactive use of personal profile(personal service usage record)