

Small ARTES Applications Austria Call 2017

CONDITIONS TO TENDER AND MANAGEMENT REQUIREMENTS

INTRODUCTION

The Small ARTES Applications Austria Call 2017 is launched by Science Park Graz (SPG) and the Telecommunications and Integrated Applications Directorate of the European Space Agency (ESA-TIA), in the scope of the activities of the ESA IAP Ambassador Platform in Austria, with the support of the Austrian Research Promotion Agency / Aeronautics and Space Agency (FFG/ALR), the Austrian Delegation to ESA.

The general objective of the call is to stimulate the submission of ideas for innovative utilization of space services and technologies such as Satellite Communications, Satellite Navigation, Earth Observation or Human Spaceflight technologies within non-space markets such as transport, energy, health, agriculture, environment, safety, etc.

The specific objectives of the call are (1) to determine the economic viability and technical feasibility of integrated service(s) and the associated system(s) able to meet the needs and conditions of relevant customers, users and other stakeholders; (2) to secure the buy-in and involvement of important customers, users and other stakeholders; (3) and to prepare the implementation of sustainable service(s) via potential follow-on projects within the ESA ARTES programme elements.

To meet its goals, this call supports the generation of new or the improvement of existing user-driven applications and services that employ at least one space asset such as Satellite Communications, Satellite Navigation, Earth Observation, Human Spaceflight technologies, etc. and that are conceived to become sustainable in the short to medium term. These ideas will be implemented as activities with a maximum duration of 6 months where the funding granted is limited to 25.000 Euro per project on a co-funding basis of 50% (e.g. a project with total cost of 50.000 Euro may be granted a maximum of 25.000 Euro).

For activities where good economic viability and technical feasibility can be proven, the bidders may apply for further development and implementation of their idea up to a pre-operational level via a follow-on Feasibility Study or Demonstration Project within the [ESA Integrated Application Programmes \(IAP\)](#).

The purpose of this document is to present the conditions to bid for the Small ARTES Applications Austria Call 2017 and to present the Management Requirements to be considered by the bidder.

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CONDITIONS TO TENDER

1. Participation in the Tender

Bidders are invited to submit their Project Submission Form considering the launch and evaluation dates and the eligibility requirements below announced in the call and at the initiative [website](#).

Eligibility Requirements:

Legal requirements

To be eligible for contract award, bidders must fulfil **all** the requirements below:

- a) To be a legal entity (a public law company / a private law company / an association / a foundation) registered under the laws of Austria;
- b) To be headquartered in Austria;
- c) To observe the remaining requirements stated in this document;
- d) To only subcontract entities registered under the laws of Austria, if any subcontracting;
- e) When acting in collaboration with other national entities, the Bidder is the sole contractor and will be fully responsible for managing the grant.

Entities submitting multiple Projects

During the Small ARTES Applications Austria initiative, funding is limited to one contract per entity per selection. Exceptionally, subject to the judgement of the Tender Evaluation Board (TEB), may be allowed two contracts to the same entity in the same selection.

Eligible costs

To be eligible, besides observing the dispositions in “Annex B - Cost eligibility limits and conditions”, all costs must be:

- Necessary to the execution of the project;
- Incurred by the beneficiary and recorded in its accounts;
- Incurred during the contract term;
- Indicated in the cost planning in the Project Submission Form;
- Without VAT, interest owned, or duties.

Expenses incurred in the preparation and dispatch of the proposal will not be reimbursed.

2. Presentation and Submission

General Standards of Presentation

The Project Submission Form and all correspondence relating to it shall be in the English language. The Cover Letter and the Executive Summary shall not exceed 1 page each. Sections 1, 2 and 3 of the Proposal (part C of the Project Submission Form) shall not exceed 15 pages in total. All sections shall be filled in and the proposal shall have enough substance to perform the evaluation.

Formal conditions, commitments, undertakings

The opening, submission and evaluation dates are set in the Invitation to Tender and will be updated after each selection both in the Invitation to Tender and at the initiative [website](#).

In the Cover Letter, the bidder shall explicitly state the acceptance and compliance with the Small ARTES Applications Austria Conditions to Tender and Management Requirements and with the Draft Contract.

Bidders are also required to state in the Cover Letter which space asset(s) will be used in the activity. Omission of this information leads to the rejection of the Project Submission Form.

Conditions relating to Intellectual Property Rights (IPR)

i) Bidders' IPR: Small ARTES Applications Austria bidders will hold full and unconditional IPR on any proprietary assets to be developed and/or used within the framework of their project. The contract established for the implementation of the project does not grant to SPG, ESA or FFG/ALR any Intellectual Property Right, license, or option on any bidder's proprietary assets.

ii) Proprietary Assets: in case a bidder intends to explore, perform, develop and/or by any means use proprietary assets in his/her Small ARTES Applications Austria activity, the entity is obliged to submit and annex to the Project Submission Form a formal written document (e.g. agreement, license, comfort letter) signed by the legal representative of the assets owner expressly granting the right to explore, perform, develop and/or by any means use those assets. Omission of this document leads to the rejection of the Project Submission Form.

Dispatch and receipt conditions

All Project Submission Forms shall be submitted to SPG in .pdf format only and in a single e-mail to spacesolutions@sciencepark.at and until the closing date and time announced at the initiative [website](#). An acknowledgement of receipt will be sent by e-mail to each bidder.

3. Content of the Project Submission Form

The content required for the Project Submission Form is detailed in a dedicated document and shall comprise the following elements:

- A. Cover Letter
- B. Executive Summary
- C. Proposal

4. Tender Evaluation Process

Tender Opening Board (TOB)

The TOB is carried out by SPG and assesses the admissibility of the project and checks all formal requirements, ensuring the project does not show *prima facie* evidence of a major non-compliance with the call requirements that would impair the fairness or secrecy of the competition. Specifically, the TOB will assess:

- i. Cover Letter

- ii. Executive summary
- iii. Compliance with Eligibility Requirements
- iv. Compliance with Presentation and Submission

A project is only admitted for evaluation by the Tender Evaluation Board (below) if all formal requirements are met. When formal requirements are not met, the project will be rejected. The outcome of the admissibility check will be communicated to the bidder by e-mail.

Tender Evaluation Board (TEB)

When the project is compliant with the formal requirements, the bidder will be invited to present his/her ideas to TEB and to participate in the related Q&A session on the Evaluation Date set in the Invitation to Tender.

The TEB is composed of ESA, FFG/ALR and SPG and, if the case may be, non-voting experts. The information provided at the Project Submission Form will be dealt with in confidence.

The TEB is responsible for the evaluation of Proposals based on defined evaluation criteria (below). The Proposal evaluation is based on the way the criteria below have been addressed both in the Project Submission Form and during the bidder's presentation to the TEB.

Evaluation Criteria

1. Background and experience (20%)
 - Team composition
 - Partnerships
 - Vision
2. Business case (30%)
 - Targeted market segment
 - Targeted applications/services
 - Customers/users and stakeholders
 - Value proposition
 - Value chain and positioning
 - Market perspective
3. Technology (30%)
 - Justified involvement of space assets
 - Maturity of technologies required for integration
 - Access to technologies/space assets/know-how
 - Potential feasibility of application/system concept
4. Activity Proposal (20%)
 - Work breakdown
 - Milestones and Cost Planning
 - Management

All bidders will be notified by e-mail about the TEB decision within 30 days after the Evaluation Date. Winning projects will be awarded a contract. The period between the notification of the TEB

decision and the placement of the contract is in principle no longer than 30 days. In the event of an unsuccessful outcome of the evaluation, the bidder may submit a new project in the following Evaluation Campaigns.

5. Budget and non-refundable grant

The total available budget for the Small ARTES Applications Austria Call 2017 is 100.000 Euro. The available grant per project is up to 25.000 Euro. All projects should consider a co-funding basis of up to 50% of the Total Project Cost (e.g.: for a total project cost of 50.000 Euro, the maximum grant is 25.000 Euro; if the total project cost is above 50.000 Euro, the maximum grant remains 25.000 Euro). At all times, the TEB has the prerogative to approve projects considering a co-funding rate below 50%. SPG is the sole responsible for the payment of grants to the winning entities.

MANAGEMENT REQUIREMENTS

1. Scope of work and project logic

Within the tasks to be developed under a Small ARTES Applications Austria activity, the bidder shall propose to perform the preparatory work and establish the key documents for the development of an application/service including at least one space asset to fulfil the requirements of the relevant user community. The programme of work of the project shall be composed by commercial and technical tasks and, if economic viability and technical feasibility are proven, it shall involve the preparation of an implementation approach and of a pilot service. The project shall be organised in a way that supports the generation of the deliverables defined in section "3. Documents and items to be produced/delivered".

2. Contractual milestones and review meetings

The contract term is fixed to a maximum of 6 months, during which the project must be executed and all deliverables submitted.

The following table represents the sequence of events to be considered in establishing the logical organisation of the work. Contractual Milestones are the Kick-Off Meeting, the Mid-Term Review and the Final Review. Progress Meetings (if needed) are not foreseen as physical meetings but via tele-/videoconference; additional meetings may be requested either by SPG or the Contractor; each of these meetings will take place in Austria and will be attended by representatives of the winning entity, SPG and possibly FFG/ALR. The documentation supporting each meeting shall be delivered to SPG five (5) working days before the meeting takes place.

Milestone and Meetings	Schedule date	Purpose of the meeting
START	T0	Clarification of outstanding issues; Overview of milestones, payment plan and deliverables.
PROGRESS	T0 + 3 months	Presentation by the Contractor and review of the progress of the work, including the status of due deliverables and the financial execution.
FINAL	T0 + 6 months	Final presentation by the Contractor and review of the progress of the work, including the status of due deliverables and the financial execution.

3. Documents and items to be produced / delivered

Contractors shall follow the structure of deliverables presented here and detailed in Annex A. A single document containing the due deliverables shall be provided at mid-term and final project stages.

Deliverables	Due by milestone:	
	PROGRESS	FINAL
D0. Business Model Canvas (BMC)	✓	✓
D1. System/Service Opportunity Overview	Draft version	✓
D2. Major Project Stakeholders and Needs	Draft version	✓

Deliverables	Due by milestone:	
	PROGRESS	FINAL
D3. Service Value Chain	Draft version	✓
D4. Competitive Positioning	Draft version	✓
D5. Market Analysis	Draft version	✓
D6. Financial Indicators	Draft version	✓
D7. User Requirements	Draft version	✓
D8. System/Service Architecture	Draft version	✓
D9. Digital Media (if applicable)		✓
If commercial viability and technical feasibility are proven:		
D10. Implementation Approach		✓
If continuation is foreseen (e.g. via ESA ARTES elements):		
D11. Pilot Service		✓
D12. Finance, Management and Administrative		✓

If the commercial viability and technical feasibility are proven, the information gathered from D1 to D8 shall result in the Implementation Approach (D10) to be delivered. If adequate, direct roll-out to the market shall be considered. If D10 foresees a follow-on project, for instance, within ESA ARTES Applications programmes, D11 and D12 are also due.

4. Management

Project Manager

The Contractor shall implement effective and economical management for the project. The nominated Project Manager shall be responsible for the management and execution of the work and for the coordination and control of the work within the consortium (when applicable). The Project Manager will be the official point of contact with SPG during the execution of the work, and shall be identified in the Cover Letter.

Project Name/Acronym

The Contractor shall give the project a name. It is required to select a name not already used within the community of the former or existing ARTES projects¹, and to indicate the project name and acronym in the Cover Letter.

Access

During the Contract SPG and ESA shall be afforded free access to any plan, procedure, specification or other documentation relevant to the programme of work.

5. Reporting

Minutes of Meetings (MoM)

¹ In order to check if the candidate project name is already in use by another ARTES project, it is suggested to perform a search for that name under: <http://artes-apps.esa.int/projects> (for ARTES Applications programme elements) and <http://artes.esa.int/projects> (for any other ARTES programme element)

Formal written MoM attended by SPG shall normally be agreed and made available by the Contractor within the next day of the meeting. The MoM shall clearly identify all agreements made including agreed action items.

Mid-Term Report

The Contractor shall deliver, not later than five (5) working days before the Mid-Term Review Meeting, the Mid-Term Report, on which SPG and ESA will provide comments at the Mid-Term Review Meeting. The Mid-Term Report shall be self-standing, not requiring to be read in conjunction with other documents issued within the project. It shall present the status of all deliverables agreed and include an attached .pdf with the deliverables due at that time. Within one week after the Mid-Term Review Meeting the finalised version of the Mid-Term Report shall be delivered in one single document in .pdf format.

Final Report and public Executive Summary

The Contractor shall deliver, not later than five (5) working days before the Final Review Meeting, a Draft Final Report, on which SPG and ESA will provide comments at the Final Review Meeting. The Final Report is to be written in a concise form and shall describe the major accomplishments of the project in an introductory part, and have attached all the deliverables due. It shall be self-standing, not requiring to be read in conjunction with other documents issued within the project. To disseminate SPG and ESA activities, a public Executive Summary of the project, not containing proprietary information, shall be provided at this stage. Within one week after the Final Review Meeting the finalised version of the Final Report and the public Executive Summary shall be delivered in single documents in .pdf format.

Problem Notification

The Contractor shall immediately notify SPG of any problem likely to have a major effect on the time schedule of the work, or to have significantly impact the scope of the work to be performed (due to e.g. procurement problems, unavailability of facilities or resources, etc.), or to require any budget changes (e.g. allocation of budget from one cost category to another; impossibility to spend the total grant amount).

ANNEX A – DETAILS ON DELIVERABLES

Within the activities to be developed under a Small ARTES Applications Austria activity, the Contractor shall propose to perform the preparatory work and establish the key documents for the development of application/service involving telecommunication satellites or multiple space assets to fulfil the requirements of the relevant user community, and define the roadmap for its future implementation. The following deliverables shall be provided²:

D0. Business Model Canvas

This deliverable shall be prepared and elaborated making use of the template available under <http://www.businessmodelgeneration.com/canvas/bmc>.

D1. System/Service Opportunity Overview (suggested length: 3 pages)

This section shall describe the opportunity the Bidder intends to pursue in the project, through the system to be developed and the service to be provided (referred to below as the “system/service

The contents of this section shall include:

- 1.1. A high-level description of the opportunity the Bidder intends to pursue through the proposed system/service.
- 1.2. An outline of the user context (e.g. current users, what they currently do, where they operate, how) and how the proposed new system/service will affect them.
- 1.3. A high-level analysis of current tools and solutions being used by the users.
- 1.4. A presentation of the value proposition provided by the proposed system/service.
- 1.5. The contribution of the project in pursuing this opportunity and the project's objectives.

Suggested aid: a map highlighting the opportunity for the system/service

D2. Major Project Stakeholders and Needs (suggested length: 2 pages)

This section shall describe the major project stakeholders of the intended development including a profile of the target customers and of the needs for the system/service. The contents of this section shall include:

- 2.1. An identification of the stakeholders in the project, distinguishing between customers (who pay), users (who uses), service providers and other stakeholders (regulators, relevant authorities).
- 2.2. A description of the customers that will be targeted with the proposed system/service.
- 2.3. Evidence of contact with targeted stakeholders (customers, users, service providers or other) during the projects who provided inputs regarding needs.
- 2.4. An analysis of the needs and constraints of the target customers, including specifics on their buying process and special criteria (e.g. certifications) required to do business with the customer.
- 2.5. A list and associated description of the potential utilisation by the user, including their needs, and the burning problem the proposed product/service will address for them.
- 2.6. A high-level assessment of the benefits (e.g. financial, societal) resulting from the use of the system/service that will affect the key stakeholders.

² For the preparation of the deliverables, the interactive Outline Proposal tools may provide support: <https://artes.esa.int/opdt/artesapps/artes20demo/> and <https://artes.esa.int/opdt/artesapps/artes34satcom/>.

D3. Service Value Chain (suggested length: 2 pages)

This section shall describe the participants in the value chain for the system/service. The contents of this section shall include:

- 3.1. An overview of the service value chain describing interactions among customers, users, service providers and other key stakeholders.
- 3.2. Evidence of contact with targeted stakeholders (customers, users, service providers or other) during the project who provide inputs regarding the value chain.
- 3.3. A discussion of the changes, if any, introduced in the value chain by the proposed new system/service.
- 3.4. A summary of the partnerships you plan to secure in the service value chain.
- 3.5. A summary of the relevant experience and background of each partner with respect to the project implementation and service provision for the operational roll-out stage.
- 3.6. Identification of any key obstacles to establishing these partnerships (e.g. possible constraints in IPR exploitation).

Suggested aid: a value chain diagram

D4. Competitive Positioning (suggested length: 1 page)

This section shall describe how the proposed system/service is placed with respect to competitors. The contents of this section shall include:

- 4.1. An overview of the key competitors (web links to their system/service would be appreciated).
- 4.2. An explanation of your competitive differentiation over these competitors.

Suggested aid: a competitive matrix

D5. Market Analysis (suggested length: 2 pages)

This section shall provide an overview of the relevant market and the potential opportunity for your system/service. The contents of this section shall include:

- 5.1. An overview of the market the system/service aims to address.
- 5.2. A quantitative assessment of the addressable market for the proposed system/service.
- 5.3. A discussion of your market penetration projections (i.e. percentage of market share, etc.), including key assumptions. This part should be put in relation with the competitive positioning described in point 4 and stakeholders' benefits described in point 2.6.

Suggested aid: a table summarizing the market penetration projections

D6. Financial Indicators (suggested length: 2 pages)

This section shall describe the key financial indicators of the business opportunity for the proposed system/service. The contents of this section shall include:

- 6.1. The total project costs (cumulative figures) and the requested ESA co-funding
- 6.2. A spreadsheet of the expected revenues, expenses and cash flow projections associated with the operational phase of the proposed system/service, including a list of key assumptions.
- 6.3. An identification of the break-even point (time) for the system/service, both with and without ESA co-funding.
- 6.4. A discussion of envisaged financial risks associated with the proposed project.

Suggested aid: A financial spreadsheet

D7. User Requirements (suggested length: 2 pages)

This section shall describe the approach to defining the requirements for the system/service and should provide the initial set of key user requirements. The contents of this section shall include:

- 7.1. A description of the intended approach (e.g. waterfall, agile) to identify user requirements and system requirements, starting from the user needs (identified in 2.5).
- 7.2. An overview of the initial set of key user requirements (including traceable identifiers) in relation to the identified customer constraints and user needs.
- 7.3. The expected level of involvement in the project of actual end users to define the key user requirements.

Suggested aid: A preliminary user requirements table

D8. System/Service Architecture (suggested length: 4 pages)

This section shall describe the overall architecture for the proposed system/service in the operational stage. The contents of this section shall include:

- 8.1. A high-level block diagram of your system/service showing the key attributes and key building blocks and the main interfaces (internal and external).
- 8.2. A description of the space assets involved including the justification for the use of minimum two of them (i.e. Satellite Telecommunication, Satellite Earth Observation, Satellite Navigation, Human Space Flight).

Suggested aid: a high-level block diagram

D9. Digital Media

This deliverable refers to the collection of Digital Media consisting of digital pictures and/or digital videos taken during the execution of works (e.g. presented to customers/users, for interviews, during the installation and utilisation of the mock-up or prototype by the customers/users).

If the commercial viability and technical feasibility are proven, the information gathered from D1 to D8 shall result in an implementation plan and recommendations for the next steps (D10). If adequate, direct roll-out to the market shall be considered. If D10 foresees a follow-on project, for instance, within ESA ARTES Applications programmes, D11 and D12 are also due.

D10. Implementation Approach (suggested length: 2 pages)

This section shall describe how the overall system will be realised. The contents of this section shall include:

- 10.1. An explanation of the starting point for project implementation. Provide links to existing system/service which will be enhanced through the proposed project.
- 10.2. A description of how the different blocks (shown in 8.1) of the system will be realized (e.g. purchase of commercial products, loan from partners or sponsors, developments performed within the contract by a specific partner).
- 10.3. An explanation of the envisaged development approach, (e.g. design and trade-offs, integration, verification).
- 10.4. An identification of the risks (technical and business related) associated with implementation and your mitigation plan.

D11. Pilot Service (suggested length: 2 pages)

This section shall describe the operational pilot of the service with users. The contents of this section shall include:

- 11.1.A description of the pilot system to be deployed (e.g. number of sites/number of terminals to be deployed, geographical areas).
- 11.2. A description of the pilot service activities (users' involvement, envisaged utilisation of the system e.g. 2 hours of use every day, duration of the pilot stage e.g. 8 months, etc.).
- 11.3. The space asset(s) used in the pilot-demonstration.
- 11.4. An overview of the anticipated preparation activities of the pilot, including deployment, integration within the user environment, acceptance, logistics, training, etc.
- 11.5. Statements of commitment from users / stakeholders involved in the pilot (if available), or list of users/stakeholders participating in the pilot and related level of involvement including description of the activities to be performed by them.
- 11.6. Preliminary considerations for evaluating system and service performance during the pilot.
- 11.7. A description of the success criteria/goals to be achieved for customer commitment.
- 11.8. A description of the planned approach to promote the commercial uptake of the system/service (e.g. incentives for project pilot users to subscribe to the operational service).
- 11.9. An assessment of the risks associated with the pilot service and your plan to mitigate these.

D12. Finance, Management, Administrative (FMA) (suggested length: 4 pages)

This section shall describe the activities required to complete the intended development, their costs, and the timelines for completion. The contents of this section shall include:

- 12.1. An identification of all key tasks (e.g. first level Work Packages) to be performed.
- 12.2. Partners' presentation, including identification of prime, subcontractor(s), and user/customer partners.
- 12.3. A project schedule including timelines for the intended start date, duration and expected completion date for all key project components.
- 12.4. A table stating total project costs and the amount of ESA co-funding being requested for each contractor (prime and sub-contractors, if applicable) and per country.
- 12.5. Preliminary break-down of main cost elements (including HW and SW procurement, development costs).
- 12.6. Identification of co-funding source (in kind, funds) and description of the in-kind contribution (if applicable).
- 12.7. Description of possible overlaps of the proposed project with activities undertaken by the members of the consortium in the frame of other publicly funded national and/or international programmes. Provide corresponding relevant information (activities' description, costs of the activities, funds received, funding agency, related programme and timeframe).

Suggested aid: a schedule showing timelines for key activities and a table showing project costs and the funding requested from ESA.

ANNEX B – COST ELIGIBILITY LIMITS AND CONDITIONS

The project may consider the following **direct** costs:

- a) Staff costs;
- b) Subcontracting costs (only subcontracting of entities registered in Austria is accepted);
- c) Access to data sources;
- d) Travelling, Subsistence and Accommodation costs (up to 8% of staff costs without need for a travel plan to be provided; should it exceed 8%, please provide a detailed travel plan)
- e) Equipment;
- f) Awareness creation costs (concept notes, data sheets, flyers, etc.; not exceeding 3% of the total project cost).