

HYIMPULSE SIGNS LAUNCH SERVICES AGREEMENT WITH DCUBED

September 2022, Neuenstadt am Kocher, Baden-Württemberg, Germany

The German launch services provider **HYIMPULSE TECHNOLOGIES GMBH** signed a launch services contract with the Munich based new space company **DEPLOYABLES CUBED GMBH (DCUBED)**, for the launch of an In-Space Manufacturing Technology Demonstration Experiment on SL1, as well as for additional launch options.

The payload is scheduled to fly as part of the maiden flight on HyImpulse's orbital vehicle, Small Launcher SL1 in 2024.



Dr. Thomas Sinn and Dr. Mario Kobald at IAC 2022 in Paris.

DCUBED located in Germering (Bavaria, Germany) will help you think outside the box with COTS release actuators and COTS deployables that are specifically designed for SmallSat applications. DCUBED's pin puller and release nut actuators are space-proven, readily available, easy to use, and small in size. The DCUBED SmallSat deployables (Space Selfie Stick, 100W 1U solar array and deployable radiator) tackle the needs of new space customers by maximizing performance in space while remaining efficiently packed in a standardized volume for launch.

Furthermore, DCUBED sees the need to develop technology that enables the next generation of spacecrafts and space structures. These new technologies might need to be radically different to what has been used so far in space to enable more advanced mission concepts. DCUBED sees In-Space Manufacturing as such a technology as it has the potential to greatly decrease the complexity of deployment systems (that need to have many mechanisms to be able to fold into the satellite for launch, survive the launch loads and then deploy in space).

"With this technology demonstration a long linear boom out of photopolymer shall be extruded and cured into the free space to prove the technological maturity for in-space manufactured booms. A photopolymer is a resin that is liquid in its initial state. Within this technology it is dispensed through a nozzle that defines the tube shape of the boom. Directly after the nozzle, UV light cures the resin to solidify the tube. A payload is attached to this nozzle from the beginning, and therefore the continuous printing process also serves to deploy the payload. In-space manufacturing for external satellite structures will be one of the building blocks for the future of our space economy. The technology enables highly scalable and comparably large structures within a high packaging efficiency. While today, comparable elements are often folded or deployed, causing severe limitations: long and high-cost development phases, oversized elements to withstand the high launch loads, high mechanical complexity, and limitations on the maximum structure size due to the limited volume of the launch configuration. In space manufacturing offers a solution to mitigate these problems. This demonstration is a major step to bring it to reality.", says Michael Kringer, ISM Lead at DCUBED.

For more information, please visit <https://dcubed.space/>

HyImpulse is a launch services provider based in Baden-Württemberg, Germany. Founded with the goal to revolutionize access to space, HyImpulse's Small Launcher, SL1, is powered by unique and proprietary hybrid propulsion systems. This disruptive technology enables HyImpulse to offer affordable, frequent, responsive and safe access to space for small satellites and spacecrafts. SL1 has a payload capacity of 500 kg to a 400 km SSO, and it will be the first orbital launch vehicle in the world to reach orbit with a hybrid propulsion system.

HyImpulse's first commercial product and technology demonstrator SR75, is a single stage sounding rocket using a hybrid rocket engine. It is designed to deliver institutional and commercial experiments into a micro gravity environment during a suborbital flight with payload capacity of 350 kg to 200 km. The maiden launch is planned by Q2 2023.

For more information, please visit <https://hyimpulse.de/en/>

"I cannot wait to bring the In-Space Manufacturing Experiment into space, I am excited to launch it on the maiden flight of HyImpulse's orbital vehicle already in 2024.", says **Dr. Thomas Sinn, CEO and Founder of DCUBED**.

"We are delighted to have a German customer payload, DCUBED, on board SL1 and looking forward to our maiden launch.", says **Dr. Mario Kobald, CEO and Co-Founder of HyImpulse**.

For all media inquiries, please contact pr@hyimpulse.de.