

Rotary Wing Unmanned Air System: Leonardo & UK MoD launch Phase 2 of the (RWUAS) Demonstrator Programme

- **Two year jointly funded programme will help develop concepts for future unmanned rotary wing/VTOL aircraft operations**
- **The contract recognises Leonardo Helicopters unique capabilities in the UK and supports the objectives of the Strategic Partnering Arrangement signed by Leonardo and the UK Ministry of Defence**
- **The programme will draw on the successful Unmanned Warrior 2016 demonstrations and earlier Phase 1 activities**

Rome, 28th February 2017 – The UK Ministry of Defence's Defence Equipment and Support (DE&S) Technology Office has placed a two year, jointly funded, Research and Development contract for a Rotary Wing Unmanned Air System, Capability Concept Demonstrator – “RWUAS CCD Phase 2”, with Leonardo in the UK. The contract aims to identify, develop and exploit the opportunities offered by emerging technologies, to reduce costs and increase the agility, flexibility, resilience and persistence of national military equipment and capability in the rotary wing arena.

Minister for Defence Procurement Harriett Baldwin said: “Supported by our rising defence budget and £178 billion Equipment Plan, we want to transform defence and work with industry, academics and allies to find innovative ways to stay at the international cutting edge.

“This two year £8 million joint investment will sustain key high-skill jobs in Yeovil and is the next stage in understanding how unmanned air systems can keep our personnel safe on the battlefields of the future.”

Leonardo's Chief Executive Officer and General Manager Mauro Moretti added “This is an exciting time as the opportunities presented by unmanned technologies start to be realised in the vertical take-off and landing sector. These technologies and systems can be a game changer in terms of undertaking a wide range of autonomous operations at a significantly lower cost.”

RWUAS CCD Phase2 further recognises Leonardo's unique technical capability in Helicopter System Design. The contract will cover the completion of research and development activity begun under the “RWUAS CCD Phase 1” programme between 2013 and 2015 and will then extend this to undertake further research, development, analysis and experimentation relating to rotary winged air-vehicle technologies and rotary wing platform operations, within future operating environments, fleet mixes and the overall Defence aviation capability structure; drawing on lessons from the “Unmanned Warrior” demonstrations held in 2016.

In placing the contract the two organisations will enter into a programme of fundamental and applied research and experimentation to mature, develop understanding of and advance technology, overall system design and operational capabilities to enable embarked, unmanned rotary wing aircraft operations. The programme will utilise the specialist engineering skill base at

Leonardo, in demonstrating new methods and technologies to reduce the risks associated with rotary wing operations in other similarly challenging operating environments, including supporting regulatory development in this area.

Leonardo signed a new 10-year Strategic Partnering Arrangement (SPA) with the UK Ministry of Defence in July 2016, which focusses on delivering ever increasing value to the UK taxpayer on current contracts, the continued growth of exports and the identification and subsequent investment in the development of new technologies and capabilities. The joint intent of the SPA is to exploit the identified technologies onto both existing in-service platforms as well as future manned and unmanned platforms.

BACKGROUND INFORMATION FOR TRADE MEDIA

Specific objectives of the programme include:

- Identification, research, development, experimentation and demonstration of emerging technologies applicable to future VTOL UAS in order to *'inspire, catalyse and accelerate innovation'*. Immediate areas of interest include:
 - Sensor technologies; sensor & data processing, data management, decision support aids, including automation
 - Sense to avoid & collision avoidance
 - Launch & recovery systems
 - Communications
 - Smart antenna, bandwidth management and data dissemination
 - Power plants, propulsion & drive systems; heavy & alternative fuels, hybrid drives and energy storage, electric technologies and intelligent power management
 - Smart health and usage systems including actionable prognostics for autonomous systems
 - Materials & structures
 - Development of outline concepts for future VTOL UAS for commercial, military and para-public applications.
- Identification of technologies that could be applied to existing platforms to enhance capability, delivery and operational safety.
- Advancement of technology and overall system design evidence to underpin VTOL UAS regulatory development in restricted and congested airspace.

Note

Following the process of the reorganisation of the **Leonardo-Finmeccanica** Group's companies, it should be noted that from January 1st