

European Space Components Conference



ESCCON 2011

16 March 2011



Francesco Caizzone

IMS-Group Vice President
Business Management and Operation
General Manager

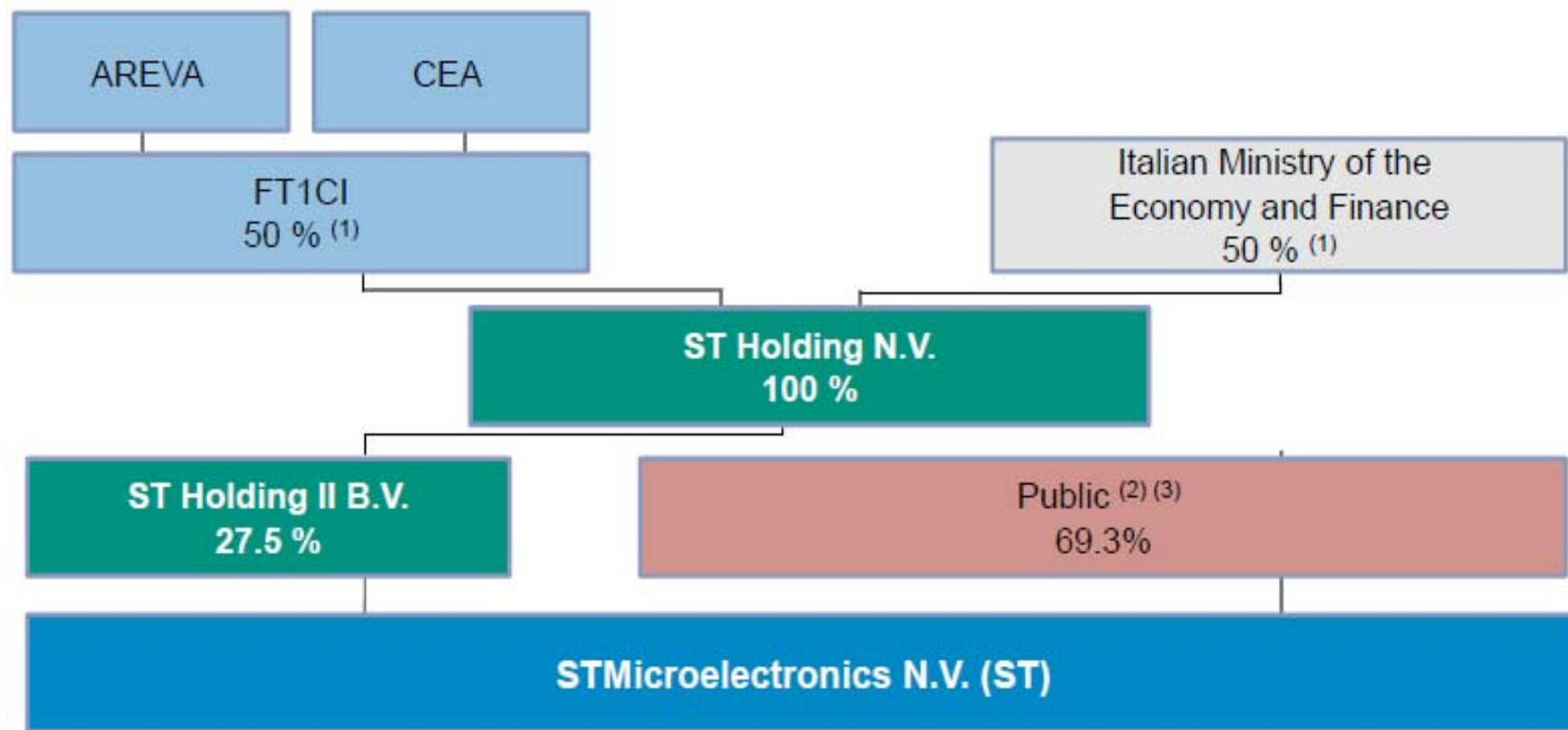


Mission



To offer strategic independence
to our partners worldwide,
as a profitable and viable broad range
semiconductor supplier.

Shareholding Structure*



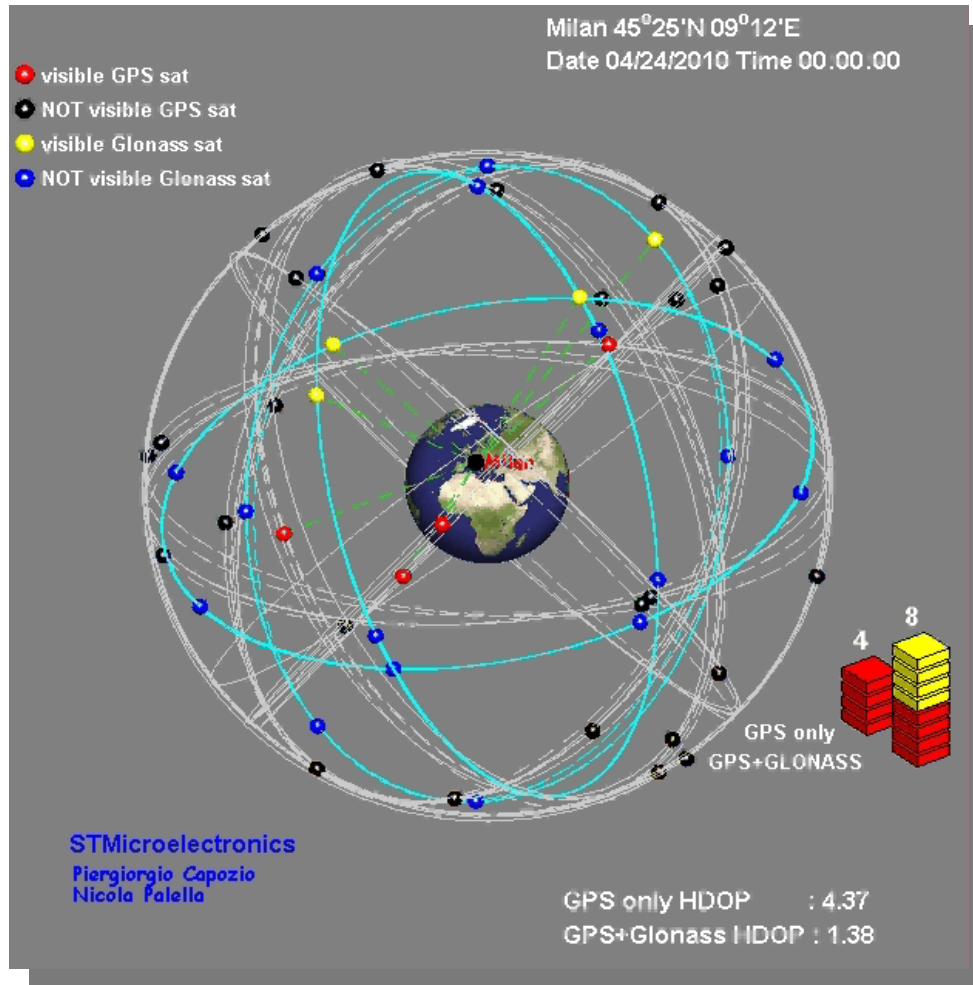
* At December 31, 2010

(1) Based on Corporate Governance rights pursuant to STH Shareholders' Agreement.

(2) New York Stock Exchange, Euronext, Paris and Borsa Italiana, Milano

(3) In addition to the 27.5% held by ST Holding II B.V. and the 69.3% held by the Public, 3.2% are held by the Company as Treasury shares

ST - Pioneer on new Navigation Systems



TeSeoll is the 1st MONOLITIC DEVICE
able to use multiple satellite constellation as:
GPS (USA), GALILEO (EU) & GLONASS
(RUS)

For a reliable and accurate Navigation

Key Customers

GARMIN

Continental

MAGNETI
MARELLI

META
SYSTEM



Products Priorities for 2011

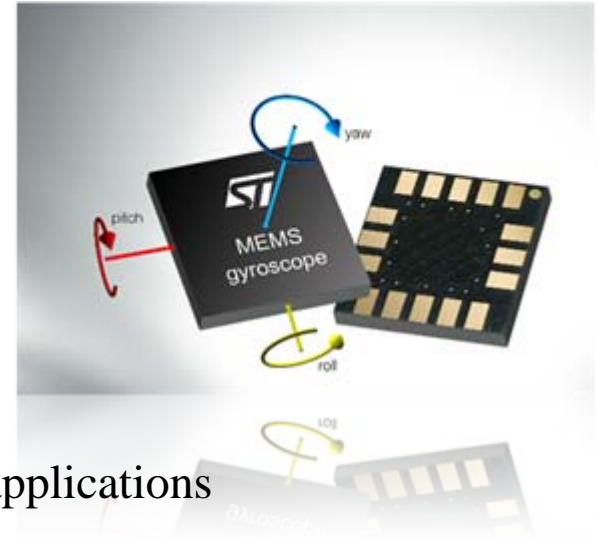


Innovative products in highly successful applications continue to grow

- ❖ MEMS gyroscopes & accelerometers
- ❖ General and secure 32-bit microcontrollers families
- ❖ ICs for Automotive
- ❖ Products for Space

Breakthrough in new products

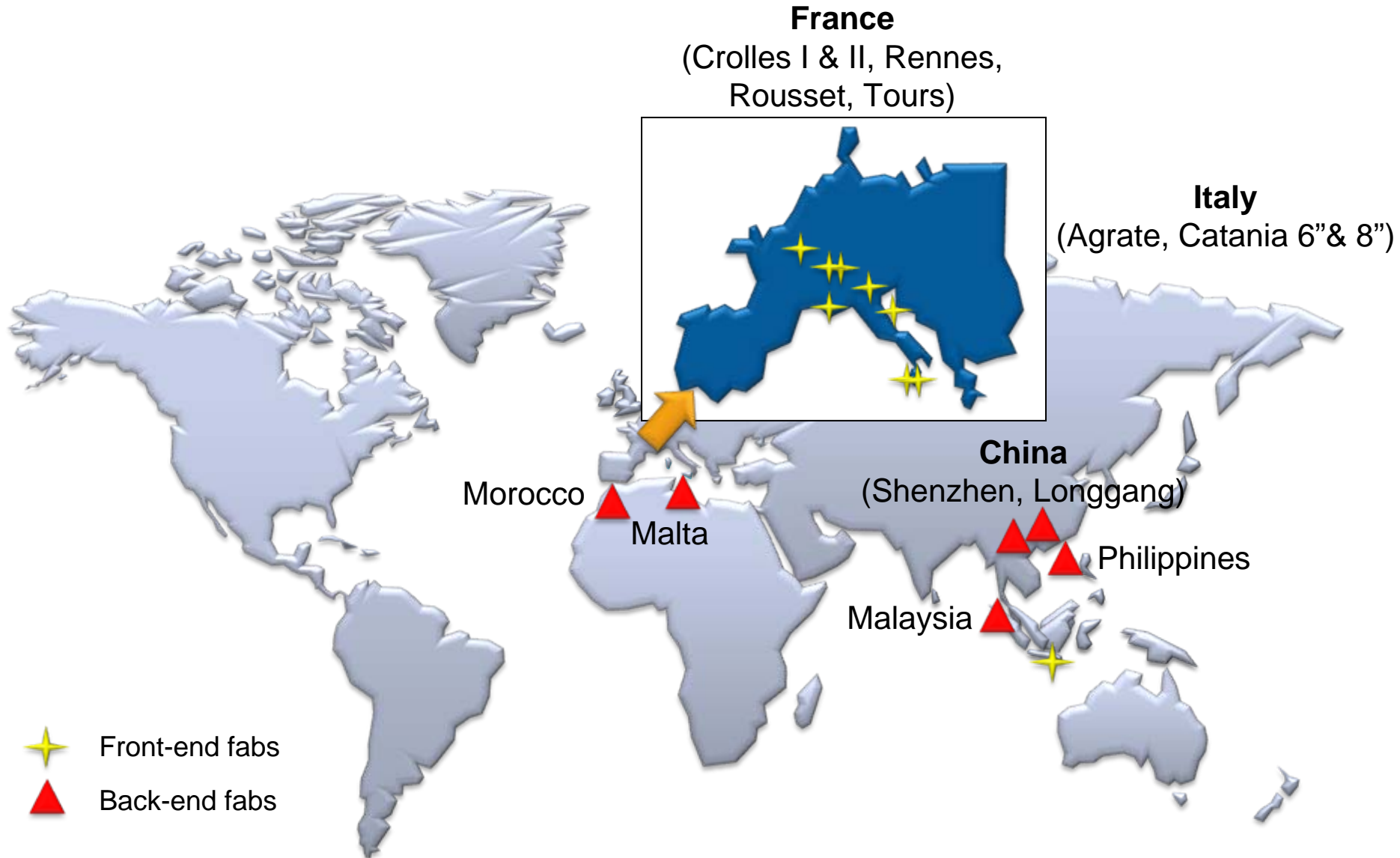
- ❖ SoCs for 3-D and connected TVs
- ❖ MEMS microphones and pressure sensors
- ❖ Advanced analog products for Medical and Smart Grid applications
- ❖ 32-bit Power PC microcontrollers



We are ready for the next wave...

- ❖ Energy Management & Saving / Healthcare & Wellness / Trust and Data Security / Smart

Manufacturing locations



STMicroelectronics in everyday life

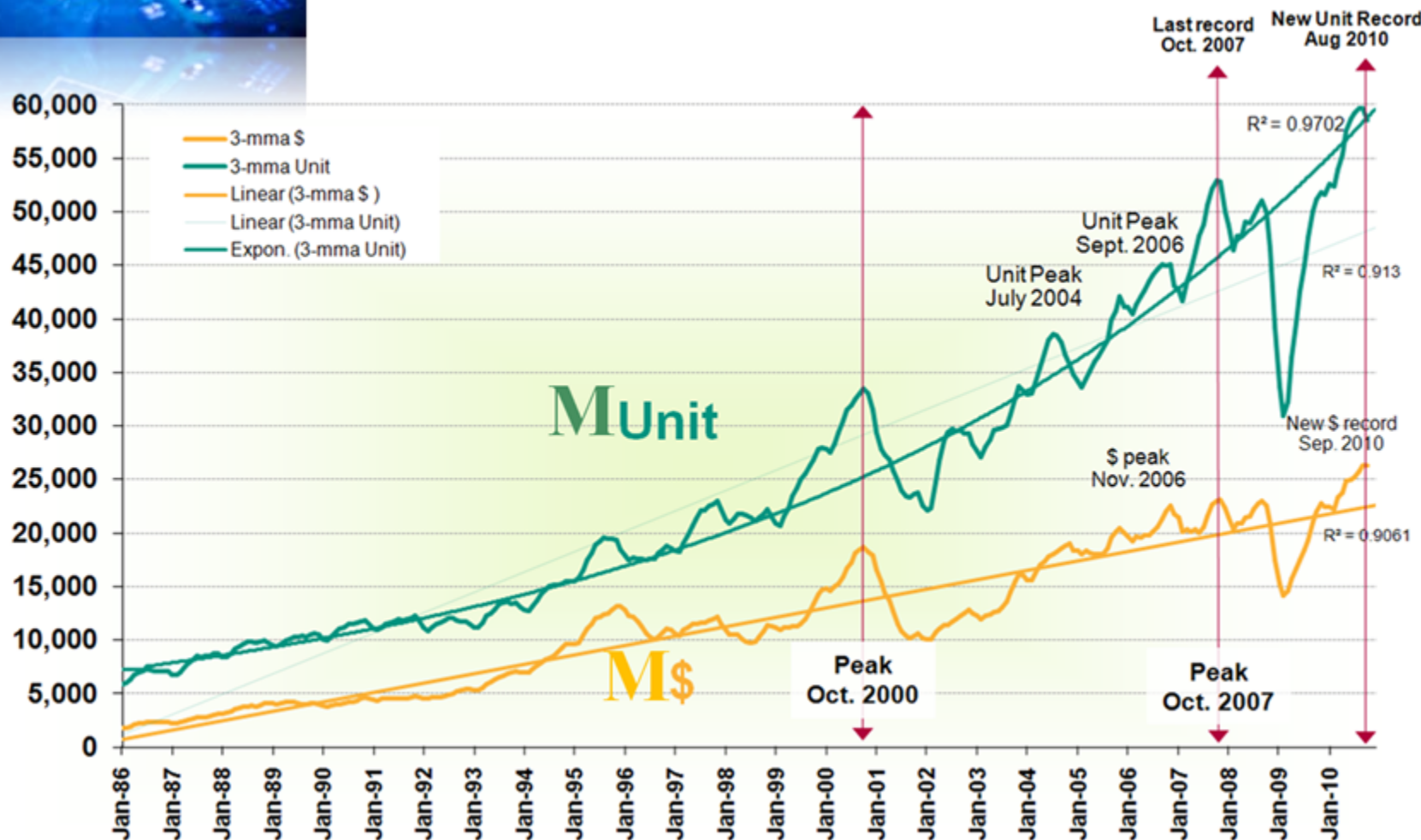


MARKET

Contains ST internal information



Semiconductor



Source: WSTS

Y2010 Semiconductors Market Share

(Preliminary)

Preliminary Worldwide Ranking of the Top 20 Suppliers of Semiconductors in 2010
(Ranking by Revenue in Millions of U.S. Dollars)

2009 Rank	2010 Rank	Company Name	2009 Revenue	2010 Revenue	Percent Change	Percent of Total	Cummulative Percent
1	1	Intel	32,187	40,020	24.3%	13.2%	13.2%
2	2	Samsung Electronics	17,496	28,137	60.8%	9.3%	22.4%
3	3	Toshiba	10,319	13,081	26.8%	4.3%	26.7%
4	4	Texas Instruments	9,671	12,966	34.1%	4.3%	31.0%
9	5	Renesas Electronics Corporator	5,153	11,840	129.8%	3.9%	34.9%
7	6	Hynix	6,246	10,577	69.3%	3.5%	38.4%
5	7	STMicroelectronics	8,510	10,290	20.9%	3.4%	41.7%
13	8	Micron Technology*	4,293	8,853	106.2%	2.9%	44.7%
6	9	Qualcomm	6,409	7,200	12.3%	2.4%	47.0%
15	10	Elpida Memory	3,948	6,878	74.2%	2.3%	49.3%
14	11	Broadcom	4,278	6,506	52.1%	2.1%	51.4%
8	12	Advanced Micro Devices (AMD)	5,207	6,355	22.0%	2.1%	53.5%
11	13	Infineon Technologies	4,456	6,226	39.7%	2.0%	55.6%
10	14	Sony	4,468	5,336	19.4%	1.8%	57.3%
18	15	Panasonic Corporation	3,243	5,128	58.1%	1.7%	59.0%
17	16	Freescale Semiconductor	3,402	4,329	27.2%	1.4%	60.4%
19	17	NXP	3,240	4,021	24.1%	1.3%	61.8%
23	18	Marvell Technology Group	2,572	3,680	43.1%	1.2%	63.0%
16	19	MediaTek	3,551	3,595	1.2%	1.2%	64.1%
20	20	nVidia	2,826	3,189	12.8%	1.0%	65.2%
Top 20 Companies			141,475	198,207	40.1%	65.2%	
All Others			88,031	105,799	20.2%	34.8%	
Total Semiconductor			229,506	304,006	32.5%	100.0%	

Source: iSuppli, January 2011

Renesas Electronics = Renesas Technology Corp and NEC Electronics
Micron Technology = Micron and Numonyx

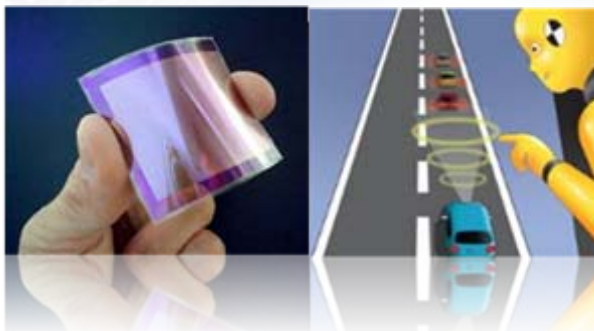
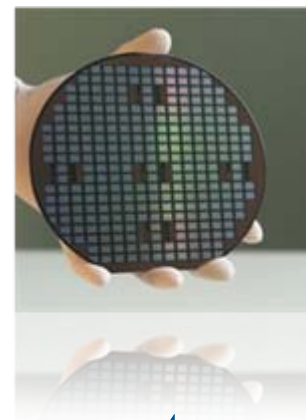
Technology highlights

Technology Highlights



■ Discrete

- IPAD: Application specific customer networks,
- New Materials:
 - Silicon Carbide SiC: Diodes
 - Gallium Nitride GaN: Power Devices
- New Functionalities:
 - On-chip Solar Cells,



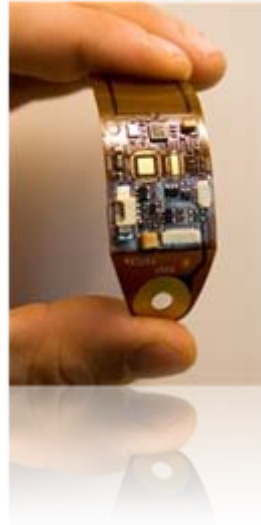
New Integrated Circuit concepts:

Stand alone super Smart Cards:

Level-1:	Solar Cells
Level-2:	Li-ion battery
Level-3:	DC-DC converter
Level-4:	Sensors (MEMS, others,...)
Level-5:	Microprocessor ,and analog conversion
Level-6:	Non Volatile Memory
Level-7:	RF transmitter

Anti-colliding Automotive Radars

- Continuing Digital High density integration: now 22nm
- System-On-Chip requires more and more 2 or 3 Mixed Technologies
- Silicon on Insulator: SOI Technology
- Enormous R&D investments at each integration step:
 - Silicon design,
 - Supportive softwares (lay out, routing, simulation,...)
 - Discovery and resolution / simulation of new unknown effects,
- **Related to Space:**
 - 65nm demonstrated usable in worst space conditions
 - 45nm is the valuable next integration generation
 - 32nm seems so far, impossible to use in Space (under internal evaluation),



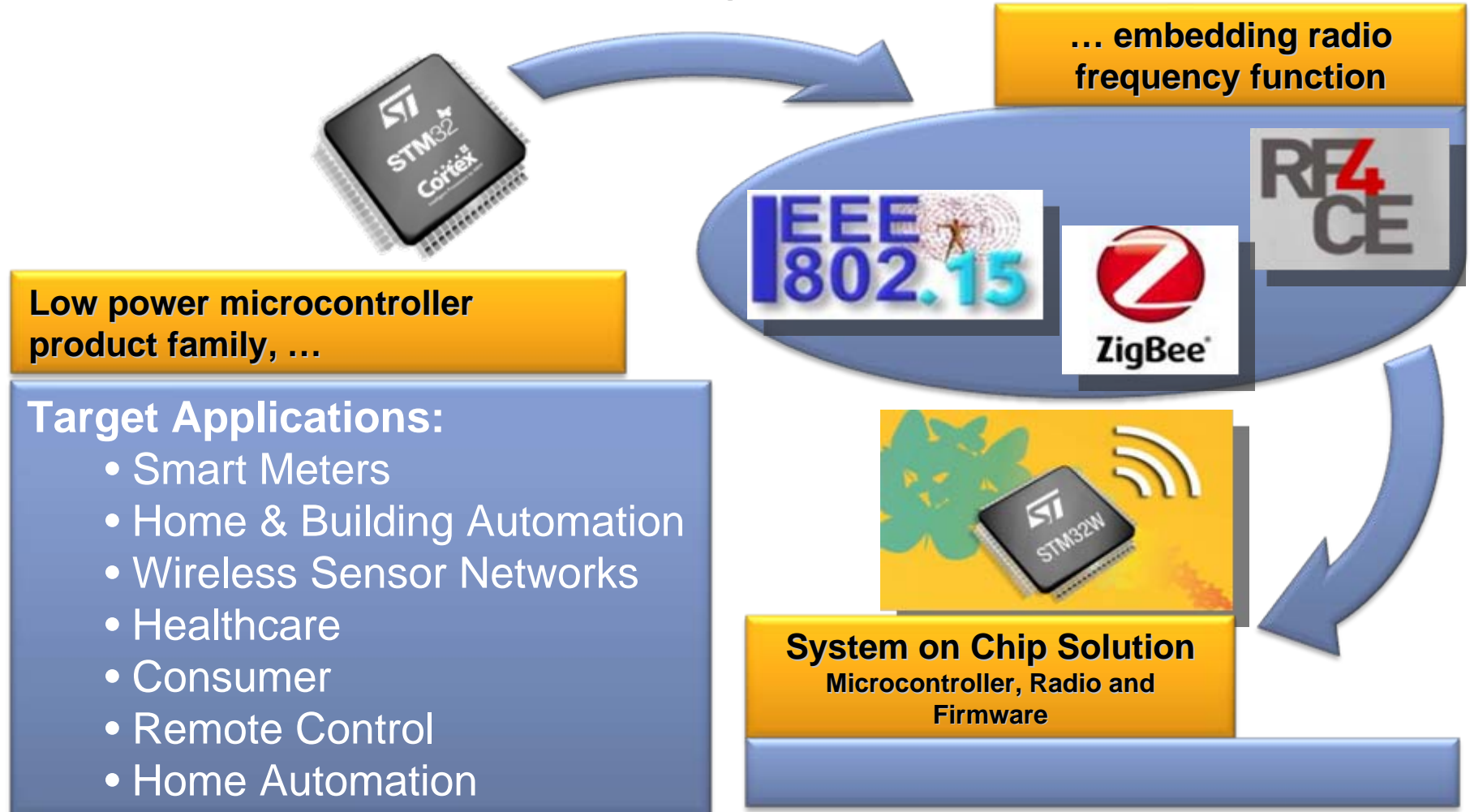
PRODUCT HIGHLIGHTS

Contains ST internal information

Microcontroller “STM32W”



- IEEE 802.15.4 Open flexible reconfigurable platform



Source: WSTS
(*) With Automotive

SPACE

Contains ST internal information



Space Suppliers trends:



- *STM opinion only:*
- Growing demand for really RadHard devices makes Space parts suppliers to fully master design and Wafer Fab:
 - Times of «lucky radiation commercial wafers» are gradually going to an end, as a result of conflicting high volume v. radiation requirements,
 - STM space policy is to ensure 100% radiation yield success of every die by design or process, otherwise Radiation cannot be honestly guaranteed to Users, even for a low 50krad level.
 - High density Asic chips cannot be designed nor produced without a deep technology understanding (inclusive of confidential data) as traditional Designer's radhard «rules» make die size and power consumption explode.
- Consequences:
 - More and more specialized Suppliers, less and less traditional Suppliers
 - ITAR restriction should make Europe/US sourcing ratio to evolve in favor of Europe



Steps forwards



- Users master orbiting stuff needs and design,
 - *But usually have little access to Semiconductor fast developing capabilities.*
- Semiconductor manufacturers perfectly know technology capabilities,
 - *But still have superficial understanding of deep Space User challenges and needs*
- Working together makes INNOVATION to burst,