



Capital Market Days

CMO EMEA Business Review

Robert Andersson, SVP EMEA



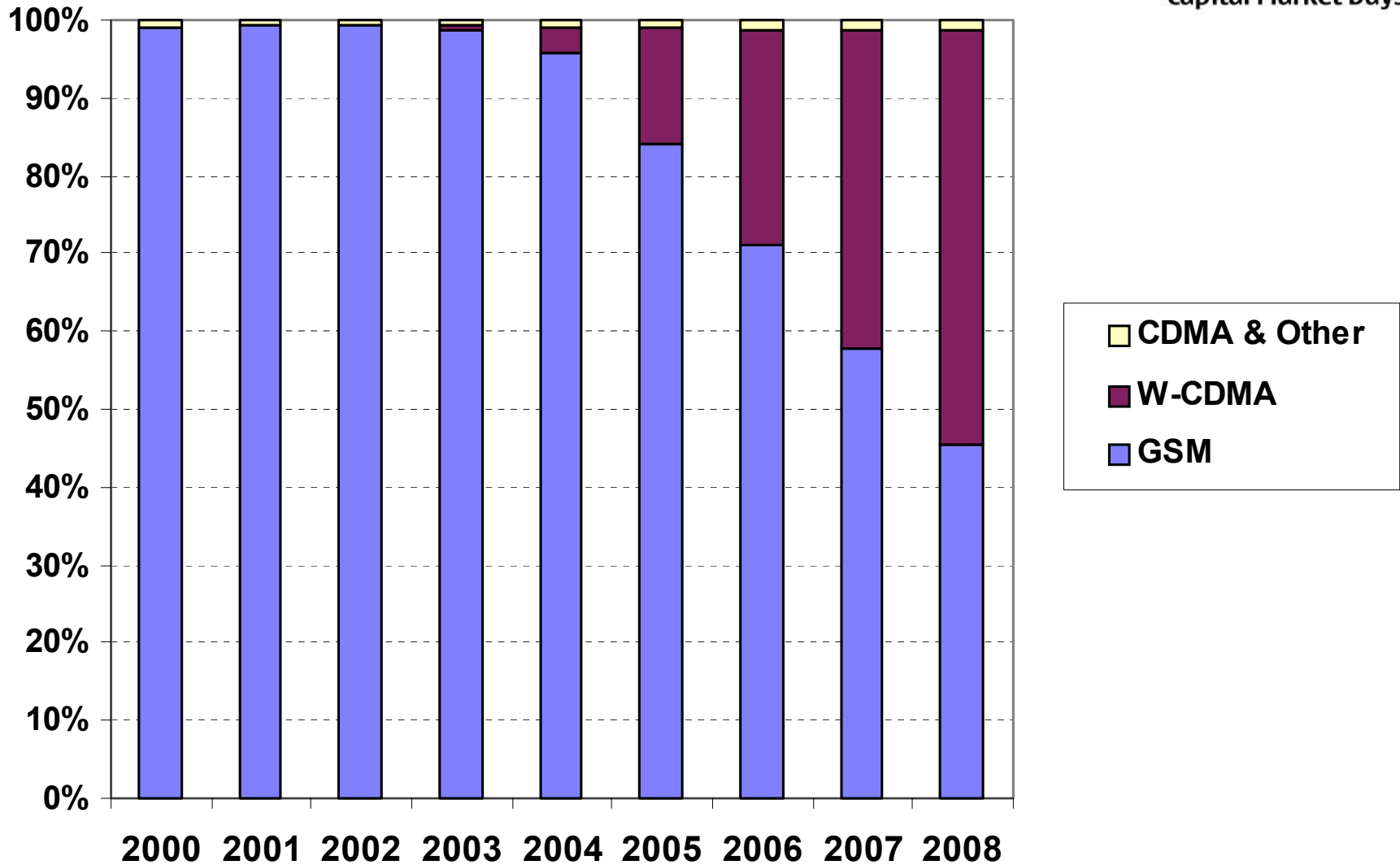
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Market Overview

EMEA Market Volume by Technologies



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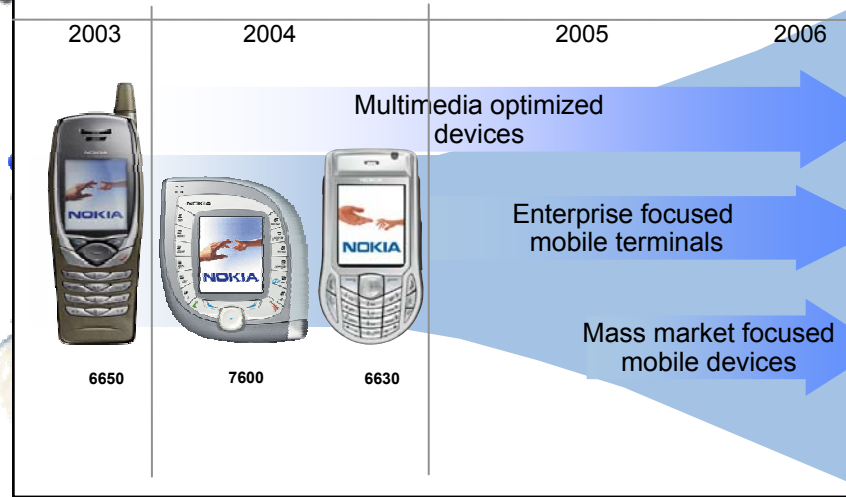
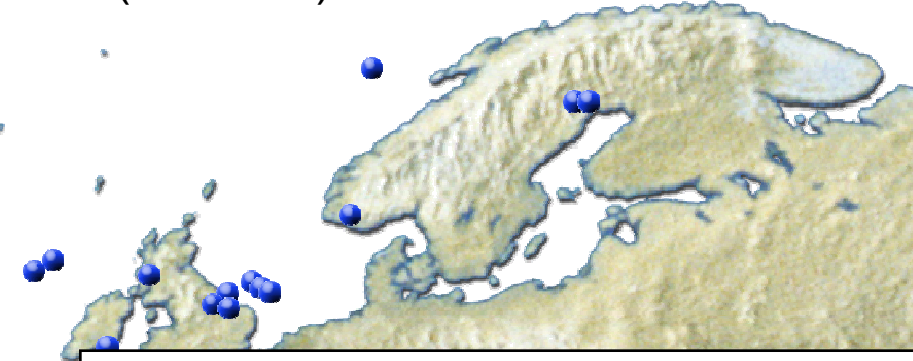
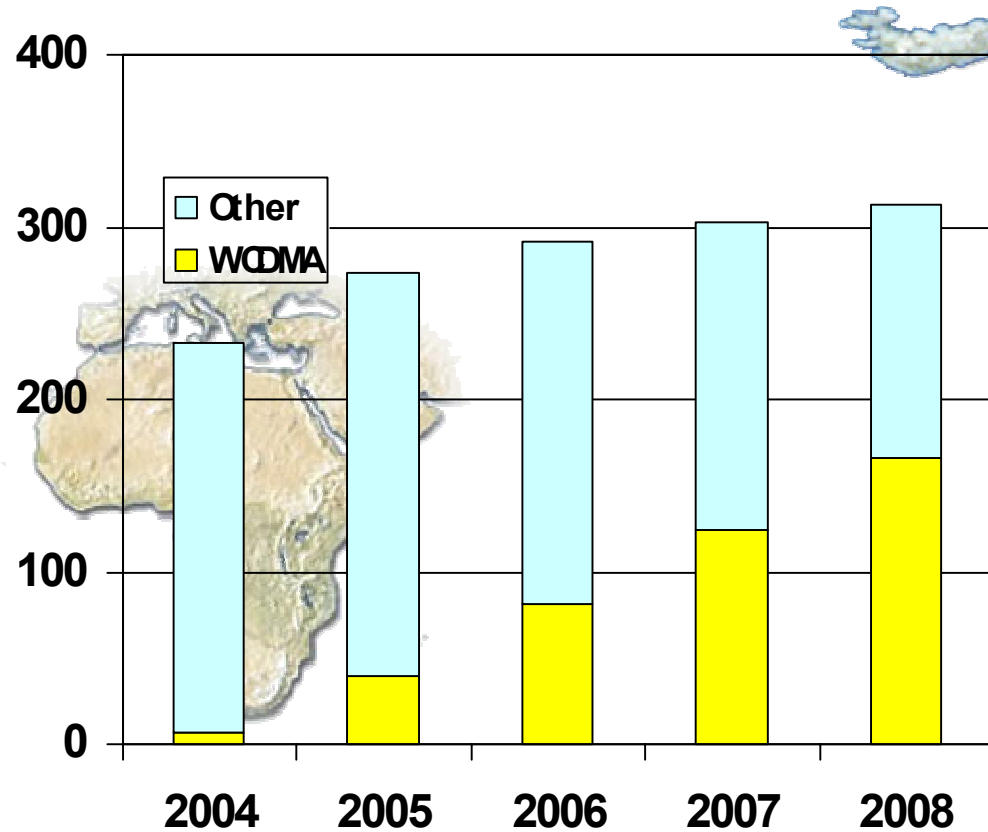
WCDMA Market development in EMEA



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46 Commercial Networks launched already in EMEA (43 in EU)

...with another 20+ in Q4/Q1...



over 50% of EMEA volume is WCDMA by 2008 (in EU by 2007)

... and new terminals driving faster adoption.

Launches based on public sources : Volumes based on Nokia market Forecasts

EMEA is more...

| West Europe EU15 | |
|------------------------|-------|
| Population (m) | 378 |
| GDP/ capita | 24.81 |
| Penetration | 91% |
| Market vol. growth Y/Y | 21% |
| Subs Growth Y/Y | 8% |
| MS % (sell-in) | >35% |
| Share of EMEA volume | 56% |

*“saturated,
but value potential”*

| East Europe | |
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*“room to grow
both volume and
value”*

*“long-term low-end
growth “*

| Sub Sahara | |
|------------------------|------|
| Population (m) | 700 |
| GDP/ capita | 2.75 |
| Penetration | 12% |
| Market vol. growth Y/Y | 52% |
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*“fast replacement &
emerging markets:
volume and value”*

| MENA | |
|------------------------|------|
| Population (m) | 522 |
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EMEA Market Segments

Developed Markets
(low population, high penetration)

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“France”

Drive volume + value:

- Market Share gains
- Data
- Multimedia
- Rich services
- 3G
- Upgrade
- Retention

Drive value:

- Data
- Multimedia
- Rich services
- 3G
- Upgrade
- Retention

“Mega Operator Landscape”

Low MS%

High MS%

“Russia”

Drive volume:

- Total cost of ownership
- Brand building
- Operational efficiency
- Develop distribution

Drive penetration:

- Total cost of ownership
- Brand building
- Develop distribution
- Long term growth

“Africa”

Emerging Markets
(high population, low penetration)

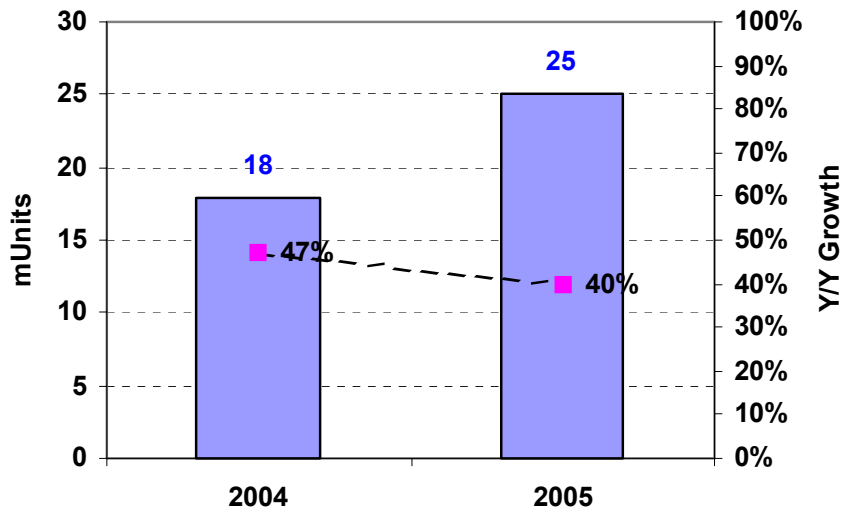
Africa (Sub-Saharan)

– Long term volume and value growth

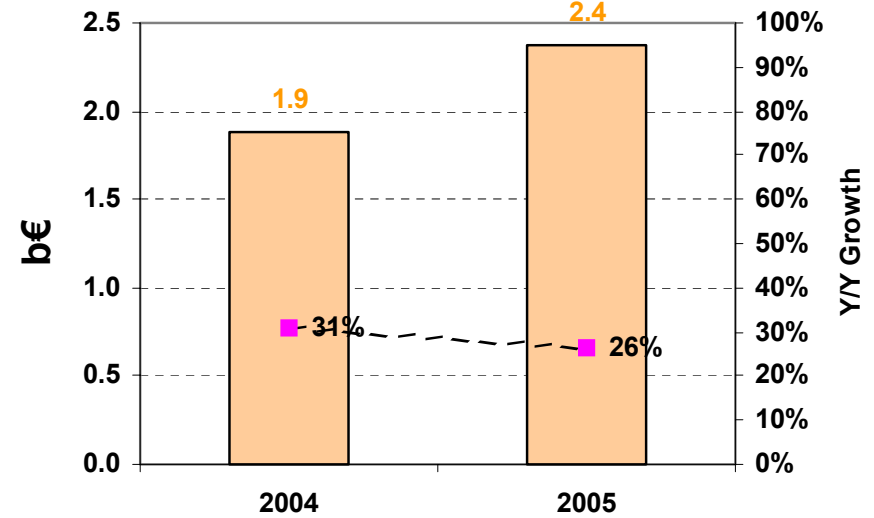


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Africa (Sub Sahara) Market Volume



Africa (Sub Sahara) Market Value



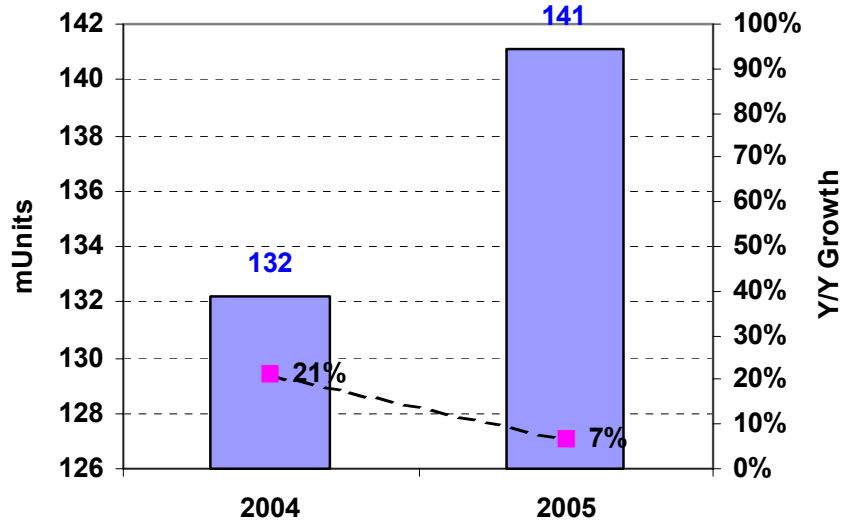
- Biggest markets Q3/04 YTD (mUnits):
 - South Africa (4.7), Nigeria (2.0) & Kenya (0.9)
- '05 market volume- & value growth on the same level as in '04
- Rapid increase in penetration of mobile telecommunication usage in African territory despite low purchasing power.
- China (2001)->India (2003)->Africa (2005)

EU15 Europe

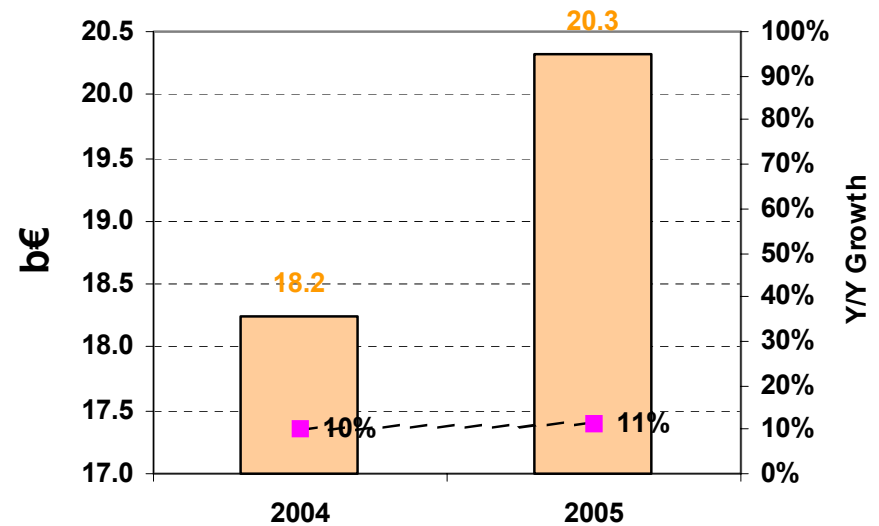
– Saturated, but value potential

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Europe 15 Market Volume



Europe 15 Market Value



- Biggest Markets Q3/04 YTD (mUnits):
 - UK (19.3), Germany (18.3), Italy(12.1), Spain(11.3), France(9.1)
- Slowdown in volume growth expected after surprisingly strong '04
- ASP development turning positive...



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Operator Cooperation

Operator Alliances in EMEA



Objectives:

“... At Vodafone, everything we do furthers our desire to create mobile connections for individuals, businesses and communities.

Our Vision is to be the **world's mobile communications leader** and we're delighted by the prospects for the future of our industry. ...”

Vodafone CEO
Arun Sarin
(Vodafone Annual Report 2004)



Objectives:

To offer enhanced customer experience to both business and consumer customers, across our footprint.

Means:

Network coverage and quality – simple, competitive and transparent tariffs.

Exploit synergies and size to achieve cost efficiency and exclusive products.



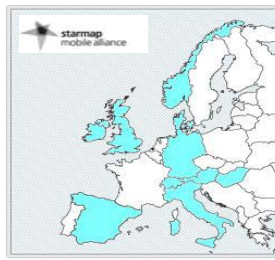
Objectives:

“Feel at home, wherever you go!”
– mobile solutions for you when you travel abroad.

Means:

Seamless **service** –
Better **tariffs** –
Local knowledge.

“..the Alliance is cooperating in areas of sourcing, technology and sales to large corporate customers.”



Objectives:

“Platform for mobile phone communications, where NTT DoCoMo:

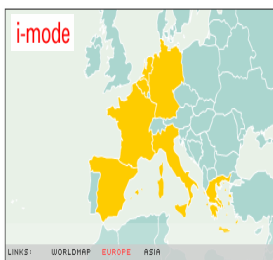
- Controls the i-mode value chain,

- Authorizes the content in the I-menu,

- Collects monthly information charges on behalf of content providers.

Offerings:

Entertainment, information, databases, transactions.



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Table 2: Europe's Purchasing Clubs

| | Operators | Subs |
|------------------|--|--------|
| Vodafone | All European Vodafone affiliates (incl SFR) | ~ 90m |
| Starmap Alliance | MM02, Telenor, Sonofon, Amena WIND, ONE, Sunrise, Pannon | ~ 45m |
| freemove | T-Mobile, TIM, Orange, Telefónica | ~ 140m |

Source: Nokia, Arete Research estimates

- Big and powerful (Arete)
- Overlapping footprint
- Competing on service offering
- Customization to differentiate

“Mobile operators are becoming increasingly focussed on offering differentiated services to their customers.” Source: Booz, Allen Hamilton – Beyond Symbiosis

- Positive development in 2H04

Ability to flexibly customize with software is becoming a competitive advantage for Nokia



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Key customisation elements of Series 60

- Operator icons and color in main menu
- Operator Soft key in idle mode
- Embedded download links
- Operator specific content on MMC
- Ready made settings



Key customisation elements of Series 40

- Operator-branded soft key
- Operator logo & tones
- Colour Scheme
- Wallpaper
- Wake Up Graphic
- Bookmark & link delegate
- Ready made settings

Positive operator feedback on the new Nokia UI customization offering SW platform based customization has proven to be radically more time and cost efficient than product-by-product hard coding

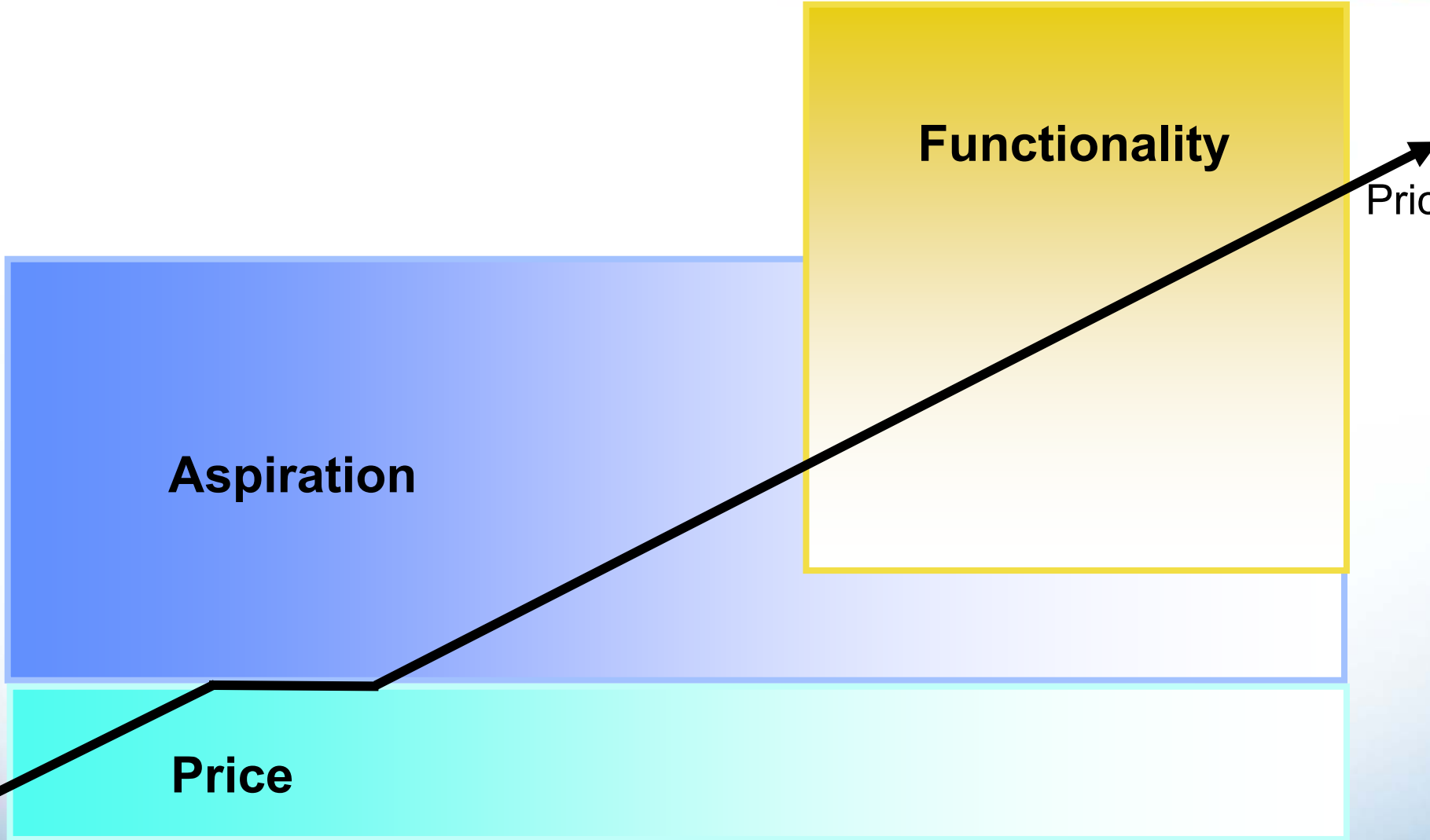
Nokia can now profitably offer a wider range of UI customization elements to a wider customer base than any other vendor



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Product portfolio & form factor development

Three clusters



Category dynamism in different price points



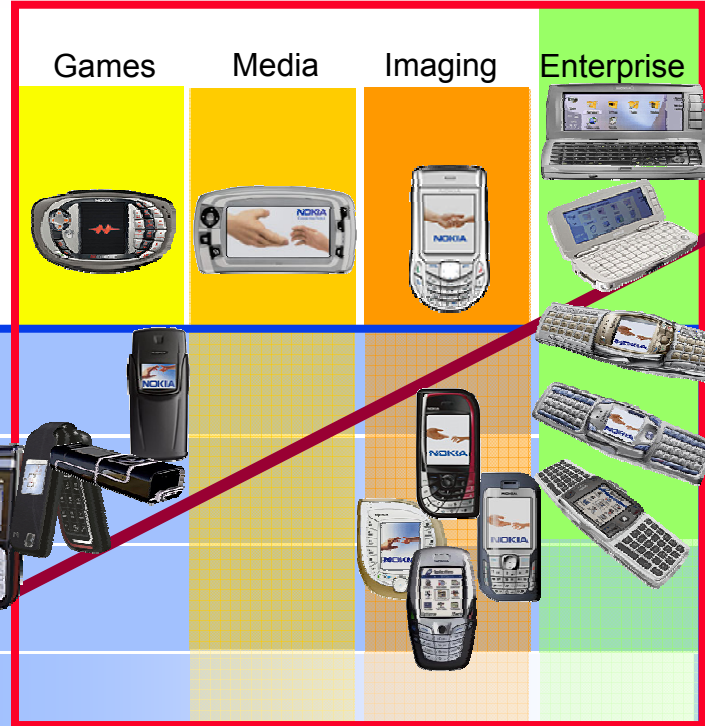
Nokia 3230



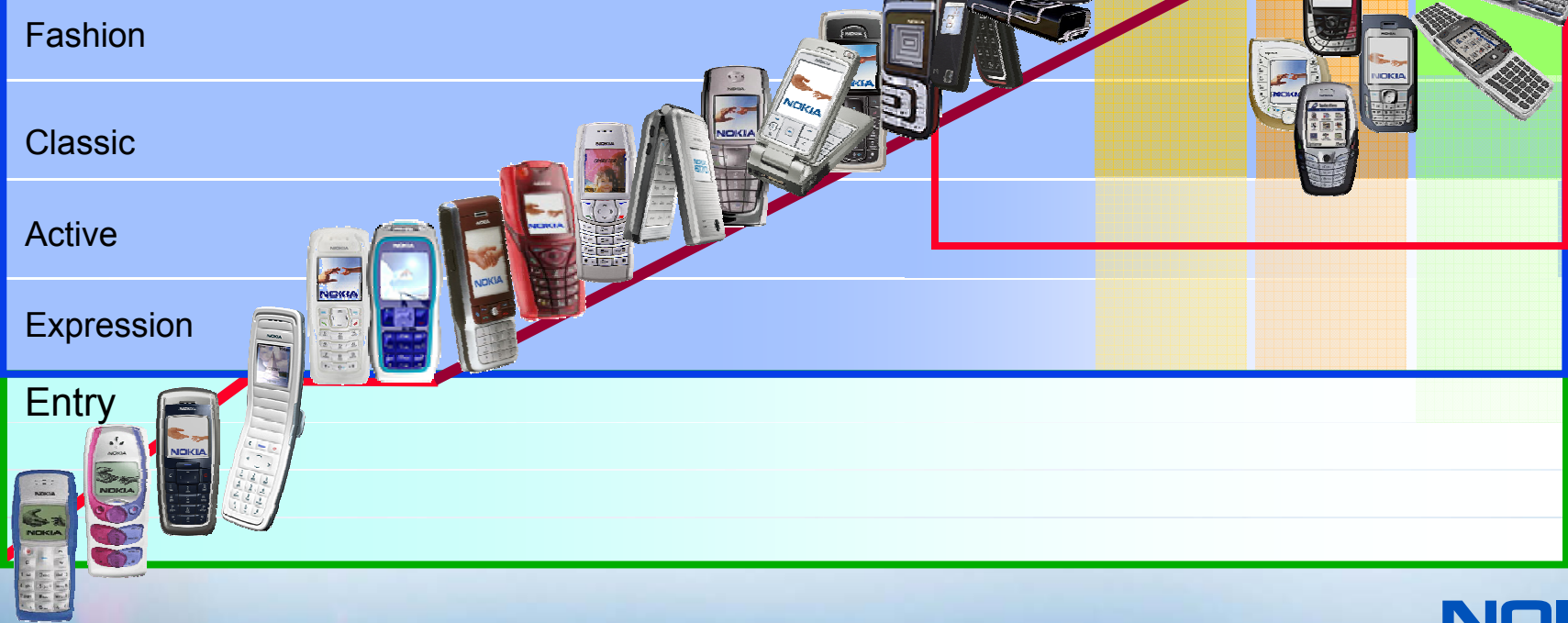
Nokia 6020



Nokia 7710



Price



Nokia Product range – November 2004



APPLICATION AREAS

Voice

Multimedia

Imaging

Media

Games

Enterprise Solutions

STYLE CATEGORY

Premium



8910i



7200

7210

Classic



6100

6610i

Active



5140

Expression



3100



3120



3200



3220



3230



3660

Entry



3315



1100



2100



2300



2650



2600

Flip, fold, slide or swivel...

Nokia's form factor evolution is strengthening the user experience and supporting functionalities



9500



9300



9210i



6810



6820



D21

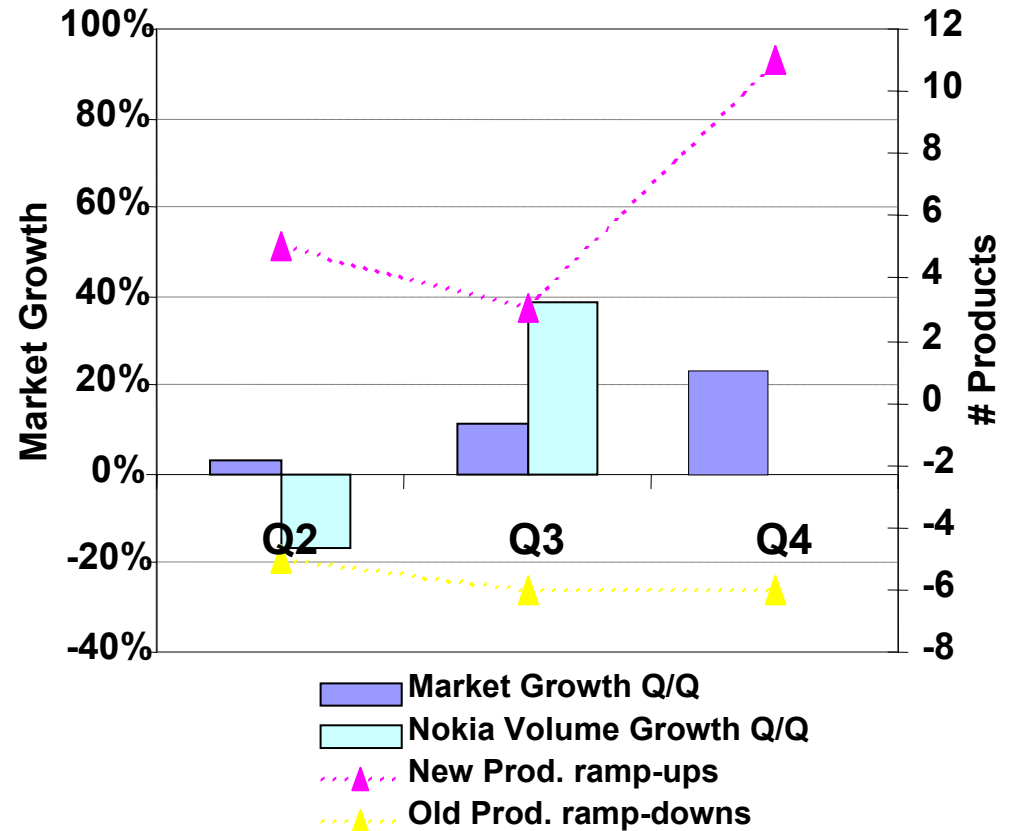
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EMEA Market Growth & Nokia Products



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- Product range is undergoing a significant renewal since Q2
- Customization, form factor and technology issues are addressed
- Market position in EMEA is solidifying





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Summary and Conclusions

Summary and Conclusions



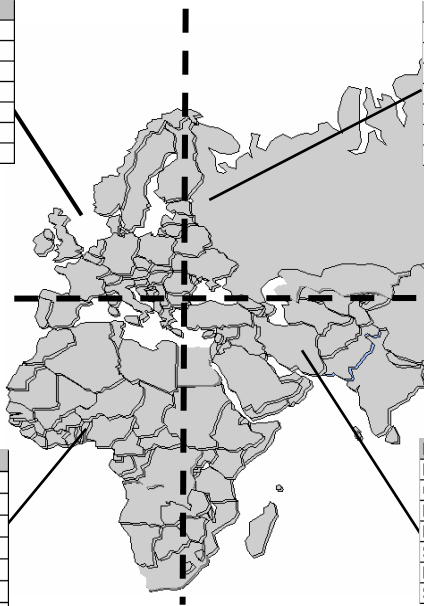
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- ...EMEA is more, not just European Union
- Encouraging development in 2H 2004
- Positive challenges for 2005 with continuously improving tools to address them
- Customization turning into strength
- Great opportunities for the long-term to grow both volume and value





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Thank You!