



# Nokia Mobile Phones – The next phase

*Nokia Investor seminar  
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Nokia Mobile Phones

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## Outline

- **Nokia's new product launches**
  - Nokia 3410
  - Nokia 3510
  - Nokia 6310i
  - Nokia 9210i
  - Nokia 7210
- **Mobile Device technology evolution**
- **Convergence in Mobility**
- **Summary**

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## New Product Launches

### NOKIA 9210i Communicator

- RealOne Player for streaming video
- Flash Player allowing playback of Macromedia flash content
- Considerably faster data processing
- New web browser for JavaScripts support and HTML 4.01 compatibility
- Enhanced security with Nokia VPN Client
- Nokia GPS module for route assistance



## Nokia and RealNetworks alliance

- RealOne player to be included in Nokia's Symbian based handsets
- RealOne player to be licensed in Nokia Series 60 platform
- RealSystem Streaming Server Software included in Nokia's infrastructure solutions for mobile operators



## NOKIA 3410

- Java™ 2 Micro Edition (J2ME™)
- Picture editor
- 3D graphics engine
- WAP 1.1 with push functionality
- 5 games: Link5, Space impact, Bantumi, Snake II, Bumper



## NOKIA 3510

- GPRS
- Polyphonic (MIDI) sounds
- Value added services (VAS) over Multimedia messaging (MMS) receive
- Fun gaming concept
  - sounds, multiple keypress, vibra



## FUNctional Accessory Covers



## NOKIA 7210

- Tri-band GSM, GPRS, HSCSD
- Multimedia messaging (MMS)
- Java 2 Micro Edition (J2ME)
- Series 40 user interface
- High quality color display
- Polyphonic (MIDI) sounds
- Stereo FM radio
- Integrated handsfree speaker



Lord of the Clouds: Sumea™

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## NOKIA 6310i

- Tri-band GSM, GPRS, HSCSD
- Java 2 Micro Edition (J2ME)
- Bluetooth, infrared, cable
- Wallet with WIM



## Leadership in Product Portfolio



22 mobile phones **announced**  
in 2001. Over 20 new models  
planned to **ship**  
in 1H 2002 alone

# Mobile Device technology evolution

## A Significant Year Ahead

Next wave of market growth  
driven by new technologies:

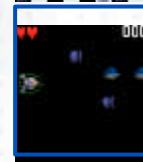
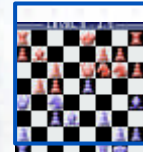
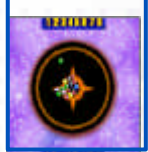
Color  
displays

WAP2.0/  
XHTML

MMS

Java

3G



## Mobile Communication Paradigm Shift - from 'listen to what I say' to 'see what I mean'

- Imaging will be the next evolution of mobile communications
- Its magnitude of appeal to different end-user segments is parallel to that of mobile voice
- Imaging will be the major catalyst for Multimedia Messaging Service (MMS)
- At the end of 2002, about half of Nokia's mobile phones will be MMS enabled
- In 2003, a majority of all new Nokia terminals will have MMS capability

Imaging and MMS comprise an evolutionary path for users, driving fast market penetration and messaging growth



## Color Adds Value to Content

- Color adds value for compelling content and advanced applications that are built on MMS, Java, and WAP 2.0/XHTML
- Nokia 9210 & Nokia 9210i
- Nokia 7650
- Nokia 7210
- More to come in H2-2002



## Star Wars turns mobile

- Nokia & Lucasfilm join forces to bring Star Wars content to consumers
- Massive campaign through Club Nokia based on "Episode II"
- Multiple forms of mobile entertainment offered to Nokia phone owners
  - MMS
  - Games
  - Polyphonic & standard ring tones
  - Xpress-on phone covers



## Convergence in mobility

In our vision, digital convergence and IP convergence will create a new mobile world

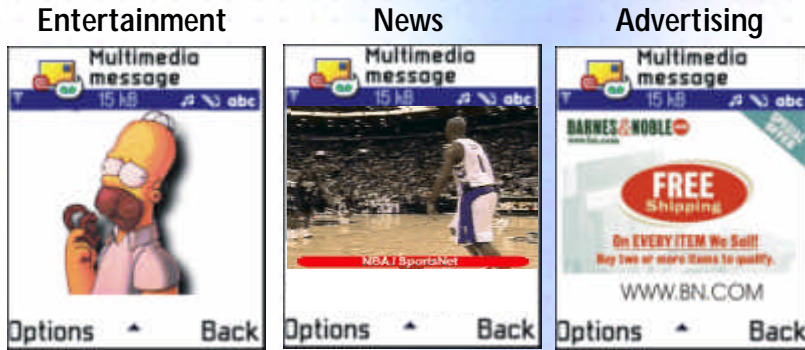


### Value-based segments

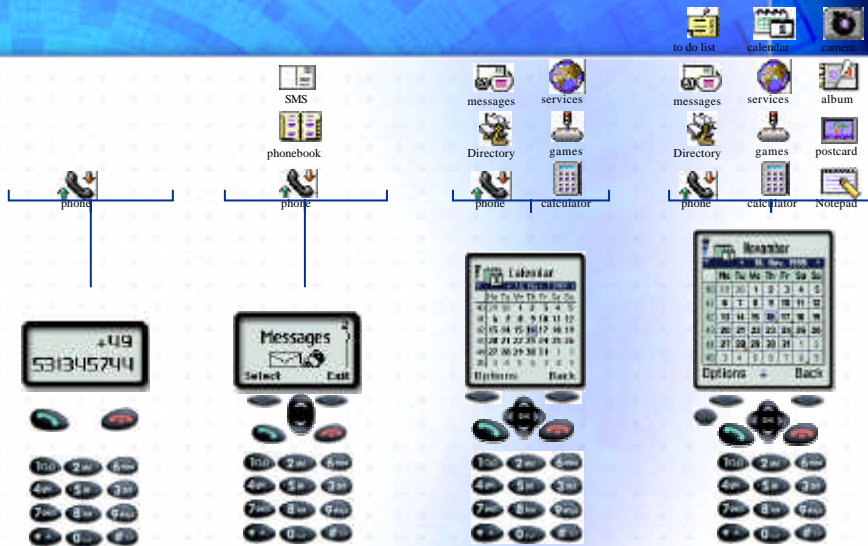


# Multimedia messaging as a service platform

Examples of mobile services...



# Increased functionality = more pixels and keys



## Mobile terminal services environment - making the mobile services tornado happen

Key user benefits	Mobile, real time, life enhancing, easy and familiar to use, fun and fast		
Key applications	Messaging and email	Games and personalisation	Web content and downloads
Key function	Content transport and messaging	Downloadable applications	Content search and access
Key technologies	MMS	Java	XHTML
Common transport	From WAP/WSP to WAP NG (TCP/IP)		
Radio network	GSM/GPRS/EDGE/WCDMA or CDMA2000		

## Product category matrix

		FUNCTIONALITY DIMENSION				
		VOICE AREAS	Entertainment	Imaging	Media	Business applications
STYLE DIMENSION	STYLE					
	Premium					
	Fashion					
	Classic					
	Active					
	Expression					
	Basic					

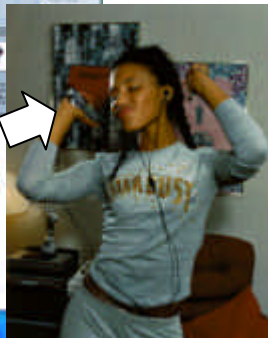
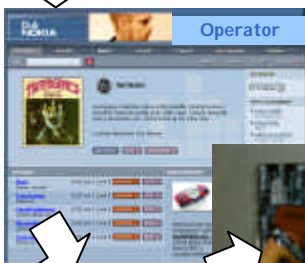
## Nokia 5510 - new innovation for mobile business opportunity

- Full qwerty keyboard for easy input
- Music player (AAC & MP3)
- FM radio
- Multiple Chat and SMS sending and concatenation
- Headset
- Exciting games
- Club Nokia services
  - games levels
  - high score sending
  - graphics and screensavers



## Nokia and Operators Make Music Mobile

Global Music Business USD 40 B



Music Service is part of the Club Nokia offering and will be brought to consumers via strategic cooperation with operators.

"Buy your favourite music to your mobile phone from ClubNokia!"

- Easy to use, payment for music tracks with SMS
- Adequate Digital Rights Management solution
- Available in Europe from June 2002

Club  
NOKIA

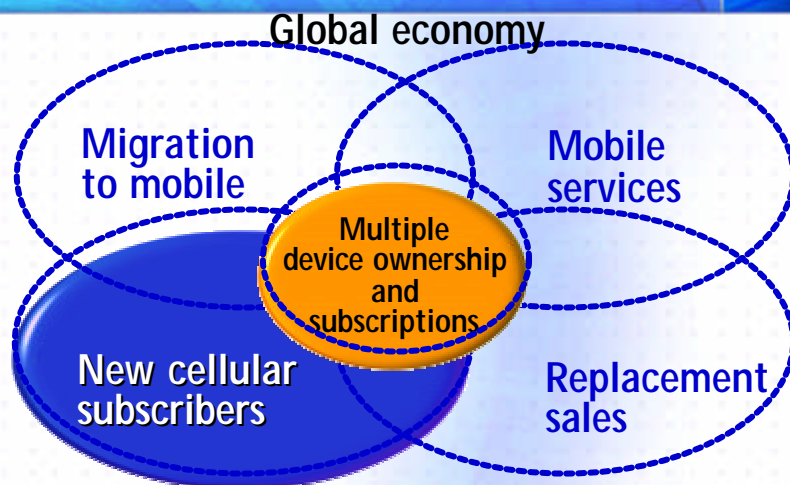
## Nokia 7650 – most advanced smartphone in the market



- Big graphical color display (176x208 pixels, 35x41mm)
- Totally new, Graphical User Interface
- Integrated Digital Camera & picture storing, viewing and transfer
- MMS – Multimedia messaging
- E-mail client
- Java
- Bluetooth, GSM900/1800, GPRS, HSCSD
- Available in Q2 -2002

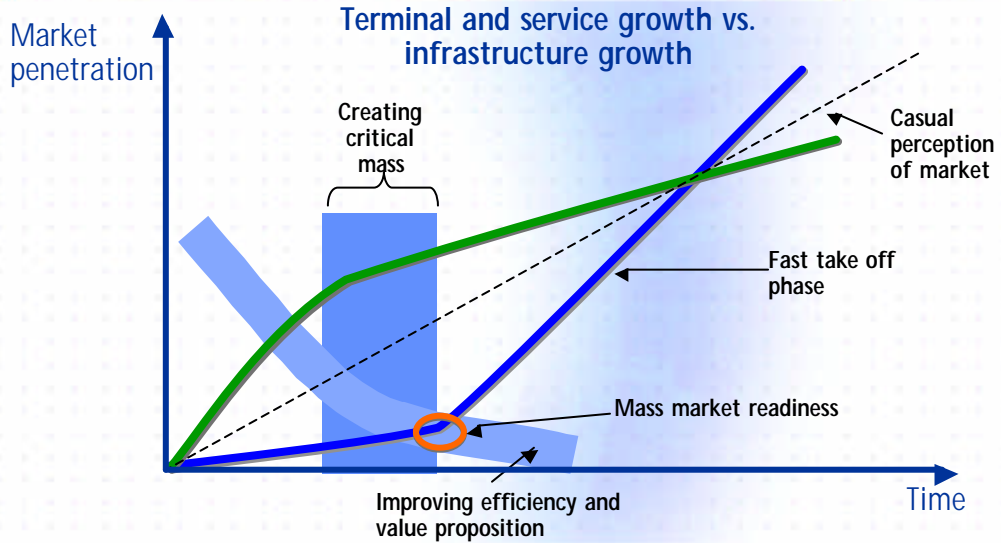
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## The growth drivers for mobile business



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## Creating a foundation for explosive growth



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## Usage Models Will Expand

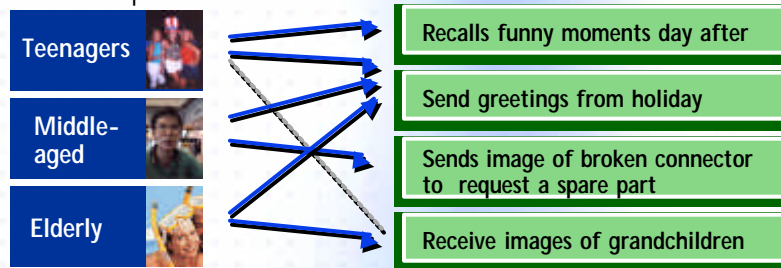


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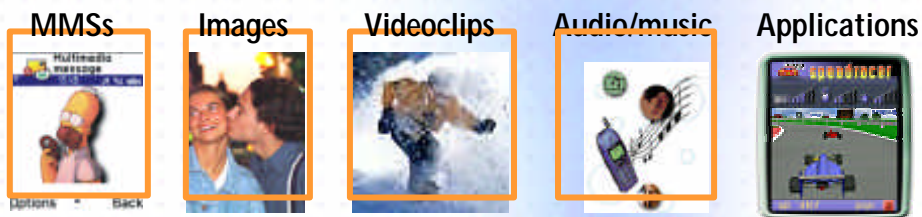
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## Script = purpose of the use of a functionality

- To achieve mass adoption, functionality must have several rich scripts for different kinds of users and different types of usages
- If functionality doesn't have enough rich scripts, it will not become mass-adopted



## Usage models will reflect consuming, sharing, editing, storing and mixing all kinds of content



### Types of content:

- **user created** (images, videoclips, music, etc.)
- **personal** (music, movies, movieclips, games, applications, etc.)
- **group** (family, friends, daughter's soccer team, etc.)
- **community** (greyhound owners' image album, etc.)
- **subscribed** (Manchester United Multimedia news service, etc.)
- **network provided** (location-based weather info, etc.)

## We will face several technology discontinuities



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## IP will be the second wave of convergence



IP convergence is the basis for the second wave of convergence bringing an open connection from all terminals to the converging Internet

Digitalization was the basis for the first wave of convergence of telecom, IT, consumer electronics and media industries

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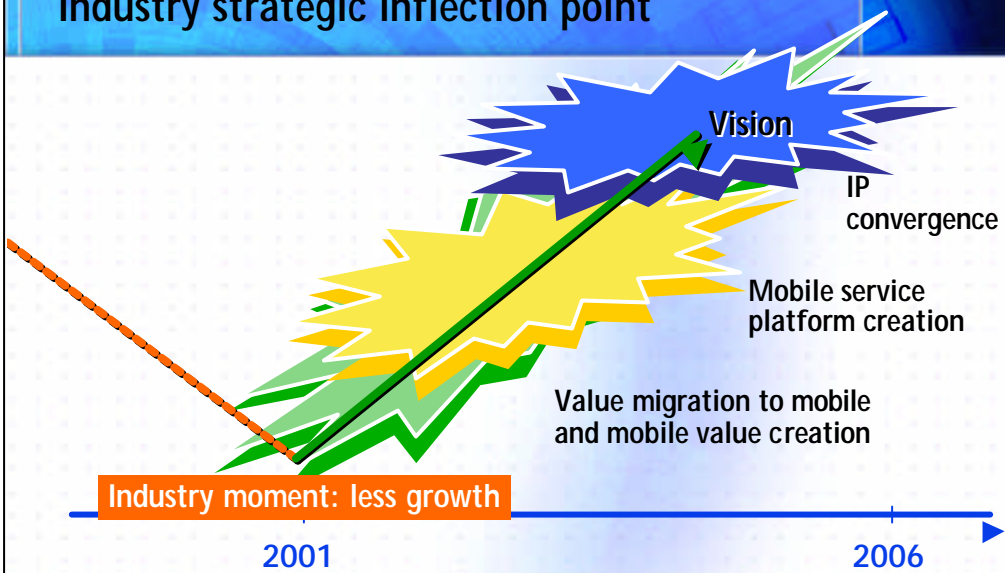
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# IP convergence will enable communication with all media types between all devices

IP convergence will speed up with SIP  
(Session Initiation Protocol)



# Industry strategic inflection point



## Summary

## New innovation in Mobile Devices



- Colour
- MMS
- Imaging
- Java
- XHTML

# NOKIA

CONNECTING PEOPLE

