«Single European Semiconductor Strategy: Industry's Vision for Europe»

Alain Astier

STMicroelectronics
Silicon Technology & Manufacturing
Group Vice-President
Strategic Programs

life.augmented

SEMI BRUSSELS FORUM, MAY 24th 2013

"Single European Semiconductor Strategy"
Year 2012 : an historical year

Since the last SEMI Brussels Forum of May 2012 :

- during first half of the year, in the lack of news about K.E.T.'s, several schools of thoughts were crossing European landscape, generating some emotional controversies .

- by mid-year, an informal meeting of CEO's/VIP's from Top Semiconductor Companies/Institutes at Grenoble acknowledged the urgent need to speak of "one voice" in front of Public Authorities and Stakeholders

- Initiatives were launched for finding consensus among Actors; works completed in November with the Position Paper of CATRENE-AENEAS and the Action Program from SEMI Europe' Members; European Authorities acknowledged that consensus with great satisfaction.

- Finally, at SEMI ISS 2013 , a panel discussion between the main Actors of our European Semiconductor Industry was evidencing such consensus, insisting on the need for a fast implementation of K.E.T. recommendations

One European Voice : "Position Paper"

AENEAS and CATRENE Board Members

Alcatel-Lucent Deutschland AG
Rainer FECHNER

AlphaSIP
Miguel RONCALES POZA

ASM International
Chuck DEL PRADO

ASML
Eric MEURICE

Carl Zeiss
Winfried KAISER

CEA-LETI
Laurent MALIER

EADS
Jean-Pierre QUEMARD

Fraunhofer
Hubert LAKNER

imec
Gilbert DECLERCK
Roger De KEERSMAECKER

Infineon Technologies
Reinhard PLOSS

Intel Ireland
Eamonn SINNOTT

Ion Beam Services
Laurent ROUX

IU.NET
Enrico SANGIORGI

memsstar
Peter CONNOCK

Micron Semiconductor Italia
Sergio GALBIATI

NXP Semiconductors
Kurt SIEVERS

Robert Bosch
Dirk HOHEISEL

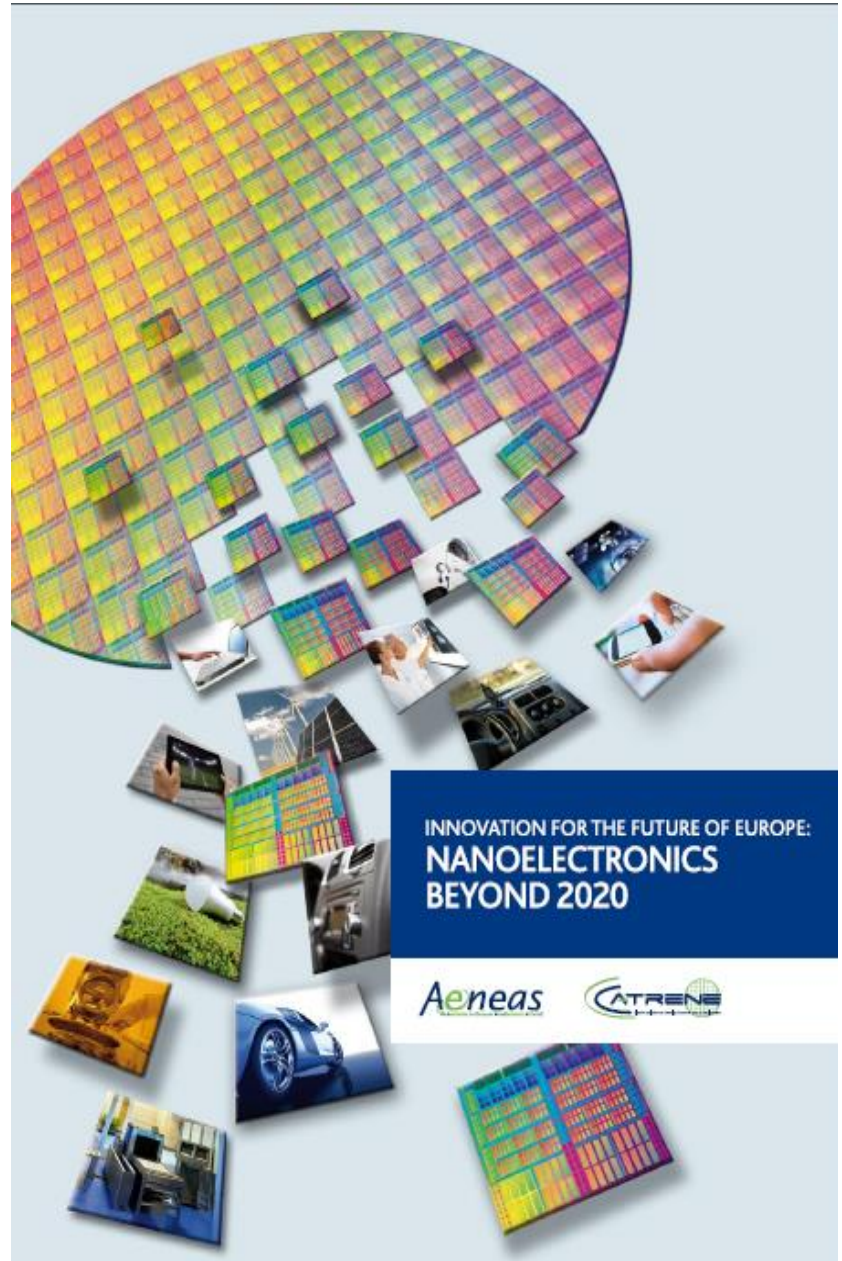
SOITEC
André AUBERTON-HERVE

ST-Ericsson
Carlo FERRO

STMicroelectronics
Jean-Marc CHERY

Technicolor
Vince PIZZICA

THALES
Bertrand DEMOTES-MAINARD



"Single European Semiconductor Strategy"
Year 2013 : an other historical year

- Yesterday, May 23 2013, European Commission Vice-President Nelly Kroes has published a "New Industrial Policy for Electronics", saying

"Others are aggressively investing in computer chips and Europe cannot be left behind. We have to reinforce and connect our existing strongholds and develop new strengths. A rapid and strong coordination of public investment at EU, Member State and regional level is needed to ensure that transformation…I want to double our chip production to around 20% of global production. I want Europe to produce more chips in Europe than the United States produces domestically. It's a realistic goal if we channel our investments properly."

- *After more than 5 years of awareness (cf White Paper of SEMI in 2008 and many further papers), European Authorities are definitively fixing the rules of the game,*
  It's time now for Stakeholders to play the game !

“Single European Semiconductor Strategy“ Fundamentals

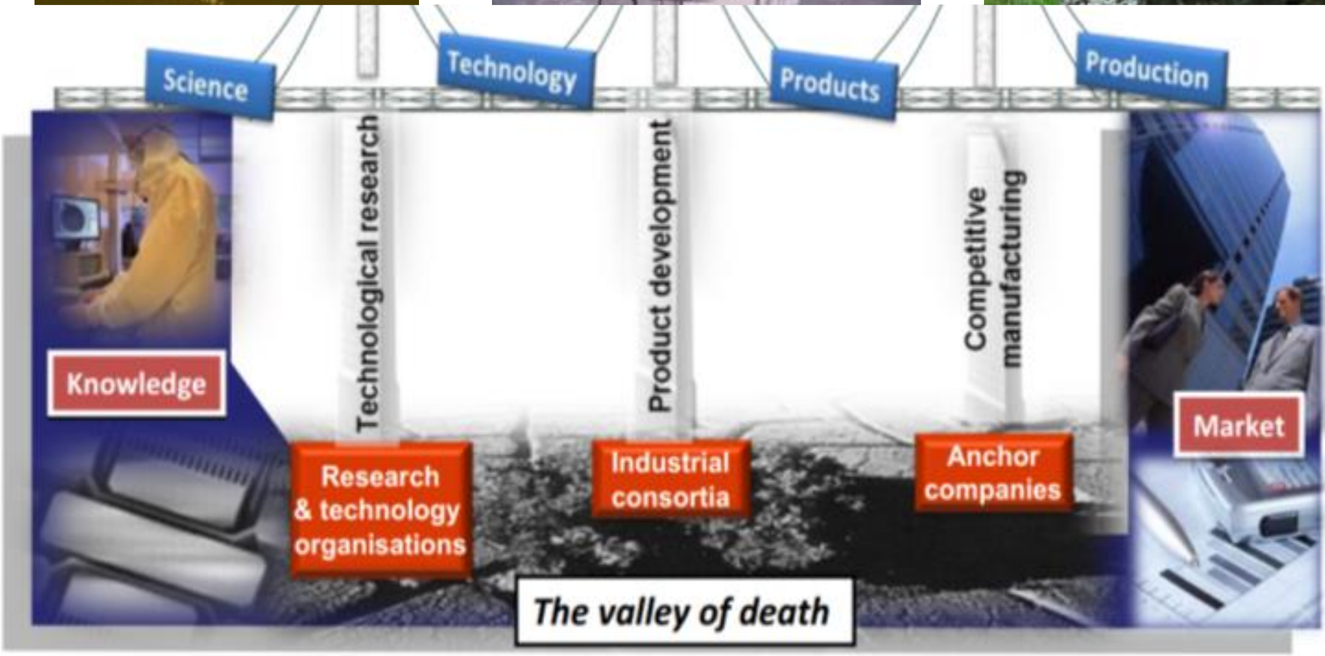
- Nanoelectronics is essential in all key application segments and all societal challenges solutions
- The world is not a level playing field, Europe needs a holistic approach in an aligned industrial strategy
- Europe has diversified strengths within a diversified landscape : efforts have to be balanced and focused among the various European Excellence Poles.
- The full value chain has to be involved, from R&D to Manufacturing, from IC Design to major semiconductor-intensive Applications, with a strong engagement of National and European Authorities

The 3-pillar bridge in Horizon 2020

Excellent Science

Industrial Leadership

Societal Challenges



“One European Semiconductor Strategy“

Priorities

1. To maintain our European R&D at World-Class level, with cross-border collaborative programs, co-leaded by the three main European R&D Institutes (IMEC, LETI, FhG) who are encouraged to develop more complementarity of their respective missions, as per the vision and the long term research roadmaps of ENI2 initiative
2. To provide our Equipment, Materials and Facilities Suppliers with European test bed platforms, for evaluating new solutions in close cooperation with End-Users as per their specifications
3. To implement European Pilot Lines for a fast industrialization of innovative Products on differentiated or advanced Technologies developed in Europe (Cf Places2Be ENIAC project , led by ST, for FDSOI Technology, involving 19 Partners, 500Engineers)
4. To develop the European Design and Application Ecosystem for solving societal challenges (in transport, security, energy, health….)

life.augmented

“One European Semiconductor Strategy“ **Done**

A definitive breakthrough of the “Silicon European MINDSET”:

- “One Single Voice” instead of “parochial quarrels”

- No more : “ 450 mm versus 300/200mm”
  “ More Moore versus More than Moore ”
  “ IDM versus Fablite/Fabless ”
  “ National versus European “

- Not only : “ R&D but also Manufacturing “
  “ Design but also Application “
  “ European-born but also European-based”
  “ Silicon-centric but also Society-centric ”

"One European Semiconductor Strategy"
To be Done

A definitive IMPLEMENTATION plan, with :

- one single Semiconductor Policy shared by National and European Authorities and all Stakeholders
- the KET initiative moving from *"what to do"* to *" how to do"* (budget,timing), with an efficient and transparent follow-up process from the new KET High Level Group
- the Actors , via their Associations ...as SEMI Europe, making coordinated proposals to European and National Authorities, coherently with the European Semiconductor Strategy.

life.augmented

“One European Semiconductor Strategy“

Conclusion

Domain	Revenues worldwide B€	Nanoelectronics jobs in Europe, x1000
Semiconductors Y 2012 ST, IFX, NXP, Bosch, Intel-EU, GF-EU, Atmel-EU ARM, ASML, Soitec, Imec, Leti, FH-VmE, others ...	**30** 6%/yr growth	**200** 5%/yr growth
Applications Y 2012 Bosch, Conti, VW, BMW, Daimler, Fiat, PSA, EADS, Thales, Siemens, Alcatel, Nokia, Philips, others ...	**730** 3%/yr growth	**800** 2.5%/yr growth
Total Y 2012 (=2013)	**760**	**1000**
Total Y 2020	**960**	**1250**

The future is encouraging ! ...

... if we are ACTING ... as on NOW ... all TOGETHER !

«Single European Semiconductor Strategy: Industry’s Vision for Europe»

Alain Astier

STMicroelectronics
Silicon Technology & Manufacturing
Group Vice-President
Strategic Programs

life.augmented

SEMI BRUSSELS FORUM, MAY 24th 2013