

Commercial Start-Up Company Wins 11 Mio ESA Launcher Contract

After winning the German micro-launcher competition award in April 2021, **Isar Aerospace** received a letter of support from the German Space Agency at DLR for EUR 11 million Euro under the ESA “Boost! Program”. On Nov 23, 2021 Isar Aerospace and the European Space Agency ESA signed a contract confirming Isar Aerospace’s selection and being the first commercial launch service provider to sign a second contract within this ESA program. [1]

Isar Aerospace was initially supported by ESA’s Business Incubation Centre located in Bavaria and a previous Boost! contract awarded in November 2020. It is developing a 28 m long, 2 m diameter two-stage launch vehicle with a payload capability of up to one ton to low Earth orbits named “*Spectrum*”. The small launcher has a two-stage design and uses light hydrocarbons and liquid oxygen as propellants. The engines are being tested in Kiruna (northern Sweden). The *Spectrum* rocket is to be launched into space from the Norwegian island of Andøya and from the European spaceport in French Guyana. [2]



The Boost! contract was signed at by Daniel Neuenschwander, ESA Director of Space Transportation and Daniel Metzler, CEO at Isar Aerospace (left).[1]



Spectrum manufacturing of main stage structural segments at Isar Aerospace company premises in Ottobrunn, Bavaria. [3]

As Nasa initiated already years ago for American space companies, the ESA’s Boost! program supports European entities that submit sound proposals for new commercial services to space, in space, and for return from space. Boost! brings these services towards operation, by providing co-funding, expertise and access to its ESA facilities. As mentioned above this contract with Isar Aerospace followed a national selection process organized by the German Space Agency at DLR.

ESA will support Isar Aerospace with activities covering mission management, customer interactions and preparation to conduct two demonstration flights of *Spectrum* planned in 2022 and 2023. ESA is also co-funding the manufacture, assembly, integration and test activities for the first stage structures of these two launch vehicles. This also includes the selection, procurement, and setup of the related manufacturing infrastructure.

These two flights will each host institutional payloads of up to 150 kg which will be selected following a DLR Announcement of Opportunity that closed in October 2021.

“We need to drive the commercialization of the European space industry to drive our sovereignty in space. Programmes like ESA’s Boost! will help us in reaching that objective,” said Daniel Metzler, CEO at Isar Aerospace Technologies. [1]

“Through this contract with ISAR Aerospace, ESA Boost! provides further support to build up key expertise in industry and to advance swiftly towards concrete milestones.]New market opportunities are in reach for Europe with its own small launch vehicles – a field where time is of the essence,” said Daniel Neuenschwander ESA Director of Space Transportation and Daniel Metzler, CEO at Isar Aerospace Technologies. [1]

References:

[1] Isar Aerospace : <https://www.isaraerospace.com/press/isar-aerospace-seals-win-of-the-german-microlauncher-competition-award-with-esa-and-will-be-first-privately-funded-european-company-providing-launch-services-to-european-institutional-payload>

[2] [https://www.esa.int/Enabling_Support/Space_Transportation/Boost/ESA Boost! contract for flight demonstration of Spectrum launch vehicle](https://www.esa.int/Enabling_Support/Space_Transportation/Boost/ESA_Boost!_contract_for_flight_demonstration_of_Spectrum_launch_vehicle)

[3] DLR: <https://www.dlr.de/content/en/images/2021/2/small-launcher-spectrum.html>