

Creonic Highlights SUSTAINET WP3.5 Results with Live Demonstration at Berlin 6G Conference

Kaiserslautern, Germany – September 14, 2026 – Creonic GmbH presented intermediate results of its activities within Work Package 3.5 of the SUSTAINET research project. The demonstration showcased a secure cloud-native satellite communications platform combining virtualized hardware acceleration, DVB-S2X signal processing, and architectural foundations for the future integration of post-quantum cryptography.

As part of the project, Creonic and project partner **Let's Dev GmbH & Co. KG** developed a scalable cloud-native platform for satellite communication systems. The work focused on enabling secure virtual hardware in cloud environments while maintaining the performance required for advanced satellite communications applications.

Presented at the Berlin 6G Conference (September 8-10, 2026), the demonstrator showcased the virtualization of FPGA-based DVB-S2X signal processing, combining hardware acceleration with cloud-based orchestration, control, and monitoring through standardized interfaces. A key contribution from Creonic was the implementation of FPGA-based signal processing and hardware-software partitioning concepts for virtualized deployment scenarios. The platform enables users to configure transmission parameters and monitor system performance through metrics such as signal-to-noise ratio, frequency offset, and bit error rate.

Future project activities will further address the transport of transmit and receive data between geographically separated antenna systems and cloud-based processing infrastructure using standardized protocols. The project also addresses cybersecurity for future cloud-native communication infrastructures, including concepts for protecting data and evaluating post-quantum cryptography approaches. The ongoing work supports the development of secure and resilient satellite and 6G communication networks.

The Berlin 6G Conference 2026 brought together international experts to discuss the future of 6G communications and the evolving technological, security, and societal requirements shaping next-generation networks.

For more information please visit www.sustainet.de and www.berlin-6g-conference.de.

About Creonic

Creonic is the ISO 9001:2015 certified leader in ready-for-use IP cores, offering a rich services and product portfolio for wired, wireless, fiber, and free-space optical communications. Covering essential digital signal processing algorithms such as forward error correction, modulation, equalization, and demodulation, as a preeminent provider, our solutions support industry standards like 3GPP 5G, DVB-S2X, DVB-RCS2, CCSDS, and Wi-Fi. Designed for ASIC and FPGA technologies, Creonic's products meet the highest benchmarks of quality and performance. Trusted by dozens of customers worldwide, from innovative start-ups to global corporations, our IP cores power communications devices and chipsets, satellites, and NewSpace ventures, enabling unparalleled reliability and success in advanced communication systems.

For more information, please visit www.creonic.com.

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