

# Why Nokia Failed to Nail the Smartphone Market?

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# Rational

- Nokia important to Finnish Economy
  - NOKIA contributed a quarter of Finnish growth from 1998 to 2007
  - 30% of spending on R&D of the country's total
  - Nokia is core to Finnish innovation system
  - Nokia paid as much as 23% of all Finnish corporation tax
- Till 2007: 80% market share in Smart Phones, but lost market share during "the second coming of the smartphone age"
- 2013: Nokia mobile device business acquired by Microsoft
- Nokia: national pride, its down-turn is a "national tragedy"

# Research Question

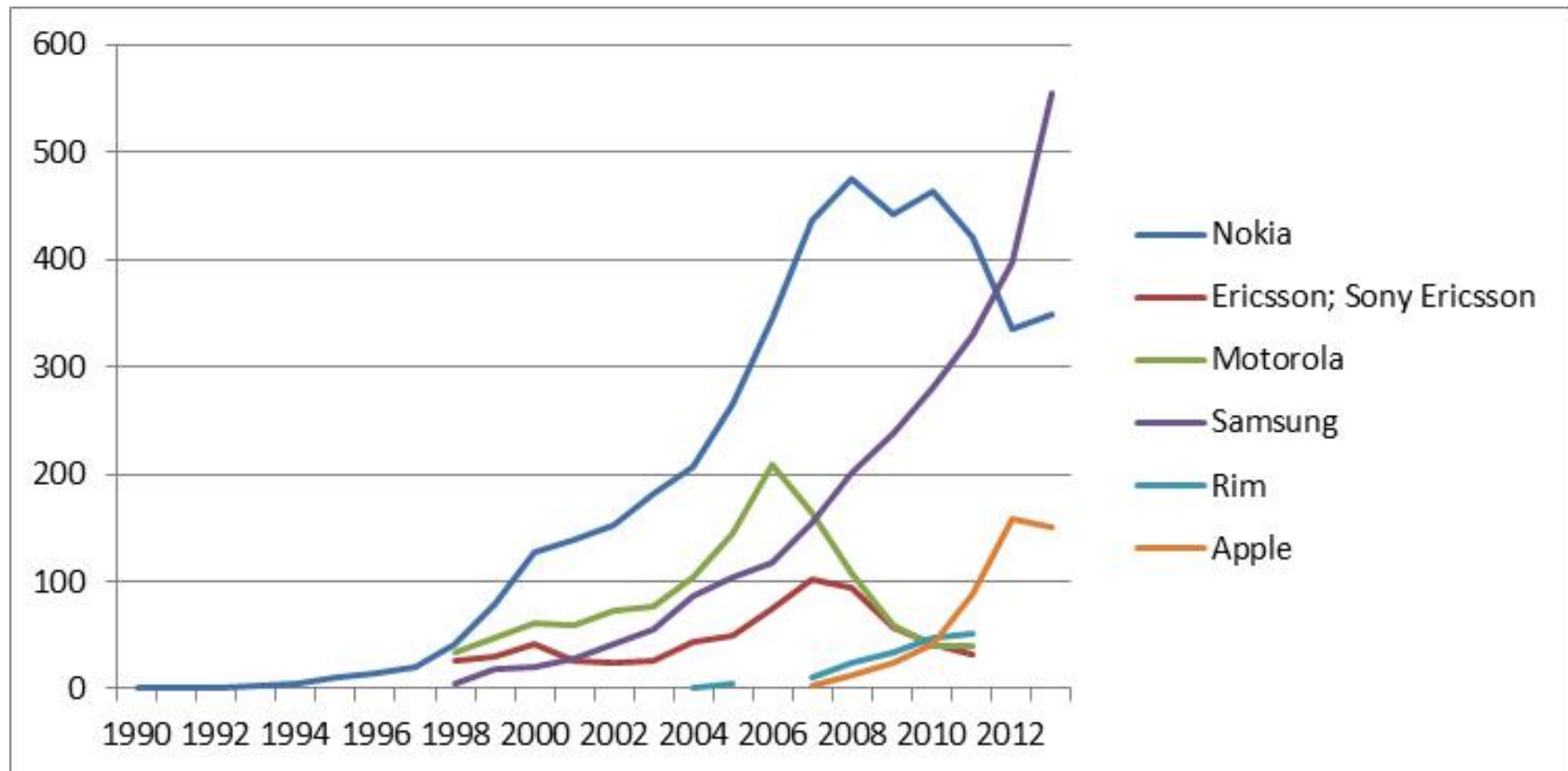
- *to understand why Nokia failed in capturing the smartphone market while there were many reasons to expect that Nokia was in the position to do so?*
- *Focus mainly on "internal" factors*
- *Of course Apple .....*

# Nokia History

- 1865: Nokia Aktiebolag
  - Paper Mill, Finnish Rubber, Finnish Cable
  - 1950s Computer, telecom
- 1967: Nokia Corporation
- 1979: Merge with Moriba Oy: handset manufacturing
- 1990: Nokia focus on GSM, bought Technophone, International focus
- 2002: Corporate restructuring: Nokia Mobile Phones, Nokia Networks, Nokia Venture Organization and Nokia Research Centre
- 2003: First smartphone Nokia 6600, Symbian OS v7.0 based

# Mobile phones produced per year

Some selected providers



# Issues to consider

- Nokia leadership
- Nokia Business/Organizational Architecture
- Nokia R&D and venturing policy
- Nokia and innovations
- Product launches
- Market view and segmentation
- Nokia and the US market
- Nokia, OS and platforms

# Nokia Leadership

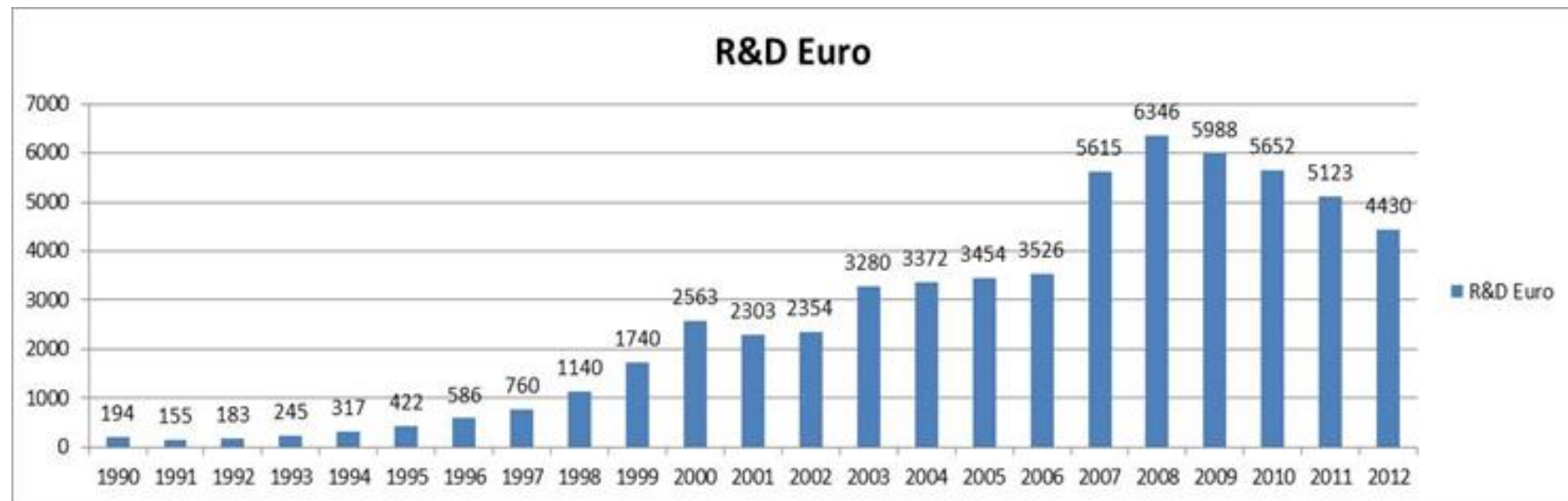
- Kari Kairimo (1977-1988)
  - Nokia conglomerate with rather diverse activities
- Simo Vuorilehto (1988-1992)
  - Time of conflict (internal, and between main Finnish shareholders)
- Jorma Ollila (1992-2006)
  - Clear focus, organic growth, strong brand, product innovation
- Olli-Pekka Kallasvuori (2006-2010)
  - Behavioural control, shift from Finnish to international financial markets
- Stephen Elop (2010-2013)
  - Organizational dynamics
  - Burning Platform memo

# Nokia Business Architecture

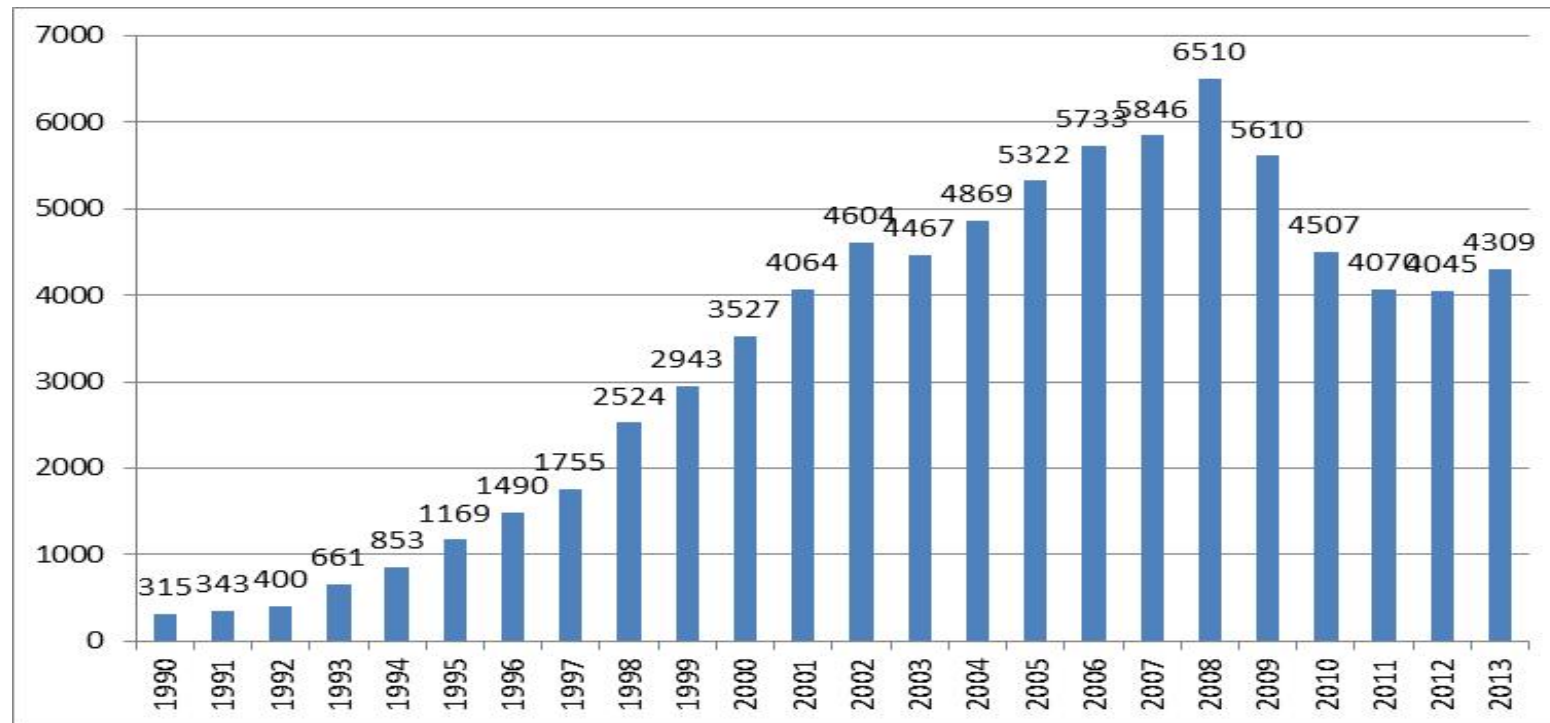
- Fast growth In the 1990s
  - Logistic problems (bull-whip)
  - Tighten control and combine logistics with financial systems
  - Increase of control
  - Negative impact on innovation spirit and culture
    - Jazz band versus Orchestra metaphor
- Matrix organization (2004)
  - Unclear how to report to
  - Increasing bureaucracy
  - Slow and unclear decision making
  - End of Nokia venturing



# Nokia R&D: spend



# Nokia R&D: patents





# Innovations

For instance

- Network components (GSM networks)
- Digital camera's (Zeiss)
- Tablet prototype
- Colour touch screens
- NFC technology
- Mobile TV (DAB)
- Et cetera

# Innovation

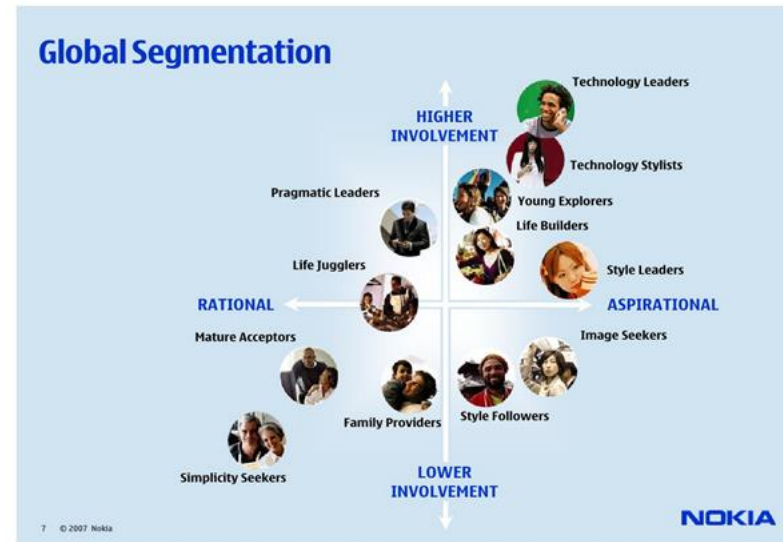
- Engineering culture, technology excellence
- Timing an issue (to early)
- Close attention for UI
- Venturing as a issue
- Aware of Clayton Christensen, Innovators Dilemma, and Chesborough, Open Innovation
- Acquisitions : absorb advanced technologies, content, top-talent
- Only Bridge program (Esko Aho) can be considered to be successful

# Product launches

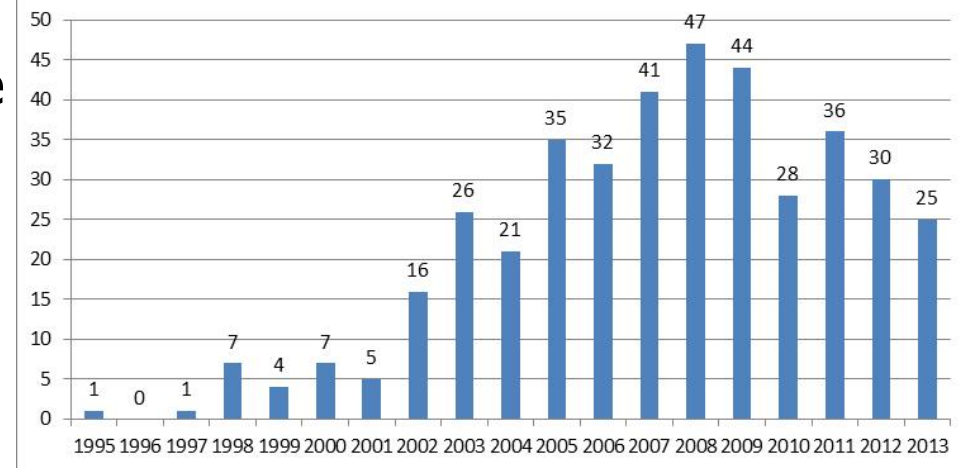
- Product series
  - 1000, 2000, et cetera series
  - Smartphone series
  - C-series: social networking; E-series: Business; N-series: multimedia; X-series: music and entertainment
- Software families
  - Series40 (rich call platform), S60 (3<sup>rd</sup> party apps), S80 (communicator devices), S90 (touch screens)
- Platforms and Ecosystems
  - Symbian: end of its lifecycle (symbian ^3)
  - MeeGo (initially open source project: Linux based Maemo software)
  - Burning platforms
  - Shift to Mobile Windows

# Market segmentation

- Market segmentation key
- Brand promotion
- Connecting market segments with products
- Detailed research: quantitative and qualitative
- Plethora of product market combinations



**Nokia Phones Released 1995-2013**



# Nokia international and US market

- Leading in European and Asian markets

US market:

- Standard issue:
  - US focus on CDMA
- Relation with operators: core players. Nokia in a dependent position.
  - Cingular and Verizon
  - Bundling under Operator label
- Branding and advertisement by Nokia



# Nokia, OS and Platforms (and eco-systems)

- Software families, operating systems and products closely interrelated
- Dominant (arrogant) player in Eco-system
- Lack of understanding the relevance of SDK and SD platforms, underestimation of relevance of external, non-native developers
- OVI platform and OVI store: too complicated, still connected to Telecom Providers, however technical problems
- Too late to see the shift to the periphery (content OTP related): no longer the Telecom Providers but Internet companies were the core to-be partners



# Future research and limitations

- Ongoing research
- Connecting to data on usage
- More in-depth interviews
- Conceptualization from multiple perspective:
  - Strategy (renewal)
  - Innovation management (disruptive technology)
  - Dual leadership (shaper, builder-paradigm)
  - Control theory and organization, contingency theory
  - Platform and eco-systems



# Conclusion

- Complexity
- Rapid technological changes
- Portfolio too broad, lack of focus
- Poor exploitation of capabilities, as a result of lack of focus
- Lack of eco-system thinking and capability to govern ecosystem