



# EUROPEAN LOW-COST SPACE LAUNCH

## *Rules Of Contest*

12 June 2018

## 1. THEME: EUROPEAN LOW-COST SPACE LAUNCH

### 1.1 Objectives pursued

The challenge is to develop a European technologically non-dependent solution for launching light satellites<sup>1</sup> into Low-Earth Orbit (LEO), which will enable dedicated low-cost launches with committed schedule and orbit.

The solution needs to be innovative, implementable, affordable in development and exploitation phases, and commercially viable. Applicants are required to take a holistic approach and produce results that move beyond (but are complementary to) existing solutions. Moreover, the solution will enhance European access to space and associated technological non-dependence and thereby will provide strategic and competitive advantages for European companies, SMEs, universities and research organisations.

Space technologies, data and services have become indispensable to the daily lives of European citizens. Moreover, development of space technology boosts jobs, growth and investments in Europe and strengthens its role in the world. Space solutions can help Europe to respond better to new global and societal challenges: climate change, disaster management, security threats, migration, farming, transport, energy and many more.

While Europe has a world-class space sector, innovation in space and changing demands are leading to an increased appearance of light and agile satellites. Consequently, space solutions will increasingly consider this trend. Small satellites are well-suited for most kinds of institutional and commercial use: wireless communications networks, Internet services, broader connectivity, scientific observation, data gathering, Earth imaging and positioning. In terms of size, light satellites rely on a lower mass in comparison with conventional satellites. Their production is more cost-effective due to series manufacturing, agility and flexibility in operations.

Launch opportunities in Europe for this type of satellites are currently being standardised through auxiliary payload or rideshare solutions on the European launcher fleet. However, according to market studies, light satellites are expected to lead to a significant increase in launch needs by 2020-2025. An established service for regular launches dedicated to light satellites will contribute to achieve the following goals:

- internal market growth in the manufacturing sector of small launchers and satellites and the downstream services sector;
- European leading position in export markets globally in the field of light satellites and small launchers;
- space-enabled seamless solutions for European citizens thanks to operational light satellites and small launchers.

### 1.2 Expected results

European low-cost access to space infrastructure and services solution dedicated to light satellites.

## 2. PRIZE AMOUNT: 10 MILLION EUR<sup>2</sup>

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<sup>1</sup> Class 1 (mini sats): 200.1Kg – 400Kg, Class 2 (micro sats): 60.1Kg – 200Kg, Class 3 (nano sats, including 12U+): 25.1Kg – 60Kg, Class 4 (cubesats, including 1U, 3U, 6U): 1Kg – 25Kg.

<sup>2</sup> In accordance with the budgetary procedure set in the Financial Regulation No 966/2012, the award of a prize must be preceded by the adoption of the respective budget and the adoption of the financing decision. Since the prize amounts are only to be foreseen in the 2020 budget, they are subject to the availability of the appropriations provided for in the draft budget for 2020 after the adoption of the budget by the budgetary authority or, if the budget is not adopted, as provided for in the system of provisional twelfths.

### 3. DEADLINES & ADMISSIBILITY

Deadlines	
Opening of the submission:	12 June 2018
Registration of interest (not compulsory but encouraged)	1 June 2021
Closing date for submission:	1 June 2021, 17:00 CET <sup>3</sup>
Evaluation	June – October 2021
Award	November – December 2021

Joint applications by a group of participants are admitted. In this case, the participants must appoint a 'lead participant' to represent them towards the Commission. The participants will be jointly responsible and must all fulfil and respect the conditions set out in these Rules of Contest.

Applications must be submitted by the (lead) participant via the Participant Portal Submission Service.

Applications must be readable, accessible and printable. Incomplete applications may be considered inadmissible if essential elements are missing (see [General Annex B to the Main Work Programme](#)).

The page-limit for your prize application (Part B) is: 150 pages.

Participants are encouraged to declare their intention to participate by registering their interest via the prize mailbox **EC-SPACE-LAUNCH-EIC-PRIZE@EC.EUROPA.EU** by the above-mentioned deadline. The registration of interest does not entail any obligation to participate.

Sample application forms will be available on the [Participant Portal Reference documents page](#).

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<sup>3</sup> Central European Time = Brussels local time.

## 4. ELIGIBILITY

### 4.1 Eligibility criteria

The contest is open to all legal entities (i.e. natural or legal persons, including international organisations) or groups of legal entities established in an EU Member State or in a country associated to Horizon 2020.

The prize relates to the development of European critical space infrastructure, which is of strategic importance and security-critical for the Union and its Member States. Therefore, the contest shall be open to applicants that meet the cumulative conditions set out in sections 4.1.1 and 4.1.2.

Please note, however, that special rules may apply for entities from certain countries (see [General Annex C to the Main Work Programme](#)).

Please also be aware that participants that have already received an EU or Euratom prize cannot receive a second prize for the same activities.

#### 4.1.1. Security guarantees

In line with the Space Strategy for Europe "most space technologies, infrastructure and services can serve both civilian and defence objectives"<sup>4</sup>. For the objectives of this prize, the technology used for small launchers can be potentially used for military purposes, in particular missile launch capacities.

For that reason, applicants shall declare on their honour that they comply with the following security requirements:

- be subject to a legal framework compliant with or equivalent to the conditions of a security of information agreement<sup>5</sup> with the EU;
- comply with the obligations of Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items or equivalent;
- be subject to a legal framework compliant with or equivalent to the Hague Code of Conduct against Ballistic Missile Proliferation (HCoC) and the Treaty on the Non-Proliferation of Weapons of Mass Destruction (NPT).

#### 4.1.2. Development and deployment of the solution in the EU

In line with the Space Strategy, "security of supply and industry's ability to export its products are impacted by high dependence on non-European critical components and technologies". For the objectives of this prize, it is, therefore, important to ensure that the solution is developed (design, manufacturing, testing and qualification including maiden launch of the solution, if any) and deployed (production, operations, commercialisation including procurement of components parts and services) in the EU.

For that reason, applicant(s) shall declare on their honour that<sup>6</sup>:

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<sup>4</sup> COM(2016)705 final of 16.10.2016 on a Space Strategy for Europe

<sup>5</sup> "Security agreements" concluded by the European Union with a Third Country to provide the necessary guarantees for the protection of the Exchange of EU classified information (EUCI) released to the third party and third party Classified Information released to the EU, relating to any area of the Union's activity.

- for the development of the solution, more than 50% of the costs correspond to activities<sup>7</sup> implemented in the EU for each of the following elements: (i) avionics, (ii) launcher structures, (iii) propulsion and (iv) launch pad;
- the solution has been designed to be predominantly deployed in the EU, since more than 50% of the costs correspond to activities to be implemented in the EU for each of the following elements: (i) the use of facilities (for goods manufacturing and final assembly, launch site operators) and (ii) economic operators (supplying of services).

## 4.2 Exclusion criteria

Participants will be excluded if they (or one of them):

- are subject to an administrative sanction (i.e. exclusion)<sup>8</sup>
- are in one of the following situations<sup>9</sup>:
  - bankrupt, being wound up, having their affairs administered by the courts, entered into an arrangement with creditors, suspended business activities or subject to any other similar proceedings or procedures under national law (including persons with unlimited liability for the participant's debts)
  - declared in breach of social security or tax obligations by a final judgment or decision (including persons with unlimited liability for the participant's debts)
  - found guilty of grave professional misconduct<sup>10</sup> by a final judgment or decision (including persons having powers of representation, decision-making or control)
  - convicted of fraud, corruption, involvement in a criminal organisation, money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking (including persons having powers of representation, decision-making or control)
  - shown significant deficiencies in complying with main obligations under a procurement contract, grant agreement or grant decision financed by the EU or Euratom budget (including persons having powers of representation, decision-making or control)
  - found guilty of irregularities within the meaning of Article 1(2) of Regulation No 2988/95 (including persons having powers of representation, decision-making or control)

<sup>6</sup> Finalists will be asked to provide evidence in support of the declarations of honour proving that more than 50% of the development and deployment costs correspond to activities implemented in the EU. This will be checked against invoices, certificates or other documents that show the place of execution and/or the origin, on the basis of the Union Customs Code, of (1) goods and services, including outsourced components, (2) human resources employed and (3) production facilities used.

<sup>7</sup> Research and development of the solution, human resources and production site.

<sup>8</sup> See Articles 131(4) and 106(1) Financial Regulation.

<sup>9</sup> See Articles 138(2) and 106(1), 107 of the Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euratom) No 1605/2002 (OJ L 218, 26.10.2012, p.1).

<sup>10</sup> Professional misconduct includes: violation of ethical standards of the profession, wrongful conduct with impact on professional credibility, false declarations/misrepresentation of information, participation in a cartel or other agreement distorting competition, violation of IPR, attempting to influence decision-making processes or obtain confidential information from public authorities to gain an advantage.

- have misrepresented information required for participating in the contest or fail to submit such information
- were involved in the preparation of the prize documents and this entails a distortion of competition.

## 5. AWARD CRITERIA

The prize will be awarded to the entry that best addresses the following cumulative criteria:

- 1. Excellence**
- 2. Technical implementation**
- 3. Service sustainability**

These criteria shall be evaluated on the basis of the following elements:

### 1. Excellence

*This criterion concerns the soundness of the solution, the degree of EU non-dependence<sup>11</sup> of the capacity to launch and operate and cost efficiency of the solution.*

- Relevance and soundness of the solution (understanding and going beyond the state-of-the-art)
  - the solution is optimised and customised for the targeted market segment within the EU and in export markets; addresses all technical aspects; corresponds to customer requirements and establishes a new service in the EU competitive in the export markets; is innovative building on developments made through EU and ESA Member States.
- Technical efficiency of the solution including pertinence for EU non-dependence
  - the solution has optimised options for autonomy in terms of: (i) development of launch system, (ii) production, and (iii) operations including ground segment (e.g. launch from a EU spaceport or other launch facilities, such as in international waters, under EU responsibility and/or ownership).
- Cost-efficiency of the solution
  - the solution is cost-efficient and enables dedicated low-cost launches with committed schedule and orbit for light satellites.
- Green space
  - solution is optimised for the long-term impact on the Earth's atmosphere and environment (e.g. harmful emissions, use of toxic chemicals, space debris).

### 2. Technical implementation

*This criterion concerns the state of the technical implementation of the solution in terms of launch system, ground segment and production against a number of optional milestones depending on the qualification logic.*

- Launch system maturity (verification level)
  - ground testing of critical sub-systems (propulsion, avionics including GNC, structures)

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<sup>11</sup> Possibility for the EU to have free, unrestricted access to any required element of the solution.

- ground testing of significant part of the system
  - suborbital launch
  - orbital launch at LEO (200 km)
  - orbital launch at SSO (600 km)
- b. Ground segment maturity (readiness of required ground segment infrastructure)
- Readiness level of launch complex including a pad or alternative solutions
  - Readiness level of launch range including alternative solutions
- c. Production maturity
- Readiness level of manufacturing solution for full operational capability predominantly in the EU

### **3. Service sustainability**

*This criterion concerns the state of implementation of the solution in terms of service sustainability and market viability over time.*

- a. Economic viability
- Soundness and sustainability of business plan (e.g. pricing policy, revenues, investment, costs, market share, market forecast, return on investment)
- b. Service maturity and quality
- Solution includes a customer portfolio demonstrated through, for instance, launch service intent agreements or commitment contracts.
  - Solution includes a service manual in response to the customer portfolio needs, for instance, in terms of orbit accuracy, customer interfaces, satellite comfort, responsiveness, insurance policy.
- c. Service provision
- Solution is designed to optimise exploitation of its results predominantly in the EU throughout the value chain (production, economic operator) while addressing export market potential.

## **6. DOCUMENTS**

The mandatory supporting documents are set out in the application form.

Participants may be asked for further documents (e.g. for legal entity validation, bank account validation, ethics review, declarations of honour).

## **7. PROCEDURE**

All complete and eligible applications will pass to the jury review.

The jury evaluation is planned to take place between June 2021 and October 2021.

The jury will evaluate each application against the three award criteria and score them as follows (half marks are possible, decimals are not):

Criterion	Threshold	Maximum points
1. Excellence	20	30
2. Technical implementation	20	30
3. Service sustainability	30	40
<b>Total</b>	<b>70</b>	<b>100</b>

Evaluation scores will be awarded for the criteria. The first two criteria will be scored out of 30 whereas the last one out of 40. The overall threshold, applying to the sum of the three individual scores, will be 70.

The evaluation will be carried by the Jury in the following order:

1. Evaluation and scoring of eligible applications;
2. The three best applications will be invited as finalists to demonstrate their solution through an on-site visit and a hearing with the jury.

For applications with the same score, the jury will determine a priority order as follows:

- First the score of the criteria shall be weighted as follows: the score for the criterion No 3 will be given a weight of 2 and the score for criterion No 2 will be given a weight of 1.5.
- If still necessary, any further prioritisation shall be based on the size of the market segments targeted by the solutions.

On the basis of the evaluation by the jury, the Commission will decide on the award of the prize.

All participants will be informed on the outcome of their application.

## 8. OTHER CONDITIONS

### 8.1 Payment arrangements

The prize money (EUR 10 million) will be paid to the lead participant in one instalment after the award ceremony by bank transfer, provided all the requested documents have been submitted.

### 8.2 Publicity – Promoting the prize – Visibility of EU funding

#### 8.2.1 Publicity by the winner (s)

Both finalist(s) and winner(s) must promote the prize and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner.

Unless the Commission requests or agrees otherwise or unless it is impossible, any communication activity related to the action (including in electronic form, via social media, etc.) must:

- (a) display the EU emblem and
- (b) include the following text:

“This action/activity/person was finalist for/winner of the European Low-Cost Space Launch Prize from the European Union’s Horizon 2020 research and innovation programme”.

When displayed together with another logo, the EU emblem must have appropriate prominence.



For the purposes of their obligations, the finalist(s) and winner(s) may use the EU emblem without first obtaining approval from the Commission.

This does not, however, give it the right to exclusive use.

Moreover, they may not appropriate the EU emblem or any similar trademark or logo, either by registration or by any other means.

### 8.2.2 Publicity by the Commission

The Commission may use, for its communication and publicising activities, information relating to the action, documents notably summaries for publication as well as any other material, such as pictures or audio-visual material that it receives from the participants (including in electronic form).

The Commission will publish the name of both the finalist(s) and the winner(s), their origin, the amount of the prize and its nature and purpose — unless they have requested to waive this publication (because disclosure risks threatening its security and safety or harm its commercial interest).

Photos and videos taken by the Commission either in preparation of the award ceremony or during the award ceremony are the sole property of the Commission.

## 8.3 Dissemination and exploitation of results

The winner(s) must comply with the obligations set out in Title III of the Horizon 2020 Rules for Participation Regulation No 1290/2013<sup>12</sup>.

For more information and best practice, see Articles 23a-31 of the [H2020 AGA — Annotated grant agreement](#)

## 8.4 Processing of data

### 8.4.2 Processing of personal data by the Commission

Any personal data will be processed by the Commission under Regulation No 45/2001<sup>13</sup> and in accordance with the [Participant Portal privacy notice\(s\)](#).

All finalist(s) and winner(s) consent that the Commission publishes the following information:

- name
- Member State of origin (address or NUTS 2 region)
- their activities in relation to the award of the prize (via the summary for publication they provided)
- prize amount

in whatever form and medium.

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<sup>12</sup> Regulation (EU) No 1290/2013 of the European Parliament and of the Council of 11 December 2013 laying down the rules for participation and dissemination in “Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020)” (OJ L 347, 20.12.2013 p.81).

<sup>13</sup> Regulation (EC) No 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data (OJ L 8, 12.01.2001, p. 1).

### 8.4.3 Processing of personal data by the participants

The participants must process personal data in compliance with applicable EU and national law on data protection (including authorisations or notification requirements, if any).

## 8.5 Ethics

The activities must be carried out in compliance with:

- (a) ethical principles (including the highest standards of research integrity) and
- (b) applicable international, EU and national law.

No prize will be awarded for activities carried out outside the EU, if they are prohibited in all Member States.

The participants must ensure that the activities have an exclusive focus on civil applications in line with the conditions set out in the Horizon 2020 business process<sup>14</sup>.

The participants must ensure that the activities do not:

- aim at human cloning for reproductive purposes
- intend to modify the genetic heritage of human beings which could make such changes heritable (with the exception of research relating to cancer treatment of the gonads) or
- intend to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

The participants must respect the highest standards of research integrity — as set out, for instance, in the European Code of Conduct for Research Integrity<sup>15</sup>.

For more information and best practice, see the [Participant Portal Online Manual](#), the [Guidance — How to complete your ethics self assessment](#) and the [Guidance note — Research focusing exclusively on civil applications](#).

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<sup>14</sup> Guidance note — Research focusing exclusively on civil applications

<sup>15</sup> European Code of Conduct for Research Integrity of ALLEA (All European Academies) and ESF (European Science Foundation) of March 2017 [http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics\\_code-of-conduct\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf).

## 8.6 Security

The activities must be carried out in compliance with Commission Decision [2015/444](#)<sup>16</sup>, i.e. security-sensitive information must be **EU-classified**, if its unauthorised disclosure could adversely impact the interests of the EU or of one (or more) of its Member States. Applications that are too security-sensitive cannot be awarded a prize.

For more information and best practice, see the [Guidance — Guidelines for the classification of information in research projects](#), the [Guidance — Guidelines for the handling of classified information in EU research projects](#), the [Guidance note — Potential misuse of research results](#) and the [Guidance note — Research involving dual use items](#).

## 8.7 Conflict of interests

The participants must take all measures to prevent any situation where the impartial and objective award of the prize is compromised for reasons involving economic interest, political or national affinity, family or emotional ties or any other shared interest ('conflict of interests').

They must inform the Commission without delay of any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation.

The Commission may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

## 8.8 Liability for damages

The Commission cannot be held liable for any damage caused to the participants or to third parties as a consequence of the prize, including for gross negligence.

The Commission cannot be held liable for any damage caused by any of the participants in the context of the prize.

## 8.9 Checks, audits and investigations

The Commission, the European Anti-Fraud Office (OLAF) and the European Court of Auditors may carry out checks, audits and investigations in relation to the prize.

## 8.10 Withdrawal of the prize – Recovery of undue amounts

The Commission may withdraw the prize after its award and recover all payments made, if it finds out that:

- (a) false information, fraud or corruption was used to obtain it
- (b) a winner was not eligible or should have been excluded
- (c) a winner is in serious breach of its obligations under these Rules of Contest.

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<sup>16</sup> Commission Decision (EU, Euratom) 2015/444 of 13 March 2015 on the security rules for protecting EU classified information

## 8.11 Administrative sanctions

If a participant is in one of the situations specified in section 4.2 the Commission may also impose administrative sanctions (i.e. exclude it from future EU contracts, grants and prizes and/or financial penalties).

## 8.12 Cancellation of the contest

The Commission may cancel the contest or decide not to award the prize — without any obligation to compensate participants —, if:

- (a) no applications are received
- (b) the jury does not find a winner
- (c) the winner is not eligible or must be excluded or
- (d) the objective of the contest has already been achieved.

## 8.13 Complaints

Complaints against decisions negatively affecting the rights of a participant or winner can be brought before the General Court — or, on appeal, the Court of Justice of the European Union — under Article 263 of the Treaty on the Functioning of the EU (TFEU).

## 9. CONTACT

For more information, please see: <http://europa.eu/!Gt84mv>

In case of questions, please contact [EC-SPACE-LAUNCH-EIC-PRIZE@ec.europa.eu](mailto:EC-SPACE-LAUNCH-EIC-PRIZE@ec.europa.eu)