

Mobile Phones and Cost Leadership

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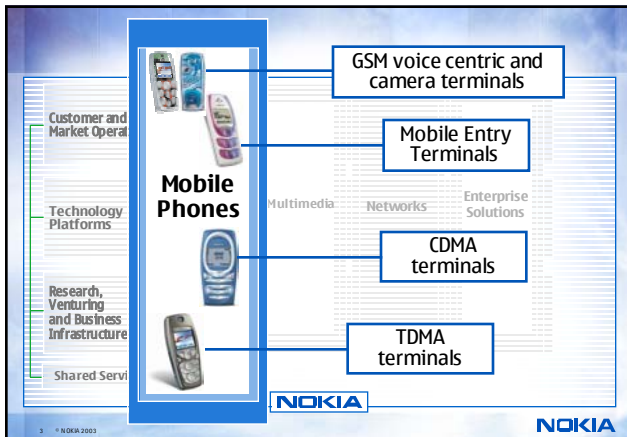
Nokia Capital Market Days 2003

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Agenda

- New structure
- Business units
- Cost leadership

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Nokia - Mobile phone categories



Product style categories to meet different lifestyles and individual preferences

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Winning End Users' Hearts and Minds

Capability to extend and embrace existing customer base

Compelling end user experience



Appealing brand image and reputation

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Business Units



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GSM voice centric and camera terminals



Price-functionality-style
Customisation & platformization
Renewal
Market share

Mobile Entry Terminals

Drive Penetration
Affordability
Ease of use
Brand
Quality



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CDMA

- Shipping to major customers
 - Sprint and Verizon in the USA
 - Reliance in India
 - Unicom in China
- Next steps: Expanding to higher price points



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Defining cost leadership



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Nokia Mobile Phones vs. Dell

	Most recent Qtr	
	Mobile Phones 30.Sep.03 USD	DELL 01.Aug.03 USD
Sales (M)	6 575	9 778
Sales / head	239 996	233 923
Operating margin	22.0%	8.6%
Inventory days	24	4
Cash conversion cycle (days)	-79	-43
Net working capital	-2 184	-3 177
Operating cash flow (M)	1 640	1 552

Source: Nokia management reports, DELL financials (both based or reported data)

1 EUR = 1.17 USD

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Nokia – The Cost Leader

Design for Manufacturability

Sourcing

In-House Manufacturing

Sales and Distribution



Mastering the Demand-Supply Network

Total cost advantage = 25%+

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Why is mastering the Demand Supply Network critical and difficult?

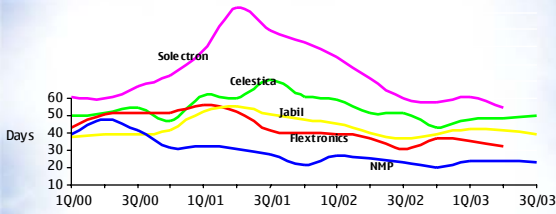
- 500,000 units per day
- 7 units per second
- 300-350 components per product
- 60,000,000,000 components a year



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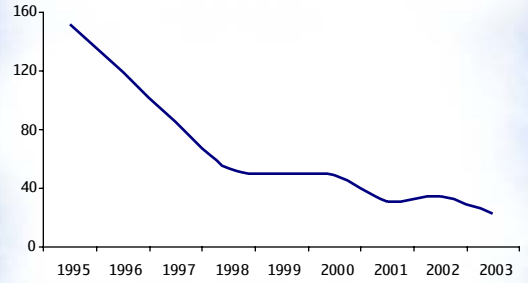
Inventory Days of Supply Nokia Mobile Phones vs. Contract Manufacturers



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Managing Inventory Days of Supply Nokia Mobile Phones



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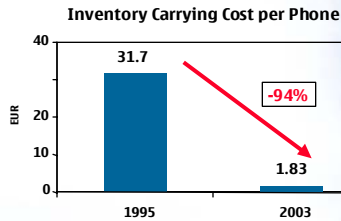
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Example of Cost Savings Managing Supply Chain

Inventory Carrying Cost

- Interest cost
- Obsolescence
- Price erosion of procured components
- Warehousing cost

1995: ~ 300 M€
2003: ~ 300 M€

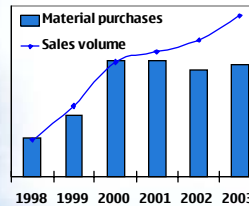


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Sourcing

- Continued reduction of component costs through strategic partnerships
- Nokia provides one interface to suppliers
- Nokia has limited number of suppliers

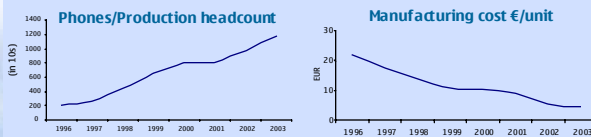


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In-house Manufacturing

- Largest assembly to order manufacturer in the world
- Outsourcing used to balance volume fluctuation
- High capacity utilization in engine manufacturing and responsive final assembly to customer order

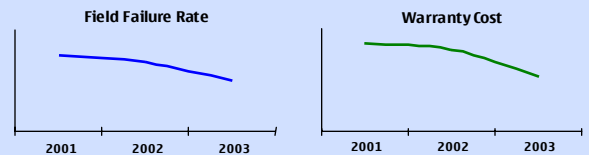


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Yields and Quality

- Low yields create more manufacturing cost (redo) and scrap costs
- Low yields have lost sales opportunity cost
- Low quality causes high field failure rate
- High field failure rate creates high warranty costs

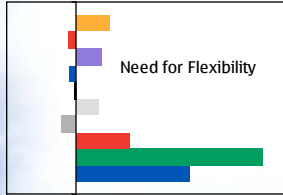


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Sales and Distribution

- Nokia's model is not "Push and Pray"
- Enables us to be closer to customer (saves time and cost)



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Nokia 3510i variation

160 Custom Transceivers

260 Sales Package Variants*

Assembly To Order Engine
2 variants

- 1 for APAC
- 1 for Europe



*May 2003

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Room for improvement?

- Inventory Days of Supply
- Inventory Carrying Cost
- Manufacturing cost/unit
- Manufacturing Yields and Quality
- Sales and Distribution



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