

## **EXOSENS ENABLES BREAKTHROUGH X-RAY IMAGING ONBOARD ESA/CAS SMILE MISSION**

PRESS RELEASE

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- **Exosens technology plays a key role in the first long-duration X-ray observations of Earth's magnetosphere and space weather interactions**
- **Exosens' advanced Micro Pore Optics (MPOs) selected for integration into the SXI instrument aboard the SMILE mission, successfully launched on May 19, 2026**
- **32 high-performance MPOs, manufactured at Exosens' Brive-la-Gaillarde facility in France, enable wide-field X-ray imaging in space**
- **The selection of Exosens MPOs highlights the company's expertise in high-precision, mission-critical photonic technologies for demanding space applications**

**Exosens** (EXENS; FR001400Q9V2), a high-tech company specializing in mission and performance-critical amplification, detection, and imaging technologies is proud to announce that its advanced Micro Pore Optics (MPOs), manufactured at its Brive-la-Gaillarde facility in France, have been selected and integrated into the Soft X-ray Imager (SXI) instrument aboard the SMILE mission, which has successfully launched as of May 19, 2026.

Developed as a joint mission between the European Space Agency and the Chinese Academy of Sciences, SMILE will deliver the first comprehensive observations of Earth's magnetosphere's response to the solar wind, advancing our understanding of space weather and its impact on modern technology and human activity. [Learn more about the SMILE mission](#)

At the heart of the SXI instrument, developed and built by the University of Leicester, is a wide-field X-ray telescope enabled by 32 high-performance MPOs supplied by Exosens. These optics play a critical role in capturing continuous, large-scale X-ray images of the interaction between solar wind particles and Earth's magnetic environment. With this capability, SMILE will become the first mission to provide detailed, long-duration X-ray observations of Earth's magnetosphere.

### **Enabling a New Perspective on Space Weather**

As the largest instrument onboard SMILE, SXI will deliver unprecedented, long-duration observations of Earth's magnetic environment. Visualizing how our planet responds to solar wind and

geomagnetic activity will help scientists better understand and ultimately anticipate space weather events that can impact satellites, communications systems, and astronaut safety.

Its optical design, inspired by the structure of a lobster's eye, uses a dense array of square microchannels to funnel X-ray light down onto two detectors. This approach is made possible by Exosens' MPO technology, which is exceptionally compact and low mass while delivering high-precision X-ray focusing. It operates through total external reflection at grazing incidence within the uniformly Iridium coated micropore channels, enabling efficient and accurate collection.

### A Strong Endorsement of Exosens Technology

The selection of Exosens MPOs for the SMILE mission highlights the performance, reliability, and maturity of the company's optical technologies in the most demanding environments.

*"We're incredibly proud and honored to be part of the SMILE mission. Having our Micro Pore Optics selected for SXI speaks to the expertise and dedication of our team. Space missions demand the highest levels of innovation, precision, and reliability. Our MPOs are designed to meet these challenges, delivering high-performance X-ray imaging. Exosens' state-of-the-art MPO technology will contribute to expanding our knowledge of space weather and help protect critical infrastructure and future space exploration,"* said **Ulrich Laupper**, President & Executive General Manager of Exosens Ultimate Detection Business Unit.

### Proven Technology for the Most Demanding Missions

Exosens MPOs are square-channel optics engineered to collimate and focus X-ray and photons with extreme precision. Manufactured with near-perfect internal surface flatness, very low roughness and homogeneous thin layer coating, they provide a highly efficient alternative to conventional X-ray optics.

Their integration into SMILE highlights Exosens' continued role in enabling next-generation space instrumentation and reinforces the company's position as a trusted partner for advanced photonic solutions.

Learn more about Exosens Micro Pore Optics: [Micro pore optics by Photonis | Exosens](#)

### ABOUT EXOSENS:

Exosens is a high-tech company, with more than 85 years of experience in the innovation, development, manufacturing and sale of high-end electro-optical technologies in the field of amplification, detection and imaging. Today, it offers its customers detection components and

solutions such as advanced cameras, neutron & gamma detectors, instrument detectors and light intensifier tubes. This allows Exosens to respond to complex issues in extremely demanding environments by offering tailor-made solutions to its customers. Thanks to its sustained investments, Exosens is internationally recognized as a major innovator in optoelectronics, with production and R&D carried out on 12 sites, in Europe and North America and with over 2,000 employees.

Exosens is listed on compartment A of the regulated market of Euronext Paris (Ticker: EXENS – ISIN: FR001400Q9V2). Exosens is a member of Euronext Tech Leaders segment and is also included in several indices, including the SBF 120, CAC All-Tradable, CAC Mid 60, FTSE Total Cap and MSCI France Small Cap.

For more information: [exosens.com](https://www.exosens.com)

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