

## **Leonardo forms partnerships with Ultra CSS and L3 Technologies to offer complete next-gen acoustic sensor system for anti-submarine warfare**

- **Leonardo has formed separate partnerships with L3 Technologies, relating to the company's advanced low-frequency HELRAS dipping sonar technology and next generation mid-frequency, lightweight Firefly dipping sonars, and with Ultra Electronics Command & Sonar Systems, for its advanced sonobuoy sensors**
- **The company will now be able to offer a complete acoustic system based on its new ULISSES processor, integrated with sonobuoys and/or dipping sonar depending on customer requirements, and able to deliver multistatic capability**
- **This partnered approach will see Leonardo able to offer a new market-leading system to international customers, helping the Company meet its objective for long-term sustainable growth as laid out in the 2018-2022 Industrial Plan**

**Farnborough, 18 July 2018** - Leonardo has entered partnerships with L3 Technologies and Ultra Electronics Command & Sonar Systems ("Ultra") in order to offer a complete Anti-Submarine Warfare (ASW) acoustic system based on Leonardo's new lightweight ULISSES (Ultra-Light SonicS Enhanced System) processor. Leonardo will offer an integrated system comprising ULISSES and either a dipping sonar provided by L3 or sonobuoys provided by Ultra, or a combination of both. The integrated system will be trialed for the first time later this year with the complete system available for deliveries in 2020.

Leonardo has a track record in ASW technology, originally providing the OTS-90 acoustic system for Italian and Dutch NH90 Naval Frigate Helicopters. The Company has taken the experience gained from this work and used it to develop the new ULISSES processor, packing enhanced functionality into a much smaller unit weighing just 6.5kg. Combined with market-leading sonobuoys from Ultra and advanced HELRAS and Firefly dipping sonars from L3, Leonardo is now able to offer a highly-competitive integrated acoustic system to a range of international users. A reduction in system weight compared to legacy systems means that ULISSES can be fitted on-board even very small unmanned platforms such as the Company's own SD-150 Hero rotary-wing aircraft.

Notably, the new system is able to deliver multistatic functionality, where the processor collects data from multiple sonobuoys and combines the information to develop an in-depth picture of the under-sea environment, including detailed location data of any potentially threatening vessels. Multistatic functionality invented and developed by Ultra is embedded in the ULISSES sonobuoy processor. Currently, Ultra is the only company to provide miniaturized sonobuoys fitted for multistatic operation which are suitable for small UAV applications and Leonardo will be the first company to offer a system which makes use of them. The ULISSES system can also use the very-low-frequency L3 HELRAS dipping sonar as an active source, improving its multistatic performance and delivering the best-possible information to operators.