

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Emerging Space Ventures, including Space Logistics and Space Safety for Sustainability (9-D6.2)

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STANDARDIZED RECOVERY AND REUSE SOLUTION FOR ALL LAUNCH VEHICLES  
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**Abstract**

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Since 2020, Sirius Space Services has been developing a range of sustainable launchers, reusable in the long term, dedicated to the launch of small satellites. Sirius will allow operators of small satellites to benefit from the same launch services as those offered to operators of heavy satellites. Our group dedicated to the space sector is composed of two companies: Sirius Space Services for the launch system development and Orion Space System for the recovery and reuse system development. Nowadays, most of the launch vehicles (LV) are expendables, meaning the stages are only used once before being disposed of in the sea or in a graveyard orbit. Recently, NewSpace actors have started to recover and to reuse the first stage of their LV. Orion Space System wants to democratize the principle of reusable LV in the space sector by developing a standardized solution for all LV launched from French Guiana consisting of an autonomous dronship equipped with a smartcatcher. We want to provide a service of recovery, draining, and transportation to the different launchers launched from the European Space Port, Kourou in French Guiana. In the case of small launchers, the recovery system will be provided by a parachute reuse kit.