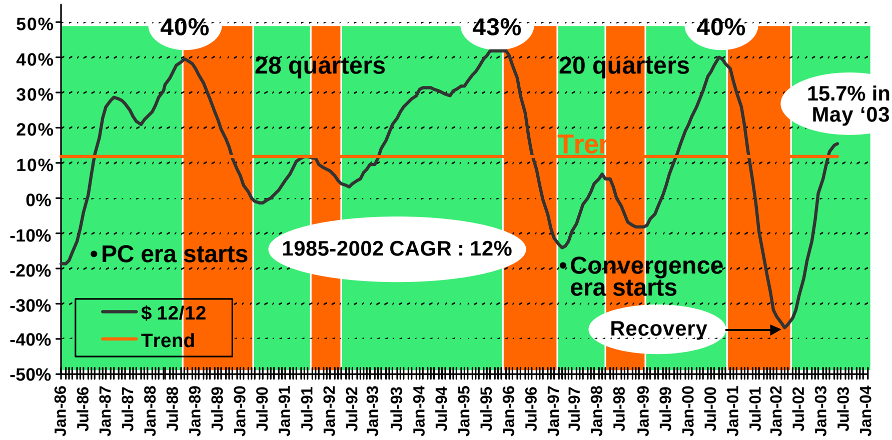
STMicroelectronics & the worldwide market. Strategies and difficulties

STMicroelectronics

Content

- Return to growth : Year 2003
- Market forecast 2003-2008 :
- Value-added food chain analysis
- What makes STMicroelectronics special

The semiconductor market cycle May 2003



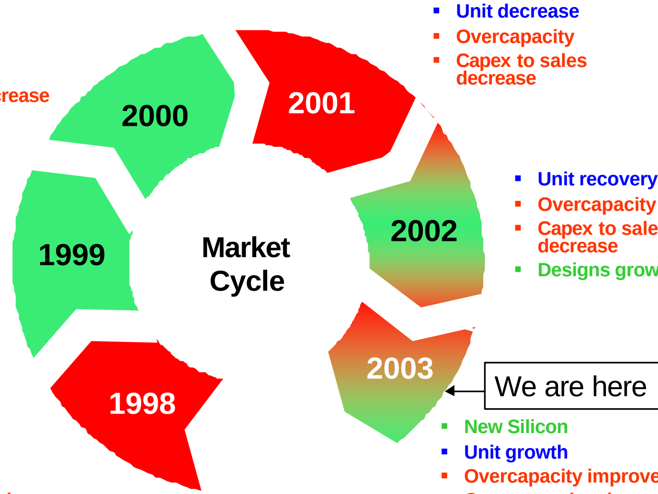
Source : WSTS

Where are we in the cycle ?

- New Silicon
- Unit growth
- Undercapacity
- Capex to sales increase

- Unit decrease
- Overcapacity
- Capex to sales decrease

- Unit recovery
- Tight capacity
- Capex to sales increase
- Designs growth



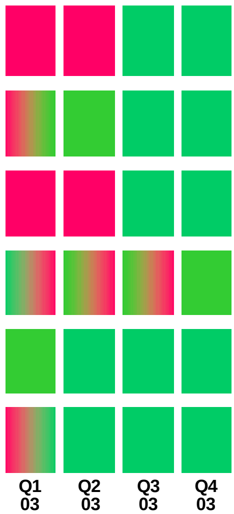
- Unit recovery
- Overcapacity
- Capex to sales decrease
- Designs growth

- Unit decrease
- Overcapacity
- Capex to sales decrease

- New Silicon
- Unit growth
- Overcapacity improvement
- Capex to sales decrease

Source : ST

End-demand for semiconductors

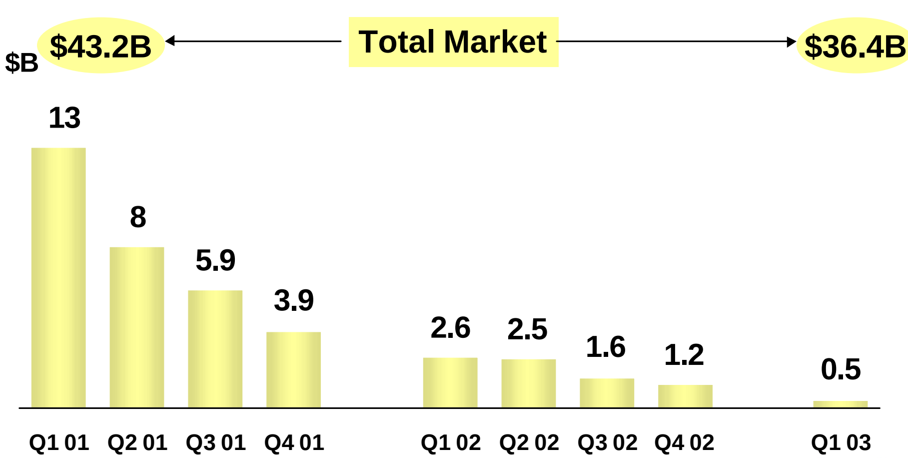


	First Half '03	Year '03
Wireline	▪ Access market growing fast. ▪ Negative for infra wireless and network.	▪ Equipment Capex to sales ratio approaching 18% in Europe & Japan at year end triggering demand.
Wireless	▪ 8% unit growth over '02. ▪ 50% GPRS share, 86% color screen.	▪ Replacement cycle is starting in Q3 (Europe). ▪ 10-12% growth for world demand for handset. ▪ High degree of Si pervasion
Computer	▪ Better than expected (+5% over Hlf1 '02). ▪ Driven by notebook.	▪ 4 to 6% growth in PC unit driven by notebook
Industrial & Military	▪ Slightly growing for industrial.	▪ Slow but stable growth.
Automotive	▪ Pervasion drives market despite flat production, Q2 weakens.	▪ Weak demand. ▪ Electronic Control Unit to grow by 5%, Si pervasion at 9%.
Consumer	▪ SC market at 0% over Hlf1 '02.	▪ Gaining traction in Q2.

Source : ST

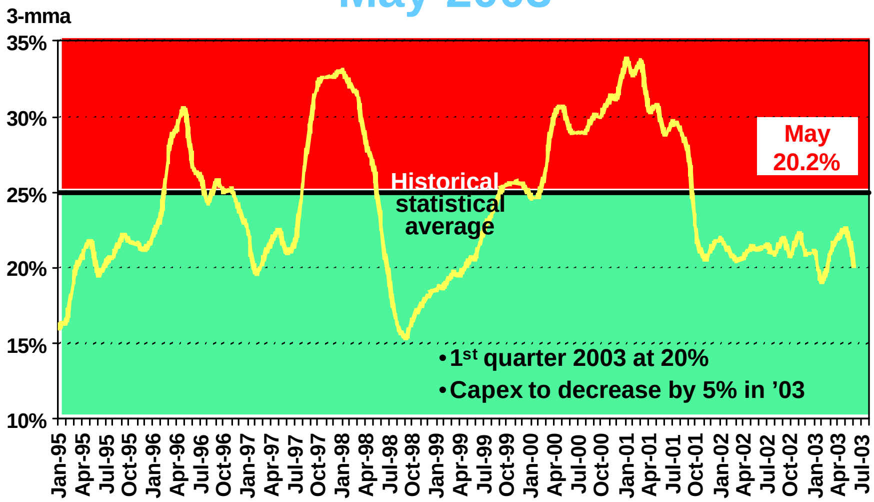
Semiconductor inventory

Semiconductor excess inventory at quarters end in electronic supply chain



Source : iSuppli

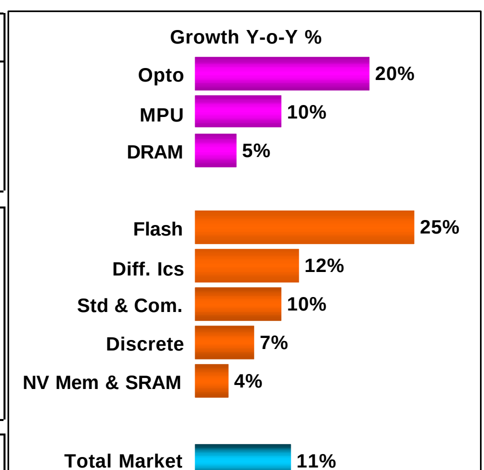
Capex to sales ratio
May 2003



Source : VLSI Research

Semiconductor market growth in 2003
Product families

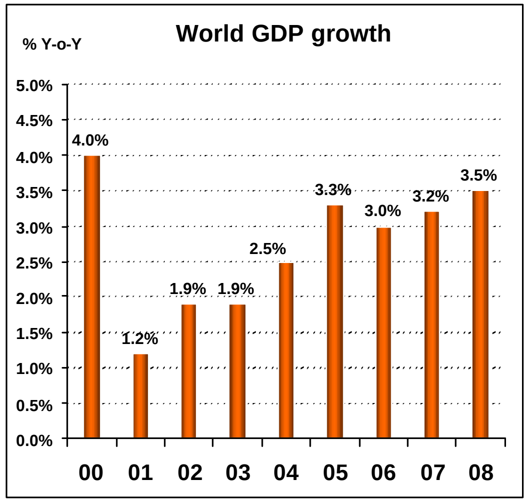
	$B Market	% of Total
MPU	26.2	16.8%
DRAM	15.9	10.2%
Opto	8.1	5.2%
Discrete	14.3	9.2%
Std & Comm.	11.6	7.4%
Diff. Ics	65.9	42.2%
Flash	9.8	6.3%
NV Mem & SRAM	4.2	2.7%
Total Market	156	100%



Source : ST

Macroeconomic trends

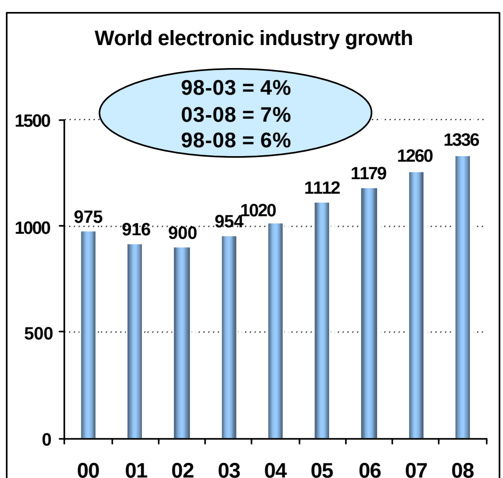
- Very soft recovery but no recession in 03.
- Overcapacity crisis in the US is ending in 03, and in 04 in high tech.
- US investment restart should gradually benefit to Europe mid-2004.
- 03 and 04 are showing modest consumer spending increase.
- World growth should resume late 04 and be better spread across regions than during the 90-00 period.



Source : BIPE

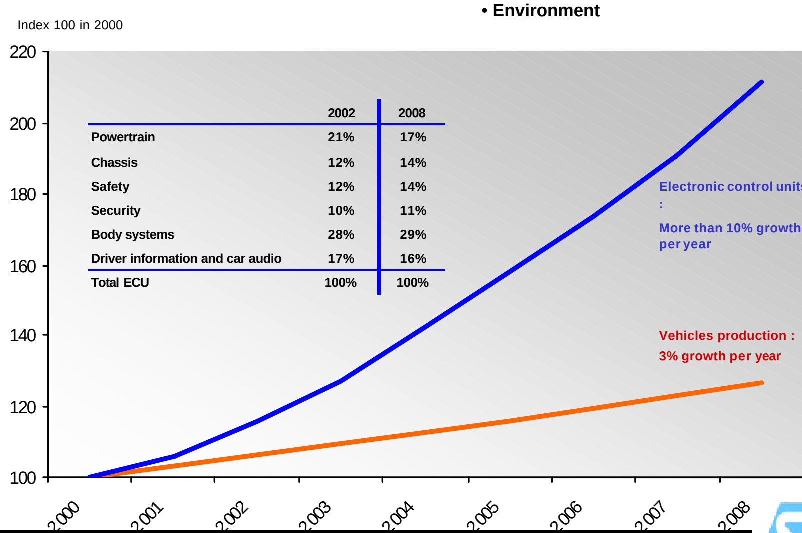
Electronic industry trends

- Electronic industry growth pattern should be :
  - Gradual recovery starting 03 driven by economic recovery and replacement of installed-base in 2004-2005.
  - New killer app. (consumer and automotive) emerging late in the period.
- Following a low growth period between 1998 and 2003, electronic industry is catching up.
- 98-08 CAGR is at 5.6% ; 2 percentage points below the long-term trend.



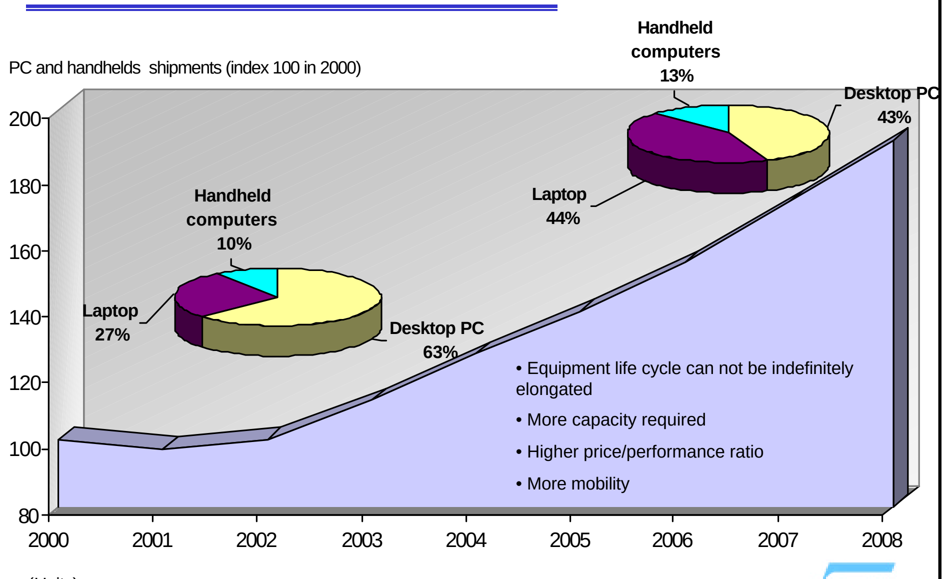
Automotive market : increasing pervasion

- More security
- Higher level of confort
- Multimedia and telematics fast penetration
- Environment

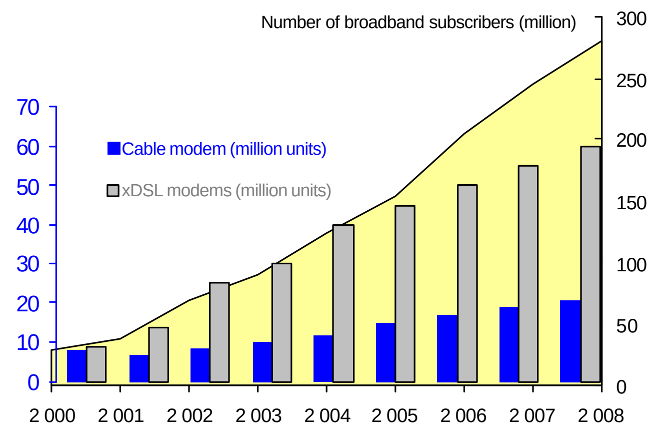


	2002	2008
Powertrain	21%	17%
Chassis	12%	14%
Safety	12%	14%
Security	10%	11%
Body systems	28%	29%
Driver information and car audio	17%	16%
Total ECU	100%	100%

PC demand : replacement postponing close to the end

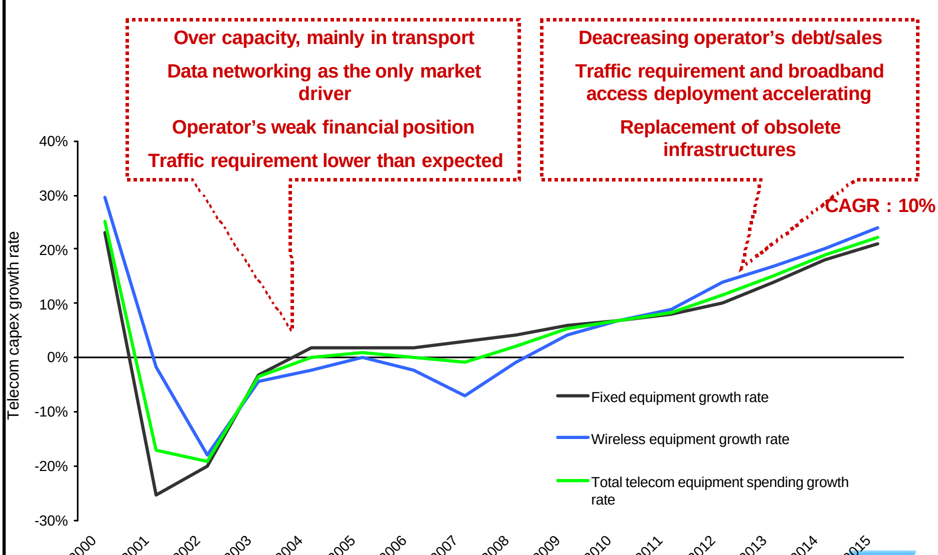


Access : increasing demand for broadband equipments



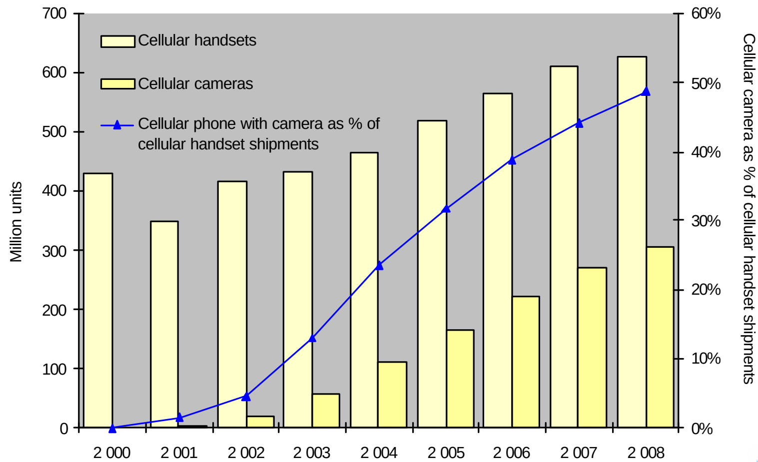
- Fast development of households' equipment in most advanced and in developing countries : the number of subscribers will triple during the next five years
- Churn increases equipments demand
- Replacement demand is starting with ADSL 2, 2+ and VDSL

Telecom equipment spending : high recovery in the long run



Cellular phones : from voice to multmedia communication

- higher level of replacement
- More silicon inside



Consumer : home digitalization

volumes driven by

- *convergence / connectivity /interactivity*
- → More devices and more functionalities
- *price decrease* : more people have access to more devices

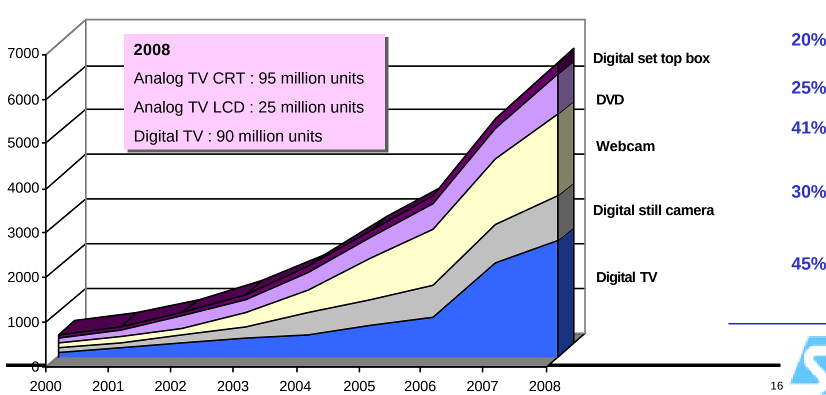
→ increasing equipment rate

→ accelerating replacement rate of equipments

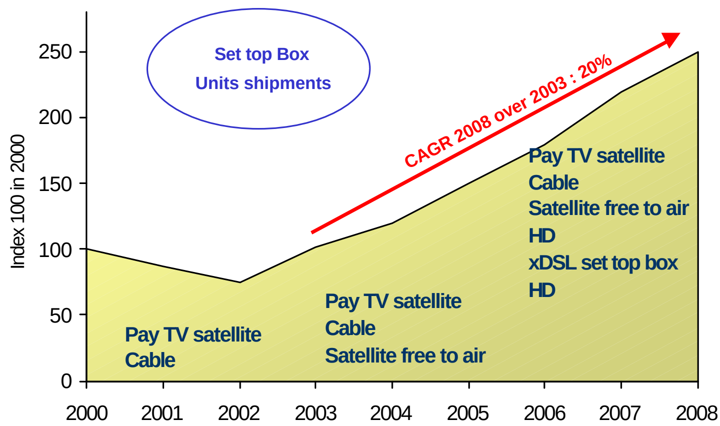
Digital consumer demand in volume

(index 100 for each application in 2000)

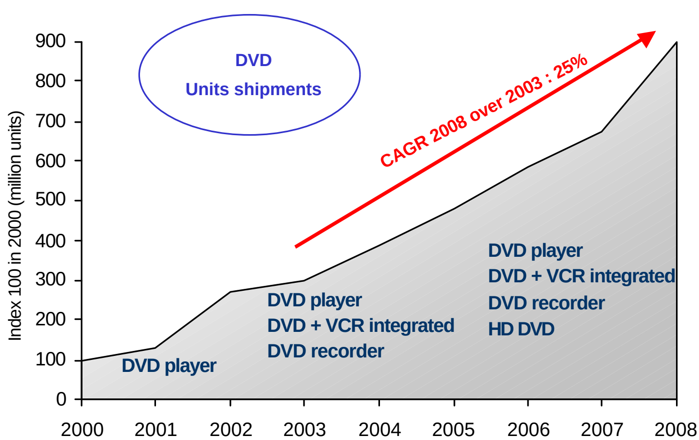
Expected CAGR for the next 5 years (2008 over 2003)



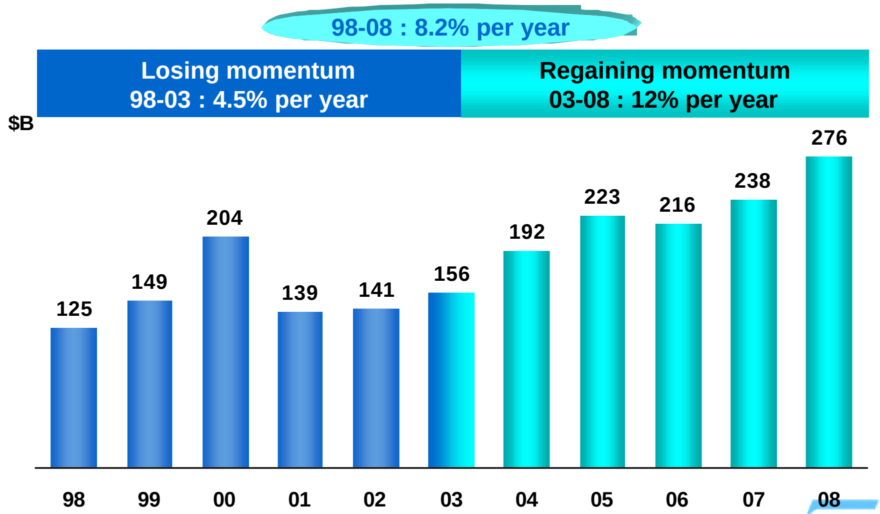
Digital Video : more complexity for more functionalities and higher quality



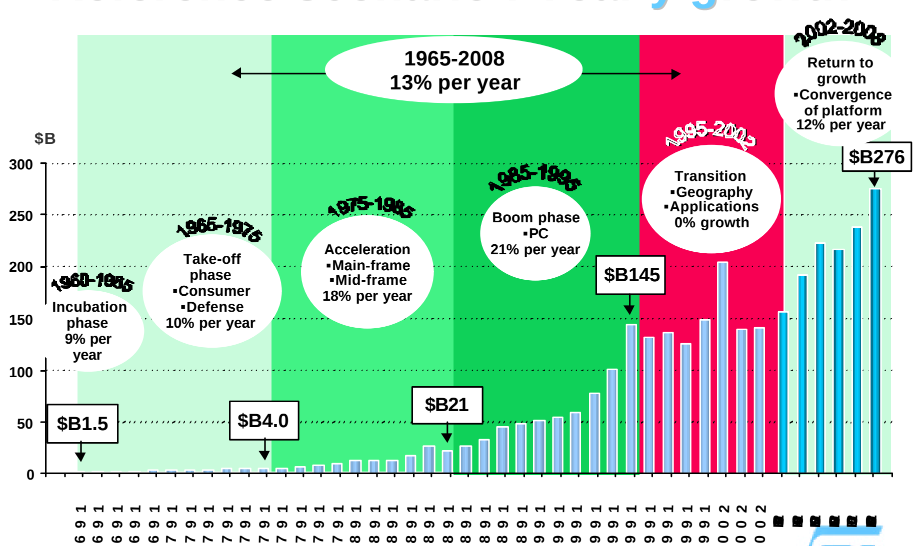
Digital Video : more diversity and higher price performance ratio



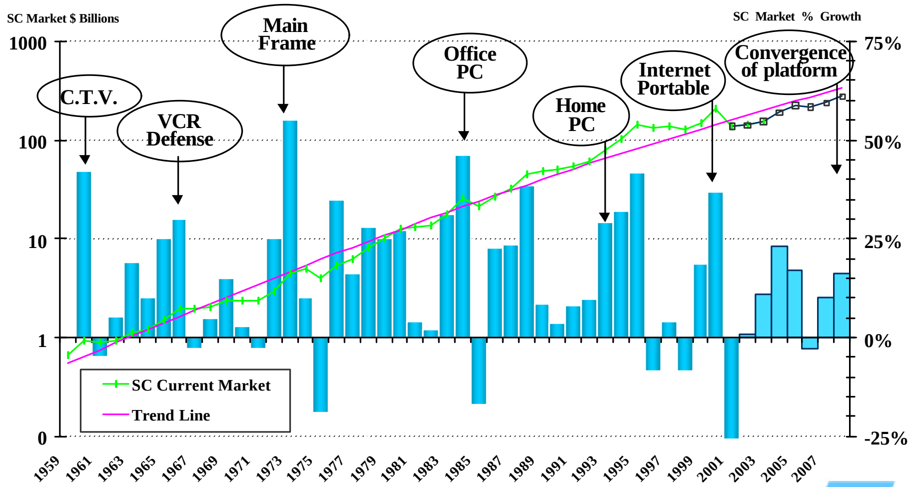
World semiconductor market
A ten-year perspective



Reference scenario : Yearly growth

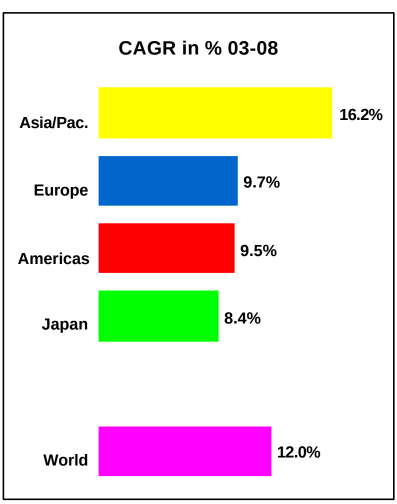


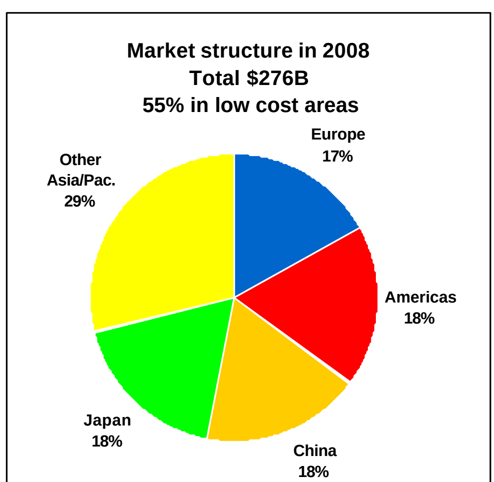
Reference scenario : Semiconductor market long-term trend



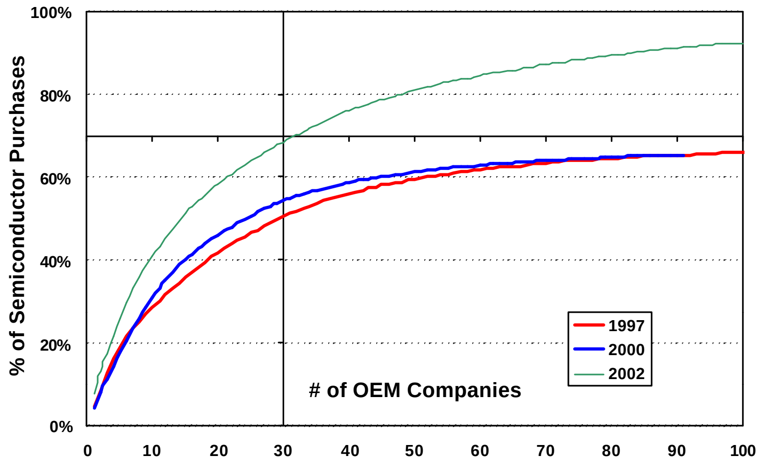
Source : WSTS, ST

Reference scenario : regional market structure



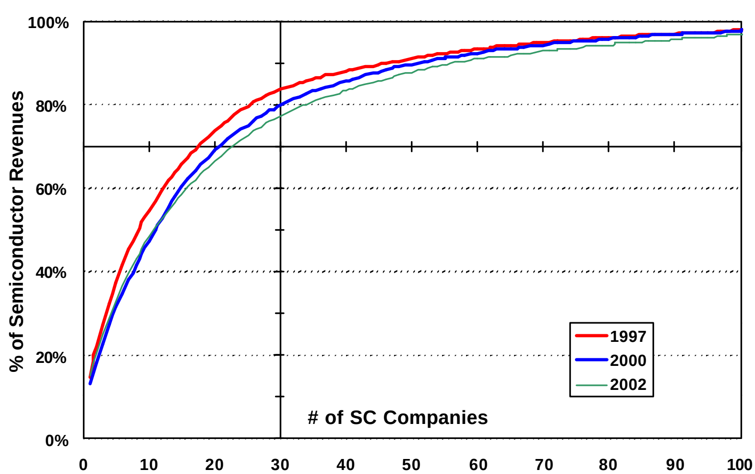


OEM customers concentration evolution Strong move since 1997



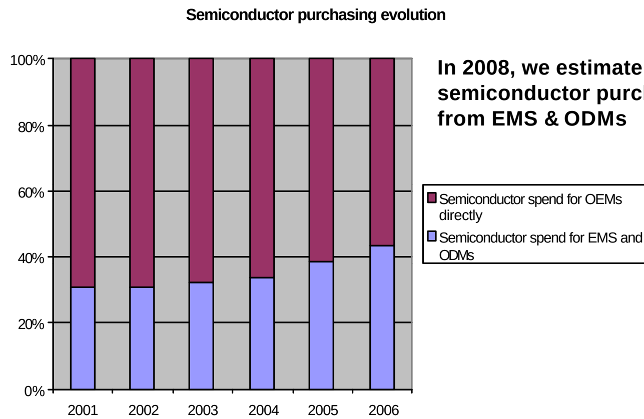
Sources: Gartner Dataquest, iSuppli

Semiconductor vendors concentration evolution Slow move since 1997



Sources: Gartner Dataquest, iSuppli

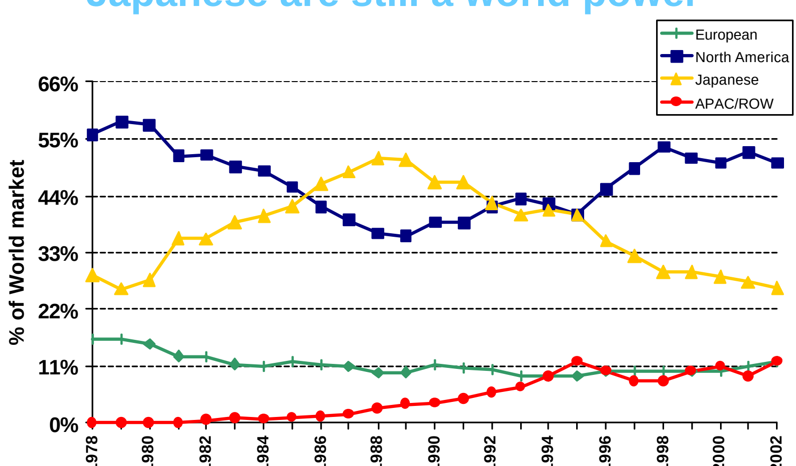
ODMs & EMS in Semiconductor Purchasing Trends



In 2008, we estimate that 55% of semiconductor purchase will be from EMS & ODMs

Source: isuppli, february 2003

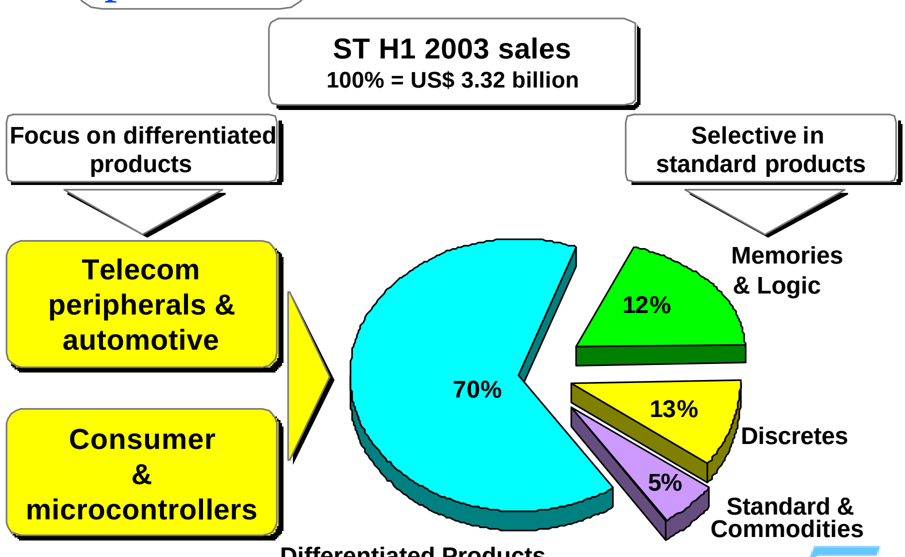
Worldwide semiconductor market share by vendor base region
Japanese are still a world power



What makes STMicroelectronics special ?

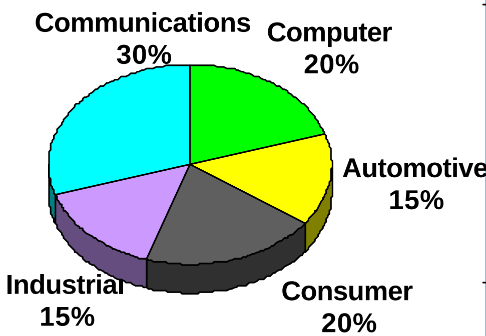
- a) Focus on differentiated products
  b) Selective presence in standard products
- A well balanced portfolio
- Pioneering System-on-Chip solution
- Focusing on high growth applications
- Leading global customer base
- Strategic alliances
- Global manufacturing presence
- Global geographical presence
- The people that make things happen

Broad portfolio

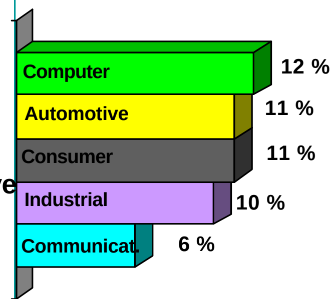


Balanced sales in high growth market segments

ST H1 2003 sales*
100%=US$ 3.32 billion



Market growth
CAGR 2001-2006

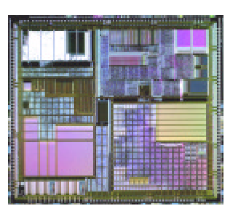


•Estimates within a variance of 5% - 10% in the absolute dollar amount, the relative weighting of each of the Company's target segments in the first half of 2003

Sources: ST

A pioneer and leader in system-on-chip solutions

- System know-how
- Strategic alliances
- Broad IP portfolio
- Powerful engines DSP & MCU cores

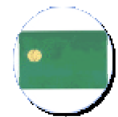


- Broad range of technologies
- World-class volume manufacturing
- Software expertise
- Design methodology

Delivering SOCs to market

Complete product solutions for high growth applications

Priority segments

				
Computer peripherals	Digital consumer	Automotive	Communications	Smart cards

Focus applications

Computer peripherals	Digital consumer	Automotive	Communications	Smart cards
Data storage	Set-top boxes	Engine/body/safety	Wireless	Telephone
Printers and imaging	DVDs	Car radio	Networking	Banking
Monitors and displays	Digital TVs	Car multimedia	Wireless infrastructure	User ID
Webcam	Digital cameras	Telematics		Security
Optical Mouse	MP3 players			

Diversified customer base

H1 2003 Top 30* OEM and Top EMS Customers

Communications
- Alcatel
- Ericsson
- Motorola
- Nokia
- Nortel Networks
- Siemens

Consumer
- Echostar
- Hughes
- LG Electronics
- Matsushita
- Philips
- Pioneer
- Samsung
- Scientific Atlanta
- Sony
- Thomson
- Vestel

Automotive
- Bosch
- Conti
- Daimler-Chrysler
- Delphi
- Denso
- Visteon (Ford)
- Marelli

Computer
- Agilent
- HP-Compaq
- Maxtor
- Seagate
- Western Digital

Smart Card / Industrial
- Delta

EMS
- Celestica
- Flextronics
- Sanmina-SCI
- Solectron
- Jabil

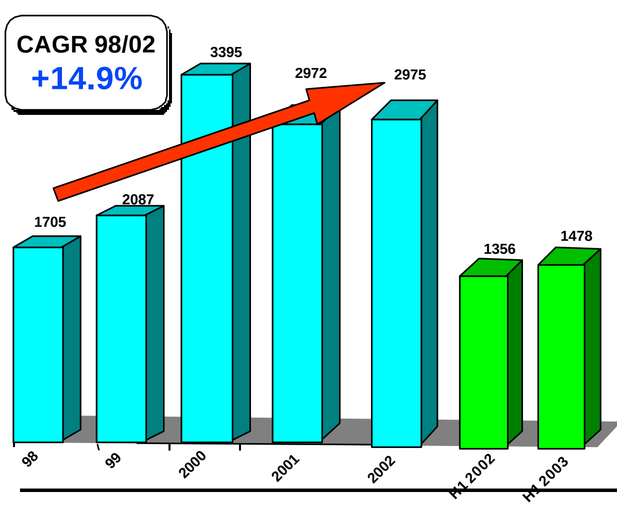
** Alphabetically listed by main application sector*

Vital role of strategic alliances

- Full range of leading-edge technologies
- Design expertise and CAD tools in analog and digital
- Efficient manufacturing
- Corporate culture with focus on partnership

Global strategic alliances

Revenues from Strategic Partners* (MUS$)



Communications
- Alcatel
- Nokia
- Nortel Networks

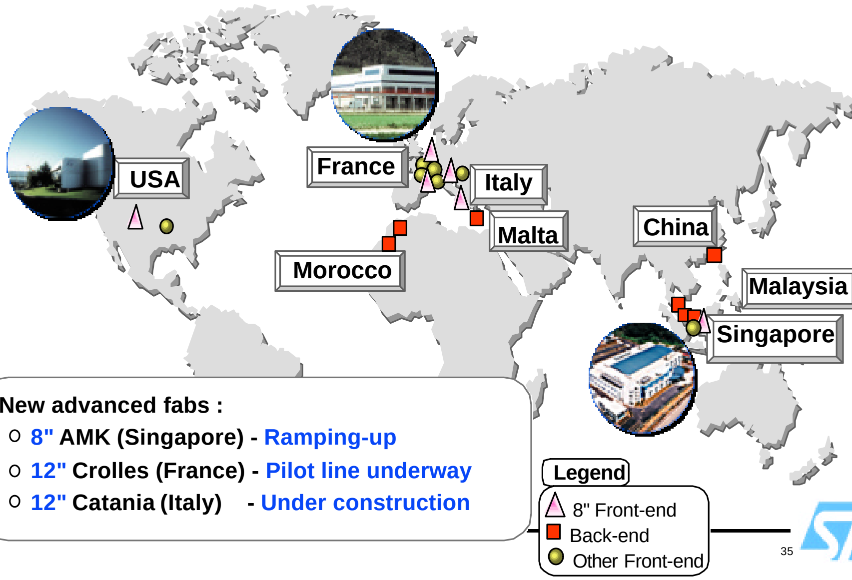
Automotive
- Bosch
- Marelli
- Siemens VDO

Computer
- HP (printers)
- Seagate
- Western Digital

Consumer
- Thomson
- Pioneer

** Total of 12 partners, 11 of which being disclosed*

Global manufacturing infrastructure



New advanced fabs :

- **8" AMK (Singapore) - Ramping-up**
- **12" Crolles (France) - Pilot line underway**
- **12" Catania (Italy) - Under construction**

STMicroelectronics a global semiconductor company

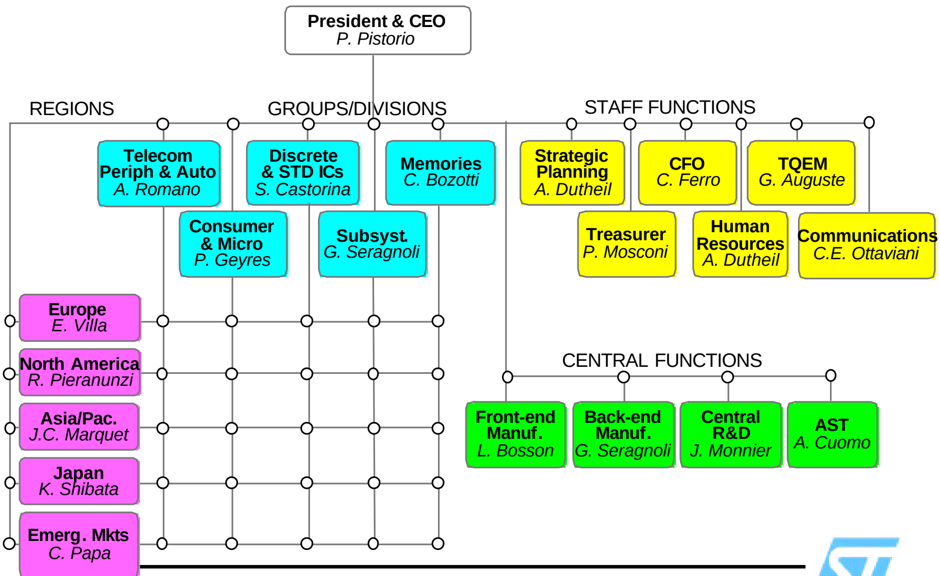
Sales by region % of H1 2003 sales

- **14 %** North America
- **29 %** Europe
- **5 %** Japan
- **43 %** Asia Pacific
- **9 %** Emerging Markets*

- **H1 2003 Sales : US$ 3.32 billion**
- **2002 Sales : US$ 6.32 billion**
- **over 43,000 employees**
- **17 main production sites**
- **16 advanced R&D centers**
- **39 design and application centers**
- **88 direct sales offices in 31 countries**

* Eastern Europe, India, Africa, South America, Middle East

The organization



ST into the Top 5

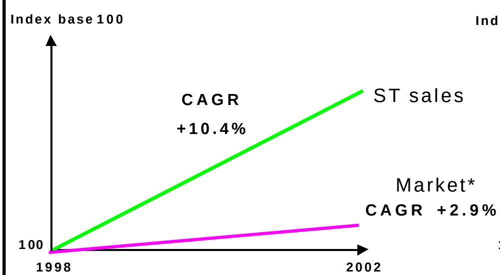
2002 Final Rankings

Dataquest		
Rank	**Company**	**Sales $M**
1	Intel	25 260
2	Samsung	8 630
3	Toshiba	6 450
4	**ST**	**6 350**
5	TI	6 240
6	NEC	5 690
7	Infineon	5 250
8	Motorola	4 780
9	Philips	4 360
10	Hitachi	4 120

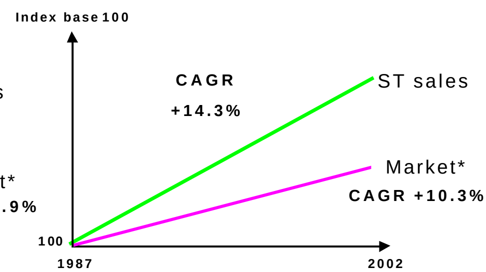
Sources : Gartner Dataquest 2003

Outperforming the market

ST has outperformed the market in the latest cycle



ST has outperformed the market since its foundation



* Sources: WSTS, ST