



**MEMSCAP**  
*The Power of a Small World™*

## **REVOLUTIONARY MEMS IDEAS BLOSSOM WITH MUMPS**

***With MEMSCAP prototyping service, the future of MEMS is being assembled at Simon Fraser University***

**Grenoble, France and Durham, North Carolina, June 25, 2007**– MEMSCAP (Euronext: MEMS), the leading provider of innovative solutions based on MEMS (micro-electro-mechanical systems) technology, today announces it is nurturing the next MEMS generation.

The Institute of Micromachine and Microfabrication Research located at Simon Fraser University in Canada is using MEMSCAP's rapid MEMS prototyping services to generate the latest generation of complex assembled microsystems.

Under the supervision of Dr. Ash Parameswaran, senior graduate students Rob Johnstone, Dan Sameoto, See-Ho Tsang and Ian Foulds from Simon Fraser University have developed two unique methods of MEMS assembly that can be used for varied and immediate applications including powering sensors through increased thermal isolation as well as applications in fiber optic switching and other structures, where assembly costs of optical components have prevented wide commercialization. Everything from optical fiber supports to micro mirrors and lenses can therefore be assembled at the same time as the devices are released and packaged by the manufacturer, introducing no cost or time to the end user.

The simplicity of the mechanical amplification mechanism that makes the materials of the MEMSCAP polyMUMPs process do assembly work for them combined with immediate applicability should therefore greatly improve the capabilities of nearly all micromachining processes.

“We have been able to use the quality and predictability of MUMPs foundry services to develop completely new designs that can make all MEMS systems more useful in the future,” explains Dan Sameoto, who is also the team leader for Simon Fraser University's entrance into the nanogram league of this year's Robocup competition. “By using processes that are easily accessible to everyone in the MEMS community, our results have immediate impact on research being done in the field.”

Other new systems have been developed such as a unique spring system developed by See-Ho Tsang and which is capable of assembling structures out-of-plane through the application of a single push, applied either by a probe or the tip of a wire-bonder, or the autonomous micro-robots based on a bi-directional scratch drive actuator developed by Dan Sameoto for the nanogram category of this year's RoboCup competition, or 3D MEMS which could be used for reconfigurable sensors and communications devices, potentially changing the functionality of the fabricated microsystems to adapt to changing conditions.

“Thanks to the availability of the MUMPs fabrication processes like polyMUMPs and the dedication and innovation of researchers like those at Simon Fraser University, new breakthroughs to make MEMS cheaper, more functional and more adaptable are happening every day,” states Ron Wages, General Manager of MEMSCAP custom products business unit. “MEMSCAP has always invested in helping advanced research to spread the use of MEMS and create tomorrow's applications for the widest range of industries and markets.”

MUMPs®, which stands for Multi-User MEMS Processes service, is the ultimate platform for proof-of-concept fabrication. The longest running and most renowned multi-user program for MEMS manufacturing in the world, MUMPs® uses standard yet diversified process technologies that serve universities, laboratories, companies and researchers. Its versatile possibilities adapt to endless features, devices, and applications. The service's low cost allows researchers with the smallest budgets to realize their ideas.

#### ***About MEMSCAP***

MEMSCAP is the leading provider of innovative micro-electro-mechanical systems (MEMS)-based solutions. MEMSCAP standard and custom products and solutions include components, component designs (IP), manufacturing and related services. MEMSCAP customers include Fortune 500 businesses, major research institutes and universities. The company's shares are traded on the Eurolist of Euronext Paris S.A (ISIN: FR0010298620-MEMS), where MEMSCAP belongs to the Next Economy segment. More information on the company's products and services can be obtained at [www.memscap.com](http://www.memscap.com).

#### ***About Simon Fraser University***

The School of Engineering Science at Simon Fraser University is located in Burnaby, British Columbia, Canada. Established in 1983, this small program focuses on innovative and personal instruction with an emphasis on technology like microelectronics, signal processing, systems engineering and telecommunications. The Institute of Micromachine and Microfabrication Research was established in 1993 within the School of Engineering Science to enhance the development of microdevices and microfabrication techniques.

#### ***About MUMPs®***

The Multi User MEMS Processes, or MUMPs®, is the longest-running MEMS prototyping service in the industry, and the defacto standard process to support academic, government, and industrial research in MEMS. Fabricated out of the Research Triangle Park, North Carolina facility for fourteen years, the MUMPs® prototyping service has been operated by listed company MEMSCAP since November 2002. Originally developed as part of a MEMS infrastructure program, MUMPs has expanded over the years from one to four distinct multiple mask-level processes, adding thick metal, SOI, and CMOS-MEMS process to the polysilicon surface micromachining process. Nearly half a million MEMS devices have been shipped to over 1000 customers over the life of the MUMPs program.

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