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Subject: Invitation to Tender for the Sixth Call for Outline Proposals under the Plan for European Cooperating States (PECS) in Slovakia.

REF.: AO/1-10586/21/NL/SC

Activity No. 1000030631 in the “esa-star” system

ITEM No.: 20.179.10 in the list of ESA intended Invitations to Tender

BUDGET LINE: E/0908-09 - PECS Slovakia

CATEGORY: ESA EXPRESS PROCUREMENT (EXPRO+) / OPEN-COMPETITIVE

Dear Sir or Madam,

The European Space Agency (“the Agency”) and the Ministry of Education, Science, Research and Sport of the Slovak Republic hereby invite you to submit an outline proposal, in the frame of the Sixth Call for Outline Proposals under the Plan for European Cooperating States (PECS).

This Invitation to Tender (ITT) has been established and will be processed following the approach, tailored to low to medium-value procurement actions, called “**EXPRESS PROCUREMENT Plus – EXPRO+**” and a competitive evaluation procedure will be used.

Your tender is required to conform to the conditions specified in this letter and in the appendices.

Your tender shall be submitted **exclusively in electronic format via the “esa-star” system** [see: <https://esastar.sso.esa.int/>]. The EXPRO/Tender Conditions contain further information on “esa-star” and its operation.

Due to the COVID-19 pandemic, special attention is drawn to the following:

Tenderers are requested to submit "nominal offers" i.e. without any reservations concerning the expected impacts of the COVID-19 pandemic.

The uncertainty induced by the COVID-19 pandemic will be handled as follows:

- The Contract eventually to be concluded with the recommended Tenderer will be based on the circumstances prevailing, to the best knowledge of both parties, at the time of the contract negotiations. This whilst preserving the principle of fair competition by ensuring that the basis for recommendation of the selected winner is not altered.
- Following contract award, any impact of the COVID-19 pandemic may be considered under the Force Majeure provisions in the General Clauses and Conditions for ESA Contracts (GCC). This means that impacts on the contractual obligations, together with the reasons for this impact will be assessed whether falling under the definition of Force Majeure or not and handled accordingly. Note that The General Clauses and Conditions for ESA Contracts (available on EMITS and accessible via; <http://emits.sso.esa.int/emits/owa/emits.main>) contain a definition of Force Majeure as well as provisions governing impacts of Force Majeure events on the Contract (Clauses 14.3, 33.4 and 33.5). The Agency intends to assess Force Majeure claims as a result of the pandemic applying by analogy the relevant GCC provisions also on EXPRO Contracts. This to ensure equal treatment of all its Contractors and thereby promote a swift and fair treatment of all justified Force Majeure claims caused by the Covid-19 pandemic.)

This ITT was published on EMITS (<http://emits.sso.esa.int/>) on **25th January 2021** and is issued in English only.

Please find attached hereto the following documents:

Appendix 1 – Draft Contract

Appendix 2 – Tendering Conditions for Express Procurement Procedure (EXPRO/TC)

Appendix 3 – Proposal Template (including Cover Letter and Detailed Proposal), accessible by using the following link:

<https://emits.sso.esa.int/emits-doc/ESTEC/ProposalTemplate/ept10586.docx>

Your attention is drawn to the following:

1. **The present ITT is addressed only to Slovak companies (including SMEs) or academic and research organizations.** Potential Tenderers are therefore requested to note that the Agency can only consider Proposals from companies or organizations residing in Slovakia. Tasks may be assigned to non-Slovak entities residing in other ESA Member States. Such tasks shall in any case not constitute the core tasks of the proposed activity and shall not exceed 20% of the total price. This limit does not apply to procurement of equipment required to carry out the work when duly justified.
2. The total budget earmarked for this ITT is :
2,500,000 Euro (Two Millions five hundred thousand Euro).

3. **The subject of this ITT is exclusively for the following activity types:**
- a. **Flight segment related activities and close to market space ground products (e.g. ground station, EGSE, MGSE...) related to ESA missions and activities, in the form of equipment or generic technologies (i.e. products) with potential for re-use on ESA missions. The start TRL shall be at least 4 and the target end TRL at least 6;**
 - b. **Research and Development Activities (including Technology Demonstrations, Industrial Process Development, Process qualification/certification) leading to products or generic technologies with the potential for re-use. The start TRL shall be at least 3 and the target end TRL shall be no higher than 5;**
 - c. **Space (downstream) Applications. Products and services making use of ESA/ European space infrastructure that is already existing or scheduled for operation in the near term. The start TRL shall be at least 4 and the target end TRL shall be at least 6, with a clear path to the market (from R&D to commercialization);**
 - d. **Preparatory Activities: Paper studies and simple breadboard activities (e.g. feasibility studies, market surveys, user requirements and breadboard demonstrators) aimed at supporting national competitiveness related to ESA programs to which Slovakia may subscribe in the future or the initial steps of a product development for Space with potential for use on ESA missions. (Typically TRL 1 to 3);**
4. **Depending on the activity type, Tenderers are invited to submit Outline Proposals not exceeding the following maximum price:**
- | | |
|---------------|--|
| Type a | a price not higher than Euro 400.000; |
| Type b | a price not higher than Euro 250.000; |
| Type c | a price not higher than Euro 200.000; |
| Type d | a price not higher than Euro 125.000; |

The activities selected for implementation, after successful negotiation, will result in firm-fixed-price contracts 100% funded by the ESA PECS budget.

The Agency reserves the right to conduct a pre-award audit, if deemed necessary.

Please note that the Agency will take your proposal into consideration only if the total Firm Fixed Price in Euro as defined in your Proposal Template – Appendix 3 (all in, with the exception of import duties and value added taxes in the ESA Member States) remains within the above-mentioned limits.

The breakdown of the quoted amount(s) shall be shown in the format specified in sub-section 3.2.1 of the Detailed Proposal Template.

5. Prime Contractorship

Tenderers' teams may be composed of industry, academic/research organizations or both. However, for the different types of activities, as defined under section 3:

- Type a must be led by industry (prime contractor). The bidding team must include an end customer with a clear business case.
- Type b should preferably be led by industry but in any case the consortia making a proposal must include partners who have the capability to develop the application, product or service to the point where it can be brought to the market and become part of an ongoing, sustainable business. Partnership with Academic Institutes and spin-offs from research entities for the exploitation of new research is encouraged. The bid team should also include a potential end customer.
- Type c should preferably be led by industry but in any case the consortia making a proposal must include partners who have the capability to develop the application, product or service to the point where it can be brought to the market and become part of an ongoing, sustainable business. The bid team must include a potential end customer.
- Type d may be led by any legal entity, including start-ups, depending on the specific context, however the participation of an industrial partner with a clear business interest in the result is strongly encouraged. Academic/ Industrial partnerships are encouraged.

6. The proposed activity shall have potential for further use or development in ESA activities:

a) The proposed activity shall address at least one of the following:

- foster the development of space-related capabilities, especially in industry, in preparation for a potential future accession of Slovakia to the ESA Convention;
- address specific niche markets (no competitive products available elsewhere in Europe or when a second source would be an asset);
- foster the creation of strong and long-term relations between national firms and well-established space firms in ESA Members States, especially with view to entering the supply chain;
- foster the creation of strong and long-term relations between national firms and national universities and research institutions.

NOTE: Space Science Research, Education and Cube Satellite platform development topics are excluded from the Call.

b) In addition, the technical subject shall take into account:

Of special interest are:

- activities leading to **products or services** relevant to different types of space and satellite missions that are used in several types of satellite/space platforms;
- activities having the potential to increase competitiveness and bring **long-term benefits** to Slovak industry and to Slovakia in its participation in space activities;
- activities having the potential to **stimulate economic growth** or other **societal benefits** within Slovakia in the medium-term (i.e. within five years) and on a long term sustainable basis.
- activities leading to **spin-in to space** of existing terrestrial competences in Slovakia.

The Intellectual Property Rights (IPR) of what is being pursued with the activity must be considered and **explicitly addressed in the Outline Proposal**.

In principle, the proposed activity should lead to a product/application/service with IPR owned by a Slovak entity; however, this requirement may be waived when there is a clear Slovak national benefit.

- c) Tenderers shall avoid duplication** of already ongoing and intended ESA activities. Such duplication may lead to rejection of the proposal. **Duplication of activities carried out in EU (or Public) programmes may also lead to rejection.** The documents in Annex A attached hereto provide visibility of the workplans of ESA. However, complementarity to these activities is allowed.

7. Please note **that a pre-requisite for submitting a tender is to have completed the online dedicated questionnaire, as follows:**

The Member States of the Agency have made it mandatory for the Agency to register economic operators wishing to do business with the Agency. Economic operators wishing to do business with the Agency not yet registered as potential Tenderer, are requested to complete the online questionnaire on the “esa-star registration” website (<https://esastar-emr.sso.esa.int/>).

Any entity, at the time when a tender is submitted, should at least have already completed the “Light Registration” as described in the following “esa-star” Registration User Manual: http://esamultimedia.esa.int/docs/business_with_esa/CG-EM-ORR-S-16_End_User_Manual_v1.2.pdf

Please note that only the “full Registration” allows the Contract to be placed with the selected Tenderer(s). The registration as an ESA Entity includes the obligation to fill in the Agency Questionnaire and its annual updating at the following link: <https://esastar-em.sso.esa.int..>

Failure to provide or update the required information may result in EMITS non-public part access being blocked.

Further information on the registration process can be found on the Industry Portal pages available at:

http://www.esa.int/About_Us/Business_with_ESA/How_to_do/esa-star_Registration_Process



8. The contents of your tender will be limited to filling in, as necessary, the Proposal Template, provided in MS Word format and attached hereto as Appendix 3. **It is mandatory to use the Proposal Template. Submitted Outline Proposals not using this Template will be excluded from evaluation at the opening of the tenders.** Please note that the captions in red colour are meant to guide you in correctly filling in the template and that such captions are to be removed from your tender once it is ready for submission. Please fill in the template as follows:

- Please complete the part of the template labeled “**Cover Letter**” by filling in the blank spaces and deleting any options which are not applicable or not relevant (all such options are identified in red colour);
- As part of the tender submission process in the “esa-star” system, you will be required to make declarations in relation with “**Declaration of Compliances**” and “**Key Acceptance Factors**” (that are mirrored herein);

The EXPRO/TC indicates the consequences in case it would appear during the evaluation that the declarations contain incorrect statements.

When submitting your tender in “esa-star”, in the section “Key Acceptance Factors” you will be prompted to declare that your tender fulfils each of the following key acceptance factors:

- The Tenderer confirms, on his behalf and on behalf of its subcontractor(s), to satisfy the "Eligibility Requirements" (see section 1.1 of the EXPRO/TC);
 - The Tenderer confirms, on his behalf and on behalf of its subcontractor(s), to fulfil the requirements concerning “Free Competition” (see point 12 of the Cover Letter of the Proposal Template);
 - The Tenderer confirms, on his behalf and on behalf of its subcontractor(s), to be compliant with the "Non Benefits Requirements" (see section 1.8 of the EXPRO/TC);
 - The Tenderer confirms, on his behalf and on behalf of its subcontractor(s), to accept the conditions established for "Non commitment by the Agency in competitive procurements" (see section 1.7 of the EXPRO/TC);
 - The Tenderer confirms that the Tender Cover Letter and the Detailed Proposal contain a binding price;
 - The Tenderer confirms that the Cover Letter and the Detailed Proposal contain a price type compliant with the one requested in the ITT and that the tender is compliant with the budgetary limit(s) applicable to the ITT;
 - The Tenderer confirms that the Tender Cover Letter contains the confirmation of the validity period required in the subject ITT;
 - The Tenderer confirms that the Tender Cover Letter is signed by the authorised representative(s) of the Tenderer.
- Please complete the part of the template labeled “**Detailed Proposal**” in all its parts by filling in the information relevant to the various chapters, sections and sub-sections (using exactly the same headings, same subject matters, same order, same numbering);
 - Your tender and all correspondence relating to it, shall be in English;
 - Please ensure that your tender complies with the following essential requirements:



- a) You are required to clearly state that you accept all terms and conditions of the Draft Contract (see point 10 of the Cover Letter of the Proposal Template);
- b) Your tender is valid during a period of fourteen (14) months from the date of tender submission.
- c) The total number of pages for the proposal shall not exceed 25. These 25 pages exclude the Cover Letter, the PSS forms and Annexes (if any).
- d) In “esa-star”, the submission shall contain two separate documents:
 - Document 1: The signed Cover Letter;
 - Document 2: One single file collating the signed Cover Letter, the proposal, the signed PSS forms and Annexes, if any.

9. Number of proposals for submission per Tenderer

The number of proposals per Tenderer (as prime contractor) **is restricted to a maximum of 2 (two)**. All proposals submitted shall be independent (e.g. a stand-alone activity) and unrelated to any other submission in the call.

Note: Regarding the maximum number of proposals to be submitted, only the Prime Contractor of the proposal will be considered as Tenderer.

In the case of a university or large government funded research organisation, the faculties' departments or institutes can be considered as separate tendering entities (Business Unit).

10. As concerns the evaluation of your tender by the Agency, please note that the quality of your tender will be evaluated on the basis of the following criteria and associated weighting factors (WF) (that are mirrored also in the “esa-star” system):

No.	Criteria	Weighting Factors %
1	Clarity of the technical objectives and definition of the requirements for the proposed work. Quality of engineering approach and discussion of problem areas. Quality and suitability of proposed programme of work. Background and experience of the entity/entities related to the particular field concerned, including adequacy of proposed facilities. Adequacy of the key personnel for the execution of the work.	40 %
2	Prospects for use in ESA programmes including long term benefit for Slovakia. Consistency with programmatic objectives as described in the Cover Letter. Adequacy of the current and targeted maturity status of the development. Consistency of the IPR policy in regards to the role of the industrial partners.	25 %
3	Adequacy of management approach. Credibility of the cost estimation and the proposed schedule.	25 %
4	Compliance with the administrative tender conditions of the call for outline proposals and acceptance of the draft contract.	10%



11. Procedure for the selection of proposals

The following steps are used to evaluate and select outline proposals:

- a) Opening of the Tenders. Non-compliant outline proposals will be rejected and excluded from evaluation.
- b) Evaluation of your outline proposal by the Agency's Tender Evaluation Board (TEB) according to the Evaluation Criteria and associated Weighting Factors (WF) defined above.
- c) Submission of a TEB report Summary to the Ministry of Education, Science, Research and Sport of the Slovak Republic with:
 - i) results of the technical and scientific review of the outline proposals; and
 - ii) corresponding ranking and recommendations.

Only proposals with an overall marking equal to or above fair (50) will be recommended to the Ministry of Education, Science, Research and Sport of the Slovak Republic for programmatic review and endorsement.

- d) The the Ministry of Education, Science, Research and Sport of the Slovak Republic performs the programmatic review of the outline proposals taking into account the ranking and recommendation of the technical and scientific review.
Note: Communication to Tenderers may be expected approximately 5 – 6 months after the relevant submission deadline.
- e) For recommended proposals, the Agency will either:
 - i) start the negotiation process to place a contract with the Tenderer on the basis of the submitted Outline Proposal and the comments from the TEB; or
 - ii) issue a request for a full proposal, especially hardware related activities, to those Tenderers that submitted the selected outline proposals;¹ or
 - iii) decide to issue a competitive invitation to tender restricted to the Tenderers positively evaluated if two or more proposals on the same subject were positively evaluated.
- f) The contact person of the Prime Contractor mentioned in the proposal (see point 7 in the Cover Letter of the Proposal Template) will be informed in writing of the result of the ITT after a decision has been taken. If the proposal has been unsuccessful, the Tenderer may request the nominated the Agency's Contracts Officer to advise him of the reasons why the proposal has not been retained in a verbal debriefing. Any information will be limited to the Tenderer's own proposal.

12. Please note that, in accordance with the Agency's rules, issuing this ITT does not bind the Agency in any way to place a contract. Should it deem it appropriate, the Agency also reserves the right to place a Contract for only a part of the activity submitted in this ITT. Such decision by the Agency may not give rise to any claims by Tenderers having submitted a tender in response to this ITT.

¹ In case a full proposal is requested, the standard procurement procedure may be implemented whereby the ESA Procurement Regulations (/ESA/REG.001 rev.5) and General Clauses and Conditions for ESA Contracts (ESA/REG/002, rev.3) are the applicable regulatory framework.



13. Please note that economic operators are required to notify their interest to tender to the Agency. This is to be done via the EMITS Expression of Interest function (Tenderers are also reminded that they may select 'Public' visibility or 'ESA only' when notifying their intention to bid).

14. Any questions to the Agency relating to this ITT shall be made exclusively via the dedicated function in “esa-star”, at the latest 14 calendar days before the closing date stated below.

The Agency will publish an anonymous copy of the question on EMITS, together with the Agency’s answer, and the question and answer shall also be available in the dedicated section of “esa-star”. Tenderers are asked to note that each response which the Agency makes goes through an internal review process, and that the response will be published once this internal review process has been completed.

If required, the Agency may request clarifications from any Tenderer, such Agency’s requests shall be made exclusively via the dedicated function in “esa-star”.

15. Please note the provisions of the Submission Conditions that are contained in the EXPRO/TC.

You are strongly invited to test the “esa-star” system well in advance during the tendering period (please refer to Annex 2 of the EXPRO/TC).

Your Outline Proposal(s) must be submitted not later than **10th March 2021 at 13:00 (Netherlands)**.

16. Should your proposal be positively evaluated by the Agency and recommended for implementation by the Ministry of Education, Science, Research and Sport of the Slovak Republic, it is envisaged to have the negotiation and kick-off meeting by telephone shortly after notification to you of the Agency’s intention. Assuming a successful outcome, the two (2) originals of the contract will first be signed by the Agency and then sent to you for countersignature within the shortest possible delay.

17. Tenderers are informed that due to programmatic and scheduling reasons, no extension of this tendering period will be granted.

Yours faithfully,

Hélène Etienne,
Head of Technology and Support Procurement Division,
Procurement Department.

ANNEX A

IMPORTANT: The information provided in the documents here-below shall not be reproduced, transmitted or disseminated in any form.

The documents are made available so that potential tenderers can search the documents by using keywords to ensure that there is no duplication of ongoing or planned ESA activities.

Discovery, Preparation, Technology Development (DPTD)

- **Discovery and Preparation Programme**
(http://www.esa.int/Our_Activities/Preparing_for_the_Future/Discovery)
- **Technology Development Element (TDE)**
(http://emits.sso.esa.int/emits-doc/ESTEC/PECS_NMS/TDE.zip)

Science Core Technology Programme (CTP)

- (http://emits.sso.esa.int/emits-doc/ESTEC/PECS_NMS/CTP.zip)

European Exploration Envelope Programme (E3P)

- (http://emits.sso.esa.int/emits-doc/ESTEC/PECS_NMS/E3P.zip)

General Support Technology Programme (GSTP)

- (http://emits.sso.esa.int/emits-doc/ESTEC/PECS_NMS/GSTP.zip)

Earth Observation

Information about on-going and planned activities addressing the development and exploitation of satellite based earth science, applications and services can be obtained from the following links:

- EO science for society (<https://eo4society.esa.int/>)
- Climate Change Initiative (<https://climate.esa.int/en/>)

Links to information on past activities in relation to the scientific, operational and commercial exploitation of EO data can be found in this page:

- <https://eo4society.esa.int/about/>

Global Navigation Satellite System (GNSS)/Positioning Navigation and Timing (PNT)

- (http://emits.sso.esa.int/emits-doc/ESTEC/PECS_NMS/GNSS_PNT.zip)



Advanced Research in Telecommunications Systems (ARTES)

Telecommunication & Integrated Applications

- **ARTES Workplans** (http://emits.sso.esa.int/emits-doc/ESTEC/PECS_NMS/ARTES.zip)
- Additional information can be found in (<https://artes.esa.int/>)

Space Safety Programme

- (http://emits.sso.esa.int/emits-doc/ESTEC/PECS_NMS/SSA-S2P.zip)

List of Intended Invitations to Tender (EMITS) covering all ESA Programmes (<http://emits.sso.esa.int>).

Currently **Open Invitations to Tender (EMITS)** covering all ESA Programmes (<http://emits.sso.esa.int>).

ANNEX B

ESA has adopted the Technology Readiness Level (TRL) scale as a way to measure the maturity of a technology. It has now become a well-established standard. Indicate the TRL of the technology to be developed under the Contract using the classification given below (for additional information on definitions, please refer to footnote ²).

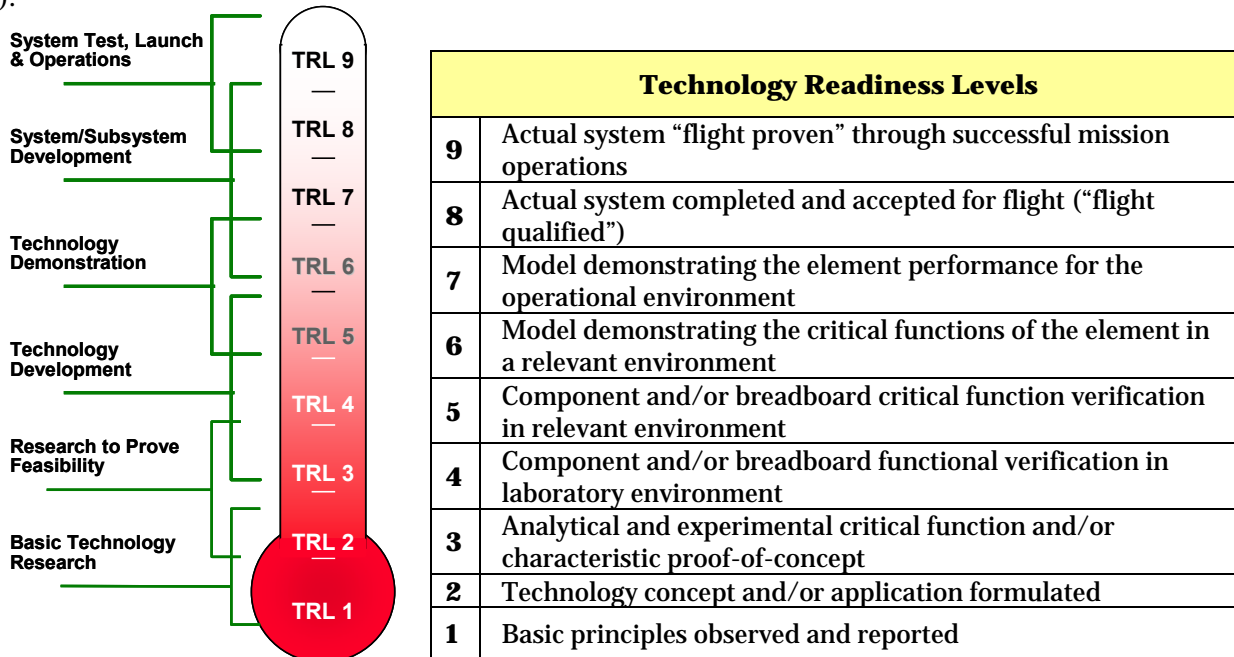


Figure 1 – Technology Readiness Levels adopted in ESA

Regarding the maturity status of software the same number of TRL are indicatively used. A short description using software engineering terms is shown in Figure 2.

TRL	Software Maturity
9	Live Product
8	General Product
7	Early Adopter Version
6	Product Release
5	BETA Version
4	ALPHA Version
3	Prototype
2	Algorithm
1	Mathematical Formulation

Figure 2 – Technology Readiness Levels using software engineering terms

² ref. Technology Readiness Levels - ECSS Adoption notice of ISO 16290 “Definition of the Technology Readiness Levels (TRLs) and their criteria of assessment” (i.e.: ECSS-E-AS-11C)

Figure 3 gives an indicative correspondence between commonly used engineering terms and TRL levels:

TRL	Commonly Used Engineering Terms
9	Mission Operations. Flight Qualified Hardware/Software
8	Theoretical First Unit. Flight Unit. Flight Spare.
7	System Demonstration.
6	High-Fidelity Laboratory Prototype. Engineering Qualification Model. Subsystem model. Development Model. System Model.
5	High-Fidelity Breadboard. Brassboard. Engineering Breadboard. Function-Oriented Model.
4	Component. Breadboard.
3	Laboratory Experiments.
2	Systems Analyses. Pre-Phase-A Studies.
1	Scientific Research.

Figure 3 – Technology Readiness Levels and associated Common Engineering Terms.

Figure 4 gives an indicative list of readiness levels for applications and service developments

TRL	Applications and Services
9	Application/service operationally deployed and used by paying customers
8	Application/service completed and validated, commercial offer ready
7	Trials with customers/users to validate utilisation and business models
6	Demonstration of prototype in relevant environment, price policy identified
5	Application/service verified using operational elements, customers/users not involved
4	Application/service verification in laboratory environment, market segment(s) and customers/users identified
3	Concept analysis performed and target market identified
2	Application/service concept formulated, market opportunities not yet addressed
1	Scientific Research.

Figure 4 –Readiness Levels for Applications and Service Developments

ANNEX C – ACRONYMS

BIPR	Background Intellectual Property Right
CCD	Contract Closure Document
ESA	European Space Agency
ESTEC	European Space Research and Technology Centre
EXPRO	Express Procurement
FP	Final Presentation
FR	Final Report
GC&C	General Clauses and Conditions
GCT	General Conditions of Tender
HW	Hardware
IPR	Intellectual Property Right
ITT	Invitation To Tender
TRL	Technology Readiness Levels
PECS	Plan for European Cooperating States
PSS	Procedures Specifications and Standards
RFP	Request For Proposal
SME	Small and Medium Enterprises
SW	Software
TEB	Tender Evaluation Board
TDP	Technical Data Package
WBS	Work Breakdown Structure
WP	Work Package
WPD	Work Package Description
WF	Weighting Factors