

SCHIEBEL PRESS

OPTIMAS STARTS THE EUROPEAN PROJECT FOR CYBERSECURE COMMUNICATIONS IN FREE SPACE WITH THE COLLABORATION OF SCHIEBEL

Vienna, 6 February 2025 – OPTIMAS, a European project led by “monodon by Navantia”, has begun with the aim of developing an advanced free-space optical communication system for multi-domain defence applications in collaboration with Schiebel.

OPTIMAS is an ambitious project that seeks to provide high-speed data transfer communications with an exceptional level of security, integrating cutting-edge encryption technologies, such as quantum key distribution (QKD).

OPTIMAS will mark a milestone in the development of airborne laser communication systems, providing secure and high-speed communications. It is designed to operate in satellite constellations with applications for space, air (drones), naval and ground units.

The project's final demonstrator will focus on achieving high-speed, secure, bidirectional optical communications. It will enable advanced satellite pointing, acquisition and tracking capabilities in Low Earth Orbits (LEO). Application in Medium Earth Orbits (MEO) and Geostationary Orbits (GEO) will be also explored, expanding the scope and possibilities of the system.

OPTIMAS is a European consortium with Spanish leadership. It is a powerful group made up of 12 entities from 7 countries, highlighting a strong Spanish presence with 6 organizations involved. Among these, monodon by Navantia assumes the role of project coordinator, reaffirming Spain's leadership in advanced defence and communications technologies. Schiebel's CAMCOPTER® S-100 will be the dedicated Unmanned Air System (UAS) for this project and the company is in charge of integrating a novel optical laser communication technology into the S-100, enabling the communication between the air segment and a satellite.

The project is developed within the framework of the 2023 work programme of the European Defence Fund (EDF), consolidating international cooperation in technological innovation for defence.

OPTIMAS is formed by:

- monodon by Navantia (Spain) as coordinator
- CAILABS (France)
- Centro de Láseres Pulsados – CLPU (Spain)

SCHIEBEL PRESS

- TECNOBIT SLU (Spain)
- GMVIS SKYSOFT SA (Portugal)
- Instituto de Astrofísica de Canarias (Spain)
- MBRYONICS LIMITED (Ireland)
- ODYSSEUS Space SA (Luxemburg)
- REFLEX AEROSPACE GMBH (Germany)
- SCHIEBEL ELEKTRONISCHE GERAETE GMBH (Austria)
- SENER (Spain)
- Universidad de Valencia (Spain)
- Universidad de Vigo (Spain)

OPTIMAS is positioned as a key project in the advancement of cyber-secure laser communications, consolidating European collaboration and the technological leadership of Schiebel in the field of multi-domain defence.



Project funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

About Schiebel:

Founded in 1951 in Vienna, the globally operating Schiebel Group focuses on the development, design and production of the revolutionary CAMCOPTER® S-100 Unmanned Air System (UAS). Certified to meet AS/EN 9100 standards, Schiebel has built an international reputation for producing high-tech military, commercial and humanitarian products, which are backed by exceptional after-sales service and support. Schiebel has facilities in Vienna and Wiener Neustadt (Austria), Toulon (France), Manassas, VA (USA), Abu Dhabi (UAE), and Shoalhaven (Australia).

About the CAMCOPTER® S-100:

Schiebel's CAMCOPTER® S-100 Unmanned Air System (UAS) is an operationally proven capability for military and civilian applications. The Vertical Takeoff and Landing (VTOL) UAS requires no prepared area or supporting equipment to enable launch and recovery. It operates by day and by night, under adverse weather conditions, with a beyond line-of-sight capability out to 200 km / 108 nm, over land and sea. Its carbon fiber and titanium fuselage provides capacity for a wide range of payload/endurance combinations up to a service ceiling of 5,500 m / 18,000 ft. In a typical configuration, the CAMCOPTER® S-100 carries a 34-kg / 75-lbs payload up to 10 hours and is powered with AVGas or JP-5 heavy fuel. High-definition payload imagery is transmitted to the control station in real time. In addition to its standard GPS waypoint or manual navigation, the S-100 can successfully operate in environments where GPS is not available, with missions planned and controlled via a simple point-and-click graphical user interface. The high-tech unmanned helicopter is backed by Schiebel's excellent customer support and training services.

SCHIEBEL PRESS

About monodon by Navantia (consortium coordinator):

monodon is Navantia's radical innovation area, it is focused on the research and development of "deeptech" technologies (technologies that are at very low TRL) with relevant applications for its sector. Navantia is a public and strategic technology company for the defence of Spain. It specializes in shipbuilding (ships and submarines) and offshore wind and other green energies. It is 100% owned by the Spanish Society of Industrial Participations (SEPI, attached to the Ministry of Finance and Public Function of Spain).

For further information, please contact us:

Tel: +43 (1) 546 26-44

Email: helen.nassey@schiebel.net
www.schiebel.net