**PRESS RELEASE**

# ‘OWLY-EYED’: NEXT-GEN LOW-NOISE IMAGING TECHNOLOGY DEVELOPED BY LETI FOR FRENCH SME PYXALIS

*Technology Targets Medical, Security, Defense, Scientific-imaging and other Markets. Demonstration Planned at Vision 2016 in Stuttgart Nov. 8-10*

GRENOBLE and MOIRANS, France – Nov. 3, 2016 – Leti, an institute of CEA Tech, and PYXALIS, a French SME specializing in high-performance image sensors, today announced a new technology that lowers readout noise for image sensors down to 0.5 electron noise and dramatically improves low-light image sensing capabilities.

The new technology, called Owly-eyed, is based on a patented electrical architecture of the pixel readout that can be integrated in image sensors. Designed to meet growing demand for more sensitive CMOS image sensors, it has been adapted for PYXALIS, which will offer it in its next-generation image sensors.

“In this common lab with PYXALIS, we’ve developed a low-noise image technology that provides state-of-the-art advanced imaging for next-generation applications in a wide range of markets and industries,” said Marie Semeria, Leti’s CEO. “This CMOS-based device, which can be adapted for multiple uses, is another strong example of how Leti’s broad technology innovations make our partners more competitive in their industries.”

“Leti’s Owly-eyed technology is a major improvement in low-noise imaging,” said PYXALIS CEO Philippe Rommeveaux. “Combined with our capacity to offer advanced sensors with high digital integration and high dynamic range, it will allow us to establish a new performance standard in image sensors that address the growing demand for low-light applications in the surveillance, biomedical, science, defense and aerospace markets.”

In the Owly-eyed technology demonstrator, a sub-0.5 e−rms temporal read noise has been achieved on a VGA format CMOS image sensor implemented in a standard CMOS process. The low-noise performance is achieved exclusively through circuit optimization without any process refinements.

Leti also is developing many other technologies for innovative sensors and image processing that perform in low-power and low-latency operating modes.

**Leti will demonstrate the Owly-eyed technology and a set of advanced smart-image-processing solutions at Vision 2016, Nov. 8-10 in Stuttgart, Germany, in Hall 1, booth H01. The PYXALIS team will be available in Hall 1, booth D41.**

# PRESS RELEASE

***About Leti (France)***

*As one of three advanced-research institutes within the CEA Technological Research Division, Leti serves as a bridge between basic research and production of micro- and nanotechnologies that improve the lives of people around the world. It is committed to creating innovation and transferring it to industry. Backed by its portfolio of 2,800 patents, Leti partners with large industrials, SMEs and startups to tailor advanced solutions that strengthen their competitive positions. It has launched 59 startups. Its 8,500m² of new-generation cleanroom space feature 200mm and 300mm wafer processing of micro and nano solutions for applications ranging from space to smart devices. With a staff of more than 1,900, Leti is based in Grenoble, France, and has offices in Silicon Valley, Calif., and Tokyo. Follow us on www.leti.fr and @CEA_Leti.*

***About PYXALIS (France)***

*PYXALIS specializes in advanced custom and semi-custom CMOS image sensors serving a wide range of applications from niche to high-volume markets. PYXALIS is able to provide sensors combining excellent performance (high dynamics, speed, sensitivity…) in global and rolling-shutter pixel architectures and a high level of digital integration to ensure flexible capture modes and on-chip image preprocessing. Funded in August 2010, the company is located in Moirans, in the Grenoble ''Imaging Valley'' – French Alps. Visit www.pyxalis.com. Or contact us at philippe.rommeveaux@pyxalis.com.*

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