**Guidelines**

**for the Investing in Industrial Innovation (InCubed)**

**Greek Call 2020 - Campaign #1**

**INCUBED & THE ROLE OF ESA**

1. InCubed is focused on developing the commercial EO sector
2. As a co-funded programme driven by industry defined ideas ESA becomes more of a partner to help de-risk developments rather than an end customer

**INCUBED CYCLES**

The proposed activity shall be structured in 2 cycles:

1. The first InCubed cycle is called De-Risking.
   1. It shall be co-funded by the Greek delegation (General Secretariat of Telecommunications and Post of the Ministry of Digital Governance) up to 150 kEur
      1. It shall last up to 9 months
   2. This cycle focuses on de-risking activities to ensure e.g.
      1. the customer needs are assessed
      2. the commercial viability is explored
      3. the requirements are collected/consolidated
      4. the preliminary design is defined, etc.
   3. The de-risking cycle shall include all activities necessary to ensure that the development is ready for implementation in the next cycle.
   4. The starting point for an InCubed de-risking cycle is ~TRL 4 and the end point is ~TRL 5-6
   5. A contractual milestone review meeting shall be held at the end of this cycle with all InCubed partners to discuss the development and its possible move into the next cycle.
   6. The de-risking cycle shall include:
      1. User engagement / User needs
      2. System concept description
      3. Overview of any tests or performed analyses
      4. Roadmap to implementation and commercialisation
2. The Second InCubed Cycle (which follows the De-Risking cycle is called the Product Development cycle
   1. It shall be co-funded by the Greek delegation up to 1.4 MEur
   2. This cycle shall last up to 32 months
      1. Development phase: up to 22 Months
      2. LEOP/Operations Phase: 12 Months (design lifetime)
      3. The appropriate milestones can be identified and described
3. These activities shall include the development of an In-Orbit Demonstrator and In-Orbit Validation with at least one customer who shall be involved in the activity.
4. The starting point for an InCubed Product Development cycle is ~TRL 5/6 and the end point is at least TRL 7 (demonstration). In the Greek case an IOD/IOV is required (TRL 9).
5. The bidder shall submit an idea pitch addressing both cycles.
6. The winner of the Idea Pitch assessment shall be granted an InCubed De-Risking activity (subject to a successful TEB) with the possibility to enter a further Product Development cycle (subject to a successful first De-Risking cycle closure).
7. In the event that either:

a) the TEB is not successful or

b) the de-risking cycle cannot be successfully completed, in order to move to the development cycle;

then ESA will proceed selecting the next-place company/consortium and invite them to submit a Part 1 Outline Proposal.

**INCUBED EVALUATION PROCESS**

1. The submitted idea pitches shall be assessed by the ESA InCubed assessment team following the published evaluation criteria and agreed weightings.
2. The idea pitch submissions shall be assessed following the published evaluation criteria
3. The idea pitches shall be ranked according to the marks allocated and the InCubed team shall provide a recommendation to the Greek Delegation regarding the most robust and credible idea pitch to move into the InCubed pipeline.
4. Final agreement and approval of these recommendations is given by the Greek General Secretary of Communications and Post and in accordance with the Greek national law.
5. Only one idea pitch shall be selected for entry into the InCubed evaluation process. The winner of the Idea Pitch exercise shall be invited to fill out:
   1. InCubed Part 1 Outline proposal template (see Ideas.esa.int)
   2. InCubed Part 2 Full proposal template (to be submitted into ESA-STAR to undergo an ESA Tender Evaluation Board (TEB)
   3. Following a successful TEB and negotiation phase then a phased contract can be placed

**INCUBED DELIVERABLES**

1. InCubed deliverables are focused on commercial viability and exploitation. The resulting InCubed data pack is aimed at attracting commercial customers or potential investment. ESA is not the end customer and therefore a full ESA data pack is not expected.

**GREEK PARTICIPATION**  **& TECHNICAL ASPECTS**

1. Ideas shall focus on developing end-to-end spaceborne capabilities to be developed in Greece, from upstream to downstream with a focus on commercial services.
2. The system/subsystems related to the Space segment shall be manufactured or at least integrated/tested in Greece.
3. Downstream activities can be performed in Greece or elsewhere depending on partnership arrangements
4. The use of advanced optical downlinking (in addition to Radio Frequency) down to Greek Helmos Optical Ground Station (OGS) shall be included as part of the end-to-end-solution.
5. The proposed EO payload(s) shall be multipurpose[[1]](#footnote-1) and intelligent[[2]](#footnote-2).
6. Components Of The Self (COTS) may be used for the manufacturing of the space and ground segments.

**APPLICATION AREAS & TECHNOLOGY ELEMENTS**

1. Activities proposed shall identify possible contribution(s) to and/or synergies with existing or firmly planned activities at national, European and International level considering both geographical regions and commercial sectors.
2. The applications targeted may include, but are not limited to:
   1. Border monitoring
   2. Disaster detection and monitoring (e.g. forest fires, floods)
   3. Maritime monitoring
3. The use of at least one of the following technology elements shall be included in the proposed ideas, e.g. :
   1. Artificial intelligence,
   2. Formation flying,
   3. On-board processing,
   4. Internet Of Things (IOT),
   5. Quantum technologies,
   6. Distributed architectures,
   7. Cooperation with other architectures (e.g. UAVs)

**CUSTOMER ENGAGEMENT, INTERNATIONAL COOPERATION AND PARTNERSHIPS**

1. Early customer/users’ engagement with a commercial focus and endorsement is required at the idea pitch stage and also during the activity.
2. Proposed activities shall include a detailed User/Customer needs analysis with a commercial focus. User and/or customer segment may include national or regional needs.
3. It is encouraged that this is in cooperation with other European Member States and international states with common interests.
4. Bidders shall engage if possible other economic operators in European member states and international states with common interests.
5. Member states without a subscription to the InCubed programme can participate on a self-funded basis.

1. Shall cater for several customer needs (agriculture, forest fires, border control, etc.) [↑](#footnote-ref-1)
2. Autonomous product delivery on-board [↑](#footnote-ref-2)