



PRESS RELEASE

A4ESSOR welcomes NATO's decision to adopt the ESSOR High Data Rate Waveform as interoperability standard

NATO member countries now have advanced technology at their disposal for secure and high-speed tactical communications

Paris, 23 November 2023 - A new milestone has been reached by the a4ESSOR consortium. NATO has adopted the ESSOR High Data Rate Waveform (HDRWF) developed by the consortium as the STANAG 5651 interoperability standard for tactical communications with radio platforms. This recognises the high performance and advanced features already demonstrated by a4ESSOR throughout the development and qualification of the ESSOR HDR Base Waveform. Following the ratification of the standard, the waveform will be available for all NATO member countries, enabling them to communicate in a faster and more secure manner in national and coalition operational scenarios.

The ESSOR HDRWF is a broadband waveform operating in the UHF (Ultra High Frequency) band between 225 MHz and 400 MHz. It can handle data rates up to one megabit per second – real time automatic adaptation capability - and maintain voice and IP (Internet Protocol) data in MANET (Mobile Ad-hoc Network) mode. The ESSOR HDRWF network maintains full operations even when global navigation satellite signals are unavailable.

Lino Laganà, President and General Manager of a4ESSOR, said: *“The adoption of the ESSOR HDRWF waveform is a source of great satisfaction for our international team, which is proud to see its work recognised by the most important military organisation in the world. NATO’s ratification concludes a development cycle that was conceived according to a visionary approach to interoperability that remains unique worldwide. The development cycle was performed by an exceptional team that was able to operate in a cohesive and supportive manner, despite comprising professionals from six different companies in six different countries. This achievement - added Lino Laganà - is a further incentive for us to continue to develop new narrowband and air-ground-air waveforms, an area in which a4ESSOR has been engaged since 2021, with the same winning approach to interoperability and in the interest of European countries and NATO”.*

The HDRWF waveform, already integrated into the radios of a4ESSOR industrial partners of Finland, France, Germany, Italy, Poland, and Spain, achieved validation by passing interoperability tests last year. This demonstrated the high performance of the ESSOR HDRWF including new multi-hop push-to-talk, radio silence mode and cohabitation (spectrum sharing) features. These capabilities were also demonstrated during the 2022 and 2023 Coalition Warrior Interoperability Exercise (CWIX), NATO's largest interoperability event.

a4ESSOR SAS

a4ESSOR SAS is a joint venture under French law made up of six leading European companies: Bittium (Finland), Indra (Spain), Leonardo Spa (Italy), Radmor SA (Poland), Rohde & Schwarz GmbH & Co. KG (Germany) and Thales (France). The company is responsible for the management of industrial activities within the framework of the ESSOR (European Secure Software defined Radio) program - awarded by OCCAR-EA - and for the coordination of partner activities.

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ESSOR, the European Secure Software Defined Radio Programme, is managed by OCCAR on behalf of Finland, France, Germany, Italy, Poland, and Spain. The ESSOR High Data Rate Waveform (HDRWF) is the most mature product in the ESSOR Programme's portfolio. This encompasses two ground-centric waveforms (EHDRWF and ENBWF), one air-ground-air waveform (E3DWF), a feasibility study for a SATCOM waveform (ESATWF) and propaedeutic engineering activities for the development of a new generation Multifunctional Information Distribution System (ESSOR MIDS) for a tactical data link based on ESSOR architecture. The ESSOR Programme is co-funded by the European Commission through the EDIDP initiative.