

## MEMS & Imaging Summit 2023, Grenoble

### **Smart and Green Manufacturing Solutions**

# **Future of Imaging Technology**

## **Innovative MEMS Process Equipment**

## **Smart Agriculture Sensors**

MEMS sensors and actuators are micro-electromechanical systems that are able to move tiny parts mechanically on a semiconductor chip. It is a well known silicon-based technology and MEMS units are increasingly replacing traditional technology in a broad range of applications. Today MEMS is used in a variety of systems in medical, industrial and automotive applications as well as in consumer electronics and many others.



Laith Altimime, SEMI Europe

The market for MEMS and imaging sensors is being propelled by several megatrends in various industry



Bernard Kress, Google

MicroLEDs/OLEDs, and MEMS laser beam scanning will drive the next generation of display systems



Nicolas Roux, STMicroelectronics

Global shutter cameras are key for robot navigation



Jan Vermeiren, Caeleste

Custom-design CMOS image-sensors



Gerry Conway, Valeo

Robustness and cost are key for the cameras in cars



Martin Cornil, Aerospacelab

Specialises in Micro-Satellites Design



Julien Mottin, Prophesee

Debluring photos of moving events



Martin Groome, GreenWaves Technologies

RISC-V Processor revolutionises true wireless-stereo



Christophe Vautey, CEA-Leti
AddVisia, Grenoble promotes a multi-imagers
testing platform



Konrad Semmler, Global Foundries Dresden

Time-to-market is key in prototyping advanced

CMOS imaging chips



Marc Sansa, CEA-Leti
CEA-Leti enables ultrasensitive optomechanical sensors



Vincent Destefanis, CEA-Leti, demonstrating an infrared CO2 sensor demo board



Theodor Nielsen, NIL Technology

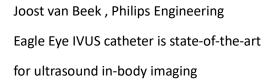
The key for meta-design is that the light
can be steered at will



Philippe Andreucci, Inject Power

New generation of implantable batteries







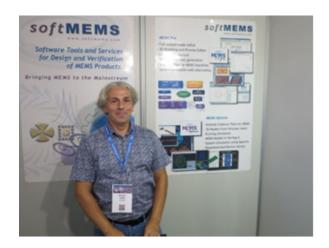
Erik Corduwener Philips Engineering Solutions
CMUT and F2R platforms are open to customers



Pete Davy, EDA Solutions, UK

Tanner MEMS design tool makes integration of

MEMS devices with analog/mixed-signal easy



Sebastien Cases, SoftMEMS, France
MEMS Pro tool generates 3D model



Bernhard Hammerl, Siconnex

The Company has found a chemical which
can be used in their batch spray machines



The PERC machines can handle 2-12 inches wafers



Thomas Russell, Mesoline
Our unique 3D printing method offers
ultra-small features and is good for MEMS
sensors and more



Full wafer printing in just 15 minutes



Christian Kjelde (right) and Tami Isreali, Polyteknik

Demonstrated the Flexible thin film PVD Flextura platform



Flextura PVD system for thin film



Joscha Malin, Comet Yxlon

Next generation 3D X-ray inspection system

provides fast and easy insights to killer defects
in advanced chips with small geometries
in less than 5 minutes

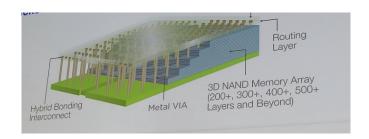


Enrico Härtel, Comet Yxlon demonstrated the 3D X-ray system



Abul Nuruzzaman, Adeia

Adeia has developed a versatile platform for hybrid bonding technology



Stacked 3D NAND Memory with Hybrid Bonding



André Henning, Siemens Healthineers
Siemens is using photon-counting scan in its

2. generation computed tomography machine



Naeotom Alpha CT scanner





Heinz Bernhardt, TU Munich
In agriculture the sensor technology must
cope with special requirements and environments

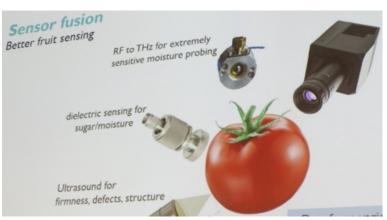
A sensor-hand checking crop



Mark Zentile, OnePlanet

Automation in food production is necessary

and there is a need for advanced and low-cost
sensors



Photonic sensors controlling status of fruit