

i-mode

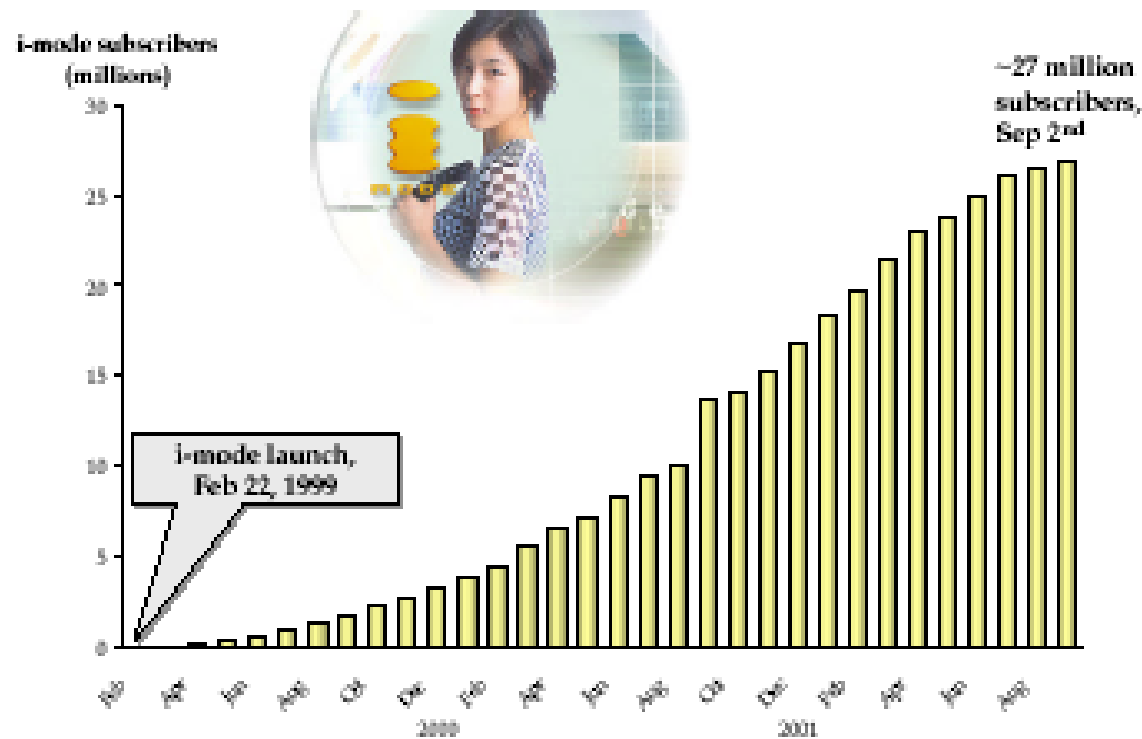
Karl Wurm, TKM



7. TKM Workshop, Ilmenau

i-Mode has today more than 36 Mio. subscribers

i-mode subscriber development




Quelle: NTT DoCoMo

History of i-mode

Today: 36 Mio subscribers



I-mode was launched in 22 February 1999 by NTT DoCoMo;



Mari Matsunaga invented i-mode;



Idea: To reverse the trend of falling ARPU and to keep the ARPU on constant level;

Why is i-mode so successful? (1)

NTT DoCoMo never sold i-mode as the wireless Web

No technological approach was chosen. I-mode was never marketed as internet on the mobile device;

banking service is one the most important i-mode selling points;

NTT DoCoMo applied Internet way of thinking (not a telecom way of thinking)

Business model is seen as fair (win-win situation)

Why is i-mode so successful? (2)

Today: 36 Mio subscribers

Content comes from external suppliers (for them: more subscribers leads to more revenue rise);

NTT DoCoMo followed the same business model as AOL;

Most i-mode revenue from packet-charges (i-mode traffic is 54 % messages);

Third party content & revenue sharing stimulates traffic usage

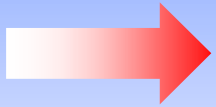
i-mode: packet-switched network

- Alternative to a circuit-switched network.
- Users pay for the amount of data they transfer, not for the time they spend on-line.
- Users do not have to establish a connection: they are always on-line (creates a very natural interaction style and enables new kinds of applications)
- Push mechanism is provided by e-mail
- Current speed, 9600 bps
- NTT DoCoMo already announced higher speed: 28800 bps

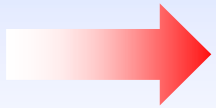
i-mode users



I-mode: most popular among younger users (24-35 years old)



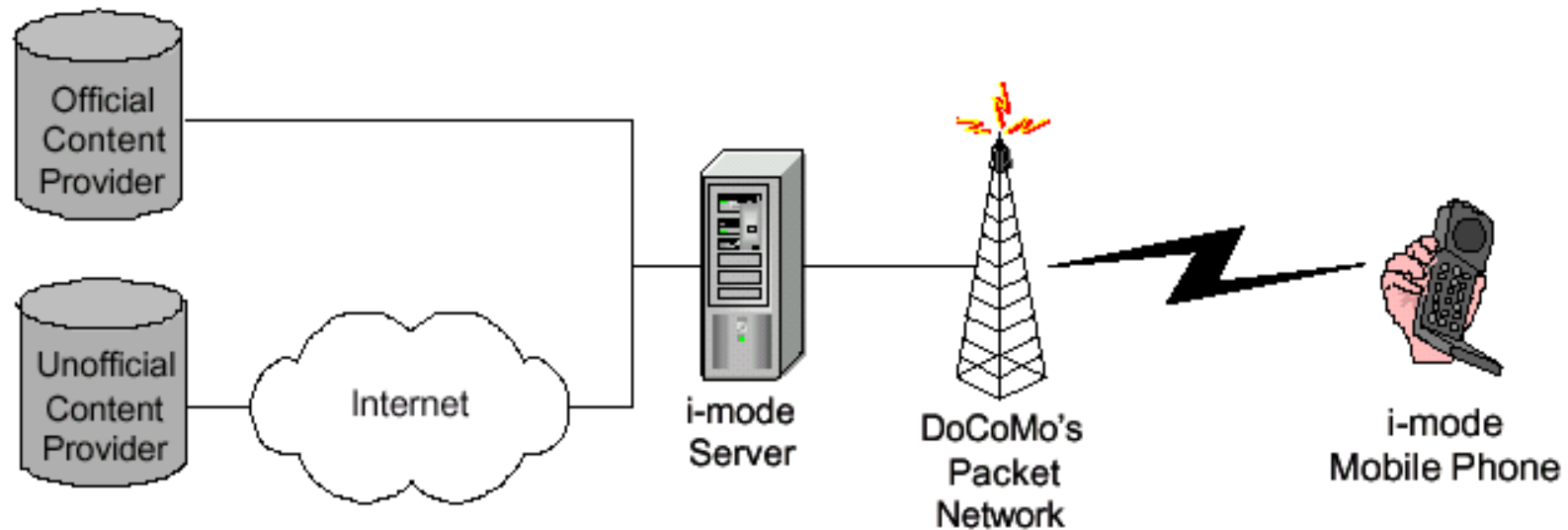
heaviest users: women in their late 20s



i-mode users are a cross section of Japan's society (young+middle-aged+old persons)

NTT DoCoMo Network Structure

official Sites, in-official Sites (Traffic: 50:50)



Official i-mode site

official i-mode site

- Premium content services accessible on i-mode menu (or portal) on the mobile device
- Application to become an official site has to be submitted to Gateway Business Dept. of NTT DoCoMo
Advantages: short-listing on i-mode menu, usage of NTT DoCoMo's billing system, marketing support.
- Conditions: 9% commission on service fee to NTT DoCoMo,
- adequate customer support service & technical support

Voluntary i-mode site

non-official

- All i-mode compatible webpages that can be accessed “manually” by an i-mode mobile device
- Do not appear on NTT DoCoMo’s i-mode menu.
- Needs third party billing solutions
- No marketing support by NTT DoCoMo

I-mode: contents

Transaction (9%):

Banking, Security Trading
Ticket Reservation
Airline Information/ Reservation
Credit Card Information
Book Sales

Information (14%):

News Updates, Weather Information
Sport News, Stock Quotes
Business/ Technology/News
Town Information
Horse Racing Information

Data base (4%):

Telephone Directory Search
Restaurant Guide
Dictionary Service
Cooking Recipe

Entertainment (72 %):

Network Game, Character Download
Horoscope/Ringing Tone Download
Karaoke Information, Song Check
FM Radio/TV Information
Club Event Information

i-mode technical background

What are the technologies that have enabled i-mode?

What has been the evolution of i-mode technologies?

What is the impact of these technologies on the user experience

i-mode: cHTML

- Like Web pages, i-mode pages must be written in a markup language (tags)
- cHTML was specified by NTT DoCoMo. It is very similar to the standard HTML
- some “advanced” tags are not supported (e.g. tables)
scripting languages are not supported
 - Some tags have been added to facilitate the user interaction (e.g. keypad shortcut)
 - “phoneto:” can be used to trigger phone calls
- Consequences for the user: creating i-mode pages is very easy (easier than WML pages)

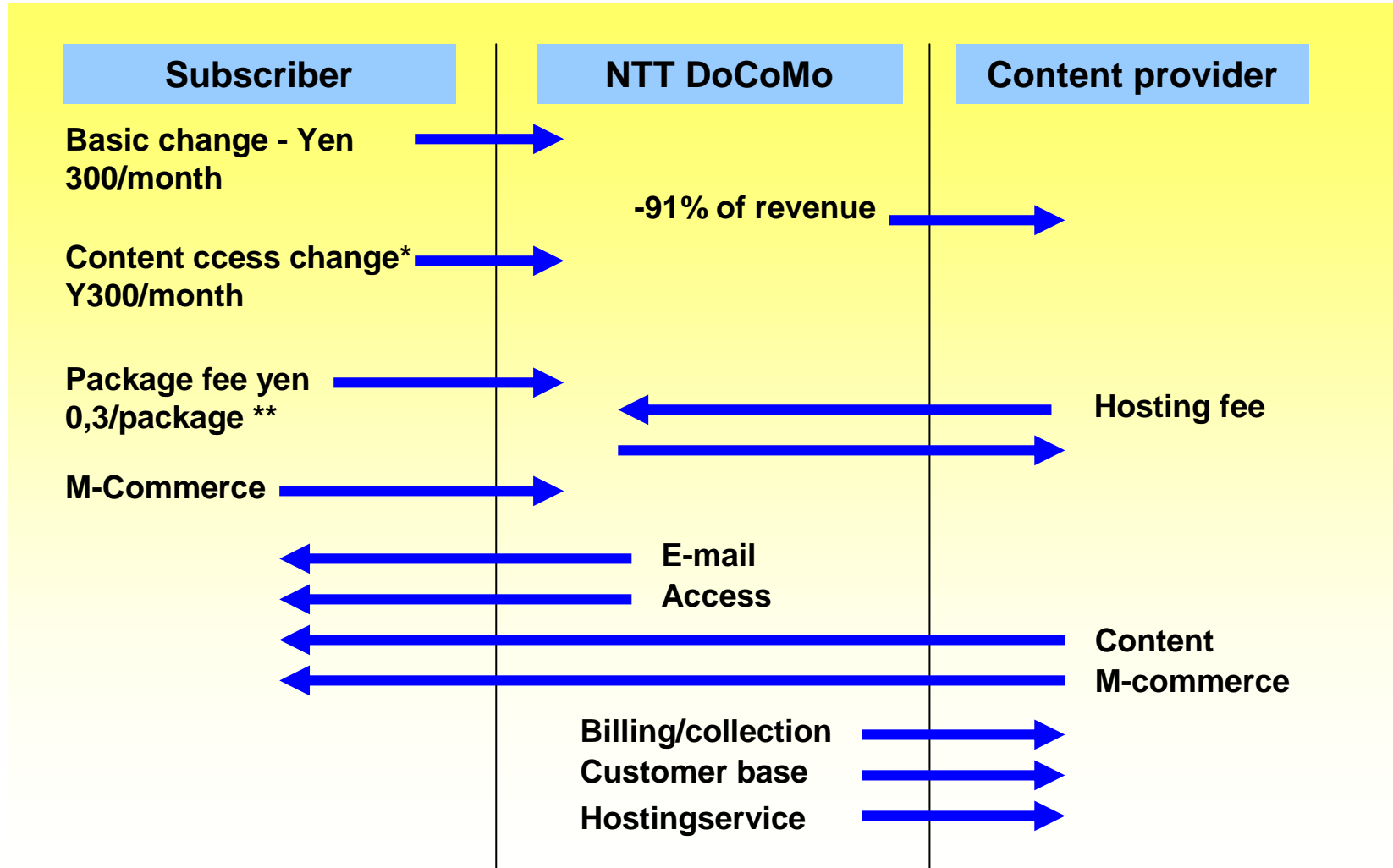
i-mode: HTTP

- The protocol used to transfer information between servers and i-mode devices is a Web standard.
- The entire Web is accesible by i-mode devices: any Web site, any organisation can publish i-mode content
- Integrating existing systems (e.g. home automation, location tracking) is also very easy
- Relation with NTT DoCoMo is only needed for billing and/or presence on the official menu
- For the user, it means that anyone can become an i-mode provider. Critical mass has been reached like for the Web (i-mode home pages are extremely popular in Japan)

i-mode: Java

- First generation i-mode devices only included a micro-browser (cHTML)
- Second generation devices also include a Java Virtual Machine Code (i.e. small applications) can be sent from the server and executed on the mobile phone
- Benefits for the user: more sophisticated user interfaces, more flexible network programming, support for secure communication (SSL)
- The Java Runtime Environment for i-mode is closely related to the Java Micro Edition (J2ME)

i-mode payment transaction flow



Tarif-model

Paket-oriented invoicing

(1 Paket = 128 Byte)

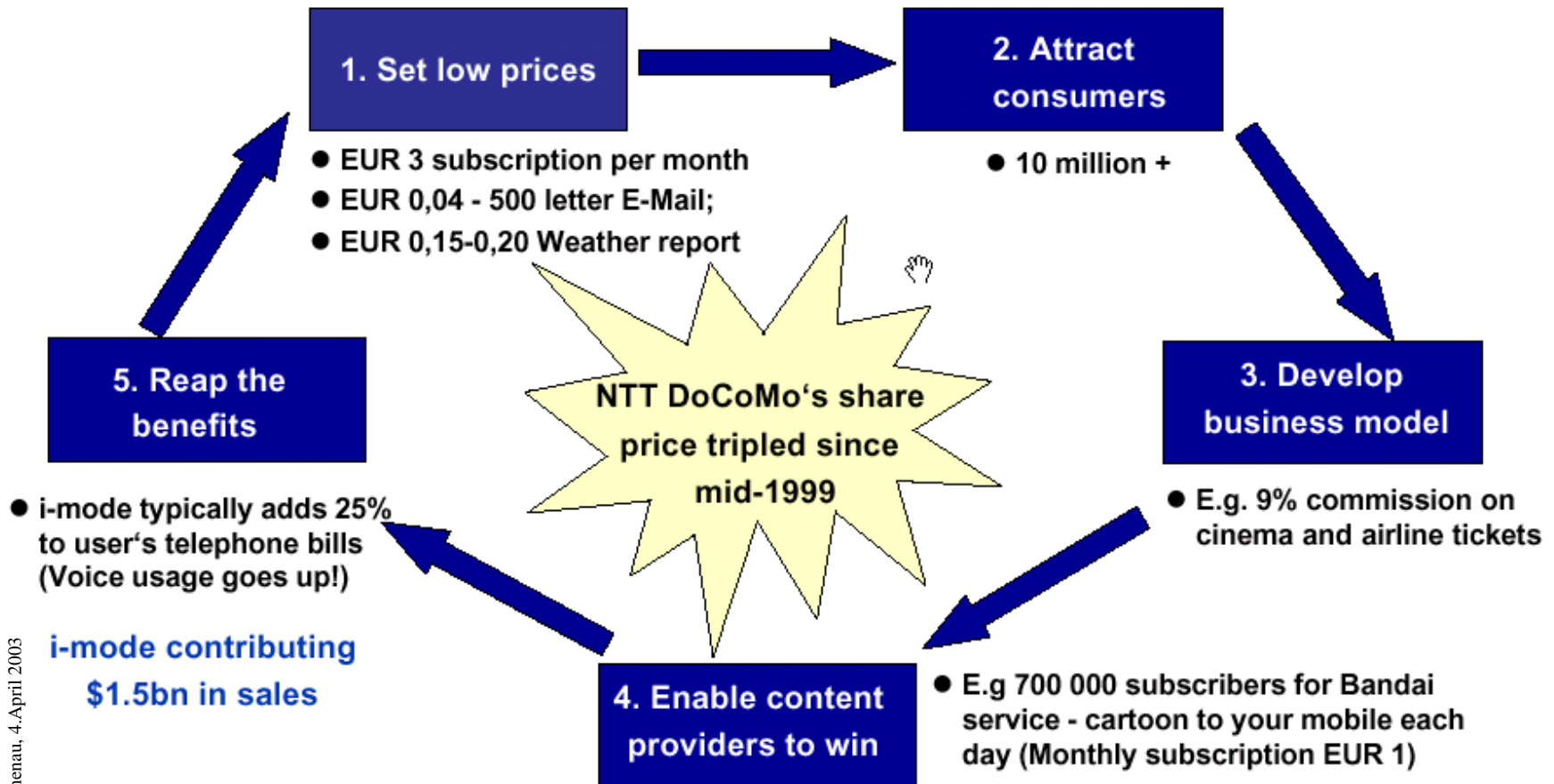
Monthly charge 300 yen (2,60) Euro per month	+	Packet transmission charges 0,3 Yen (026 Euro) per packet	+	Mails costs dependent of the size	+	information charges 100 bis 300 Yen (0,87 - 2,60 Euro) perr month	=	Monthly Rate
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Charges for a e-mail (up to 500 latin characters): 0,01 Euro - 1,82 Euro

Structure of revenues

	Direct revenues	Indirect revenues
Transaction-dependent	Volume-based fees	Provision
Transaction-independent	Fee for services Basic fees	Eventually advertising

i-mode success model



Japanese Mobile Internet Culture

What has been said about Japan....

- Japanese Mobile Operators have built a business model for cooperation with content providers, and valuable for everybody
- Japanese like to have the latest and newest gadget with new features: (average handset replacement cycle: 16 months, in Europe: 26)
- Japanese have no problem to pay a lot if they have fun with it
- Japanese are not used to fix-line Internet access (in Japan the PC is not so much part of life as in the U.S.A. Many regard handling of PC as difficult, but handling of mobile phones as easy)
- Japanese like games, entertaining gimmicks, cartoons, comics. It is ideal to carry these things with them on the mobile phone.

Japanese Mobile Internet Culture

The Japanese society has its own characteristics:

- **Japan has Asia's smallest proportion of female Internet users;**
- **In the Tokyo subway is not polite to talk on mobile phone when other persons could listening (to bridge the time use i-mode);**
- **It is not polite to address problems directly (but in an e-mail it is possible)**
- **It is cheaper to send an e-mail using i-mode than using fixed line internet;**

Japanese Mobile Internet Culture

The Japanese society has its own characteristics:

- In Japan i-mode phone can be used as a substitute for a TV remote control;
- In Japan one can enjoy the ease of cashless purchases (e.g. coca-cola, videostores);
- In Japan children connect their i-mode phones to their PlayStation at home;
- In Japan customers receive discount vouchers to attract them to buy at the shop;

European Mobile Internet Culture

What is so particular in Europe?

- Europe has been driven too intensively by mobile data technology and not content expected by the users
- European Operators tend to get the whole value chain of Mobile Internet under their control. This implies a wide range of skills and responsibilities
- European users are still waiting for “colour”, cool entertaining services, smart business services and fast networks
- Content providers are expecting European operators to “open doors” for joint projects (hen and egg problem)

FOMA (Full Commercial Service Launch)

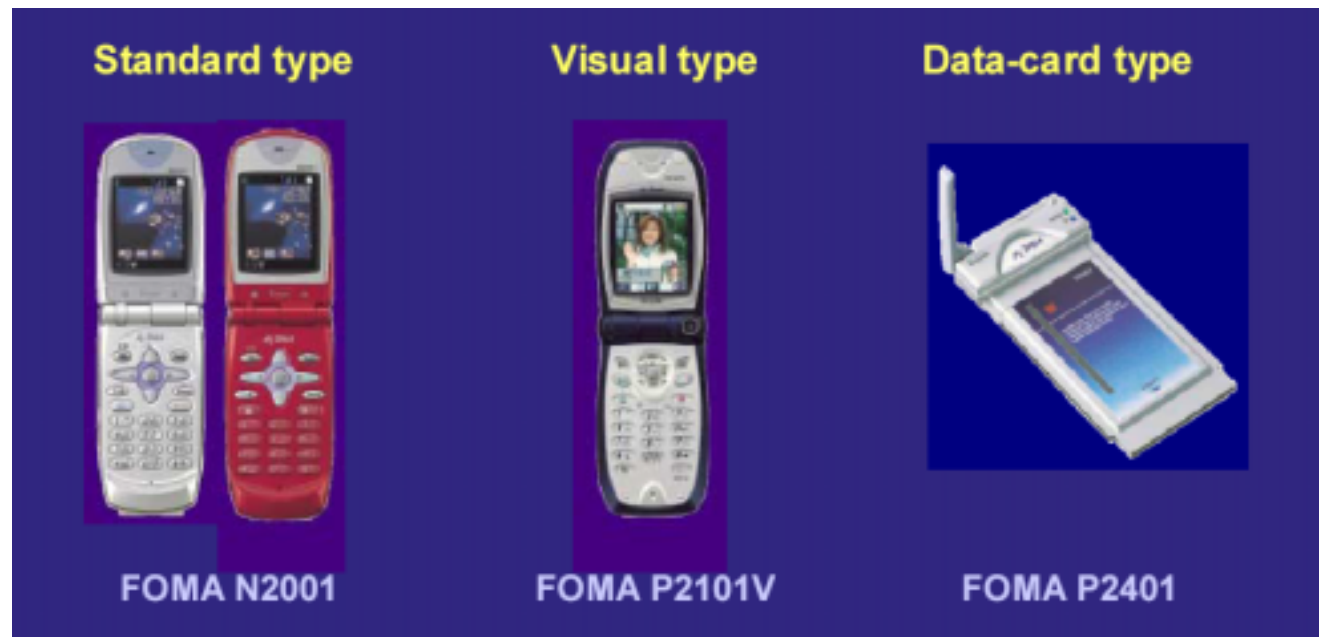
**Launch of introductory service: 30.5.2001 (with 4,500 subscribers)
Service launch: 1. October 2001**

Major offerings

- **voice communications, TV-phone, 64K digital communications, packet communications, SMS, multi-access**
- **i-mode (fast-speed pictures at up to 384 Kbps downlink), M-stage visual, voice message service, call-forwarding and**
- **call-waiting services
dedicated line connection service**

69 % of population covered nationwide.

These have been the first introduced 3G Handsets



Today six more handsets

Source: NTT DoCoMo

FOMA Features

Today: 191,500 subscribers

,Too expensive, I cannot afford it' says pupil Keiuji Kebayashi (the majority users are corporate customers)

i-motion: enables user to enjoy video and sound on phone (video clip distribution service)

i-area: users can access information about the area they are in (information on surrounding area)

Conclusion

Lessons still to learn



Offer a wide range of mobile handsets




Make content available mobile, not in the internet



Focus marketing on women and older persons



Incentive to customers for paying with mobile handset



Segmentation of customers (e.g. women write e-mail, men surf)

My Credentials

Education:

Diplom-Kaufmann (1986)

TKM (2000)

TM MAS, Krems (2001)

Business experience:

Varetis (1989-1998)

Callino (1999)

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