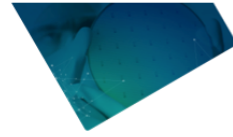




PRESS RELEASE



CAVIAR improves image sensing for healthcare, sustainable agriculture, industry and entertainment

A project within the EUREKA PENTA programme

Paris, 7 November 2019 -CAVIAR (Cmos imAge sensor and VIdeo research), a project within the EUREKA PENTA Cluster and managed by industry association AENEAS, is developing new image capture technologies that will deliver benefits for healthcare, sustainable agriculture, digital industry and entertainment. By bringing together world-class engineering and research skills from across Europe, the CAVIAR project aims to enable higher imaging performance and new capabilities for these economically and socially important application domains. CAVIAR will develop image sensors and application demonstrators, including hardware and firmware / software algorithms, with the goal of improving system-level image capture and extending the functionality of professional CMOS image sensors for multiple applications.

Given the challenges of providing affordable and accessible healthcare as the world population ages and chronic diseases increase, healthcare is a key focus for the CAVIAR project. Improved imaging in diagnostics can improve reliability (fewer false negatives / positives) and support quicker, more effective and efficient patient-focused care. In particular, CAVIAR aims to deliver advances in image capture for digital pathology, Operation Room assisted imaging, cell imaging, ophthalmology and Next Generation Sequencing (NGS), which will be key for personalized medicine. Overall, the market opportunities in healthcare are enormous, with NGS alone expected to double from 2016 to 2021 to reach USD 6.5 billion a year.

CAVIAR's improved sensor technologies will also be applicable in multi-spectral imaging (i.e. capturing specific wavelengths of the electro-magnetic spectrum). Multi-spectral imaging is central to precision agriculture, which supports sustainable practices by providing farmers with detailed information about plants and conditions at a highly local scale. This can result in reduced inputs, better resource protection and increased traceability, and can help the expansion of organic agriculture which is highly recommended by the UN FAO (United Nations Food and Agriculture Organization).

In the fiercely competitive digital entertainment market, CAVIAR's innovations will support the move to higher-resolution formats for cinema and sports television. The project will develop image capture and replay for slow motion UHD (Ultra-High Definition) TV and optimizations from image capture to transmission. These will be particularly relevant as demand for live events continues to grow worldwide, and with Japan's roll-out of 4K and 8K UHD TV for the 2020 Olympic Games.



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The CAVIAR project brings together 10 European organisations, including leading players in CMOS sensor manufacture and imaging applications, as well as world-class research institutions. This breadth of partners allows for a sharing of market, application and user expertise, and input into CMOS sensor design and manufacture for future systems. As a result, the project will be able to develop solutions across the entire value chain, covering requirements from technology providers to end-users and filling gaps in Europe's capabilities in these domains.

About the PENTA programme

PENTA is a EUREKA cluster whose purpose is to catalyse research, development and innovation in areas of micro and nanoelectronics enabled systems and applications - where there is shared national and industrial interest. Based on the Electronic Components & Systems (ECS) Strategic Research Agenda (SRA) key areas and essential capabilities, PENTA programme contributes to the development of electronic solutions with the opportunity for rapid competitive exploitation and a strong impact on European societal challenges. The PENTA project team is supporting SMEs, large corporations, research organisations and universities by facilitating access to funding, fostering collaborative work and creating consortia.

PENTA is operated by AENEAS.

More on PENTA: <http://www.penta-eureka.eu>

More on AENEAS: <https://aeneas-office.org>

About CAVIAR



CAVIAR is a RD&I project consortium involving 10 partners from 4 countries. The project partners are: Grass Valley Nederland BV (project leader), 3DHISTECH, Adimec Advanced Image Systems BV, AMS Sensors, EVS Broadcast Equipment (Brussels, Liège), CEA, Institut Langevin, MsEyeTech, TNO (Netherlands) and Université de Bourgogne

More on CAVIAR: <http://caviar-project.eu/>