

A portrait of Anssi Vanjoki, a middle-aged man with light hair, wearing a white shirt and a patterned tie. He is looking directly at the camera with a slight smile. The background is a soft, out-of-focus blue and white.

Convergence Terminals & Digital Services

Anssi Vanjoki
Executive Vice President,
Digital Convergence Unit
Nokia Mobile Phones

The Nokia logo, consisting of the word "NOKIA" in a bold, blue, sans-serif font.A photograph of a young couple looking at a mobile phone. The woman is on the left, with long blonde hair, wearing a white sleeveless top. The man is on the right, with short dark hair, wearing a light blue polo shirt. They are both looking intently at the phone held by the man. The background is a soft, out-of-focus blue and white.

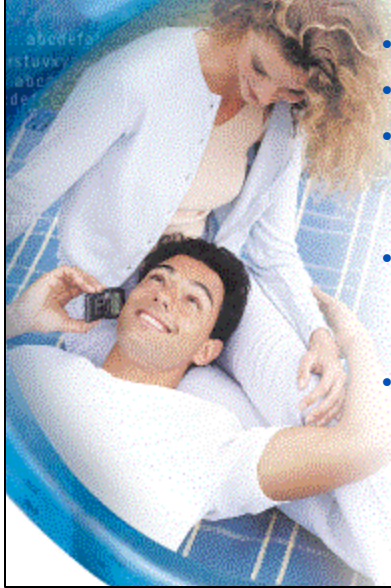
Agenda

- Mobile Imaging – The next wave of Mobile Communication
- Convergence Terminals
- Club Nokia
- Summary

The Nokia logo, consisting of the word "NOKIA" in a bold, blue, sans-serif font.

Mobile Communication Paradigm Shift

- from 'listen to what I say' to 'see what I mean'



- Complete personal connectivity
- Imaging is the next wave of Communications
- Applications and services must comprise a natural migration path for fast market penetration and growth.
- Application and service platforms must facilitate open competition and global deployment.
- Profitability throughout the value chain is best ensured by services that provide end-user delight.

Capturing a Moment

"Snap Happy's"

- Variety of cameras
- Capture situation
- Low awareness of technology (e.g. film speed)

Portability & simplicity are the key.



"Hobbyists"

- 'Serious' photographers
 - Broad range of subjects
- Time dedicated, desire for high quality reproduction.**

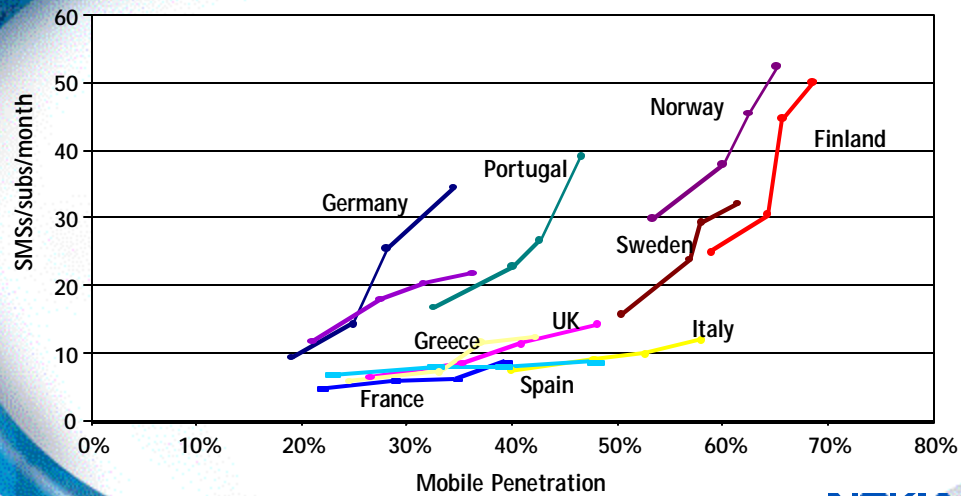
"Event Clickers"

- Prompted by events
 - Typically automatic compact camera
 - Willing to invest more to quality
- Important not to lose the Moment. Quality fairly critical.**

Capturing the moment is the most important motivation for photography

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Metcalfe's law in action - SMS growth in Europe

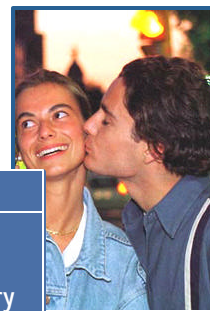


From Photograph to Image



PHOTO

- Permanent
- Sacred
- *Tangible*



IMAGE

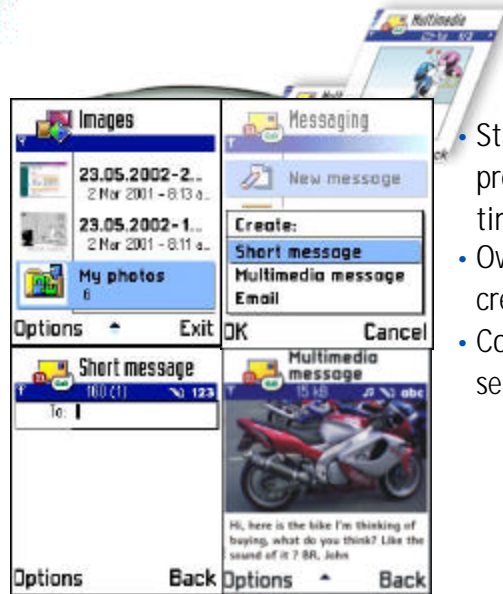
- Fun
- Trivial
- Temporary
- *Virtual*

- The photograph is no longer a tangible, individual item with intrinsic value.
- It is now an image - with a more cavalier attitude.
- Versatile means of sharing

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Multimedia Messaging - Person to Person

- Text
- Graphics
- Digital images
- Audio clips



- Standardized presentation and timing
- Own content creation
- Content & storage services

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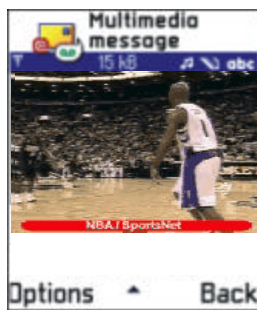
Multimedia Messaging as a Service platform

Examples of mobile services...

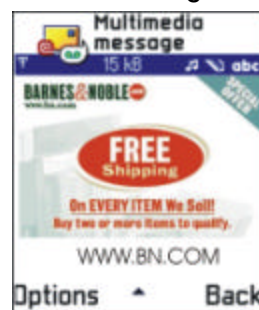
Entertainment



News



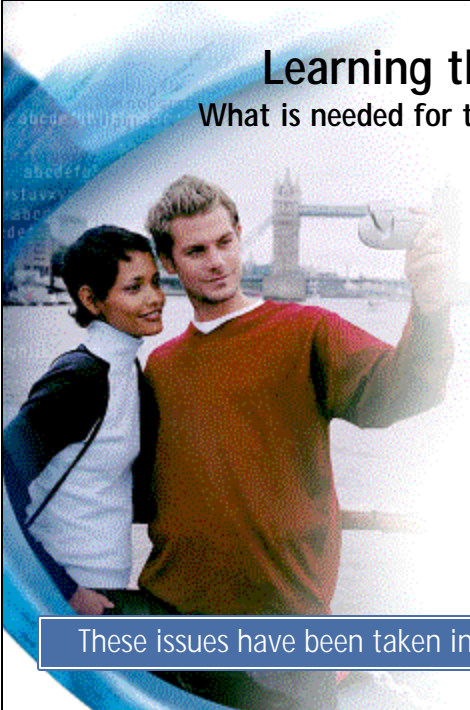
Advertising



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Learning the SMS lesson -

What is needed for the fast MMS service growth



The puzzle diagram consists of five pieces arranged in a circle around a central white piece. The central piece is labeled "Easy to Use". The four surrounding pieces are labeled: "Flexible charging model" (top-left), "Inter-operator delivery" (top-right), "Sufficient penetration" (bottom-right), and "Guaranteed delivery" (bottom-left).

These issues have been taken into account in Nokia technology choices

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Convergence Terminals



A man in a dark shirt is lying on his stomach on a green surface, looking at a mobile phone. A woman in a white shirt and sunglasses is standing behind him, also looking at a mobile phone. They are outdoors, with a beach and ocean in the background.

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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		

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One Size Does Not Fit All

Better Displays

More Features

*User Interface
Segmentation*

Smaller size

Better Input

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Increased Functionality = More Pixels & Keys

The diagram illustrates the progression of Nokia mobile phones from basic to more feature-rich models. Each model is shown with its keypad and a list of available applications. The first model has a small screen and basic functions (phone, SMS, phonebook). The second has a slightly larger screen and more functions (SMS, phonebook, phone). The third has a larger screen and even more functions (messages, services, Directory, games, phone, calculator). The fourth has the largest screen and the most functions (to do list, calendar, camera, messages, services, album, Directory, games, postcard, phone, calculator, Notepad).

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Nokia UI categories

Series 30	Series 40	Series 60	Series 80
Cost driven platform	Size driven Colour platform	One-hand operated Feature Platform	Two-hand operated Feature Platform
XHTML Java MMS Nokia OS	XHTML Java MMS Nokia OS	XHTML Java MMS Symbian OS	HTML Java MMS Symbian OS

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Consumption Led Changes

HOW WILL I
BE ENABLED?

- Don't tell me about the technology!
- What I want to know is what can I do with it?

HOW IS THIS
BENEFIT RELEVANT?

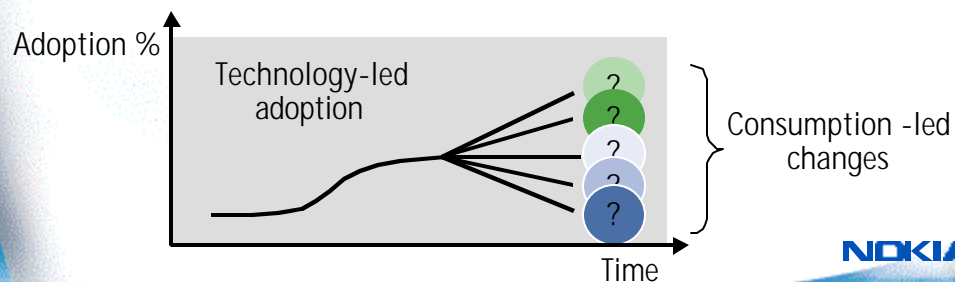
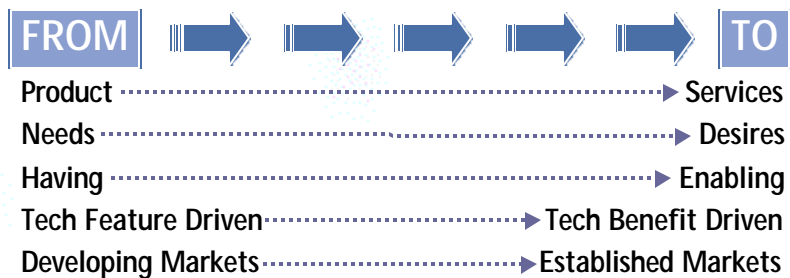
- ... to me as a working mother?
- ... to me in my social circle?
- ... to me in my active lifestyle?
- ... to me in my career?



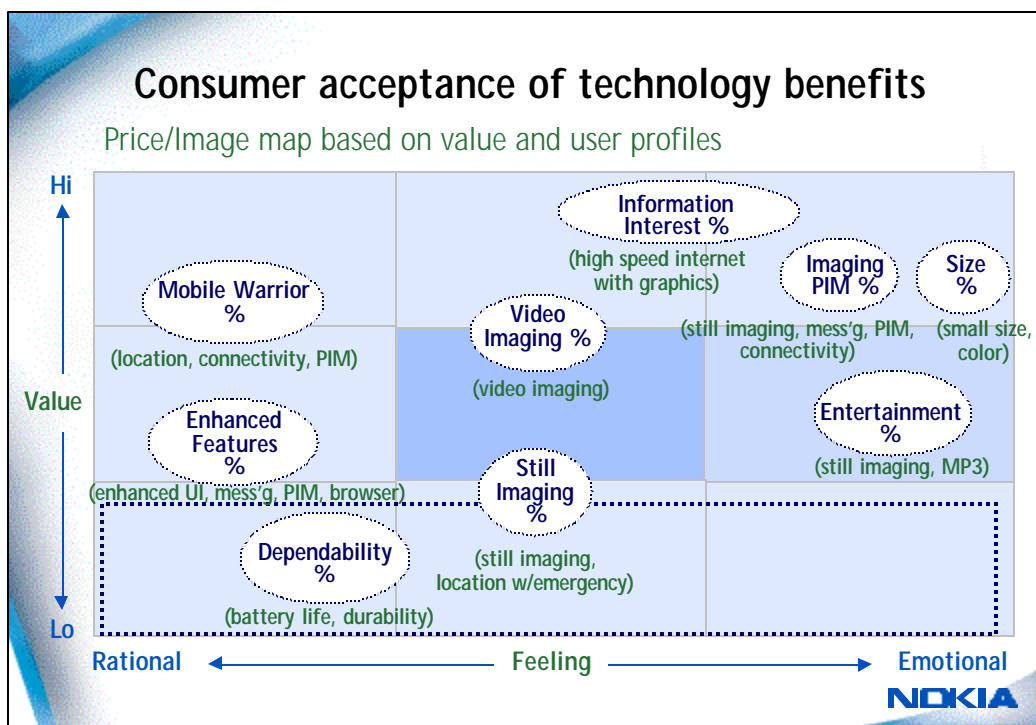
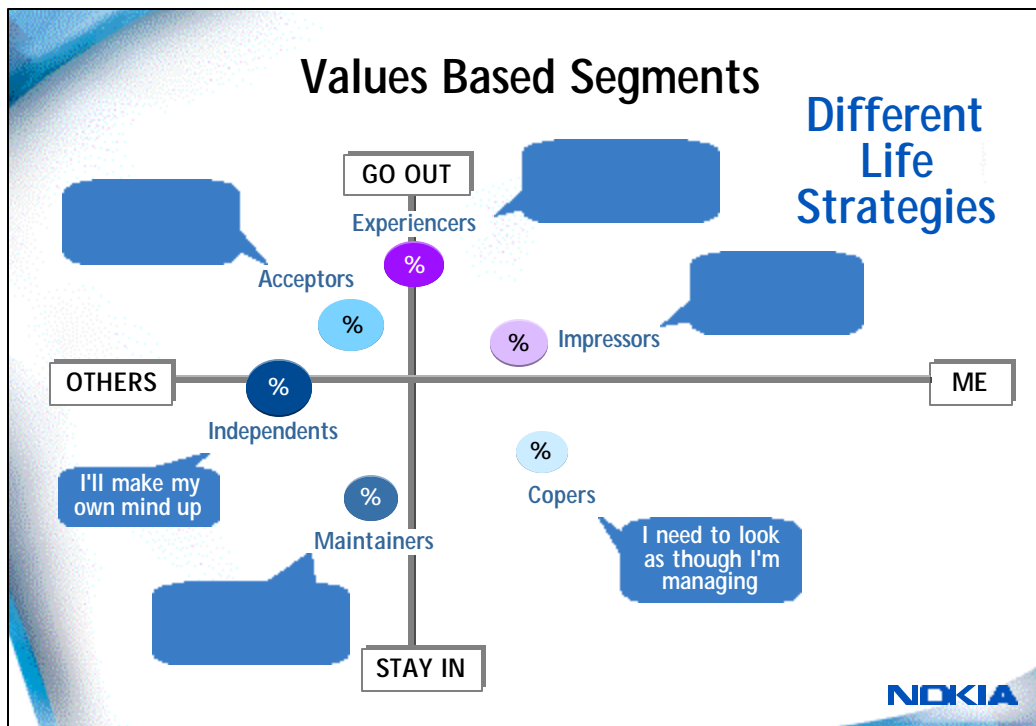
A need to take a **HOLISTIC** view of the consumer and a new approach to segmenting & targeting permitted by the consumer.

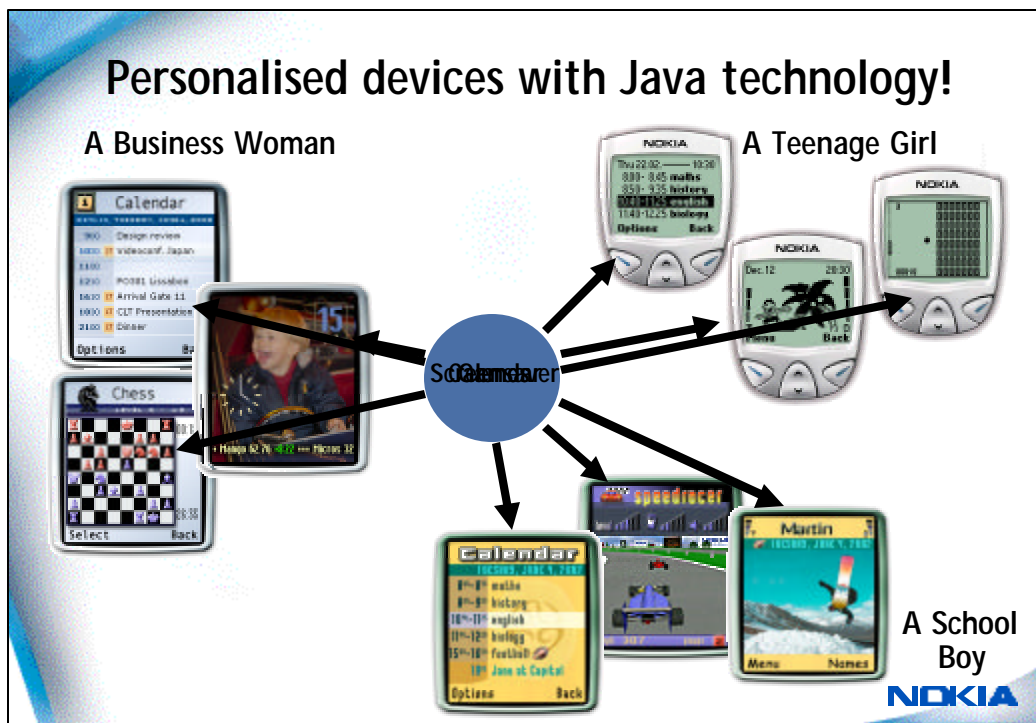
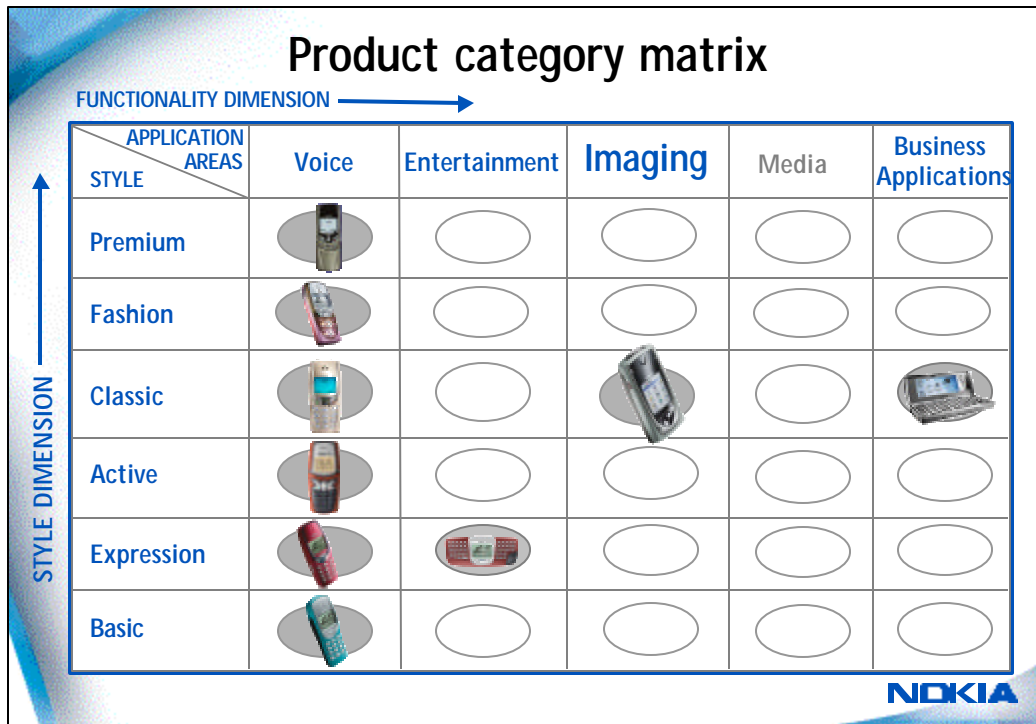
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The Market Has Evolved and Expectations Have Changed



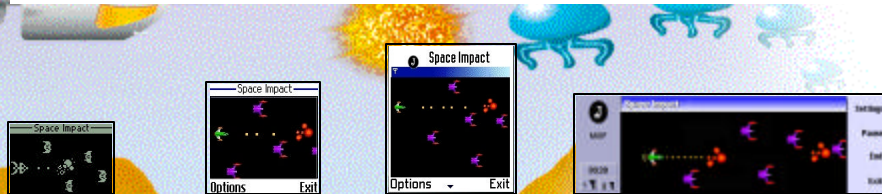
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Product Categories as Business Platforms

- The application driven terminal is a platform focusing on a certain use. During the terminal's life cycle it can be enhanced by software downloads. Terminals will be differentiated through their life time
- Product categories provide developers a way to optimise their development and marketing efforts and to offer preferred applications to targeted user segments



Nokia 9210/9290 Communicator



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Nokia 5510 - New innovation in design



- Full qwerty keyboard for easy input
- Music Player (AAC & MP3)
- FM radio
- Multiple Chat and SMS sending & concatenation
- Headset
- Exciting Games
 - Games levels
 - High score sending
 - Graphics & screensavers
- Club Nokia services

Nokia 7650, Imaging Phone



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

- Size: 138 cc
- Weight: 152 g
- Talk/Standby: 2-4 h / 12 days



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Nokia's first GSM/GPRS/WCDMA is Imaging Phone



Concept picture

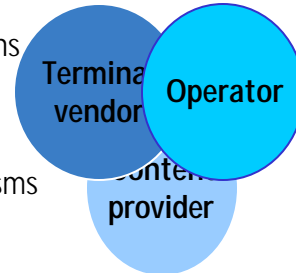
- Big color display with Graphical User Interface
- Integrated Digital Camera & picture storing, viewing and transfer
- GSM900/1800, GPRS, HSCSD & WCDMA
- MMS, Java, xHTML, SyncML, MIDI, Bluetooth
- Available in H2-2002
- Data speeds 64-128 kbits

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New Digital Mobile Services market

- From one application to multiple applications
- From single brand to multiple brands
- Applications are segmented
- Content goes digital, new delivery mechanisms evolve
 - New combinations of brands, new brands
- Some applications are terminal specific, e.g. imaging
 - New business models emerge in the field of content distribution.
 - Terminal features extend to services and the functionality is required from day one.
 - Operators provide access, trust, billing and security for the new services

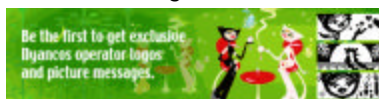


Mobile operators will become *The Portals* for mobile digital services

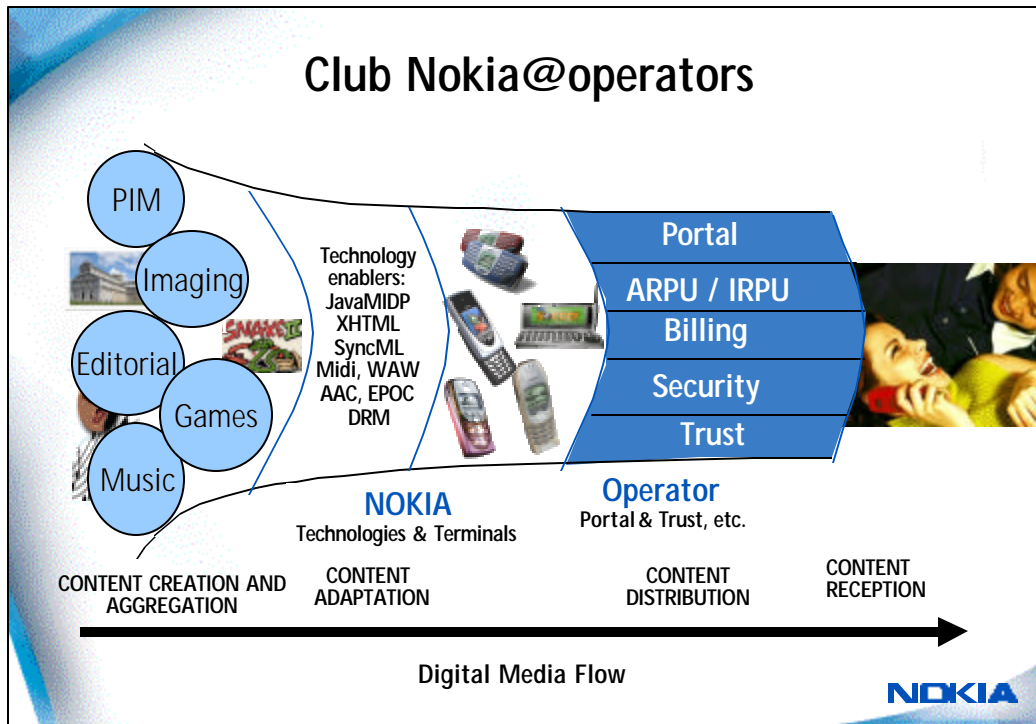
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Club Nokia accelerates mobile services offering

- Close to 50 co-operation agreements with operators so far
- Practical implementation in H1-2002
- 4W-drive: win-win-win-win business model:
 - convenient and easy-to-use service for the consumer, services available from day one
 - more traffic and a wide service offering for operators
 - easy and trusted way for content players to reach the mobile customers
 - increased loyalty for Nokia phone users, a new revenue opportunity
- Incremental profit share split is based on case-by-case analysis depending on Brand strength and value added by each partner



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Club Nokia Services today

- Personalization of your phone:
 - ringing tones libraries & composition
 - operator logos, caller group graphics, downloadable profiles, animated screensavers
- Entertainment
 - Symbian OS games for Nokia 9210 and Nokia 7650
 - New Game & game level downloads
 - Highscore sending
- Personal information management
 - PhotoZone services
 - Photo album, editing, etc
 - upload, download of pictures
 - Digital postcard service
- CRM - customer support
- Club Nokia in mobile phone, in Web and via WAP (mobile.club.nokia.com)

The slide includes several visual elements: a photo of a young boy, a small game icon labeled 'SNAKE', a photo of a person, a game icon labeled 'Bumper', and the **NOKIA** logo at the bottom right.

Club Nokia services with Nokia 7650



- Services complete the total product offering
- Messaging and imaging services make the end-user delight of 7650 real

[PhotoZone demo](#)

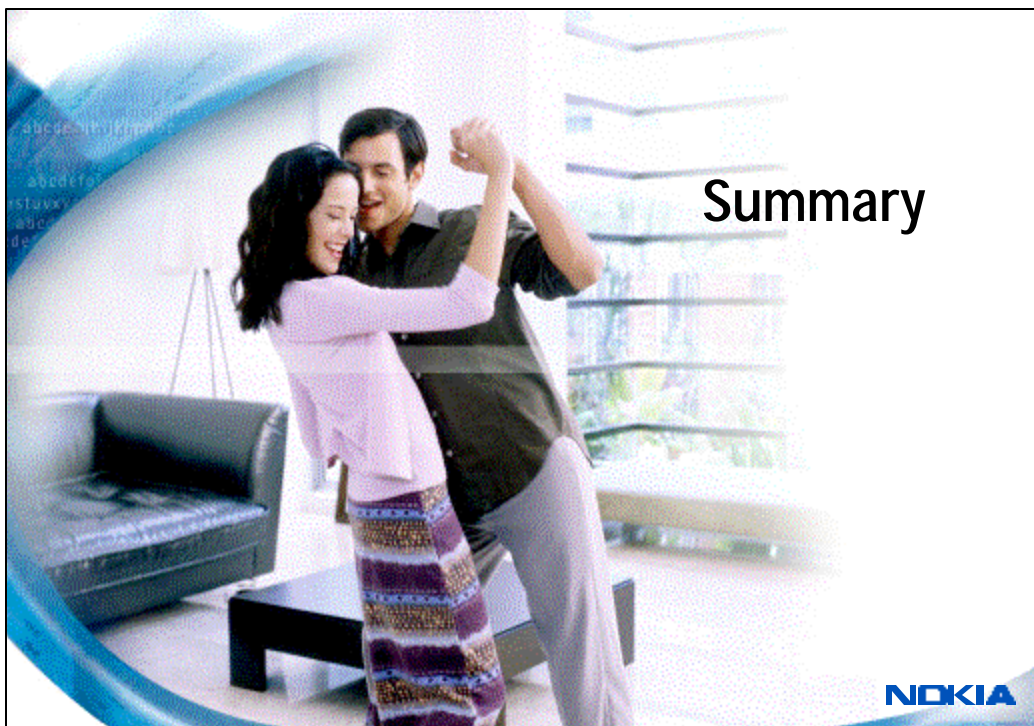
Planet of the Apes with 20th Century Fox



Logos & Icons
Picture Messaging
Screensavers
Ring Tones
Games

- First major cross-media campaign with the film industry
- A significant step in bringing mobile consumers a fully integrated movie experience
- Demonstrating the converging world of entertainment



A man and a woman are looking at a mobile phone. The man is sitting at a desk and holding the phone, while the woman stands behind him, looking over his shoulder. They are both looking at the phone with interest. In the background, there is a desk with a glass of water and some papers. The word "Summary" is written in a large, bold, black font in the upper right corner. The Nokia logo is in the bottom right corner.

Summary

- Messaging is the killer application
 - SMS, MMS, IM, E-mail, Presence
- Mobile Terminals become multi application devices, but optimized for one use motivation
 - New Categories, new form Factors
 - Added functionality, added complexity
- Club Nokia is an integrated natural part of Nokia's total terminal offering

