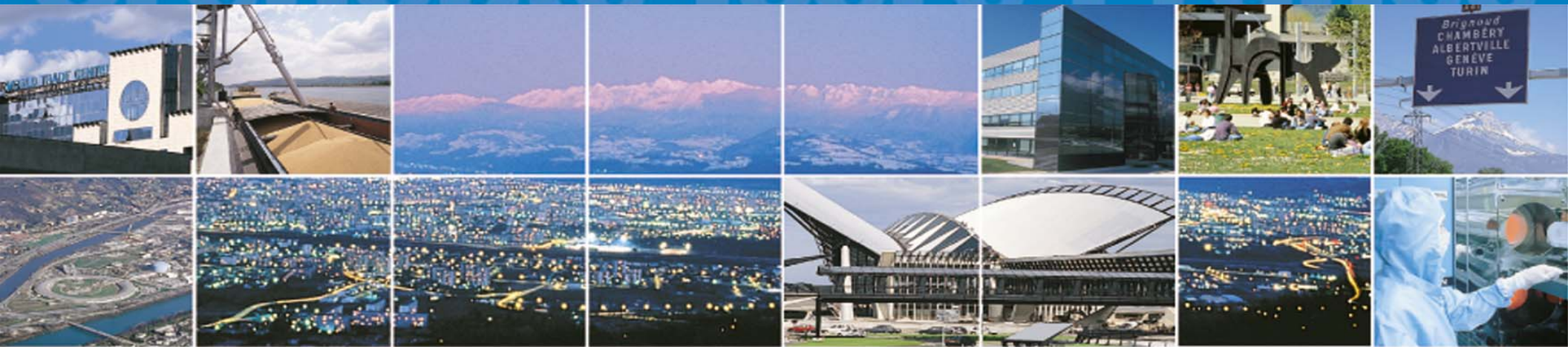# Agence d'études et de promotion de l'Isère

AEPI - Grenoble-Isère, France, Economic Development Agency

**Arizona
Nanotechnology
Symposium**

April 23, 2007

AEPI
GRENOBLE
ISERE

minalogic
les solutions miniaturisées intelligentes

isère
Conseil Général

Public Research Budget for Micro & Nanotechnologies in France

Key figures in France

Public budget for research (2005): 19,8 B€ (~ 1% GDP)

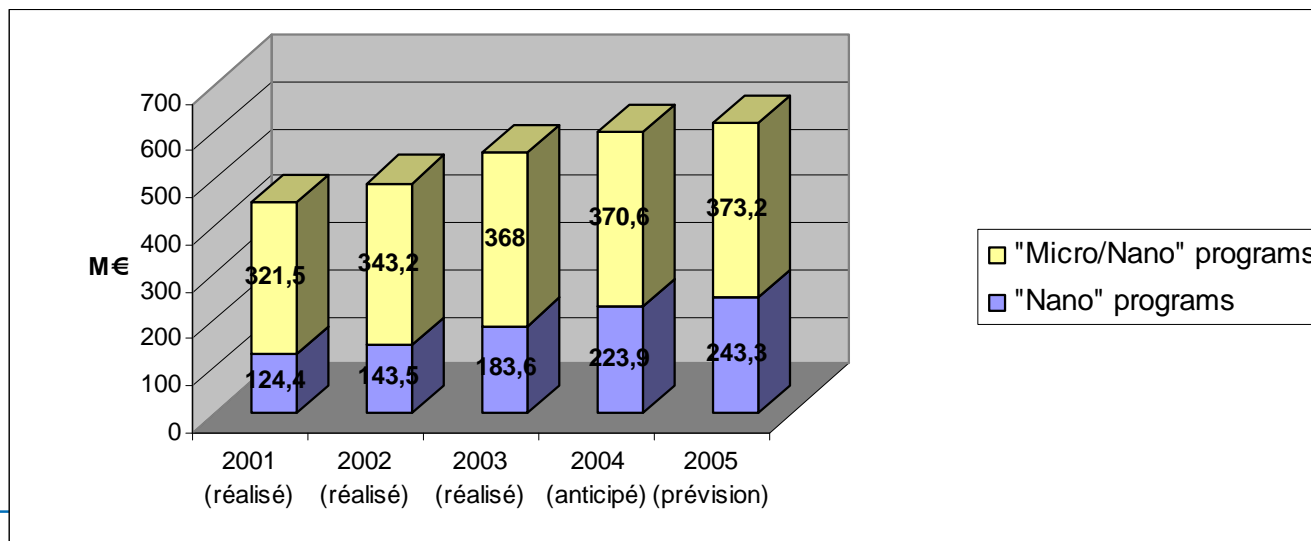Total budget (public and private): 2,2% GDP

Goal: 3% GDP in 2010

Micro and nanotechnologies public budgets:

445,6 M€ (2001) → 616,5 M€ (2005)

Main recipients: CNRS, CEA, INSERM, …

Estimated private investments: ~ public budget

Chart (M€):

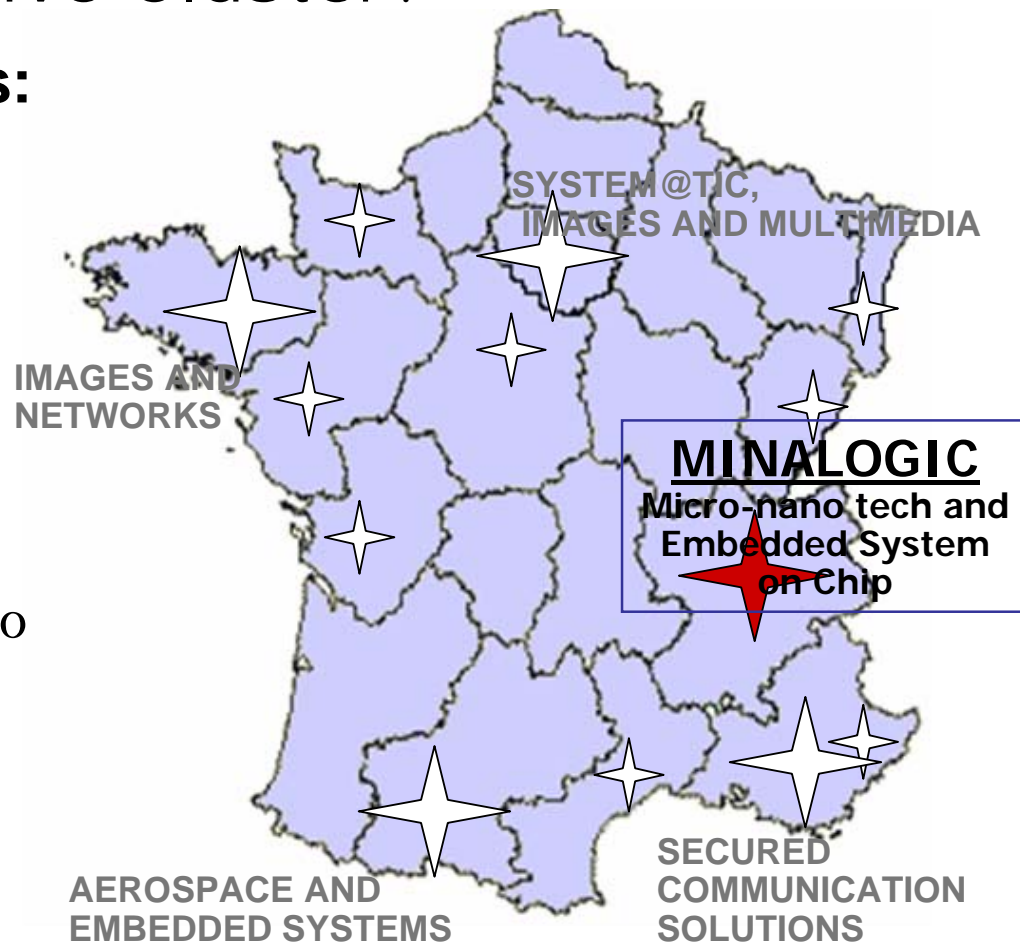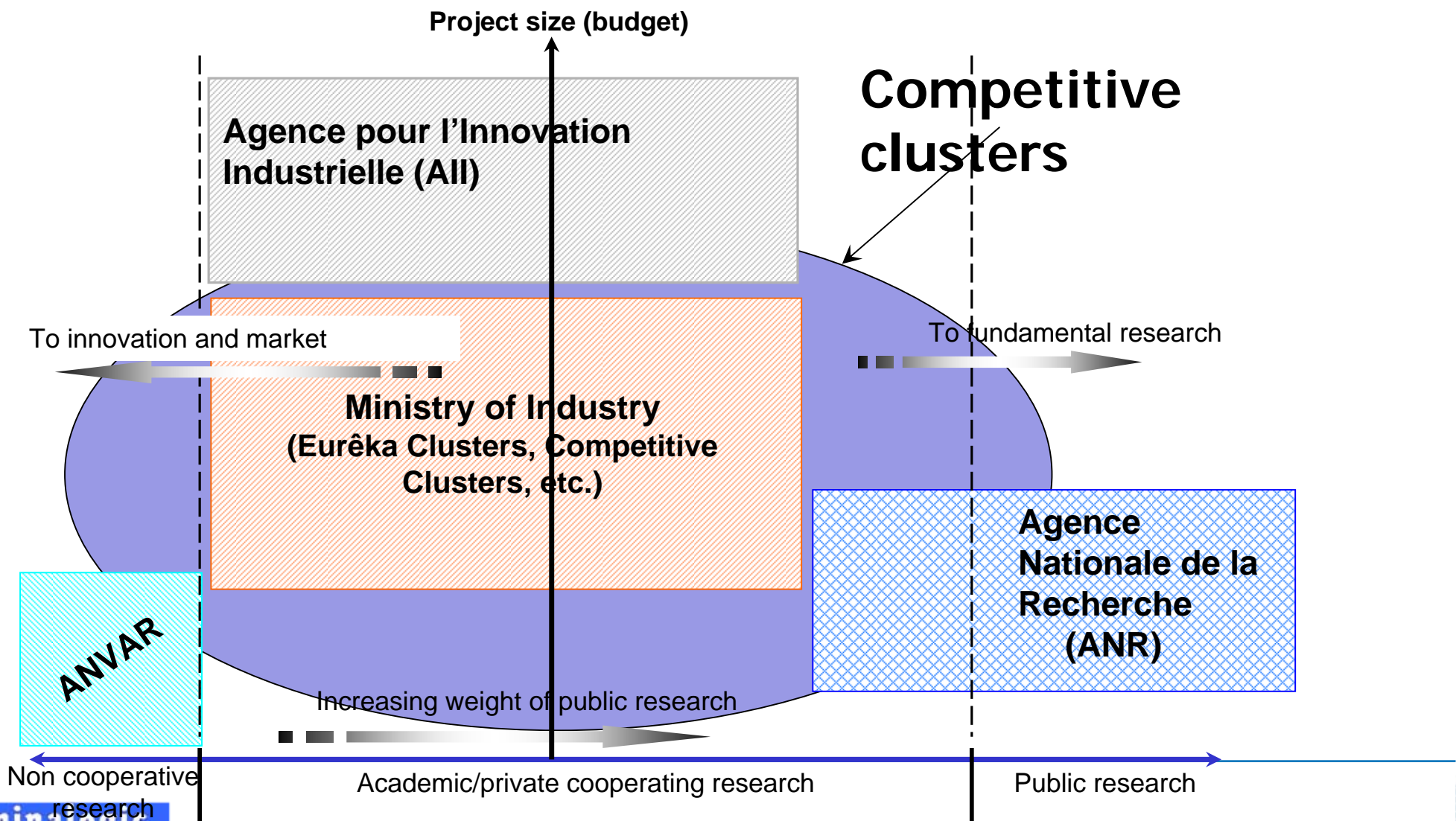| Year	"Micro/Nano" programs	"Nano" programs
2001 (réalisé)	321,5	124,4
2002 (réalisé)	343,2	143,5
2003 (réalisé)	368	183,6
2004 (anticipé)	370,6	223,9
2005 (prévision)	373,2	243,3

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What is a Competitive Cluster?

A Competitive Cluster is:

- A combination of industry, research community and education institutions located within a well defined geographical area

- All involved in partnerships to create synergies around innovative projects ,

- Which must reach a critical mass/threshold for international visibility

SYSTEM@TIC,
IMAGES AND MULTIMEDIA

IMAGES AND
NETWORKS

MINALOGIC
Micro-nano tech and
Embedded System
on Chip

AEROSPACE AND
EMBEDDED SYSTEMS

SECURED
COMMUNICATION
SOLUTIONS

Competitive Cluster R&D Financing

Project size (budget)

Competitive clusters

Agence pour l'Innovation Industrielle (AII)

To innovation and market

To fundamental research

Ministry of Industry
(Eurêka Clusters, Competitive Clusters, etc.)

Agence Nationale de la Recherche (ANR)

ANVAR

Increasing weight of public research

Non cooperative research

Academic/private cooperating research

Public research

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Micro & nano technologies and embedded software competitive cluster

Minalogic gathers a great number of resources and competencies dedicated to <u>creating and developing new products and smart miniaturized solutions for the industry</u>.

Strategy:

- Mass market & traditional manufactured products become commodities
- Aggressive competition from low production cost countries
- Copies of new products come fast

Move the competition battle from the field of production costs to that of innovation speed, enriched product feature sets & services

Design highly differentiated products

- Miniaturized
- Smart and Communicating

Release innovations faster and more frequently

Develop service businesses around products

✓ **MINATEC :**
A scientific hub for education, research and industry

Operational early 2006

Industrial valorization

Research
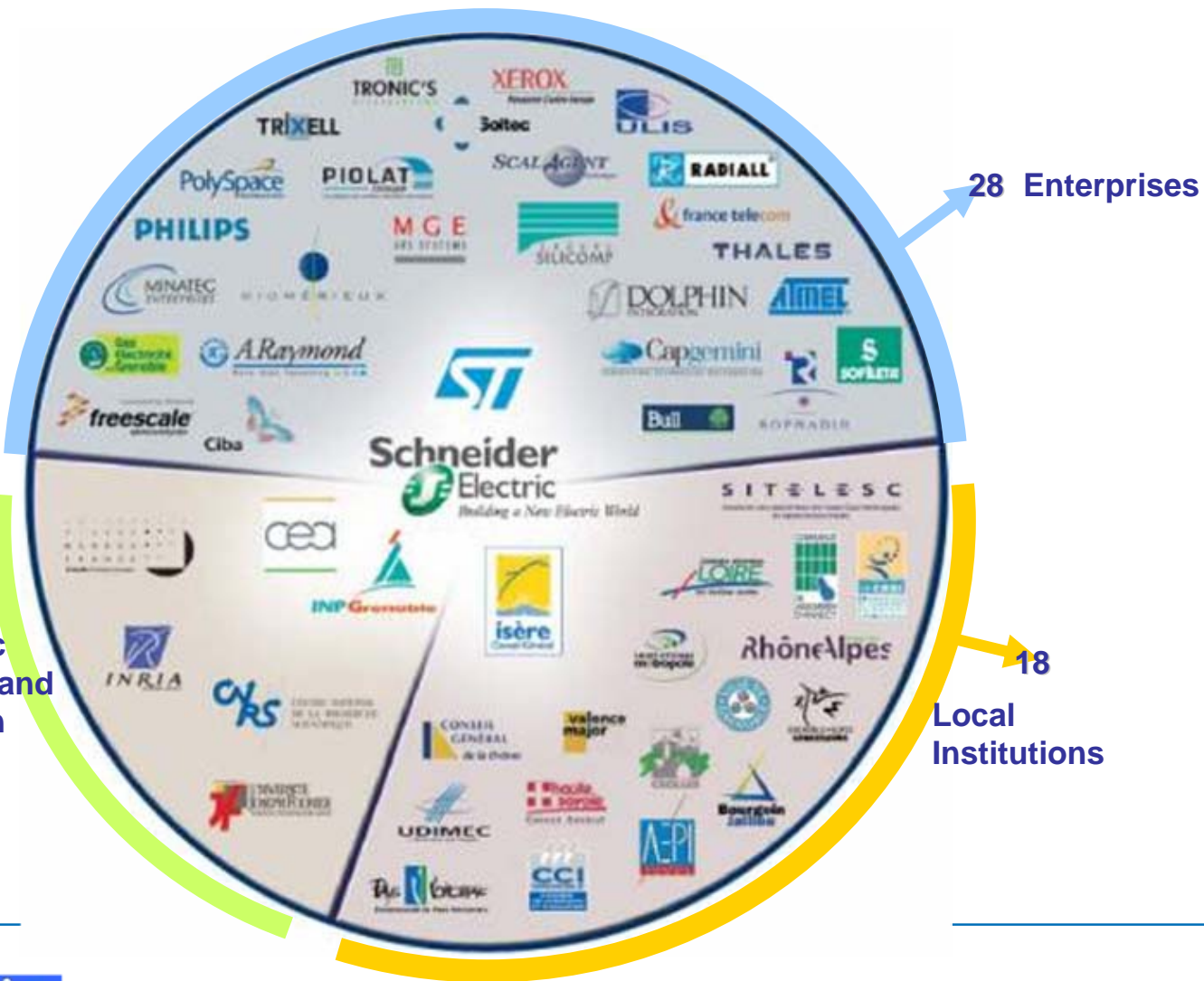
Research

Industry

Education

Education

House of Micro and Nano-Technologies

Area 45 000 m²

Cost 170 M€

4 000 persons by 2007
200 / 300 mm silicon platform

The 52 Founding Partners of Minalogic

28 Enterprises

6

Academic research and education

18

Local Institutions

SMEs represent 70% of Minalogic industry members.

16 new companies have joined Minalogic since its creation:

Adixen • Air Liquide Electronics Systems • Alpwise • Centre Technique du Papier • DeFacto • Flexody • IROC Technologies • Kapix • Memscap Mesatronic • Serma Technologies • SleepInnov Technology • Teamlog • Temento • Tracit Technologies • VaST Technology. Xenocs

Minalogic: Key Figures

Projects certified in 2006

- **30** projects were labellized by Minalogic for a total R&D budget of more than **€1.2 billion** and submitted in response to three requests for proposals by the Enterprise Competitiveness Fund *[Fonds de Compétitivité des Entreprises], ot to* the AII *[Agence pour l'innovation industrielle]*

- **31** projects were labellized by Minalogic for a total R&D budget of more than **€63 M** and submitted in response to requests for proposals by the National Research Agency *[Agence Nationale de la Recherche]*

79 Members

- 48 companies, including 33 SMEs (70%)
- 10 research centers and universities
- 14 local governments
- 6 economic development organizations
- 1 private investor

Financing

- **3** projects are financed by the AII *[Agence pour l'innovation industrielle]* for a total of **€161 million**.
- **7** projects are financed by the Directorate General for Enterprise *[Direction Générale des Entreprises]* for a total of **€37.2 M**
- **14** projects are waiting for the decision of the Directorate General for Enterprise (will be available by end march)
- **15** projects were financed by the National Research Agency, for total funding of **€14 M**

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Minalogic: Current Running Projects

Core micro-nanotechnologies

- **Nanosmart center** leader SOITEC, 162M€ over 4 yrs
- **Imalogic** leader Sofradir, 22 M€ over 3 yrs
- **Minimage** leader STMicroelectronics, 141 M€ over 4yrs
- **Foremost** leader STMicroelectronics, 120 M€ over 3 yrs

Embedded System on Chip

- **«Atelier du Futur» (Workbench of the future)**
  - **Multival** leader ST Microelectronics, 7M€ over 4 years
  - **Sceptre** leader ST Microelectronics, 10M€ over 4 years
  - **OpenTLM** leader ST Microelectronics 12M€ over 5 years

Core technologies applied to industry solutions and services

- **Smart Electricity** leader Schneider Electric, 20 M€ over 5 yrs
- **Homes** leader Schneider Electric, 88 M€ over 5 yrs
- **Printronics «Large surface electronics»** leader Sofileta, 17 M€ over 4 yrs
- **Hibrix** leader Xenocs, 7 M€ over 3 yrs

+ 15 upstream projects funded by the National Research Agency

Grenoble-Isère-France

THANK YOU FOR YOUR ATTENTION!

Contacts

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Spin-offs from research laboratories, universities and Grenoble-Isère companies

- **Actim**   3D measurement systems (CEA-Leti)
- **Ad Valor**   Users centric studies, innovation management (UPMF)
- **Akazi** (W4 in 2004)   Administrative process management (Bull, Sema Group, MC2)
- **Alira**   Educational software (Deltalab)
- **Allegro**   Digital video technology (UJF)
- **Altatech**   Technology equipment and process solutions for advanced film deposition
- **Arturia**   Sound synthesis software (INP Grenoble)
- **Asterop**   Business intelligence software (INRIA)
- **AuviTran**   Audio-video and transcoding (Digigram)
- Beamind   HDI IC test (CEA-Leti)
- **Blue Eye Video**   Video security systems (UJF-INPG-INRIA)
- **Cabrilog**   Software for geometry (UJF)
- **Certess**   EDA software for design blocks and IPs
- Ciprian   Laboratory instrumentation (CNRS)
- **Cotranet**   Intra-extranet solutions (Cap Gemini)

INFORMATION AND COMMUNICATIONS TECHNOLOGY

- **Coyote Software** — Video games developer
- **Crocus Technology** — Mram memories (CEA-Spintec)
- **DeFacTo Technologies** — design for test (INP Grenoble)
- **Design Processing Technologies** — Software solutions for industry (INP Grenoble/CNRS)
- **Design&Reuse** — Internet database of virtual electronic components (INP Grenoble)
- **DGTec** — Micronic powders (Thomson Multimedia)
- **D'Mailer** — Electronic information management (UJF)
- **Eboo solutions** — Digital solutions for video surveillance
- **EdXact** — Electronic design: extraction, analysis and control tools
- **Eloquant** — Advanced voice communication solutions for service providers (HP)
- **Eve** — Engineering for electrical and electronical equipments (INP Grenoble)
- **H3C-Energies** — Consultant in energy conservation
- **Icatis** — Grid computing (CNRS/UJF/INRIA/INP Grenoble)
- **Ifotec** — Fibre optic (Radiall)
- **Imakina** — Creation of interactive sites
- **Incam Solutions** — Silicon wafers packaging in miniature clean rooms (CEA-Leti)
- **Infiniscale** — Editeur de logiciel CAO pour les micro et nanotechnologies
- **Intexys** — High speed X-connect systems (CNRS/CEA-Leti)
- **IRocTechnologies** — Integrated robustness on chip. (IMAG-TimA)

INFORMATION AND COMMUNICATIONS TECHNOLOGY

- **Kelkoo** (Yahoo in 2004) Shopping search engine (Bull/Inria)
- **Keesda** Electronic systems' design automation
- **Mataru** Network security (INRIA-Sun Microsystems)
- **Memscap** Design software for complex circuits and virtual components (INP Grenoble-TIMA)
- **Musicalis** (Emme in 2005) Real time music classes on internet.
- **Nanolase/JDS Uniphase** Microlaser (CEA-Leti)
  (Teem Photonics in 2005)
- **Nanosprint** Virtual science for nanotechnology
- **Omega Centauri** Management software on internet
- **Opsitech (**Memscap in 2003) Integrated optics on optical mems
- **Ontologos Corp** Software editor
- **Opensugar** Solutions for providing applications on connected devices (FT R&D)
- **Otrix** Software editor
- **Paxitech** Fuel cell membranes (CEA)
- **Polyspace** Test and validation of embedded aeronautics software (INRIA)
- **Probayes** Bayesian programing techniques(UJF-INRIA)
- **Raise Partner** Financial risk management (INRIA)
- **Scalagent** Software (INPG-UJF-Bull)

Grenoble-Isère-France

- **Soisic** — Technology CMOS/SOI - (CEA-Leti)
- **SOITEC** — Silicon On Insulator technology (CEA-Leti)
- **Stantec** — UWB Radio communication system (IMEP)
- **Stratelia Silver Peas (OEVO)** — Internet portal
- **TecKnowMetrix** — Strategic awareness services
- **Teem Photonics** — Optic components for telecommunications (INP Grenoble, Radiall and Schneider)
- **Temento Systems** — CAO software for electronic systems (CEA)
- **Tracit Technologies** (Soitec in 2006) — BSOI innovative substrates (CEA-Leti)
- **Tronic's Microsystems** — Mems components (Leti-CEA)
- **Ulis** — silicon uncooled infrared components (Leti-Sofradir)
- **Valiosys** — system-on chip design and test software (INPF-TIMA)
- **VirtualActors** — Virtual reality (UJF)
- **Vitamib** — secure collaborative platforms
- **Volubill** — GPRS & UMTS mobile phones invoicing systems (Cegetel)
- **Xenocs** — Optical multi layers systems (ILL)
- **Widip** — Management on Internet for SMEs

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