



PRESS RELEASE

## Caltech and CEA-Leti Launch Partnership Program To Speed Commercialization of Innovative Nanotech Systems

*Founders of NanoVLSI Alliance Hosting **Nov. 2 Workshop in Pasadena, Calif.**, To Present Recent Results and Cover Highlights of Alliance's Technology Roadmaps*

GRENOBLE, France, and PASADENA, Calif., USA – Oct. 14, 2010 – The California Institute of Technology (Caltech) and CEA-Leti, co-founders of the NanoVLSI Alliance, have launched the NanoSystems Partnership Program (NSyP) to accelerate delivery of nanosystems-based innovations to the market.

The partnership, open to new members, already includes four companies from a variety of industries that will enable close collaboration between the alliance and the private sector: AREVA, LECO, bioMérieux and Total.

The partnership is opening new application opportunities, initially based on its nanoelectromechanical systems (NEMS) platform, focusing on three main areas:

- High sensitivity gas-phase chemical-sensing systems, including preanalytical and chemical separation modules
- Highly-multiplexed, microfluidic-interfaced mass spectrometry, and
- Liquid-phase biochemical sensors for pharmaceutical research and point-of-care diagnostics. Roadmaps establish the staging of prototype demonstrators, beginning with a multichannel gas chromatography detection module, to be realized in the near future.

For the past three years, Caltech's Kavli Nanoscience Institute (KNI) and CEA-Leti's Electronics and Information Technologies Laboratory have joined their fundamental and technological research expertise through the NanoVLSI Alliance ([www.nanovlsi.com](http://www.nanovlsi.com)) to transition from the era of "nanocraft" to very-large-scale integration of nanosystems. Researchers from both institutions are collaborating to transform nanotechnology-based prototypes into robust, complex sensing systems ready for transfer to industry.

Caltech and Leti are sponsoring a **Nov. 2 workshop** on Caltech's campus in Pasadena to discuss the NanoVLSI Alliance's work, including presentations by members of the NanoSystems Partnership Program. Participants also will have the opportunity to meet with key experts from the alliance and learn about highlights from its technology roadmaps. For more information on the workshop, contact Ariel Cao: [ariel.cao@nanovlsi.com](mailto:ariel.cao@nanovlsi.com).

### About CEA-Leti

CEA is a French research and technology public organisation, with activities in four main areas: energy, information technologies, healthcare technologies and defence and security. Within CEA, the Laboratory for Electronics & Information Technology (CEA-Leti) works with companies in order to increase their competitiveness through technological innovation and transfers. CEA-Leti is focused on micro and nanotechnologies and their

applications, from wireless devices and systems, to biology and healthcare or photonics. Nanoelectronics and microsystems (MEMS) are at the core of its activities. As a major player in MINATEC campus, CEA-Leti operates 8,000-m<sup>2</sup> state-of-the-art clean rooms, on 24/7 mode, on 200mm and 300mm wafer standards. With 1,200 employees, CEA-Leti trains more than 150 Ph.D. students and hosts 200 assignees from partner companies. Strongly committed to the creation of value for the industry, CEA-Leti puts a strong emphasis on intellectual property and owns more than 1,500 patent families. For more information about Leti, please visit [www.leti.fr](http://www.leti.fr).

### **About Caltech**

Caltech is recognized for its highly select student body of 900 undergraduates and 1,200 graduate students, and for its outstanding faculty. Since 1923, Caltech faculty and alumni have garnered 32 Nobel Prizes and six Crafoord Prizes.

In addition to its prestigious on-campus research programs, Caltech operates the Jet Propulsion Laboratory (JPL), the W. M. Keck Observatory in Mauna Kea, the Palomar Observatory, and the Laser Interferometer Gravitational-Wave Observatory (LIGO). Caltech is a private university in Pasadena, California. For more information, visit <http://www.caltech.edu>.

### **About the NanoVLSI Alliance**

California Institute of Technology (Caltech) and CEA-Leti formed the NanoVLSI Alliance to take miniaturization and integration of mechanical systems to limits never before achieved and develop complex, operational nanosystems that can be mass produced. Drawing on synergy between two of the world's leading centers for research on nanotechnologies, the alliance involves cooperation between researchers specializing in nanoscience, microsystems and engineering, spanning the spectrum from fundamental to pre-industrial research.

### **Press Contacts:**

#### **CEA-Leti**

Thierry Bosc  
+33 4 38 78 31 95  
[thierry.bosc@cea.fr](mailto:thierry.bosc@cea.fr)

#### **Agency**

Amélie Ravier  
+33 1 58 18 59 30  
[ravier@loomisgroup.com](mailto:ravier@loomisgroup.com)