



## Press Release

2 August 2023

# HYDIS<sup>2</sup> consortium project for hypersonic defence interceptor proposed for funding by the European Commission

In May 2023, the HYDIS<sup>2</sup> consortium, composed of 19 partners and more than 20 subcontractors across 14 European countries, submitted a proposal for a concept architecture and technology maturation study of an endo-atmospheric interceptor against new high-end emerging threats, in the framework of the European Defence Fund 2023 work programme. On the 12<sup>th</sup> of July 2023, following a positive evaluation, the European Commission proposed the project for funding.

The consortium, coordinated by MBDA, proposed [HYDIS<sup>2</sup>](#) (HYPERSONIC DEFENSE INTERCEPTOR STUDY), a project that brings together Defence groups, institutions, SMEs, mid-caps and universities. It gathers the best competences in the domains of missiles from across the European Union. France, Germany, Italy and the Netherlands have already confirmed their support and commitment by signing a Letter of Intent and agreeing on Initial Common Requirements.

The objective of HYDIS<sup>2</sup> is to study various interceptor concepts and bring to maturity the associated critical technologies to deliver the best counter-hypersonic and anti-ballistic interception solution that fulfils the four Member States needs and addresses the needs of the European PESCO TWISTER capability programme. This is a central element of the contribution of European states to the mission of defence of populations and armed forces, in particular against the emerging hypersonic threats that constitute a radical change from ballistic ones.

The HYDIS<sup>2</sup> consortium brings together 19 partners and more than 20 subcontractors in 14 European countries. The partners are ArianeGroup, AVIO, Avio Aero, Bayern-Chemie, CIRA., DLR, GKN Fokker, LYNRED, MBDA España, MBDA France, MBDA Germany, MBDA Italia, OHB System AG, ONERA, ROXEL France, THALES LAS France, TDW, THALES Netherlands and TNO.

HYDIS<sup>2</sup> contributes to the AQUILA interceptor project, proposing the most valuable counter-hypersonic interceptor concepts for European nations, alongside a global area defence portfolio with other MBDA air defence products.

#### **About ArianeGroup:**

ArianeGroup is lead contractor for civil space launcher systems and missile and hypersonic warfare systems, including for the design, manufacture, and operational condition maintenance of the missiles of the French oceanic deterrent force, the lead for hypersonic gliders demonstrators, or the ballistic missile defence systems (missile architecture, kill vehicle design and test, DACS propulsion systems, C2 and battle management systems for DGA or NATO, etc.). Internationally recognized for its innovative, competitive solutions, ArianeGroup has expertise in all aspects of state-of-the-art space propulsion technologies. ArianeGroup and its subsidiaries also offer their specialist skills in space equipment, services, space surveillance, and critical infrastructure to benefit other industrial sectors. Equally owned by Airbus and Safran, the group employs more than 8,000 highly qualified staff in France and Germany. Its 2022 revenues amounted to €2.4 billion.

#### **Press contacts:**

Astrid Emerit

Mobile: +33 6 86654502

[astrid.emerit@ariane.group](mailto:astrid.emerit@ariane.group)

Camille Sohier

Mobile: +33 6 49 00 90 75 /

[camille.sohier@ariane.group](mailto:camille.sohier@ariane.group)

#### **About Avio Aero:**

Avio Aero is a GE Aerospace company that designs, manufactures, and maintains components and systems for civil and military aviation. Today, the company provides its customers with innovative technological solutions to quickly respond to the continuous changes required by the market: additive manufacturing, rapid prototyping, as well as technologies dedicated to the production of transmissions, turbines, and combustors. The company's head office is in Rivalta di Torino, where its largest production facility is also located. Other important facilities are situated in Brindisi and Pomigliano d'Arco (Naples), with a total of over 4,600 employees employed in Italy. Abroad, it has a plant and a test center in Poland and a production and testing facility in the Czech Republic, with a total of around 1,100 employees. Through continuous investment in research and development and a consolidated network of relationships with major universities and international research centers, Avio Aero has developed a globally recognized level of technological and manufacturing excellence, as evidenced by the partnerships signed with the world's leading aviation companies.

#### **Press contact:**

Ylenia Berardi

Mobile: +39 3355701709

[ylenia.berardi@avioaero.it](mailto:ylenia.berardi@avioaero.it)

Matteo Acciaccarelli

Mobile: +39 3314927507

[matteo.acciaccarelli@avioaero.it](mailto:matteo.acciaccarelli@avioaero.it)

#### **About AVIO:**

Avio is a leading international group engaged in the construction and development of space launchers and solid and liquid propulsion systems for space travel. The experience and know-how built up over more than 50 years puts Avio at the cutting-edge of the space launcher sector, solid, liquid and cryogenic propulsion and tactical propulsion. Avio operates in Italy, France and French Guyana with 5 facilities, employing approx. 1,200 highly-qualified personnel, of which approx. 30% involved in research and development. Avio is a prime contractor for the Vega programme and a sub-contractor for the Ariane programme, both financed by the European Space Agency ("ESA"), placing Italy among the limited number of countries capable of producing a complete spacecraft.

#### **Press contact:**

Francesco De Lorenzo

Mobile: +39 3355293206

[Francesco.delorenzo@avio.com](mailto:Francesco.delorenzo@avio.com)

#### **About Bayern-Chemie:**

BAYERN-CHEMIE is a global technology leader in the field of guided missile propulsion and space propulsion and can look back on a 60-year history in developing and producing ramjets, solid rocket motors and gasgenerators. Since 2014, BAYERN-CHEMIE has been strategically applying its technological and methodological core competences in the increasingly commercialized and fast-growing space market. In doing so, the company's comprehensive technology portfolio offers various applications in the field of space vehicle, research rocket and launcher propulsion. BAYERN-CHEMIE is a full subsidiary of the MBDA Group and the group's center of competence for rocket propulsion systems. The company is headquartered in Aschau/Inn, Germany.

#### **Press contact:**

Thomas Haslinger

Mobile: +49 8638 601 233

[thomas.haslinger@mbda-systems.de](mailto:thomas.haslinger@mbda-systems.de)

**About CIRA:**

CIRA, the Italian Aerospace Research Centre, is a private-public company, located in Capua, Campania, whose shareholders are the National Research Council (majority shareholder), other public entities and Italian aerospace industries.

The Italian Government entrusted CIRA with the implementation and management of the National Aerospace Research Program (PRO.R.A.), thanks to which CIRA has outstanding aerospace research infrastructures and scientific skills that contribute to making it an internationally recognized and appreciated Centre of excellence in aeronautical and space disciplines.

The approval (in 2020) of the New PRO.R.A. marks the beginning of a new multi-year cycle made of strategic research and technological development projects and new laboratories and test facilities in the field of: sustainable and safe aviation, advanced air mobility, innovative propulsion systems, access to and exploration of space, Earth Observation and suborbital and stratospheric flights.

**Press contact:**

**Maria Pia Amelio**

Mobile: +39 3371429976

[m.amelio@cira.it](mailto:m.amelio@cira.it)

**About DLR:**

The German Aerospace Center (DLR) is one of the most versatile research institutions for aeronautics, space, energy, transport, security and digitization. Innovative technologies and research results from DLR offer solutions for global challenges and for Germany as a business location. With 55 institutes and facilities, 180 large-scale research facilities, two project management agencies and the German Space Agency, DLR has a unique research landscape. DLR makes its findings and technologies available to industry, science and politics in order to promote innovative value creation and create societal benefits. With interdisciplinary expertise and comprehensive services, two DLR project management agencies promote research, education and innovation. The German Space Agency at DLR manages and represents the German government's space interests at national and international level.

**Press contact:**

Andreas Schuetz

Mobile: +49 171 3126466

[andreas.schuetz@dlr.de](mailto:andreas.schuetz@dlr.de)

**About GKN Fokker:**

GKN Fokker in the Netherlands is a part of GKN Aerospace. GKN Aerospace is the world's leading multi-technology tier 1 aerospace supplier, with a mission to be the most trusted and sustainable partner in the sky. As a global company serving the world's leading aircraft manufacturers, GKN Aerospace designs, manufactures and delivers an extensive range of advanced aerospace systems, components and technologies – for use in commercial and defense aircraft ranging from helicopters, business jets, passenger planes and advanced air mobility vehicles to the most advanced fighter aircraft. In line with its mission, GKN Aerospace is committed to achieving net-zero emissions by 2050. Lightweight composites, additive manufacturing, electrical wiring interconnection systems and innovative engine systems help to reduce emissions and weight on today's aircraft, while it collaborates with global partners to accelerate the development of zero-emission aircraft technologies, including hydrogen-powered propulsion and all-electric flight. GKN Aerospace is market leading in aerostructures and engine systems, with 15,000 employees across its 38 manufacturing locations in 12 countries.

**Press contact:**

Marianne Mulder

Mobile: +31 6 51311217

[marianne.mulder@fokker.com](mailto:marianne.mulder@fokker.com)

**About LYNRED:**

Lynred and its subsidiaries, Lynred USA and Lynred Asia-Pacific, are global leaders in designing and manufacturing high quality infrared technologies for aerospace, defense and commercial markets. Lynred has a vast portfolio of infrared detectors that covers the entire electromagnetic spectrum from near to very far infrared. The Group's products are at the center of multiple military programs and applications. Its IR detectors are the key component of many top brands in commercial thermal imaging equipment sold across Europe, Asia and North America. The organization is the leading European manufacturer for IR detectors deployed in space.

[www.lynred.com](http://www.lynred.com)

**Press contact:**

Andrew Lloyd & Associates

Carol Leslie

[carol@ala.associates](mailto:carol@ala.associates)

France: +33 1 56 54 07 00

**About MBDA**

MBDA is a unique multi-national European group, a world-leader in the field of complex weapon systems, playing a key role in keeping nations safe. Created in the spirit of international co-operation, MBDA and its more than 14,000 employees work

together to support the national sovereignty of France, Germany, Italy, Spain and the UK, and other allied countries worldwide. As an accelerator for innovation, MBDA is the only European group capable of designing and manufacturing complex weapons to meet the full range of current and future operational requirements of the three armed forces (land, sea and air). MBDA is owned by Airbus (37.5%), BAE Systems (37.5%) and Leonardo (25%).

**Press contact Group and France:**

Julien Watelet  
Mobile: +33 (0)6 88061148  
[julien.watelet@mbda-systems.com](mailto:julien.watelet@mbda-systems.com)

**Press contact Germany:**

Abel Günter  
Mobile: +491603693037  
[guenter.abel@mbda-systems.de](mailto:guenter.abel@mbda-systems.de)

**Press contact Italy:**

Silvia del Prete  
Mobile: +393356568689  
[Silvia.del-prete@mbda.it](mailto:Silvia.del-prete@mbda.it)

**Press contact Spain:**

Eugenia Serrano  
Mobile: +34 663 830 370  
[prensa@mbda-mcn.com](mailto:prensa@mbda-mcn.com)

**About OHB System AG:**

OHB System AG is the largest subsidiary of the German space and technology group OHB SE and one of the three leading suppliers of space systems in Europe. Headquartered in Bremen and with a second strong site in Oberpfaffenhofen near Munich, OHB System AG has more than 40 years of experience in the development of high-tech solutions for space missions and other fields of application. The portfolio of products and services ranges from the realisation of satellite systems for Earth observation, navigation, telecommunications and reconnaissance to the design and implementation of missions for space exploration and the development of systems for human space flight.

**Press contact:**

Martina Lilienthal  
Phone: +49 421 2020 7200  
[martina.lilienthal@ohb.de](mailto:martina.lilienthal@ohb.de)

**About ONERA:**

ONERA is a central player in aeronautical and space research and employs over 2,000 people. Operating under the authority of the French Ministry of Armed Forces, its 2023 budget amounts to €289 million, over half of which comes from study, research and testing contracts. As the government expert in aerospace technologies, ONERA strives to prepare tomorrow's defence, address the aerospace challenges of the future, and boost the competitiveness of the aerospace industry. It boasts skills in all disciplines and technologies used in aerospace applications. All the major civil and military aerospace programmes in France and Europe are rooted in ONERA's DNA, including Ariane, Airbus, Falcon, Rafale, missiles, helicopters, engines, radars, etc. Its world-renowned, prize-winning research scientists mentor many doctoral students. [www.onera.fr](http://www.onera.fr)

**Press contact:**

**Neila Boujenane**  
Tél: +33 1 80 38 68 69  
[neila.boujenane@onera.fr](mailto:neila.boujenane@onera.fr)

**About ROXEL:**

ROXEL is a world leader in the field of tactical propulsion. The company is engaged in the business of designing, developing, mass manufacturing and marketing complete rocket motors and related equipment for all types of missiles, rockets and other tactical or cruise weapons utilizing the technologies of solid propellant rocket motors.

**Press contact:**

**Nicolas Moreno**  
Mobile: +33(0)7 86075257  
[n.moreno@roxelgroup.com](mailto:n.moreno@roxelgroup.com)

**About TDW:**

TDW is experienced in the design and manufacture of warheads and warhead systems including the associated fuzes and safety and arming devices. More than 2 million warhead systems have been produced and delivered so far. Among TDW's high performance products are shaped charge systems for anti-tank missiles, fragmentation warheads for air-defence and air-to-air missiles, as well as anti-aircraft lethality enhancers. In addition, TDW develops the lethal packages for new anti-ship missiles with land attack capabilities as well as insensitive torpedo warheads. The available key technology include insensitive explosive charges with outstanding safety under extreme mechanical and thermal threats whilst providing ultimate destructive performance. Novel technologies are also target adaptive warheads and "intelligent" high shock resistant detonation triggering sensors. TDW GmbH is a wholly owned subsidiary of MBDA Deutschland.

**Press contact:**

Günter Abel  
Phone: +49 8252 99 3827  
[guenter.abel@mbda-systems.de](mailto:guenter.abel@mbda-systems.de)

**About THALES:**

Thales (Euronext Paris: HO) is a global leader in advanced technologies within three domains: Defence & Security, Aeronautics & Space, and Digital Identity & Security. It develops products and solutions that help make the world safer, greener and more inclusive.

The Group invests close to €4 billion a year in Research & Development, particularly in key areas such as quantum technologies, Edge computing, 6G and cybersecurity.

Thales has 77,000 employees in 68 countries. In 2022, the Group generated sales of €17.6 billion.

**Press contacts:**

Alice Pruvot  
Mobile: +33 7 70 27 11 37  
[alice.pruvot@thalesgroup.com](mailto:alice.pruvot@thalesgroup.com)  
Camille Heck  
Mobile: +33 6 73 78 33 63  
[Camille.heck@thalesgroup.com](mailto:Camille.heck@thalesgroup.com)

**About TNO:**

TNO is an independent research organization and stands for The Netherlands Organization for Applied Scientific Research. Its mission is to support the Dutch Government with the introduction of innovations and support industries with strengthening their competitiveness. Currently TNO has approximately 3800 employees and a turnover of over 450 MEuro, of which 1/3<sup>rd</sup> is for basic research. The TNO Unit Defence, Safety and Security (DSS) is one of the largest units, with about 900 employees and a yearly turnover of over 130 MEuro, of which more than 90 MEuro is funded by the Dutch Ministry of Defence. A growth with over 40 MEuro is expected in the coming 2 years, because of the increased Defence-budgets. TNO-DSS is over more than 75 year the strategic knowledge partner of the Dutch MoD, and supports the NL Armed Forces at land, sea and in the air, as well as in the cyber- and space-domain. TNO-DSS is proud of the fact that we use our knowledge and technology to create innovations for people who are committed to our peace and security. Whether it concerns defense, police, justice and security professionals. Our research is focused in the following 4 areas: Operations and Human Factors; Information and Sensor Systems; Protection, Munitions and Weapons; and National Safety. The unit has several unique test facilities, like a well-equipped Ballistics Laboratory and an Energetics Laboratory. With the most modern equipment we conduct science and deliver innovations, with the aim at providing our Forces at the frontline with the best military capabilities.

**Press contact:**

Rob Wesdorp  
Mobile: +31 6 3488 3405  
[Rob.wesdorp@tno.nl](mailto:Rob.wesdorp@tno.nl)