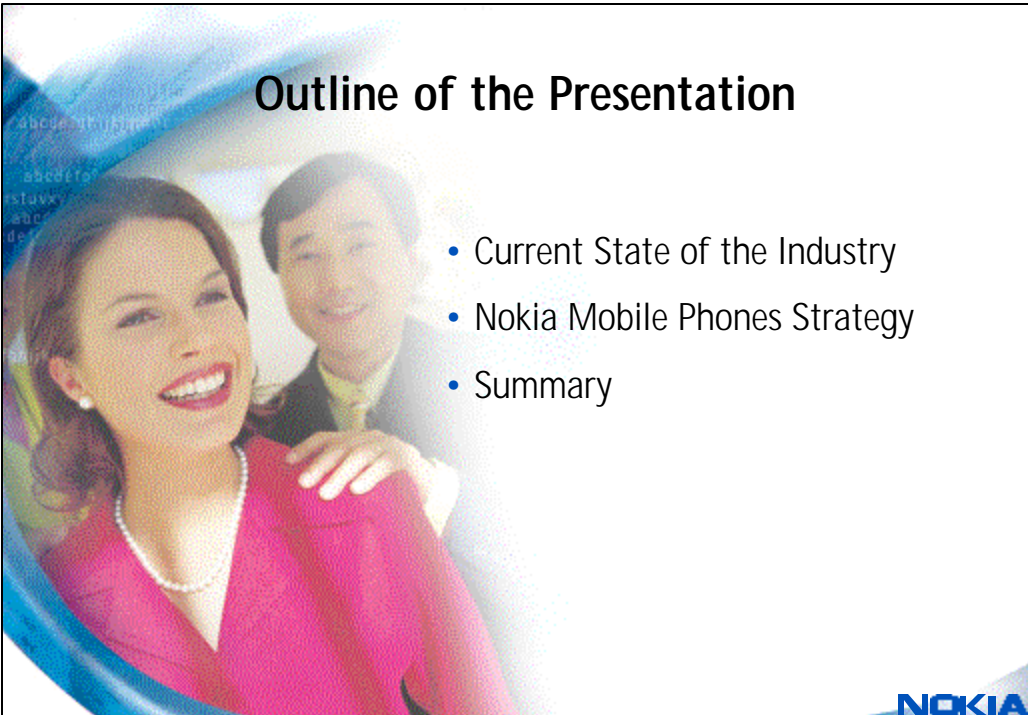


A portrait of Matti Alahuhta, a middle-aged man with glasses, wearing a dark suit, white shirt, and dark tie. He is looking slightly to the right of the camera with a neutral expression. The background is a soft-focus office setting.


Nokia Mobile Phones - Market Environment and Strategy

Matti Alahuhta
President
Nokia Mobile Phones

A photograph of two business professionals, a woman in a bright pink blazer and a man in a dark suit, smiling and looking towards the camera. The woman is in the foreground, and the man is slightly behind her. The background is a soft-focus office setting.

Outline of the Presentation

- Current State of the Industry
- Nokia Mobile Phones Strategy
- Summary

The Nokia logo, consisting of the word "NOKIA" in a bold, blue, sans-serif font, is positioned in the bottom right corner of the slide.



Current State of the Industry

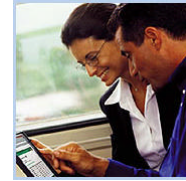
Key Terminal Industry Trends

- Double digit **volume growth** to resume from 2002 onwards
- Digital convergence **increases value**
- **Replacement market** changes market dynamics
- Increasing complexity driving **horizontalization** and **consolidation**
- **Role of software** is becoming more important



Subscribers and Mobile Terminal Volumes

- Subscriber growth continues
 - **1.5 Billion** subscribers by 2005
- Year 2002 volume forecast : **420-440 million**
 - 10-15% growth from 2001 level of 380 million
- Year 2003 volumes **by technology**
 - GPRS and 1xRTT: more than 50% of volumes
 - 3G: roughly 10% of volumes



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Demand and Pricing Dynamics

- **Share of replacement** reaches 80% of total volumes by 2004
- Gradual increase in **multiple terminal** ownership
- **Nokia's forecasted ASPs** unchanged in 2002
 - increasing trend from 2003 onwards
 - ASPs in the replacement market start increasing in 2002
 - ASPs for developing markets continues to decline - drives higher penetration



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Europe

Market Environment

- Healthy market growth in 2002
- Product mix continues to improve
- Attractive Mobile Services emerge

Nokia's key targets

- Roll out new services-driven product portfolio
- Accelerate replacement market
- Club Nokia implementation with Operators

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Americas

Market Environment

- North America: higher penetration and improved service levels
- Latin America: market recovery after a weak 2001
- GSM/EDGE Services and Terminals rollout

Nokia's key targets

- Increase CDMA market share
- Roll out GSM 800/1900 portfolio
- Drive messaging behavior

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Asia Pacific

Market Environment

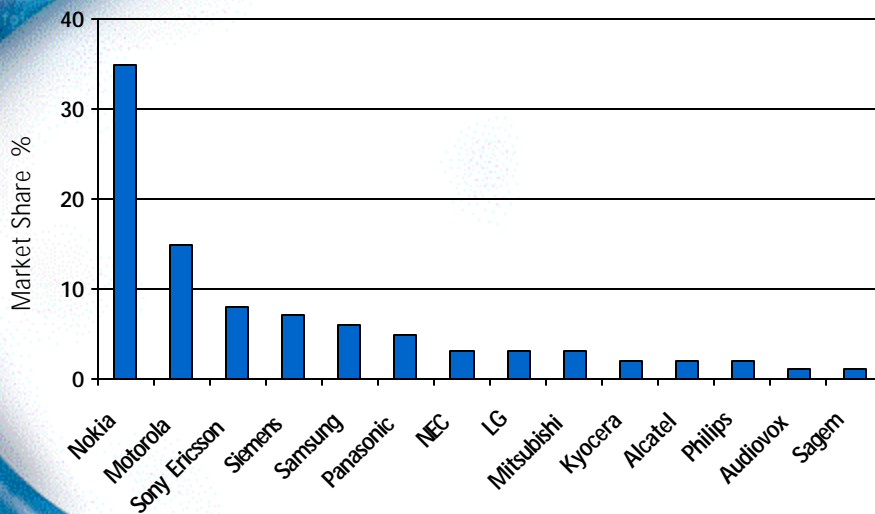
- China continues to grow - but at a slower pace
- SEAP markets continue healthy growth with good product mix
- Importance of localized products in the Asia Pacific markets

Nokia's key targets

- Increase market share in China
- Continuous renewal of product portfolio
- Leverage global platforms and partnerships to improve position in Japan and Korea

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Consolidation in the industry is continuing

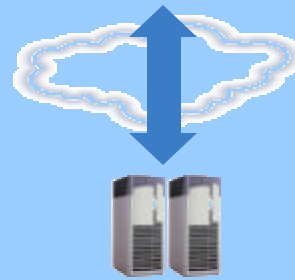
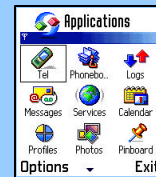


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Open Mobile Architecture

- Stimulates global mass volume deployment of **Mobile Services**
- Enables faster productization of complex products
- Mobile terminals continue to have **differentiated look and feel**:
 - Product categories
 - User Interface
 - Design
 - Brand

Server-Client architecture



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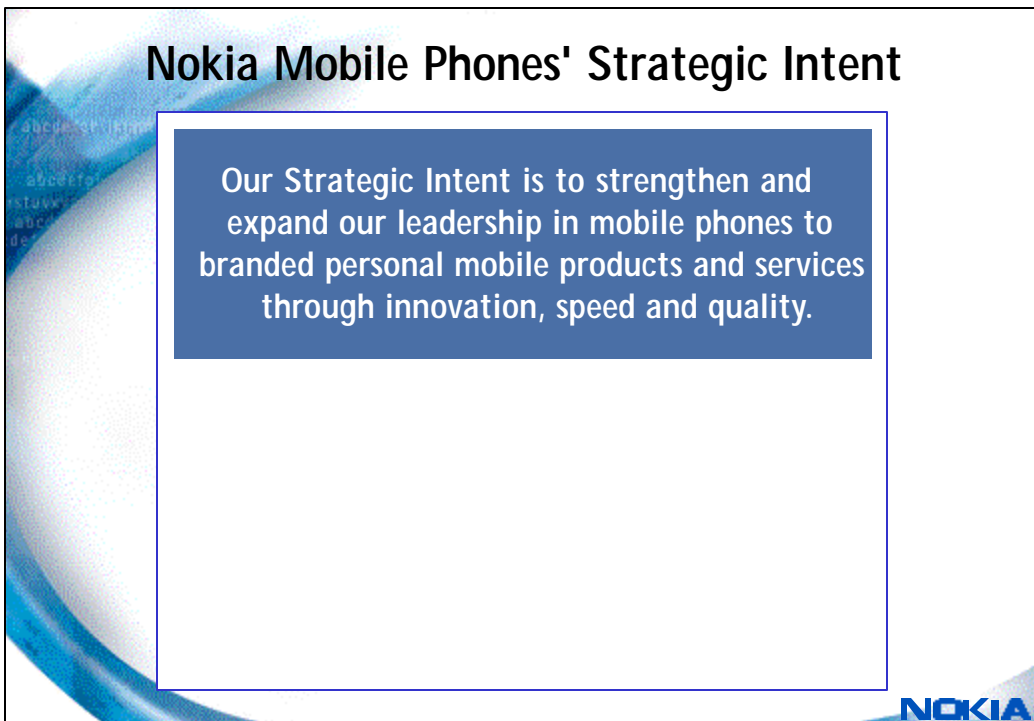
New era of innovation and opportunities

Drivers preventing commoditization

- Accelerating technology evolution
- Increasing role of software
- Integration requirement
- Cost efficiency requirement
- Time-To-Market requirement

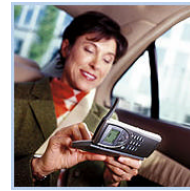


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Nokia Mobile Phones' Strategy Cornerstones

- How to ensure sustainable growth and profitability -



Differentiation through total product offering

Leveraging economies of scale

Leveraging the installed base and Nokia Brand

Excellence in Demand-Supply network

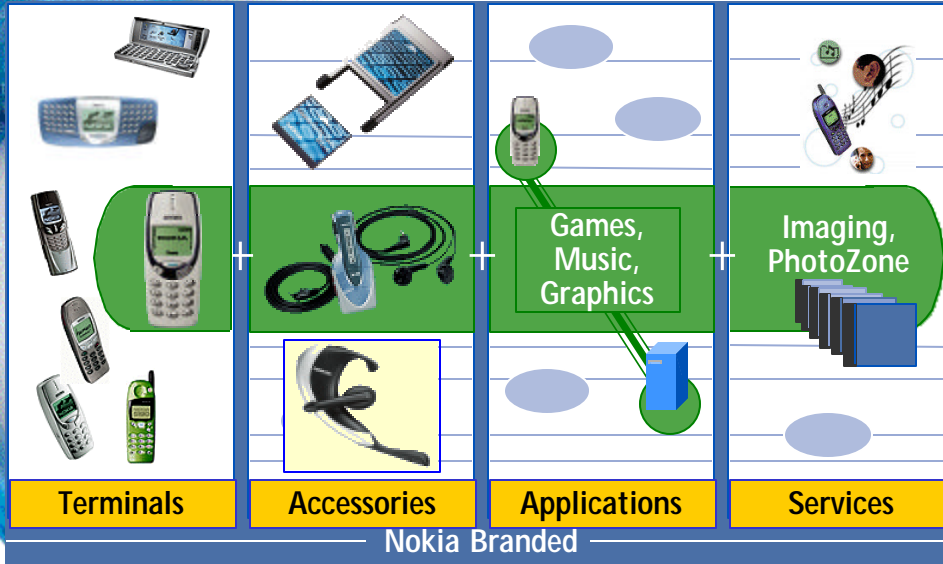
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Differentiation through Total Product Offering



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Not just a phone but 'Total Product Offering'



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Sustainable product leadership

Continuously renewed portfolio of segmented categories

Consistent product identities and user interfaces



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New Asia Pacific specific models

Nokia 8855 Availability : Q1 2002

- New mechanical look and color
- WAP 1.1 support
- Chinese Input
- Rhythmic vibra and backlight
- Full display profile icons (e.g. analog clock)



Nokia 6500 Availability : Q1 2002

- Dualband GSM 900/1800
- GPRS & HSCSD
- Integrated FM Radio
- Voice Recording
- Voice Command
- Voice Dialing
- Active Flip



Nokia 3350 Availability : Q1 2002

- Large LCD display 96x65
- Picture Editor
- WAP Features
- Personalised SMS alert
- New Games
- Downloadable characters & background music for Games
- Range of Color Covers



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Category evolution is driven by both style and function



by



Nokia 5510 is the best selling MP3 player in the world in Q4-2001

Nokia 7650 will be the world's first GRPS Imaging phone –selling in millions in H2/2002

**WSJ, November 1, 2001:
Nokia 9210 was the best selling PDA in Europe in Q3-2001 with 28% market share (Palm 20%, Compaq IPAQ 12%)**

*Premium
Fashion
Classic
Active
Expression
Basic*

THE WALL STREET JOURNAL

Club Nokia is part of total product offering

Club Nokia Community Member targets

- Currently approximately 10 million Club Nokia members
 - Europe and APAC in rollout phase - over 30 countries, 20 languages
 - Americas rollout in 2002
- Club Nokia targets ~50 million **active** members by 2004
- To become Nokia users' preferred Terminal specific Community Service

Club Nokia financial targets


- Club Nokia revenues roughly one billion Euros in 2004
- Profitability to reach the average Nokia Mobile Phones profitability level by 2004



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Leveraging the Nokia Brand

Leveraging the installed base & Nokia Brand



Strong Brand enables high profitability

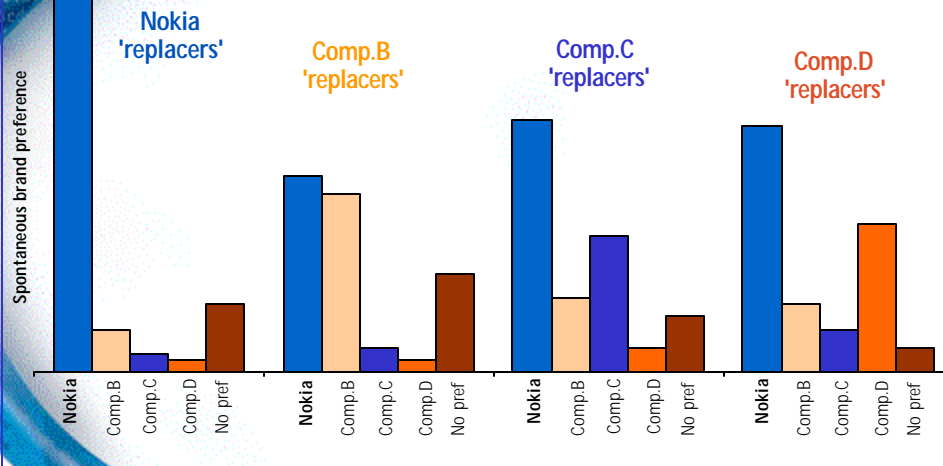
Strong Global Brands enable high Profitability – Even in Products with very little technology innovation



Nokia has superior Brand loyalty

Brand preference of Nokia, Company B, Company C, Company D

Base: Users of each brand intending to replace in next 12 months



Source: Nokia 2001

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Nokia Brand as an asset

- Enables us to achieve our **market share** targets with higher **margins**
- Key **differentiator** when technology is common
 - tie breaker in purchase situation
- Enables launching new, innovative solutions effectively
 - the **trust** factor
- Attracts distribution by helping them to achieve and quicken **inventory turnover**
- Improves our marketing and selling **efficiency** and increases freedom to manoeuvre
- Is a **catalyst** to subscriber growth and service utilization by attracting consumers to try new cellular services

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Excellence in execution



Excellence in Execution



Excellence in manufacturing and logistics

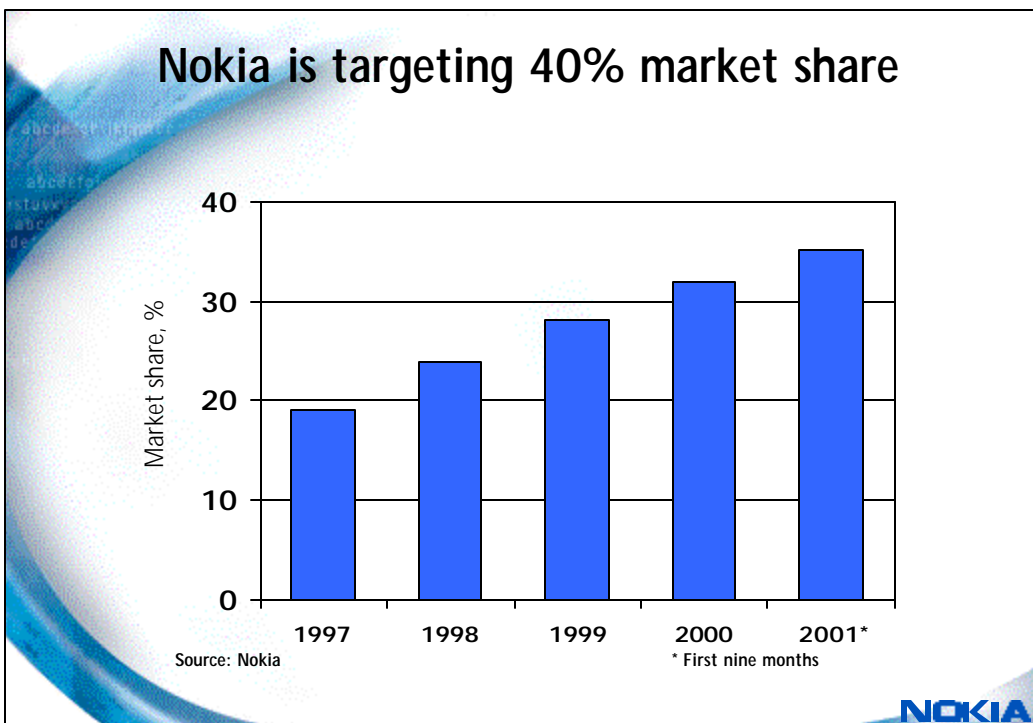
- End-to-end integration of Demand Supply Network
 - Whole chain from suppliers to consumers
 - Efficient information and material flow
- Nokia has 9 factories globally - all operate according to the same processes and technologies
- Products based on same architecture and basic design
- Optimised 'design for manufacturability'



Leveraging Economies of Scale

Leveraging economies of scale

NOKIA



Nokia's edge: Economies of Scale

Leveraging Economies of Scale:

- Close to 1 billion Euros in Brand building (2001)
- Roughly 1.5 billion Euros in R&D (2001)
- Mobile software architecture development
- Biggest customer base
- Biggest mobile developer community
- Broadest product portfolio
- Optimised sourcing and manufacturing processes



- **High Gross Margin** enabled by strong segmented offering
- **High Operating Margin** enabled by low fixed costs

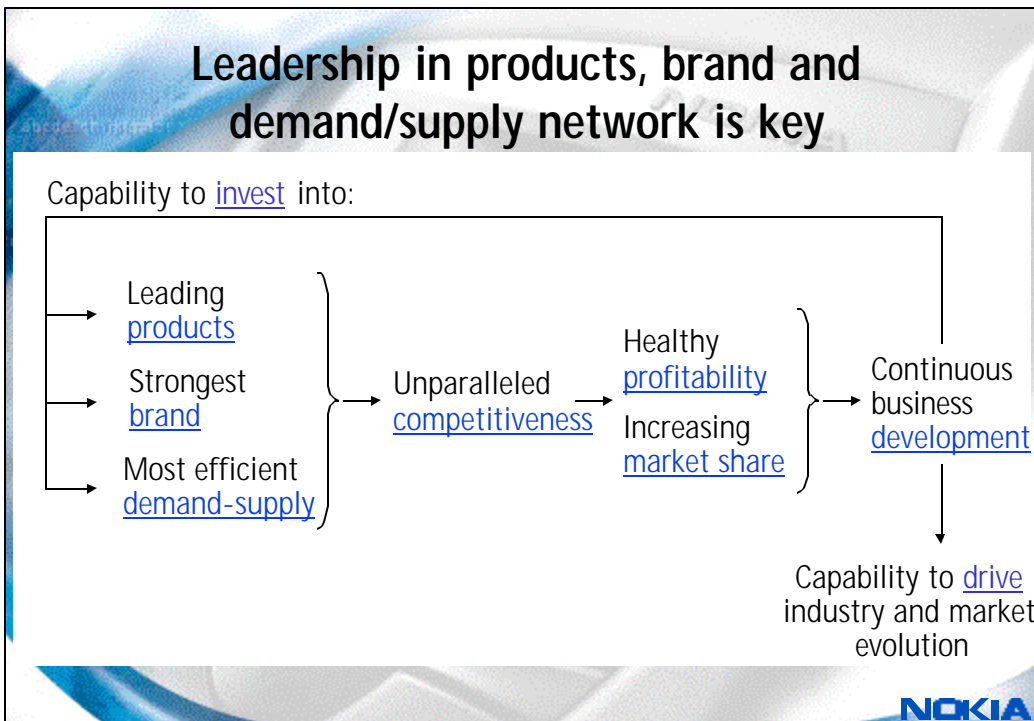
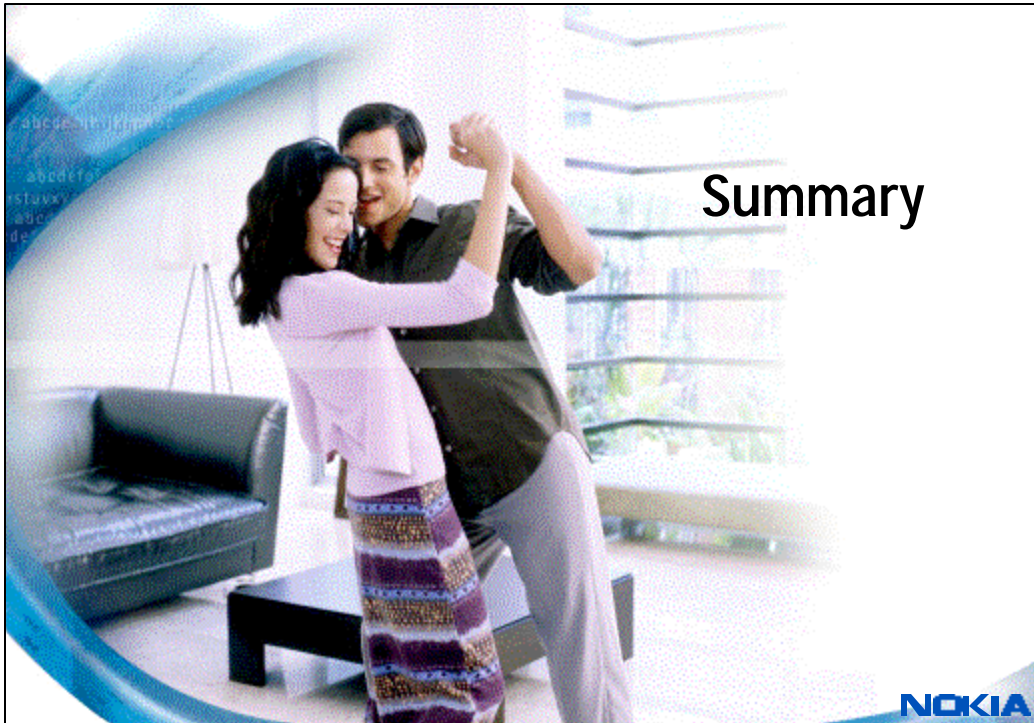
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Large installed base of Nokia terminals enables new business

- Roughly 300 million Nokia users by the end of 2001
- In a few years time Nokia's installed user base will exceed 500 million
- Mobile Phone users demonstrate high loyalty
- Installed base facilitates services business



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Ensuring Profitability through Value Creation in Mobile Terminals

- Key Value Creation enablers:
 - High market share and large customer base
 - Brand preference, loyalty and trust
 - Segmentation and product conceptualization competence
 - Design and user interface competences
 - Software competences and developer community
 - Excellence in managing demand-supply complexity
 - Creating win-win business models with partners



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CONNECTING PEOPLE

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