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|  | EUROPEAN COMMISSION  Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs  Space Policy, Copernicus and Defence  **Space Policy and Research** |

**Call for Expression of Interest**

**In Orbit Demonstration/Validation (IOD/IOV) Experiments**

**Application Package**

*Disclaimer: this Call is not binding for the European Commission and does not preclude future decisions.*

## Application Package

The application is composed of four parts.

Please complete all forms electronically and send them by email to [GROW-I1-IOD@ec.europa.eu](mailto:GROW-I1-IOD@ec.europa.eu) with the subject "Call for Expression of Interest – IOD/IOV experiments" by **22 May 2018 17:00 (GMT)**.

**Part I**: Application and compliance matrix (annex I)

**Part II**: Letter of support (annex II)

**Part III**: Legal Entity forms[[1]](#footnote-1)

**Part IV**: Declaration of honour on exclusion criteria and absence of conflict of interest[[2]](#footnote-2)

**ANNEX I**

**Part I: Application and Compliance Matrix**

*The proposal should not exceed 30 pages.*

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| * 1. **Name of the proposed actions** |
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| * 1. **Applicant : Entity (ies) making the proposal and type (e.g. individual, consortium, industry, research centre, university)** | |
| Name of organisation(s) (Experiment provider) |  |
| Country (ies) |  |
| Person(s)[[3]](#footnote-3) responsible for implementation |  |
| Phone(s) |  |
| Email(s) |  |

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| * 1. **Objective of the proposed experiment** |
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| * 1. **Themes** *(e.g. Earth observation, Telecommunication, Navigation, Space Science, Technology, Space environment)* |
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| * 1. **Type of experiment** *(e.g. instrument, part of instrument, equipment, technologies, system experiment, mission concepts)* |
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| * 1. **Justification of the IOD/IOV** *(explain the necessity of the flight with respect to other options on ground and/or in space)* |
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| * 1. **Previous space application/heritage of the proposed experiment** |
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| * 1. **Funding plan of the flight model** *(e.g. funding of development up to flight model, risk margin for, inter alia, potential additional qualification requirement or interfaces definitions required by the spacecraft, funding party(ies) demonstrated by letter(s) of intent)* |
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| * 1. **Policy relevance** *(e.g. relevance for research and innovation programmes, Union space programmes, Space Strategy for Europe)* |
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| * 1. **Detailed description of the experiment and interface**  *detailed status of development demonstrating the estimated TRL, model philosophy, qualification status and verification activities up to TRL7* |
| 1. **Preliminary engineering drawings of the experiment**   *Indicate the required volume including all appendages, baffles etc.*   1. **Functional description of the experiment** 2. **Total mass of the experiment; mass breakdown, margins**   *Provide the overall mass of the experiment including possible appendages, brackets, thermal hardware etc.*   1. **Field of view (if applicable)**   *Provide viewing direction, external surface and unobstructed field of view required by the experiment.*   1. **Experiment Pointing and alignment requirements (if applicable)**   *Specify experiment requirements such as pointing accuracy possibly detailed in terms of absolute/relative and performance/knowledge errors including stability requirements (e.g. thermo-elastic).*   1. **Experiment Mechanical Interfaces**   *Indicate current qualification mechanical environment.*   1. **Thermal Interfaces**   *Describe thermal interface of the experiment with the platform. The experiment shall preferably be thermally decoupled from the platform.*   1. **Electrical interfaces: average and peak power consumption for each mode of operation. Time profile.**   Provide the power required by the experiment in the various modes and the average power requirement.  *The average power available to the complete payload and the power duty cycle for the experiment will be determined depending on the overall demand. The power will be provided by one switched power line and should be considered non-regulated (battery regulated bus). Details specification of the power interface will be provided at spacecraft selection.*   1. **Interface with data handling. Bit rates of the experiment for different modes of operation, time profile, time reference/synchronisation required, etc.**   *The experiment will be interfaced with the avionics of the spacecraft with data links. One link will be used for the commanding and housekeeping of the experiment and if required one high bit rate link will be provided for data collection. Detailed specifications of the interfaces will be provided at spacecraft selection.*   1. **Operations scenario and mission phases**   *Provide description of the experiment operational scenario, modes of operations*   1. **Environment requirements**   *Contamination and cleanliness, electromagnetic etc.* |

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| * 1. **TRL** *current TRL, time to reach TRL 7 or 8 and identification of critical developments and risks, estimated budget and time necessary for the delivery of the flight model, envisaged sources of missing funding* |
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| * 1. **Mission needs** *Orbit(s), mission constraints, mission duration, induced constrains on the spacecraft and other payloads, and other specific needs to be described* |
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| * 1. **Issue / challenge** *commercial market (business case following IOD/IOV opportunity), industrial competitiveness, European non-dependence, scientific challenge, etc.* |
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| * 1. **Please use this space to provide any other comments or additional information.** |
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| * 1. **Compliance matrix** *Please provide a declaration of compliance to the constraints and requirements listed in §1.3 of this document. Please provide rationale in case of partial and non- compliance.* |
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| * 1. **Signature of organisation/partnership representatives:** |
| The signature certifies that the provided data result from the entity's commitments. In addition, the entity engages itself to inform immediately the Commission (by email to [GROW-I1-IOD@ec.europa.eu](mailto:GROW-I1-IOD@ec.europa.eu)) if any changes occur.  At any stage of the experiment development, the entity may be requested to provide additional information to the Commission if necessary. |
| Name |
| Position |
| Date |

**ANNEX II**

**Part II: Letter of Support**

The undersigned, ………………………, in my capacity as national representative to the Space configuration of the Horizon 2020 Programme Committee, support the participation of the experiment ……………………..

to the "Call for Expression of Interest - In orbit Demonstration/ Validation (IOD/IOV) Experiments".

Date ………………

Place ………………

Signature ………………

1. Please download from:

   <http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal-entities_en.cfm#en> [↑](#footnote-ref-1)
2. Please download from:

   <http://ec.europa.eu/employment_social/calls/pdf/dechonor_en.pdf> [↑](#footnote-ref-2)
3. Where the application is being made by a group, one lead person should be identified. [↑](#footnote-ref-3)