

PROGRAMME MINATEC CROSSROADS 2008

Morning sessions	Afternoon sessions	Evenings
Monday June 23		
	MINATEC Plenary Session	Welcome reception
Tuesday June 24		
10th Leti Annual Review	10th Leti Annual Review	1st Grenoble INP Conference
M4NANO 1 day symposium	M4NANO 1 day symposium	
Wednesday June 25		
10th Leti Annual Review	10th Leti Annual Review	2nd Grenoble INP Conference
EC L2F – Electrical Characterization from Lab to Fab workshop	EC L2F – Electrical Characterization from Lab to Fab workshop	
Thursday June 26		
OMNT workshop: nanomechanics for NEMS	OMNT workshop: nanomechanics for NEMS	PhD students poster session
Minalogic: Image sensors & image processing	Minalogic: Image sensors & image processing	
EMC 3D workshop	EMC 3D workshop	
Friday June 27		
MATRI workshop		
OMNT workshop: nanomechanics for NEMS	OMNT workshop: nanomechanics for NEMS	
D43D System design for 3D silicon integration workshop		

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Founding members



Supporting organisations



Rhône-Alpes

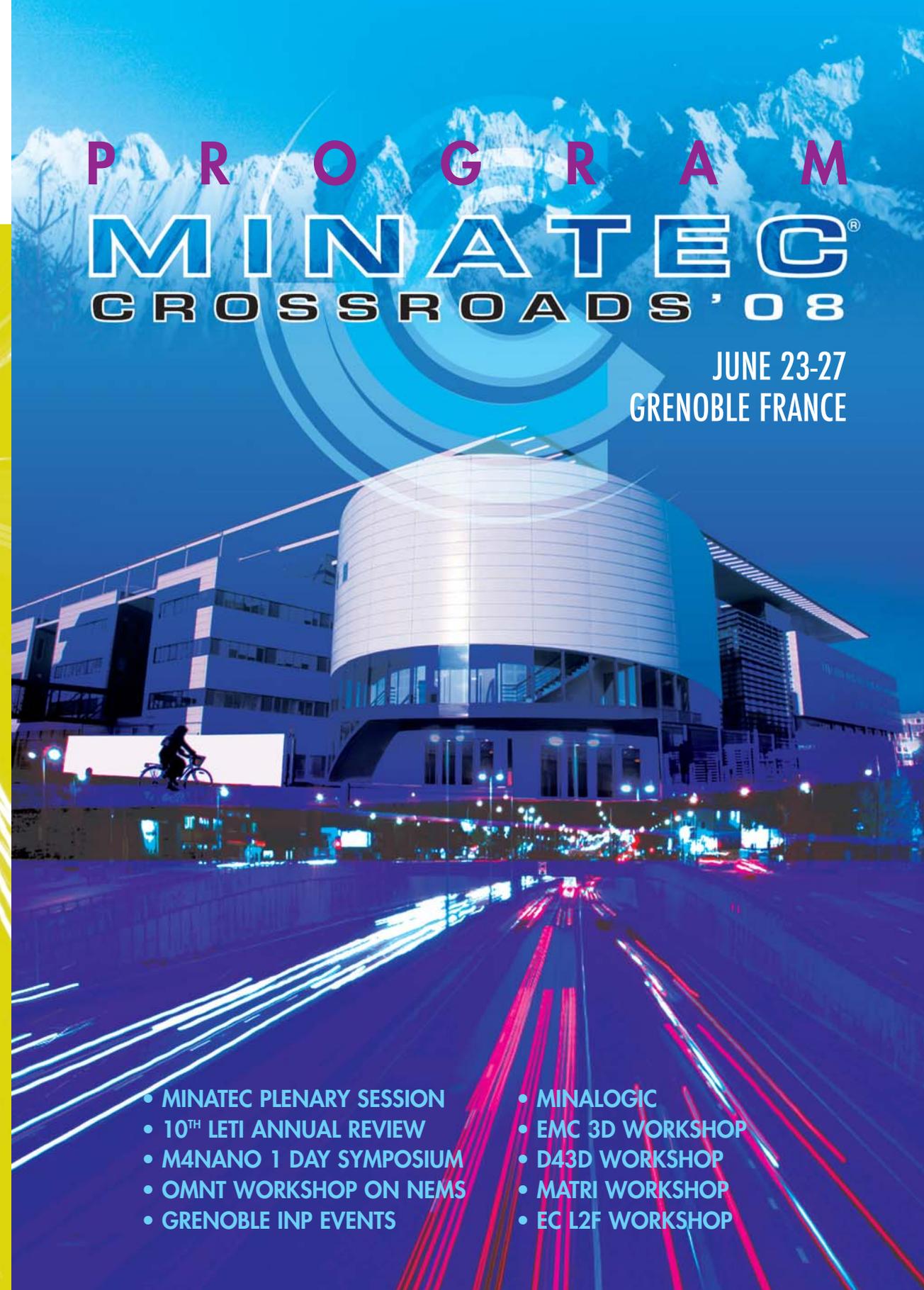


PROGRAMME MINATEC[®] CROSSROADS '08

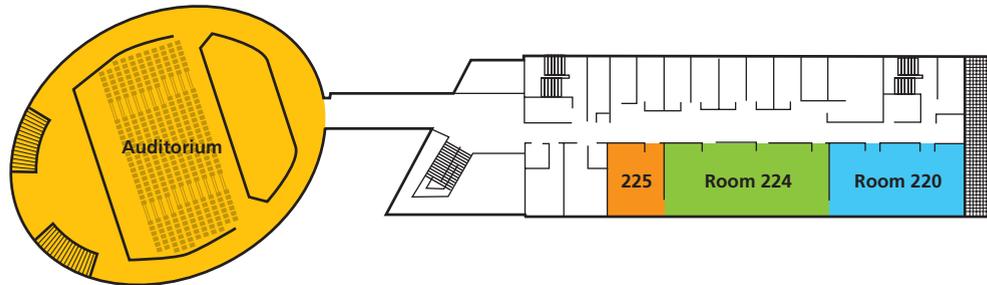
JUNE 23-27
GRENOBLE FRANCE

- MINATEC PLENARY SESSION
- 10TH LETI ANNUAL REVIEW
- M4NANO 1 DAY SYMPOSIUM
- OMNT WORKSHOP ON NEMS
- GRENOBLE INP EVENTS

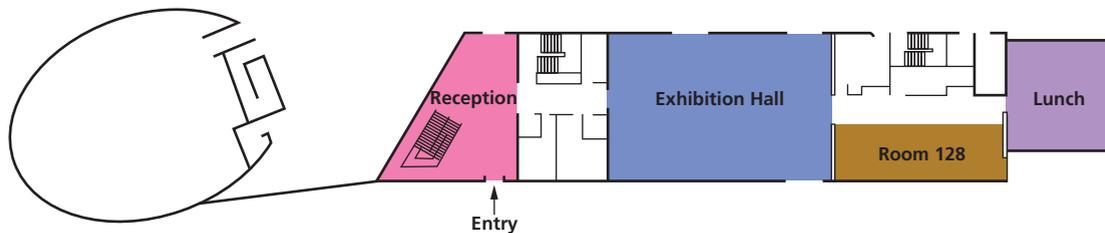
- MINALOGIC
- EMC 3D WORKSHOP
- D43D WORKSHOP
- MATRI WORKSHOP
- EC L2F WORKSHOP



1st floor



Ground floor



PRACTICAL INFORMATION

Taxi 04 76 54 42 54

Lyon airport 0826 800 826

Grenoble airport 04 76 65 48 48

Grenoble coach station 04 76 87 90 31

Grenoble railway station SNCF 08 36 35 35 35

Internet access Please contact reception desk

Downtown access Tramway B - "Cité internationale"

edito

MINATEC CROSSROADS 2008



JEAN-CHARLES GUIBERT
DIRECTOR OF MINATEC

Nous avons tous en mémoire l'édition 2006 de MINATEC CROSSROADS, couplée avec l'inauguration officielle de MINATEC®. A cette époque, des centaines de participants ont visité nos bâtiments "High Tech" flambant neufs, dédiés à l'éducation, à la recherche et à ses applications industrielles.

A l'occasion de MINATEC CROSSROADS 2008, nous vous invitons à découvrir combien MINATEC® est devenu un campus débordant d'activités de recherche pluridisciplinaire. Etudiants, enseignants, chercheurs académiques, appliqués et industriels font équipe ensemble autour de nos plates-formes technologiques de niveau international dédiées aux micro-nano-bio technologies.

Les chercheurs qui veulent valider leurs concepts par la réalisation de prototypes bénéficient de la proximité des outils de la plus grande plate-forme européenne de nano-caractérisation, de cinq salles blanches couvrant les différents domaines de la R&D, d'équipes de design et même d'un show room présentant les applications interactives de leurs technologies.

Cette proximité, cette interactivité est l'essence même de MINATEC. Nous aurons beaucoup de plaisir à vous recevoir et partager notre expérience avec vous au cours de MINATEC CROSSROADS 2008.

We remember MINATEC CROSSROADS 2006, coupled with the MINATEC grand opening. At that time, hundreds of participants visited our brand new high tech buildings dedicated to education, research and industrial applications.

During MINATEC CROSSROADS 2008, we invite you to discover how MINATEC has become a unique campus with vibrant, pluridisciplinary research activities! Students, academics, applied researchers, industry leaders team together around world class platforms for micro-nano-bio activities.

Researchers who want to move from idea to prototype benefit from the close proximity of Europe's largest nano characterisation platform, five top level clean rooms spanning the different stages of R&D and even an interactive technology show-room.

This is the essence of MINATEC. We would be very pleased to share our experiences with you during MINATEC CROSSROADS 2008.

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→ Auditorium - 1st floor

MINATEC Plenary Session	
16:00	Registration (Reception desk)
17:00	Opening - Jean Charles GUIBERT, Director of MINATEC, Grenoble, France. 
17:15	Opening - Geneviève FIORASO, Deputy-Mayor of Grenoble, in charge of economic development, university and research, France. 
17:30	"Opportunities and Challenges to Nanotechnology in National NanoFab Center, Korea" Professor Hee Chul LEE, President Nanofab Center, Korea. 
18:15	"New models for nanoelectronics development" Professor Ghavam SHAHIDI, IBM Fellow, Director Silicon Technology, TJ Watson research center, USA 
19:00	"Challenges for Nanotechnology Development" Professor Mihail ROCO, Senior Advisor Nanotechnology, NSF, USA. 
19:45	Welcome reception (Exhibition hall)

welcome

→ Auditorium - 1st floor

LETI Annual review	
8:00	Registration (reception desk)
9:00	Leti: from research to industry Laurent MALIER - CEA / LETI - MINATEC, Grenoble, France.
10:00	The key role of institutes in European R&D Jean-Luc MATE - Euripides, France.
10:30	Coffee break (Exhibition hall)
11:00	TBD G. MATHERON - STMicroelectronics, Crolles, France.
11:30	TBC Michael FANCHER - IBM Albany, USA.
12:00	Terraillon - a French - Hong Kong business collaborative story Dr John CHAI, Fook Tin Technologies Ltd, Hong-Kong.
12:30	Lunch (Marquee)

→ Room 224 - 1st floor

M4NANO 1 day symposium	
8:00	Registration (reception desk)
8:15	Presentation of Nano-ICT & M4NANO initiative, newly launched European coordination action Antonio CORREIA - Phantoms Foundation - Madrid, Spain.
8:30	Atomic scale simulation at the End-of-the-roadmap Jim GREER - Tyndall national institute, Ireland.
9:00	Modelling study of quantum confinement and strain in low dimensional devices Denis RIDEAU - STMicroelectronics - Crolles, France.
9:30	Simulation of nanowire MOSFET's: influence of the intrinsic fluctuations - Marc BESCOND - University of Marseille, France.
10:00	Noise in Nanodevices - Massimo MACUCCI - University of Pisa, Italy.
10:30	Coffee break (Exhibition hall)
11:00	Simulation for molecular machines Xavier BOUJU - CEMES Toulouse, France.
11:30	Of nanotube molecular junctions, graphene and biomimetic materials for nanoelectronics : modeling perspectives Gianaurelio CUNIBERTI - TU Dresden, Germany.
12:00	Multiscale computational approaches for modelling carbon nanotubes, semiconducting nanowires and graphene based fiels effect transistors - François TRIOZON - CEA / LETI - MINATEC, Grenoble, France.
12:30	Lunch (Marquee)

→ Room 224 - 1st floor

M4NANO 1 day symposium	
14:00	First-principles calculations of nanostructures : complex surface reconstructions and adsorbates on carbon nanotubes Daniel SANCHEZ-PORTAL (Donostia international physics center - San Sebastian, Spain.
14:30	Inelastic transport modelling in molecular devices & semiconducting nanowires Mads BRANDBYGE - Institute for micro and nanotechnology - DTU Denmark.
15:00	First principles thermal transport calculations Natalio MINGO - MINATEC / LITEN - Grenoble, France.
15:30	CEA Nanosimulation platform Thierry DEUTSCH - MINATEC / INAC - Grenoble, France.
15:45	Nanoscale simulations : What are the new challenges for computer science ans parallel computing? Jean-François MEHAUT - INRIA - Montbonnot, France.
16:00	Coffee break (Exhibition hall)
16:30	ETSF-nanoSTAR: spectroscopy and nanosciences Valerio OLEVANO - Institut Néel - Grenoble, France.
16:45	European efforts in upscaling DFT-capability BigDFT: strategy & performances Luigi GENOVESE - MINATEC / INAC - Grenoble, France.
17:00	Modelling spintronics phenomena Mairbek CHEIK - MINATEC / SPINTEC - Grenoble, France.
17:30	AB-INITIO simulation in nanosciences : case studies Xavier BLASE - Institut Néel - grenoble, France.
18:00	Nano-optics & nano-photonics simulation Juanjo SAENZ - Universidad autonoma de Madrid, Spain.

→ Auditorium - 1st floor

LETI Annual review  Tuesday Parallel Session	
14:00	Enabling technologies & microelectronics - General overview Marie-Noëlle SEMERIA - CEA / LETI - MINATEC, Grenoble, France.
14:10	Leti initiative in advanced mask less lithography Laurent PAIN, CEA / LETI - MINATEC, France.
14:30	Leti routes in advanced non-volatile memory Barbara DE SALVO, CEA / LETI - MINATEC, France.
14:50	SOI migration into 22nm beyond: high performance and low power space - Ghavam SHAHIDI, PhD, IBM Fellow, director, silicon technology.
15:10	Innovating on devices with SOI Olivier FAYNOT, CEA / LETI - MINATEC, France.
15:30	Low power digital and SRAM circuit design in fully depleted SOI technologies - Marc BELLEVILLE, CEA / LETI - MINATEC, France.
16:00	Coffee break (Exhibition hall)
16:30	Unique and cutting edge nanoscale characterization Amal CHABLI, CEA / LETI - MINATEC, France.
16:50	The Leti: beyond the wall Jean-Christophe GABRIEL, CEA / LETI - MINATEC, France.
17:20	SIP & SoC: a complementary competition? Frank MURRAY - NXP Caen, France.
17:45	TBD Karl JOHNSON, Director of Freescale's microwave and mixed-signal technology labs.

→ Room 128 - Ground floor

LETI Annual review  Tuesday Parallel Session	
14:00	Microcomponents and functions - Overview of microsystems activities at Leti Bruno MOUREY, CEA / LETI - MINATEC, Grenoble France
14:20	Platform Initiative for MEMS based Sensors François PERRUCHOT, CEA / LETI - MINATEC, France.
14:40	Mechanical energy harvesting Ghislain DESPESE, CEA / LETI - MINATEC, France.
15:00	An overview of MEM Switches activities Jean Philippe POLIZZI, CEA / LETI - MINATEC, France.
15:20	Biological detection in liquid phase with MEMS Vincent AGACHE, CEA / LETI - MINATEC, France.
15:40	High resolution microdisplays for near-to-the-eye applications Gunther HAAS, CEA / LETI - MINATEC, France.
16:00	Coffee break (Exhibition hall)
16:30	3D Packaging: technologies and applications Nicolas SILLON, CEA / LETI - MINATEC, France.
16:55	Very Large Scale Integration of NEMS and their potential applications - Philippe ANDREUCCI, CEA / LETI - MINATEC, France.

→ Auditorium - 1st floor

1 st Grenoble INP Conference	
18:15	INP Grenoble conference on the research policy conducted by the FMNT (Fédération de micro et nanotechnologies) at MINATEC Olivier JOUBERT - MINATEC / LTM - Grenoble, France.

19:30	Departure for the congress dinner (Buses in front of the conference center)
20:00	Congress dinner at Restaurant Chavant - Bresson (See p. 21)

→ Auditorium - 1st floor

LETI Annual review	
8:30	Registration (reception desk)
8:40	From technologies to applications - General introduction Hugues METRAS, CEA / LETI - MINATEC, France.
8:50	New technologies for building and environnement Eric PILAUD - Schneider Electric - Grenoble, France.
9:15	Microsystems for diagnosis Anton HOFMEISTER, STMicroelectronics, Crolles, France.
9:40	Photonics in Europe: Current situation and future trends Thierry VAN DER PYL - INFOS - Brussels, Belgium.
10:05	Microscopic wireless Pr Jan RABAEY, Berkeley, USA.
10:30	Coffee break (Exhibition hall)

→ Room 224 - 1st floor

ECL2F	
8:30	Registration (reception desk)
9:00	Welcome introduction Olivier DEMOLLIENS - CEA / LETI - MINATEC, Grenoble, France.
9:10	Gate stack characterization issues for R & D Gilles REIMBOLD - CEA / LETI - MINATEC, Grenoble, France.
9:50	CV measurement challenges and answers - Lee STAUFER - Keithley, USA.
10:30	Coffee break (Exhibition hall)
11:00	Pulse IV and Gate Stack - Paul MEYER - Keithley, USA.
11:25	Gate oxide reliability - David ROY - STMicroelectronics, France.
12:05	High throughput reliability - Paul MEYER - Keithley, USA.
12:30	Lunch (Marquee)

→ Auditorium - 1st floor

LETI Annual review  Wednesday Parallel Session	
11:00	Technologies for Biology and Healthcare sectors - Introduction Jean CHABBAL - CEA / LETI - MINATEC - Grenoble, France.
11:10	Proteomic analysis using integrated lab-on-chip for cancer diagnosis Pierre GRANGEAT - CEA / LETI - MINATEC, France.
11:30	Fluoptics: How fluorescence imaging can improve surgery Odile ALLARD, CEA / LETI - MINATEC, France.
12:00	Fluorescence capture by planar waveguide as platform for optical chemical sensor - François PERRAUT, CEA / LETI - MINATEC, France.
12:30	Lunch (Marquee)

→ Room 128 - Ground floor

LETI Annual review  Wednesday Parallel Session	
11:00	Toward 100 Gbytes BD Bernard ANDRE (CEA / LETI - MINATEC), Jooho KIM (Samsung).
11:40	Data archiving: for how long? F. LALOE / J. RABY, Ecole Nationale Supérieure / CEA / LETI - MINATEC, France.
12:00	Spectrum synthesis, a subwavelength optical reading opportunity Ludovic POUPINET, CEA / LETI - MINATEC, France.
12:30	Lunch (Marquee)

→ Room 220 - 1st floor

LETI Annual review  Wednesday Parallel Session	
11:00	Telecommunications - Overview of wireless communications at LETI Laurent HERAULT - CEA / LETI - MINATEC, France.
11:10	A new ubiquitous media for distributing content to mobile customers - Iiro JANTUNEN, Nokia Research Center, Helsinki.
11:40	Key building blocks for cognitive radio Dominique NOGUET, CEA / LETI - MINATEC, France.
12:05	Digital Baseband for SDR and Cognitive Radio: complexity and power management issues Fabien CLERMIDY, CEA / LETI - MINATEC, France.
12:30	Lunch (Marquee)

→ Auditorium - 1st floor

LETI Annual review  Wednesday Parallel Session	
14:00	μ systems for biological & chemical analysis in environment Claude VAUCHIER, CEA / LETI - MINATEC, France.
14:30	Smart textile and ultra thin structured electrodes arrays for on body and in Vivo health monitoring Patrice CAILLAT, CEA / LETI - MINATEC, France.
15:00	CMOS Asics for neuronal electrical interface Jean-François BECHE, CEA / LETI - MINATEC, France.
16:00	Coffee break (Exhibition hall)

→ Room 220 - 1st floor

LETI Annual review  Wednesday Parallel Session	
14:00	Applications scenarios and functional requirements for wireless sensor and actuator networks in Future Internet Fabrice FOREST, Université Pierre Mendès-France, UMAN Lab, Grenoble, France
14:30	Activities on sensor networks and body area networks: technologies and applications L. OUVRY / S. DAUVE / P. D. BERGER, CEA / LETI - MINATEC, France
15:00	Wireless Sensor Network ULP RF key design objectives Eric MERCIER, CEA / LETI - MINATEC, France.
16:00	Coffee break (Exhibition hall)

→ Room 128 - Ground floor

LETI Annual review  Wednesday Parallel Session	
14:00	Photonics, new applications Image sensing: more intelligence into pixels Yvon CAZAUX, CEA / LETI - MINATEC, France.
14:25	Image sensors: more functionalities within focal planes Manuel FENDLER, CEA / LETI - MINATEC, France.
14:50	Lighting: the nanowire route for next generation LEDs François LEVY, CEA / LETI - MINATEC, France.
15:15	Photonic IC: from discrete to CMOS integration Laurent FULBERT, CEA / LETI - MINATEC, France.
16:00	Coffee break (Exhibition hall)

→ Auditorium - 1st floor

LETI Annual review	
16:30	Exploration: an opportunity for field testing technology Jean-Louis ETIENNE, France.
16:50	Boosting innovation in industry: evolution and turbulences Pr. Thierry WEIL, Mines Paris Tech, France.
17:20	Closing remarks Laurent MALIER - CEA / LETI - MINATEC, France.

→ Room 224 - 1st floor

ECL2F	
14:00	Automated parametric test using parallel test and adaptative test Bernd BISCHOFF - Texas Instruments - Freising, Germany.
14:40	Test from R & D to industry technology follow up Flavio RIVA - Numonyx - Agrate, Italy.
15:20	A survey of the use of high density arrays in parametric tests Michael CHAO - Keithley, USA.
16:00	Coffee break (Exhibition hall)
16:30	Round table: Parametric variability at 65 nm and below - yield limiter Chairman Michel BRILLOUET - CEA / LETI - MINATEC, Grenoble, France.
17:15	Visit of MINATEC with inscription

→ Auditorium - 1st floor

2 nd Grenoble INP Conference	
18:15	Studies in nanosciences at master, doctoral & post doctoral levels International training courses "ESONN" Youla MORFOULI (MINATEC / PHELMA), Olivier ROSSETTO (Université Joseph Fourier), Raphaël CLERC (MINATEC / PHELMA), Philippe PEYLA (Université Joseph Fourier) - Grenoble, France.

19:30	Departure for the reception (Buses in front of the conference center)
20:00	Reception by the "Conseil Général de l'Isère" at "Musée Dauphinois" (See p. 21)

→ Auditorium - 1st floor

OMNT Session 1 Quantum issues	
8:00	Registration (Reception desk)
9:45	Welcome - OMNT.
9:50	General Introduction - Michael ROUKES, Caltech, USA.
10:20	The Casimir effect and applications in nanophysics Astrid LAMBRECHT, ENS LKB, France.
10:30	Coffee break (Exhibition hall)
11:00	Advances in quantum electromechanical systems Keith SCHWAB, Cornell, USA.
11:40	Theoretical perspectives on quantum electromechanical systems Aashish CLERK, McGill University, Canada.
12:20	Debate on session 1 - Fabio PISTOLESI, LPM2C - CNRS, France.
12:30	Lunch (Marquee)

→ Room 128 - Ground floor

EMC3D Workshop	
8:00	Registration (Reception desk)
9:00	3-D Industry Overview "Brief survey of the TSV activities, challenges and motivation" Paul SIBLERUD, EMC3D Program Manager, USA.
9:20	Q&A session, framing the discussion on TSV "Technology questions; Panel discussion Q&A" Mark SCANNELL, Microelectronic Programs Manager, CEA / LETI - MINATEC, Grenoble, France.
9:45	Via ETCH, "Addressing the challenges of Manufacturing TSV Etch" Hind BEAUJON, Alcatel, France.
10:30	Coffee break (Exhibition hall)
11:00	MEMS Packaging with TSV "TSV & wafer bonding for MEMS packaging application". Dr. Yoon-Chul SOHN, Samsung Advanced Institute of Technology, Korea.
11:30	Cu Fill , "Cu Chemistry for Void Free TSV Filling" Dr. Yung ZHANG, Enthone.
12:30	Lunch (Marquee)

→ Room 224 - 1st floor

MINALOGIC Workshop	
8:00	Registration (Reception desk)
8:45	Introduction - Nicolas Leterrier, Minalogic.
9:05	Visible Imagers CMOS Image sensor for Mobile Phone camera: past and trends Jean-Luc Jaffard, STMicroelectronics. Imager process evolution and benchmark Eric Mazaleyrat, STMicroelectronics. Adaptative multi-resolution for low power image sensor Arnaud Verdant, CEA / LETI - MINATEC. TSV technology for image sensors Jean Michailos, STMicroelectronics. Liquid lens for miniature camera application Bruno Berge, VARIOPTIC.
10:30	Coffee break (Exhibition hall)
11:00	Visible Imagers Design and evaluation of TDI operation of CMOS sensor for industrial imaging applications Henri Bugnet, e2V. New Image sensor color filters materials deposited by MOCVD Samir GUERROUDJ, LMGP / STMicroelectronics. OLED Active Matrix of Any Shape for Organic Light Emitting Diodes displays (AMAZOLED) José Magarino, Thales LCD et al. Microdisplays for near-to-the-eye applications Gunther Haas, Microoled. Astrophysics Where integrated optics developed for high speed networks meets astronomy: photons from far astrophysical sources mixed at the focus of the world largest telescopes reveal their intimate nature. Jean-Philippe Berger, LAOG (Laboratoire d'Astrophysique de l'Observatoire de Grenoble), F. Malbet, LAOG.
12:30	Lunch (Marquee)

→ Auditorium - 1st floor

OMNT Session 2: Process-Integration

- 14:00 **Towards NEMS IC: integrated actuation/transduction methods for NEMS** - Hong TANG, Yale, USA.
- 14:40 **Integration of NEMS on CMOS : Fabrication approaches and mass sensing applications** - Francesc PEREZ-MURANO, IMB-CNM, Spain.
- 15:20 **Hybrid NEMS-CMOS : technological platforms, devices and applications** - Adrian IONESCU, EPFL, Switzerland.
- 16:00 Coffee break and poster session (exhibition hall)
- 16:30 **Very large scale integration (VLSI) of NEMS based on top-down approaches** - Philippe ANDREUCCI, CEA / LETI - MINATEC, Grenoble, France.
- 16:45 **Silicon based nanowires integration technologies - Results and challenges** - Thomas ERNST, CEA / LETI - MINATEC, France.
- 17:10 **Bottom-up integration strategies for NEMS**
Theresa S. MAYER, Penn State University, USA.
- 17:50 **Scaling up NEMS** - Laurent MALIER, CEA / LETI - MINATEC, France.
- 18:10 **Debate on session 2** - Liviu NICU, Laas-CNRS, France.

→ Room 128 - Ground floor

EMC3D Workshop

- 14:00 **HVM Laser etch - Advances in Laser Process for TSV and Singulation of Thin Wafers** - Dr. Alexey RODIN, Xsil, Ireland.
- 14:45 **Cu Via Fill - Creating Void Free Copper interconnect**
Rozalia BEICA, SEMITool, USA.
- 15:15 **3D Interconnect Methods - Research Fellow at NXP Through-wafer interconnect technology options for 3D SiP**
Dr Fred ROOZEBOOM, NXP Semiconductors, Netherlands.
- 16:00 Coffee break (Exhibition hall)
- 16:30 **TSV Litho & Temporary Bonding - HVM Mask Alignment and Bonding** - Markus WIMPLINGER, EV Group & Brewer Science, Austria.
- 17:00 **Die to Wafer - HVM Issues/Solutions for Die to Wafer placement**
Markus WIMPLINGER & Christoph SCHEIRING, EV Group & Datacon, Austria.
- 17:30 **Cost of 3D TSV - Cost of Manufacturing and future trends**
Paul SIBLERUD, EMC3D / SEMITool, USA.

→ Room 224 - 1st floor

MINALOGIC Workshop

- 14:00 **Infrared Detectors**
Uncooled Infrared detectors: state-of-the-art and future trends
Jean-Luc TISSOT, Ulis.
Advanced HgCdTe technologies and applications
Philippe TRIBOLET, Sofradir.
HgCdTe APD focal plane array development at CEA/LETI - MINATEC
Johan ROTHMAN, CEA / LETI - MINATEC.
Scene base correction for thermal IR imaging
Bertrand DUPONT, CEA / LETI - MINATEC.
3D IR imaging with time of flight techniques
Fabrice GUELLEC, CEA / LETI - MINATEC.
- X-Gamma Imagers**
Recent development in semi-conductor based X-and gamma-ray imaging
Jean-Louis AMANS, CEA / LETI - MINATEC.
New technique for high dynamic range pixel
Arnaud PEIZERAT, CEA / LETI - MINATEC.
- 16:00 Coffee break (Exhibition hall)
- 16:30 **Bio-Imaging**
State-of-the-art and future trends in Optical Molecular Imaging
Philippe RIZO, CEA / LETI - MINATEC.
Innovative neuronal image sensor circuit
Olivier BILLOINT, CEA / LETI - MINATEC.
- Instrumentation**
The SWIFTS Micro-spectrograph
Pierre BENECH, IMEP, E. LE COARER, LAOG
(Laboratoire d'Astrophysique de l'Observatoire de Grenoble).

→ Exhibition Hall - Ground floor

PhD students poster session

- 15:30 Poster session
- 16:00 Coffee break and poster session (Exhibition hall)
- 16:30 Poster session (continue)

- 19:30 Departure for the congress dinner (Buses in front of the conference center)
- 20:00 Congress dinner at International Golf of Grenoble - Bresson (See p. 21)

→ Auditorium - 1st floor

OMNT Session 3 : Nanomechanics	
8:00	Registration (Reception desk)
8:30	Micro-and-nano-optomechanical systems: fundamentals, applications and challenges Markus ASPELMEYER, IQOQI, Austria.
9:10	A new on chip nanomechanical testing method Thomas PARDOEN, UC Louvain, Belgium.
9:50	Coffee break (Exhibition hall)
10:20	Nano-electromechanical systems for single electron transport Robert BLICK, Madison, USA.
11:00	Carbon Nanotubes for NEMS Alex ZETTL, Berkeley, USA.
11:40	Debate on session 3 - Keith SCHWAB, Cornell, USA.
11:50	Lunch (Marquee)

→ Room 224 - 1st floor

MATRI Workshop	
8:00	Registration (Reception desk)
9:00	Session 1 (in French) - Introduction Bernard CHAPELET - Grenoble Ecole de Management - Grenoble, France.
9:20	Session 2 (in french) - Présentation des résultats intermédiaires du projet "facteurs clés de compétitivité du pôle MINALOGIC" Isabelle MILLET - MINALOGIC Partenaires - Grenoble, France.
9:40	Session 3 (in French) - Mutualisation des compétences et nouvelles formes de coopération entre grandes et petites entreprises au sein du territoire grenoblois Guy SARREY - Grenoble Ecole de Management - Grenoble, France.
10:30	Coffee break (Exhibition hall)
11:00	Session 4 (in English) - Comparative approaches to competence anticipation and territorial embeddedness in Europe and in U.S. Dimitris ASSIMAKOPOULOS - Grenoble Ecole de Management - Grenoble, France.

→ Room 220 - 1st floor

D43D Workshop	
8:00	Registration (Reception desk)
8:30	Keynote - Challenges and Opportunities of 3D design Wilfried HAENSCH, IBM Yorktown, USA.
9:30	Session 1 - 3D Applications 3D Memory Application: SSD Doris KEITEL SCHULZ, Qimonda, Germany. 3D SoC Applications Richard FERRAND, STMicroelectronics, France.
10:30	Coffee break (Exhibition hall)
11:00	Session 2 - 3D design Methods 3D Network on Chip Didier LATTARD, CEA / LETI - MINATEC, France. 3D Thermal analysis Yusuf LEBLEICCI, EPFL, Switzerland. 3D design at NNFC Wan-Gyu LEE, NNFC, Korea. 3D Design Flow Lisa McLRATH, R3Logic, USA.

→ Auditorium - 1st floor

OMNT Session 4: Applications	
14:00	RF NEMS - Sunil BHAVE, Cornell, USA.
14:40	CNT NEMS: SWNTs as functional elements for sensors Christofer HIEROLD, ETH Zurich, Switzerland.
15:20	Fluids-coupled NEMS: principles and applications Jessica ARLETT, Caltech, USA.
16:00	Coffee break (Exhibition hall)
16:30	Surface chemistry and NEMS: questions and opportunities Melissa HINES, Cornell, USA.
17:10	Heterogenous systems: Applications of bioMEMS Martin HEGNER - Trinity College, Ireland.
17:50	Debate on session 4 - Michael ROUKES, Caltech, USA.

→ EXHIBITORS



TSA



FISCHER CONNECTORS



EURIS



MICRO-CONTROLE SPECTRA-PHYSICS



KURT J. LESKER



MINALOGIC



JEMI



AEPi



CEA DRT



LETI - Heterogenous Technology Alliance



MINATEC ENTREPRISES



SERMA TECHNOLOGIES



AITAP

→ NETWORKING EVENTS



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Congress diner at Chavant restaurant "Maitre cuisinier de France"

- Tuesday June 24 2008
- Departure from MINATEC by bus: 19h30

Bresson, on the edge of the woods, is a pleasant and restful stopping-place. In the charming little village of Dauphiné, seven kilometres from Grenoble, the Chavant family keeps on from father to son traditions of French hospitality, cuisine and a wine cellar. Meals are served in the garden during nice weather.

Official reception at Musée dauphinois by "Conseil Général de l'Isère"

- Wednesday June 25
- Departure from MINATEC by bus: 19h30

Located in the old Sainte-Marie-d'en-Haut convent, the Musée dauphinois is committed, through the study of prehistoric and historic archaeology, history, ethnology, industrial heritage and decorative arts, to the heritage of the former Dauphiné province and, on a larger scale, the French Alps. Aside from Gens de l'Alpe, which presents traditional mountain lifestyles, and La Grande histoire du ski, the Musée dauphinois has no permanent exhibitions but rather many temporary ones lasting between six and twelve months. Beyond preserving and studying traces of the past, the Musée dauphinois, veritable "society museum", considers heritage as a tool for exploring the present, understanding contemporary society and expressing the diversity and riches of cultures through time and space.



© Musée dauphinois

Congress diner at "International golf of Grenoble - Bresson"

- Thursday June 26 2008
- Departure from MINATEC by bus: 19h30

Grenoble International Golf Club has an 18-hole course located at Bresson, 10 minutes from Grenoble center. It is widely known, designed by the famous Trent Jones Jr and recognized as top ten best golf courses in France. Come and enjoy your favorite sport in the finest of settings, with breathtaking natural setting. It is both a technical and physical course, surrounded by the beautiful Belledonne, Chartreuse and Vercors mountains. We have an attractive restaurant with an open perspective over looking a lake and the golf course, with a large terrace in a garden setting, 4 meeting rooms and a team who can inform you about possibilities.



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MINATEC® OVERVIEW

Officially opened in June 2006, **MINATEC®** is gathering unique skills and facilities from Research, Education and Industry. With 3000 people on an 18 hectares campus, MINATEC® is currently one of the most important European center for micro and nanotechnologies.



Education



The Engineering school **PHELMA** (Physics, Electronics, Materials) of Grenoble INP (Polytechnic Institute) offers outstanding training means for engineers (1000 students) and delivers a European Master degree in micro-nanotechnologies.



It is the only place in Europe encompassing 700 m² cleanrooms (CIME Nanotech platform) dedicated to Education purposes.

MINATEC® is therefore a unique place for micro and nanotechnologies in Europe. As a very attractive place proposing outstanding expertise and research means, **MINATEC®** achieved worldwide strategic technological and scientific alliances at the best level, such as the agreement signed with Caltech in 2007.

Research



MINATEC® achieved a strong connection between technological research (CEA-LETI) and upstream research teams (from CEA, but also from mixed units between CNRS, Grenoble INP and Grenoble universities).



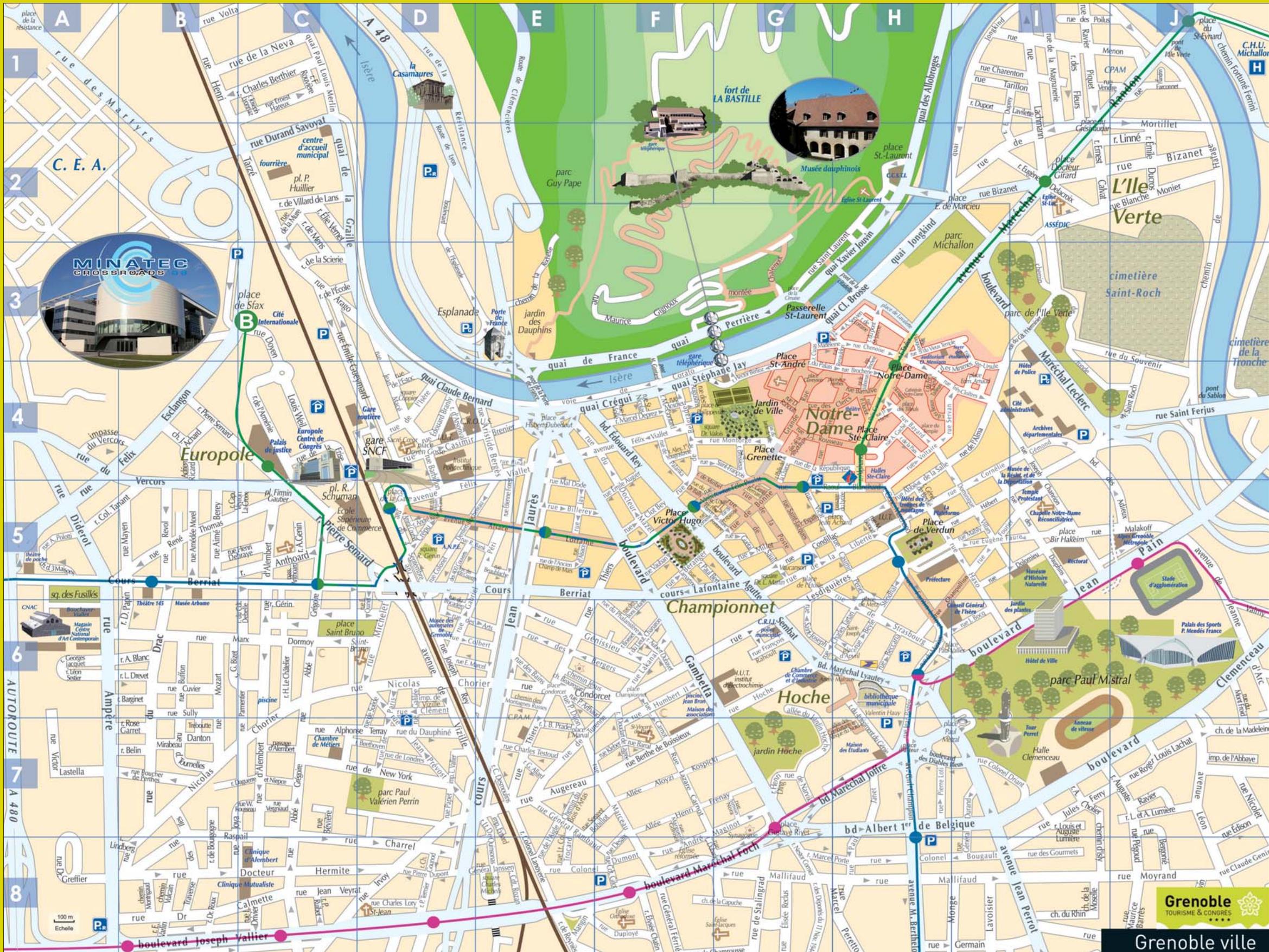
Therefore, **MINATEC®** plays an important role in Europe, both at the scientific production level (1400 publications / year) and at the innovation level (200 new patents / year). The research activities are backed by shared platforms, opened either to industrial partners and operated 24/7 or to academic collaborations for more upstream research projects.

Industry



MINATEC® research teams are committed in collaborations with more than 200 industrial partners, some of them being settled within **MINATEC®** premises. **MINATEC®** also benefits from the very high-tech environment of the Grenoble Region (e.g. production sites of ST Microelectronics and Soitec) and the very dynamic start-up companies created from its laboratories. Moreover, **MINATEC®** hosts a unique group of technology transfer experts (patent engineers, lawyers, marketing and international benchmarking teams, etc.).





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