



Press release

a4ESSOR achieves acceptance for its ESSOR HDR Base Waveform

This step follows two and a half years of development work and is key towards communication interoperability amongst European armed forces

Paris, 13th May 2021 - a4ESSOR S.A.S (Alliance for ESSOR), a multi-national joint venture to develop European Secure Software-Defined Radio (ESSOR) technology, has achieved formal acceptance for its High Data Rate (HDR) Base Waveform which has been developed under the ESSOR OC1 (European Secure Software defined Radio - Operational Capability 1) contract signed with OCCAR (Organisation Conjointe de Coopération en matière d'Armement).

Formal acceptance of the ESSOR High Data Rate Base Waveform is further to successful acceptance tests at Leonardo's laboratories in Pisa last November and formal quality acceptance. It rewards two and a half years of development work, involving all ESSOR industry partners.

a4ESSOR's partners will be porting the ESSOR HDR Base Waveform to their respective software defined radios (SDR) as part of the next phase of the project. Final interoperability tests between the partners' radios will complete the ESSOR OC1 project, with the release of improved and up-to-date ESSOR Target Waveforms, ready to deploy in the operational field.

The achieved milestone not only confirms the maturity of the ESSOR technology, but it also demonstrates that cooperation, among different countries and among different companies, is a key element in the enhancement of European products and the competitiveness of European industries in the global communication market.

a4ESSOR is a joint venture between Bittium (Finland), Indra (Spain), Leonardo (Italy), Radmor (Poland), Rohde & Schwarz (Germany) and Thales (France). The joint venture is responsible for managing industrial activities under the ESSOR programme and coordinating the partners' work.

The ESSOR programme was launched in 2009 under the umbrella of the European Defence Agency (EDA). The goal of the programme is to develop software-defined radio architecture and the new coalition ESSOR HDR WF in order to facilitate interoperability between European armed forces.



About ESSOR

The aim of the ESSOR programme is to develop pan-European Software Defined Radio (SDR) technology in order to improve the ability of Armed Forces to cooperate in coalition operations. The programme was initiated in 2009 under the umbrella of the European Defence Agency (EDA) and it is currently sponsored by the governments of Finland, France, Germany, Italy, Poland, and Spain. The joint venture Alliance for ESSOR (a4ESSOR S.A.S.) has been chosen by the Organisation Conjointe de Coopération en matière d'Armement (OCCAR) to manage the industrial consortium, whose members are Bittium from Finland, Indra from Spain, Leonardo from Italy, Radmor from Poland, Rohde & Schwarz from Germany and Thales from France. In addition to the European High Data Rate (HDR) waveform, the programme has produced and validated the definition for a European SDR Architecture, which has been ported and qualified on six different European platforms. The interoperability benefits of the waveform are regularly demonstrated through network tests involving different national platforms.

About a4ESSOR SAS

a4ESSOR S.A.S. is a joint venture organized and existing under the laws of France, set up by six EU leading companies: Bittium Wireless Ltd, Indra, Leonardo S.p.a., Radmor S.A., Rohde & Schwarz GmbH & Co. KG and Thales Communications & Security S.A.S) in order to manage the ESSOR (European Secure SOftware defined Radio) contract awarded by OCCAR-EA and to promote the ESSOR products in the SDR community.

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About Bittium - Defense & Security

Bittium is a trusted Finnish company with over 35 years of experience in advanced radio communication technologies. For Defense & Security market Bittium provides the most modern products and solutions for tactical & secure communications. The products and solutions for tactical communications bring broadband data and voice to all troops across the battlefield. For secure communications Bittium offers proven mobile devices and cyber security solutions certified up to CONFIDENTIAL level. Net sales in 2020 were EUR 78.4 million and operating profit was EUR 2.1 million. Bittium is listed on the Nasdaq Helsinki Exchange. www.bittium.com

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About Indra

Indra is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers world-wide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defense markets, and a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America through its affiliate Minsait Its business model is based on a comprehensive range of proprietary products, with a high-value focus and with a high innovation component. In the 2020 financial year, Indra achieved revenue of €3.043 billion, near 48,000 employees, a local presence in 46 countries and business operations in over 140 countries. www.indracompany.com

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About Leonardo

Leonardo, a global high-technology company, is among the top ten world players in Aerospace, Defence and Security and Italy's main industrial company. Organised into five business divisions, Leonardo has a significant industrial presence in Italy, the United Kingdom, Poland and the USA, where it also operates through subsidiaries such as Leonardo DRS (defense electronics), and joint ventures and partnerships: ATR, MBDA, Telespazio, Thales Alenia Space and Avio. Leonardo competes in the most important international markets by leveraging its areas of technological and product leadership (Helicopters, Aircraft, Aerostructures, Electronics, Cyber Security and Space). Listed on the Milan Stock Exchange (LDO), in 2019 Leonardo recorded consolidated revenues of €13.8 billion and invested €1.5 billion in Research and Development. The Group has been part of the Dow Jones Sustainability Index (DJSI) since 2010 and is named as sustainability global leader in the Aerospace & Defence sector for the second year in a row of DJSI in 2020. www.leonardocompany.com

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About Radmor

RADMOR S.A. is a part of WB Group the biggest Polish private capital group engaged in defense industry. RADMOR is a designer, manufacturer and supplier of modern radiocommunication solutions for army and civil services. The company conducts activities for defense and security of Polish state, manufactures military radios and distributes civil radios. RADMOR engineers focus on of research and development of modern radiocommunication systems as well as devices (handhelds, manpacks and vehicular radios working in HF/VHF/UHF and 2.4 GHz bands), waveforms (narrowband/wideband) and specialized software (e.g. SCA, SCIP, NINE). All of these activities are supported by own accredited laboratory (environmental exposure, EMC compatibility) and production line. RADMOR together with WB Group members provides complete military systems to many armies on entire world. www.radmor.com.pl/eng

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About Rohde & Schwarz

Rohde & Schwarz is a leading supplier of solutions in the fields of test and measurement, broadcast and media, aerospace, defense, security and networks and cybersecurity. The technology group's innovative communications, information and security products help industry and government customers ensure a safer and connected world. On June 30, 2020, Rohde & Schwarz had about 12,300 employees worldwide. The independent group achieved a net revenue of EUR 2.58 billion in the 2019/2020 fiscal year (July to June). The company is headquartered in Munich, Germany, and has subsidiaries in more than 70 countries, with regional hubs in Asia and America. Rohde & Schwarz is the main supplier for the German Armed Forces (Bundeswehr) joint radio system (SVFuA, series name: SOVERON D). www.rohde-schwarz.com

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About Thales

Thales (Euronext Paris: HO) is a global leader in advanced technologies, investing in digital and "deep tech" innovations – connectivity, big data, artificial intelligence, cybersecurity and quantum computing – to build a confident future crucial for the development of our societies. The Group provides its customers – businesses, organisations and governments – in the defence, aeronautics, space, transport, and digital identity and security domains with solutions, services and products that help them fulfil their critical roles, consideration for the individual being the driving force behind all decisions.

Thales has 81,000 employees in 68 countries. In 2020 the Group generated sales of €17 billion.

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