



Altis Semiconductor  
**Leading Innovative  
European Specialty Foundry**

Overview

June 2011 – Pascal LOUIS CTO

**Altis Semiconductor's** vision is to be the leading innovative European specialty foundry for high quality end-to-end semiconductor manufacturing services, based on competitive RF, non-volatile memory, high voltage and high-performance SiGe CMOS technologies.

**Altis Semiconductor** enforces a Total Management Quality and Environmental strategy based on ISO 9001, ISO/TS 16949 and ISO 14001 standards and has a rigorous culture of security procedures.

**Altis Semiconductor** builds on its most solid reputation in Europe for expertise, efficiency and quality in bringing advanced technologies to the market.

# The largest 200mm copper logic manufacturing line in Europe

A major 200 mm semiconductor campus, 40 km south of Paris, close to airports and required infrastructure for international business



Total site: 55 ha (136 Acre)

Process Clean room<sup>(1)</sup>: 20,000m<sup>2</sup>

Flexibility: 35000 WSPM (80% Cu)  
7000 m<sup>2</sup> upgradeable  
10 000 m<sup>2</sup> Offices

Test rooms / IT: 3 000 m<sup>2</sup>

Employees <sup>(2)</sup>: 900 Regulars

Original asset value : 1.5 B€

Essonne Nanopole

*40 years of experience with an entrepreneurial spirit*

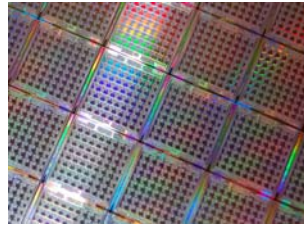
(1) ISO 3&4 (Class 1&10) bay and chase process area clean room

(2) As of Feb 2011

- Test Clean Room of 1.500m<sup>2</sup> (16.000 sq.ft), ISO 6 (class 1000)
  - Teradyne J750/E & Catalyst
  - Verigy 93000 PS800
  - UF200/A & EG4090 $\mu$  Probers
  - Automatic Inspection, Advanced Probing & Temp Cycling, Fusing, Inking
- Capabilities
  - 6", 8" and 12" wafers (-40°C to +160°C)
  - packaged IC (-75°C to +225°C)
  - ISO TS 16949 Qualified for Automotive products
  - Controlled & secured access for Sensitive / Crypto Parts



# Altis 200mm technology track record



1991

1997

1999

## Memory products

- 16M DRAM & shrinks
- 64M DRAM
- 256M DRAM sampling



1999

2001

2003

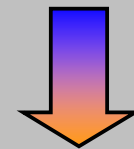
2004

2006

2009

## Logic products

0.35 $\mu$ m



Copper

0.13 $\mu$ m



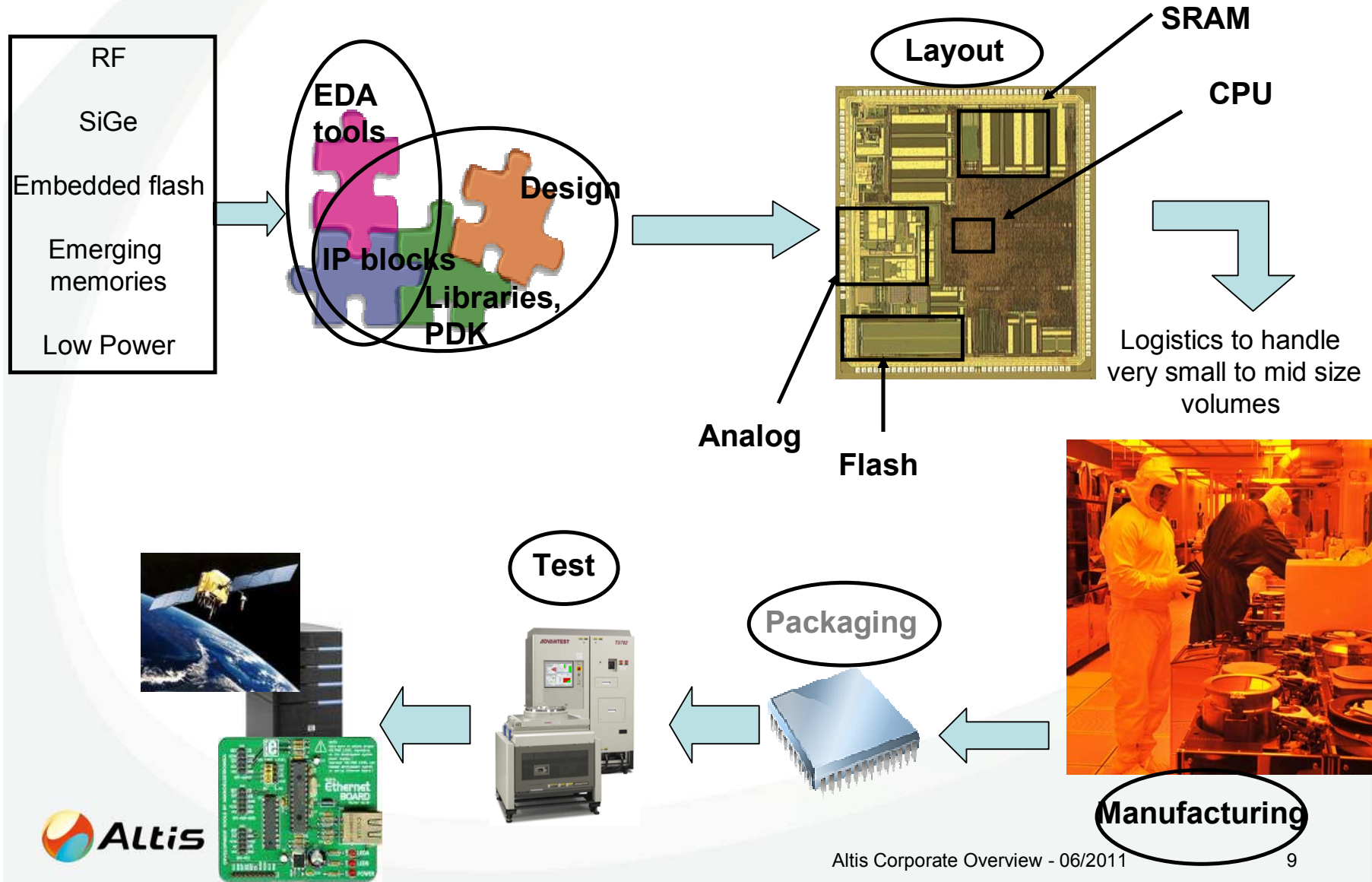
- MRAM R&D
- GMR sensors
- RF CMOS
- Contactless cards
- ASIC/OLED microdisplay
- CBRAM

- Ownership
  - 50/50 IBM/Infineon JV 2000-2010
  - Aug 2010, independant investors, French majority
- JV/Captive to independant company
  - Carve out largely done as part of the JV concept
    - Stand alone HR, Purchasing, IT, ERP, Supply chain..
    - R&D projects ran as part of the JV
  - Ramp up missing pieces of the value chain
    - Sales, Design support – upstream
    - Customer Service/Quality
- Management and Identity
  - New people in management team (Design, CFO, Sales and marketing)
  - Decision making process shortened
  - New logo, new website

- Market offer
  - IBM and Infineon technology and design kit licenses
  - Second source manufacturing
  - Mid term
    - ALTIS R&D – own technologies or JDPs (More Than Moore driven)
    - Extend licensing scope (IBM roadmap and other key IDM technologies)
- Business
  - Reshape the company
    - Factory invest and fab layout optimization – lower running costs
    - Workforce: 30% reduction completed
  - Infineon and IBM supply agreements (existing technologies)
    - Helps transition from captive to stand alone company
  - Second source manufacturing
    - 2 large accounts secured – will be > 50% capacity utilization in 2012
  - Growth through segment approach
    - Regional
    - More than Moore offer

- Second source manufacturing
  - Proprietary second source processes transfer, technology alignment
    - Unique technologies for M/S, RF, Power
- ALTIS – LETI initiative
  - Nanotechnology project call (French ‘Grand Emprunt’)
    - More than Moore focus
    - 2 contracts active, more to come
- Portfolio extension
  - IBM and Infineon technology offer
  - New licenses
  - JDPs on emerging concepts

# From idea to end product - SOC- Altis and partners offering to customers





**Altis Semiconductor**

**Thank you.**