

In – Orbit Demonstration & Validation Procurement Actions

COM – ESA WEBINAR

July 16th 2024



The European Commission has **entrusted** ESA the execution of the following activities:

- Support the Commission in the **pre-selection of IOD/IOV experiments**;
- **Interface with IOD/IOV experiments' providers**, including through MoU or similar agreements;
- **Implement the IOD/IOV Projects for IOD/IOV experiments needing aggregation**. This activity encompasses all necessary tasks to prepare, provide and operate the IOD/IOV spacecraft as well as procurement of carrier/ rideshare service that will accommodate the IOD/IOV experiments;
- **Procure and manage launch services for IOD/IOV Projects**, implemented through the **COM/ESA Flight Ticket Initiative**;
- Perform **system engineering**.

The IOD/IOV Services include for selected experiments:

- **Aggregation** on carrier, if needed;
- **Launch services**;
- Up to one year of **operations**.

The **procurement actions** are organised as follows:

- For IOD/IOV Experiments needing aggregation: aggregation, launch services and operations are procured in the form of:
 - **IOD/IOV projects**: procurement of carrier, aggregation services and operations;
procurement of launch services through the Flight Ticket initiative.
 - **Rideshare opportunities**: procurement of aggregation, launch service and operations directly with rideshare service providers *[New Approach!]*
- For Ready to Fly IOD/IOV satellites: launch services are procured through the **Flight Ticket Initiative**

- In parallel with the open call for Experiments, on 12 July 2024, ESA issued an open competitive tender (ITT) for the **procurement of a Cubesat mission** (Aggregate).
- The ITT is available on the [*ESA STAR portal*](#).
- In line with the approach adopted in previous ITTs for Aggregate missions, this ITT requires the development and validation of a platform which will **integrate Experiments for a volume up to 12 U**.
- The ITT also requires **one year of operations** of the platform and Experiments.
- Proposals will be evaluated on **technical** (available interfaces, operation concept, flexibility, maturity, performances), **programmatic** (readiness, planning, cost) **and contractual criteria**.
- The list of pre-selected Experiments will be specified at time of negotiation/kick-off to the selected bidder/contractor.
- The **final configuration** with the Experiments will be performed in the first phase of the project up to an SDR (**System Design Review**) where the final list of retained Experiments will be confirmed through a MoU between ESA and Experiment providers.
- Launch service will be procured separately by ESA through **the Flight Ticket Initiative**.

- In order to further improve the flexibility and responsiveness of the IOD/IOV service, **a new Rideshare service approach** has been introduced.
- This will allow offering **the full set of IOD/IOV services** (aggregation, launch, operations) to pre-selected Experiments needing aggregation, which may not fit in the procured aggregated carriers (e.g. cubesat) or are in excess of the capacity of the on-going “aggregation” projects.
- The procurement will be performed through an open competitive tender that will allow:
 1. The identification of a **Pool of Rideshare service providers** ready to offer opportunities before the end of 2026
 2. The award **Work Orders for Rideshare services** for specific Experiment(s) identified in the tender.
- Selected providers will sign a frame contract with ESA and will be part of a pool of European Rideshare service providers.
- The Work Orders (ie. specific Rideshare opportunities) will be implemented among the participants to this pool.
- The tendering action is planned to be published the 3rd quarter 2024 in ESA STAR portal.
- Providers that are part of the pool will be allowed to bid for future Work Orders when new needs are identified.

At **Frame Contract level**, the ITT will require bidders to provide:

- List of available opportunities (plans, frequency, ...),
- Type of opportunities (mass, volume, accommodation, ...),
- Technical characteristics of the opportunities (data & power interfaces, data return, operations, ...),
- Programmatic implementation of the Rideshare service (price, documentation, Experiment models, tests, ...),
- Compliance with the Rideshare service agreement template (annex to the ITT).

Up to 10 Rideshare service providers may be selected.

The Rideshare opportunities shall be “based on EU solutions both for the spacecraft and for the launch services”. In addition, “Concerning launch aspects, IOD/IOV activities should support the European launcher exploitation policy, therefore relying as far as possible on EU manufactured launcher solutions launched from the EU territory.”

Rideshare implementation for specific Experiment(s) – Work orders

For pre-selected Experiment(s) that will be earmarked for **Rideshare service**, bidders will be required to provide:

- Detailed technical interfaces for the experiment,
- Detailed programmatic elements for the experiment.

- Selection will include technical (e.g. interface and environment compatibility, integration) and programmatic/ contractual (price, date, Rideshare agreement) criteria.
- The selected Tenderer will enter into negotiation with the Experiment provider to finalise the Rideshare service agreement which will then be (compliant with and) an annex to the Work Order between ESA and the Rideshare provider.

- Two upcoming open competitive tenders for the procurement of Launch Services in the frame of the **EU Horizon 2020 IOD/IOV initiative**.
- This aim of this ITT is the procurement of launch services for two IOD/IOV aggregated smallsat missions (Projects 1.1 and Project 1.2).
- The ITTs will be published this month in the [ESA STAR portal](#).



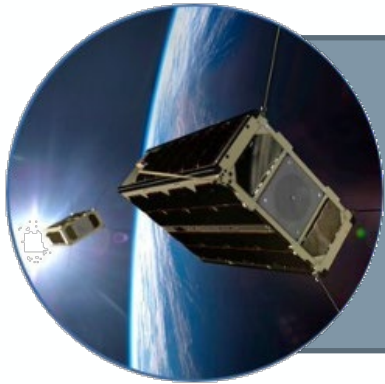
Boost!

Flight Ticket Initiative

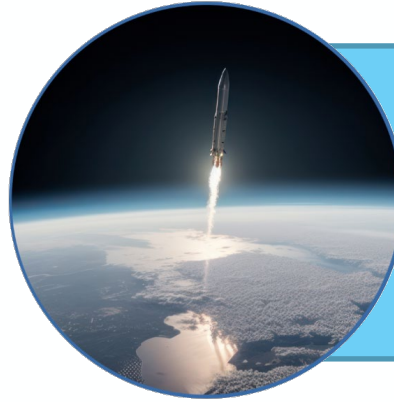
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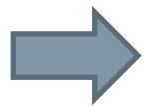


Providing recurrent & affordable European launch services for ready-to-fly IOD/IOV satellites



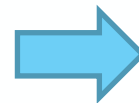
Supporting the early commercialisation of new European launch vehicles

For IOD/IOV satellite operators



Call for expression of interest open

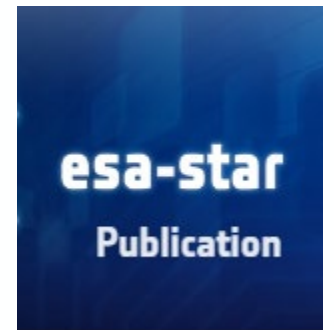
Submit your ready-to-fly IOD/IOV satellite and participate in the European Flight Ticket Initiative!



For Launch Service Providers

Recurring Invitations to Tender for Launch Services

Submit your offer to launch a ready-to-fly IOD/IOV satellite and participate in the European Flight Ticket Initiative!



European flight ticket initiative is a cooperation between ESA and the European Union

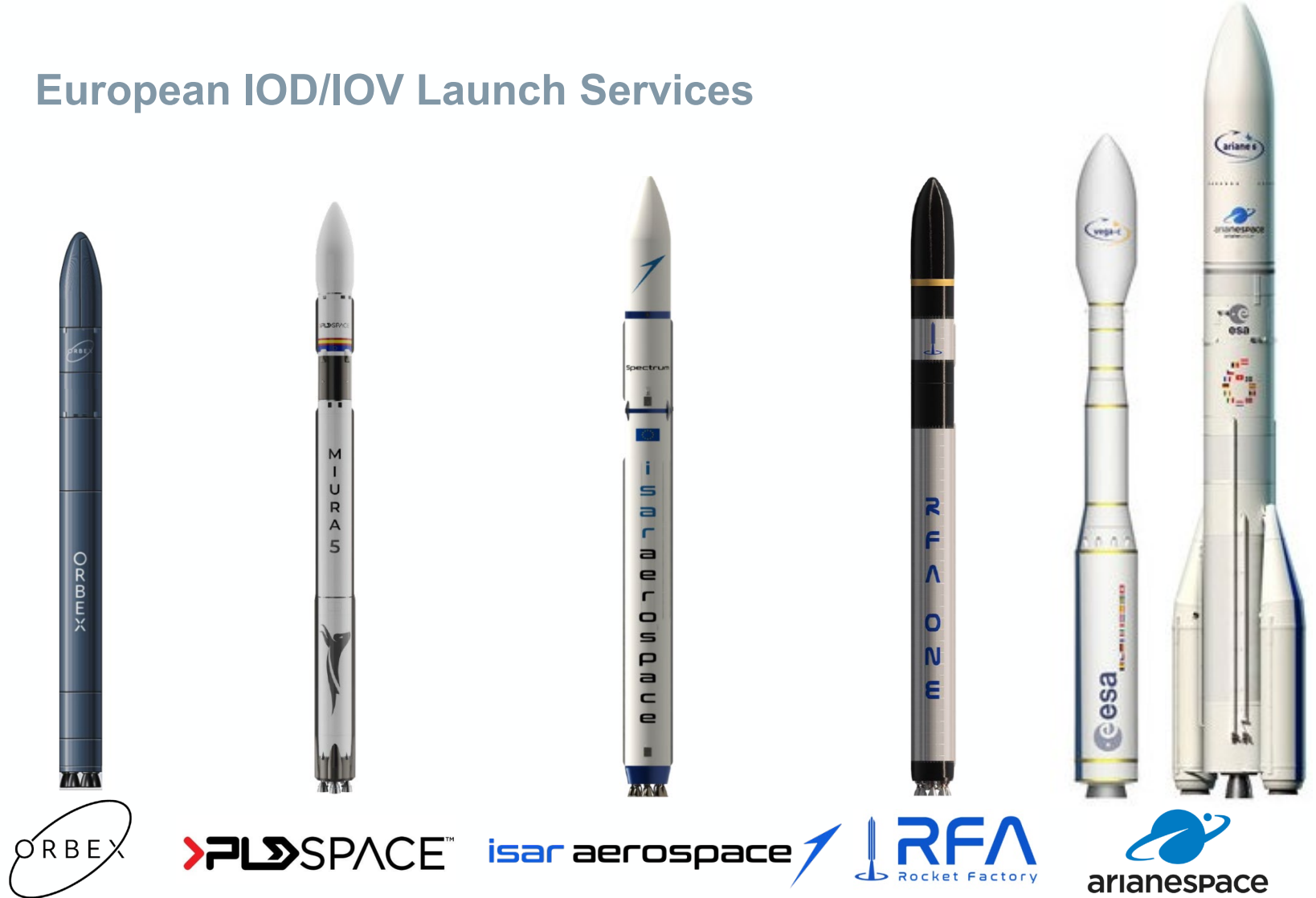
Flight Ticket Initiative – Eligible Launch Services

Five European Launch Service Providers were selected in a competitive tendering process in early 2024

The selected Launch Service Providers have signed **Flight Ticket Frame Contracts** with ESA

Launch Services for IOD/IOV missions are **available as from 2025**

European IOD/IOV Launch Services



For Launch Service Providers already with an ESA Frame Contract

Are you looking to launch IOD/IOV missions with a satellite that is ready to fly?

⇒ **Submit your proposal !**

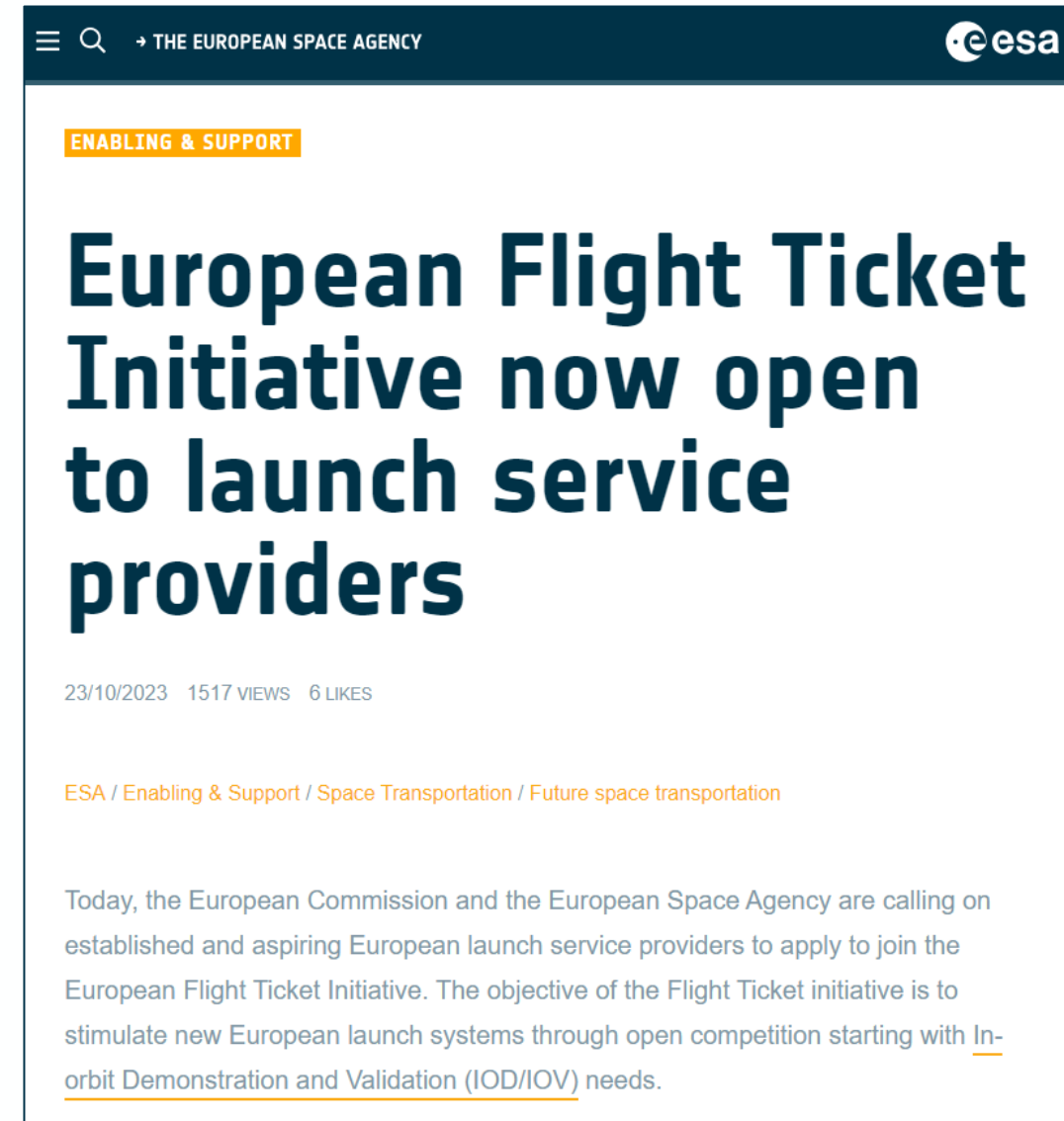
If you are an eligible Launch Service Provider under the Flight Ticket Initiative, please respond to the recurring competitive Invitations to Tender (ITT) posted by ESA

Successful bidders will be selected by ESA

The Invitations to Tender follow the sequence of the IOD/IOV Satellite cutoff dates by ca. 4 - 6 months

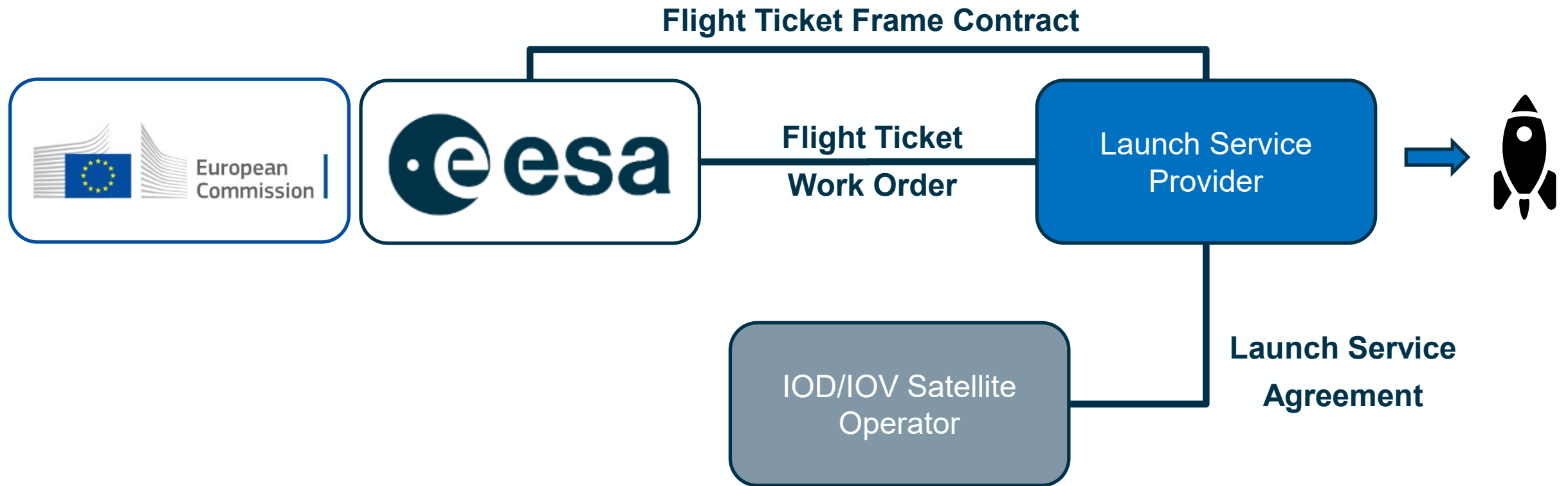
The next **Invitation to Tender is planned for this summer**

Stay tuned!



The screenshot shows a webpage from the European Space Agency (ESA) titled "European Flight Ticket Initiative now open to launch service providers". The page is categorized under "ENABLING & SUPPORT". It features a date of 23/10/2023, 1517 views, and 6 likes. The breadcrumb trail is "ESA / Enabling & Support / Space Transportation / Future space transportation". The main text states: "Today, the European Commission and the European Space Agency are calling on established and aspiring European launch service providers to apply to join the European Flight Ticket Initiative. The objective of the Flight Ticket initiative is to stimulate new European launch systems through open competition starting with In-orbit Demonstration and Validation (IOD/IOV) needs."

Contractual Agreement Setup



Boost! – The Programme at your Fingertips



The Boost! Programme featured on ESA's web portal:

www.esa.int/boost

The Call for Expression of Interest: ([link](#))

Watch out for Flight Ticket Launch Service ITTs: [esa-star Publication](#)

Your contact to the Boost! team: boost@esa.int

The screenshot shows a news article on the ESA website. The article title is "First contracts signed in ESA-EU Flight Ticket Initiative". It is dated 22/05/2024 and has 1075 views and 6 likes. The article is categorized under "ENABLING & SUPPORT". The text of the article states that the first five contracts have been signed with European companies as part of the Flight Ticket Initiative, which is organized by ESA and the European Commission to help companies demonstrate or validate services and technologies on board satellites. The article also mentions that the Flight Ticket Initiative provides co-funding for launch opportunities to European companies and organizations to fly their services and test new satellite technologies. The first signatures are with Arianespace, Isar Aerospace, PLD Space, Orbex, and Rocket Factory Augsburg. The article concludes that European launch services providers will be able to compete for specific work orders up to a ceiling of €5 million each for identified launch service needs.

22/05/2024 1075 VIEWS 6 LIKES

ESA / Enabling & Support / Space Transportation / Boost!

The first five contracts have been signed with European companies as part of the Flight Ticket Initiative organised by ESA and the European Commission – helping companies demonstrate or validate services and technologies on board satellites that are supplied as “ready-to-fly”.

The Flight Ticket Initiative provides co-funding of launch opportunities to European companies and organisations to fly their services and test new satellite technologies in orbit.

The first signatures are with Arianespace, Isar Aerospace, PLD Space, Orbex and Rocket Factory Augsburg. These now retained

European launch services providers will be able to compete for specific work orders up to a ceiling of €5 million each for identified launch service needs.

— Flight Ticket Initiative - first contracts



Question & Answer
