

2016 DGA Innovation Forum: Safran and Vodea develop a high-speed video compression solution for drone systems

French defense procurement agency DGA held its annual Innovation Forum on November 23 and 24 at the prestigious Ecole Polytechnique near Paris. Safran Electronics & Defense participated in this event with its partner Vodea, a small French business specialized in very-high-speed data compression solutions for networked intelligence systems. Their partnership was formed in the wake of France's new tactical drone system contract, awarded to Safran's Patroller system. Equipped with very powerful sensors, this new drone naturally requires a communications system capable of transmitting several high-resolution video streams to the ground in real time, without degrading the intrinsic quality of these images.



Safran Electronics & Defense

The key to meeting this heady challenge lies in a new video compression solution. Vodea teamed up with Safran Electronics & Defense to develop FOCUS, a device capable of simultaneously compressing several hi-res video channels at high speed. This solution was developed within the scope of the "Rapid" contract awarded by the DGA, part of France's Ministry of Defense. Based on very powerful algorithms, this device is capable of automatically reprogramming data transmissions, by adapting to different transmission conditions and the requirements of troops on the ground. The information from the drone's sensors can now be automatically synchronized onboard, then transmitted to the ground using NATO standards. By combining automation, standardization and high security, this solution saves time and simplifies intelligence operations. The innovative solution developed by Vodea, showcased on the Success Story stand at the DGA Innovation Forum, was shown in a complete image transmission demonstration from the Patroller drone to a touch tablet. This tablet also includes a 3D map and augmented reality display, an application developed by Safran Electronics & Defense.

The scope of applications for this new solution is vast, including military and security missions, border surveillance and much more. The demonstration at the DGA forum reflects the dynamism of the tactical drone sector, as shown by the Patroller cluster formed by Safran and other companies involved in France's tactical drone program (SDT). At the same time, this program clearly demonstrates the effectiveness of the DGA's Rapid contracts, a financing solution for innovative small defense businesses, with the support of a major multinational such as Safran.