THIS IS ESA

→ UNITED SPACE IN EUROPE, UNITED EUROPE IN SPACE

PECS IPL-IPS
Bratislava, Slovakia
19/9/2019

European Space Agency

DISCLAIMER

This presentation material does not contain sufficient information to be used, in any way, in the context of the ITT (Invitation-to-Tender) AO/1-10044/19/NL/SC.

This presentation is just to help understand, in a simplified manner, some of the Rules and Procedures associated with ESA procurements and in particular of this ITT.

Please ensure that your Outline Proposal is compliant with the requirements contained in the ITT AO/1-10044/19/NL/SC documentation.

EUROPE'S GATEWAY TO SPACE

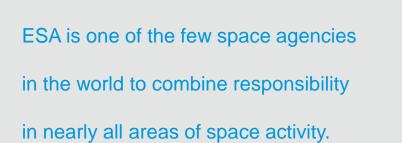|	
WHAT	22 Member States, 5000 employees
WHY	Exploration and use of space for exclusively peaceful purposes
WHERE	HQ in Paris, 7 sites across Europe and a spaceport in French Guiana
HOW MUCH	€5.72 billion = €12 per European per year

ESA - Activities

ESA is one of the few space agencies

in the world to combine responsibility

in nearly all areas of space activity.

* Space science is a Mandatory programme, all Member States
   contribute to it according to GNP. All other programmes are
   Optional, funded 'a la carte' by Participating States.

space science

human spaceflight

exploration

earth observation

space transportation

navigation

operations

technology

telecommunications
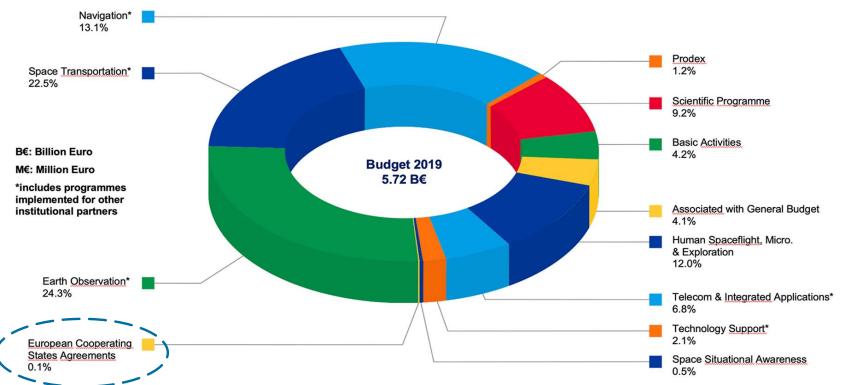
ESA - budget for 2019: by domain

Navigation*
13.1%

Space Transportation*
22.5%

B€: Billion Euro

M€: Million Euro

*includes programmes
implemented for other
institutional partners

Earth Observation*
24.3%

European Cooperating
States Agreements
0.1%

Budget 2019
5.72 B€

Prodex
1.2%

Scientific Programme
9.2%

Basic Activities
4.2%

Associated with General Budget
4.1%

Human Spaceflight, Micro.
& Exploration
12.0%

Telecom & Integrated Applications*
6.8%

Technology Support*
2.1%

Space Situational Awareness
0.5%

YOU
OUR ECONOMY
OUR PLANET
OUR FUTURE

ESA's industrial policy

The majority of ESA's budget is spent on contracts with European industry.

ESA's industrial policy:

- Ensures that Member States get a fair return on their investment;

- Improves competitiveness of European industry;

- Maintains and develops space technology;

- Exploits the advantages of free competitive bidding, except where incompatible with objectives of the industrial policy.

Plan for European Cooperating States

Slovakia signed the ECS Agreement on 16 February 2015 and PECS Charter on 4 February 2016. The current ECS Agreement with Slovakia will last until February 2021.

PECS aims at supporting Slovakian entities for future involvement in ESA programmes and activities and to prepare the ECS participants in the most efficient manner for future association to ESA or for accession to ESA convention.

This is achieved by:
- Familiarising entities with **ESA practices and standards**
- Developing **competitive capabilities, products and services** wrt to European industry
- Developing **cooperation** between ECS scientific users and industry, & European partners.
- Education

The Slovakian PECS programme awards contracts to Slovakian entities via Calls for proposals, which is the object of this presentation. So far, **Slovakian entities have signed 22 PECS contracts with ESA**.

Overview Slovakia PECS – 2Q2019

1st PECS Call

19 proposal received, **7 funded**

Success Rate: **~37%**

Scores range: 52 – 70, **Average: 59.9**

2nd PECS Call

20 proposal received, **8 funded**

Success Rate: **~40%**

Scores range: 55 – 75, **Average: 61.6**

3rd PECS Call

13 proposals received, **7 funded**

Success Rate: **~53%**

Scores range: 55 – 68.5, **Average: 63.4**

4th PECS Call

14 proposals received, **7 in process**

Success Rate: **~50%**

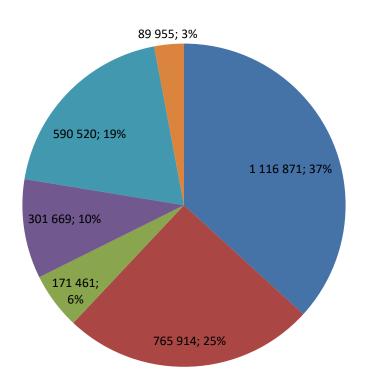Scores range: 47.5 – 62, **Average: 55.3**

5th PECS Call – We NEED you!

Overview Slovakia PECS – 2Q2019

Commitments per ESA Service Domain

Pie chart values:
- 89 955; 3%
- 590 520; 19%
- 1 116 871; 37%
- 301 669; 10%
- 171 461; 6%
- 765 914; 25%

Legend:
- ■ SD7 - Generic Technology and Techniques
- ■ SD1 - Earth Observation
- ■ SD4 - Space Transportation and Re-entry Technology
- ■ SD2 - Science
- ■ SD8 - Space Surveillance
- ■ SDNA - Education

Number of contracts placed	22
Number of running activities	15
Average value per contract (€)	138,018

Summary of presentation

1. ESA Tools - Basics of ESA Procurement
2. ITT Package for Permanently Open Call for Outline Proposals
   a) Cover Letter
   b) Draft Contract
   c) Tendering Conditions
   d) Proposal Template
3. The Tender Evaluation
4. The Negotiation Period
5. Debriefing
6. Schedule
7. Questions
8. Proposal Template (and hints and tips)
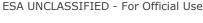9. Future PECS Calls Planning

1. BASICS OF ESA PROCUREMENT
ESA electronic procurement tools

Main ESA Corporate Applications which are supporting the procurement process:
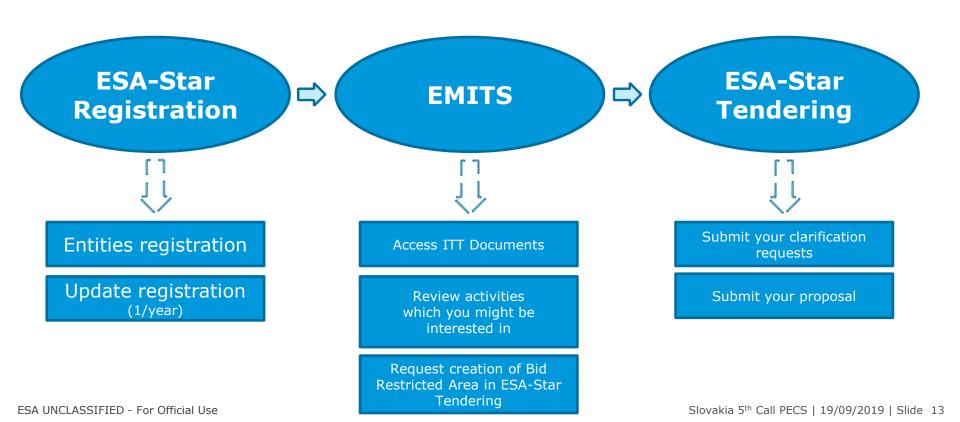
- **ESA-STAR**: ESA's online System for **Tendering** and **Registration** – is the electronic Tendering interface for ESA and its external partners.

- **EMITS :** ESA's web-based system for publishing Invitation-to-Tenders (ITT).

- **ESA-P:** ESA's portal for the supplier once a Contract is signed with ESA. It covers all financial aspects (invoicing/payments) => **access ONLY when you have a contract with ESA.**

Attention: You may refer to the SK5_Briefing_Handbook Basic of ESA Procurement_19sept2019.pdf provided for additional information.

1. BASICS OF ESA PROCUREMENT
ESA electronic procurement tools

```
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│  ESA-Star       │  →   │     EMITS       │  →   │   ESA-Star      │
│  Registration   │      │                 │      │   Tendering     │
└─────────────────┘      └─────────────────┘      └─────────────────┘
        ↓                        ↓                        ↓
```

ESA-Star Registration	EMITS	ESA-Star Tendering
Entities registration	Access ITT Documents	Submit your clarification requests
Update registration (1/year)	Review activities which you might be interested in	Submit your proposal
	Request creation of Bid Restricted Area in ESA-Star Tendering	

1. BASICS OF ESA PROCUREMENT
ESA - STAR Registration

ESA-STAR Registration (https://esastar-emr.sso.esa.int/)

Registration on **ESA-STAR** is a pre-requisite
for all entities wishing to do business with ESA.

Without an **ESA-STAR** registration (ESA Entity Code)
there is **NO** access to the ITT documents in **EMITS**.
Everything you need is on EMITS!

User ID and password will be given to you
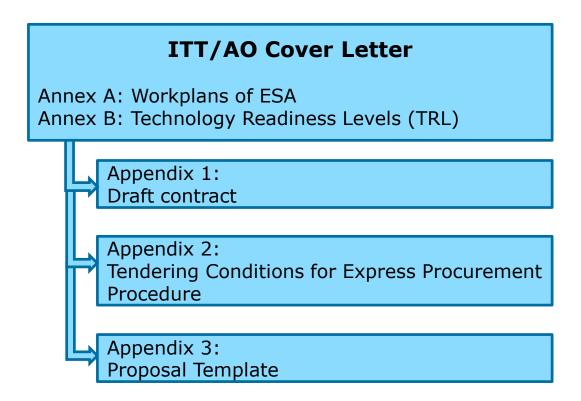after the **ESA-STAR** registration is validated by ESA.

Invitation to Tender (ITT)
AO/1-10044/19/NL/SC

Invitation to Tender for the Fifth Call for Outline Proposals under the Plan for European Cooperating States (PECS) in Slovakia

2. ITT Package

ITT/AO Cover Letter

Annex A: Workplans of ESA
Annex B: Technology Readiness Levels (TRL)

Appendix 1:
Draft contract

Appendix 2:
Tendering Conditions for Express Procurement Procedure

Appendix 3:
Proposal Template

2. ITT Package – Cover Letter

The Cover Letter contains a number of **essential features** regarding the ITT e.g.

- The name of the responsible Contracts Officer (S. Courtois)

- Submission deadlines for evaluation

- All programmatic and price constraints

- Description of the process of evaluation and selection

- Evaluation criteria

- Instructions and restrictions for proposals submission

2. ITT Package – Cover Letter

**The ITT/AO is expected to be published on the
1st October 2019**

The Cover Letter indicates the formal conditions of submission, i.e. the **exact duration of the tendering period and the exact date (2nd December 2019) and time (13:00 hours CET)** by which proposals must be submitted.

See section 1 of the COVER LETTER:

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. ITT Package – Cover Letter
What to submit?

Tips – when to include a sub-contractor:

- ✓ If your company/institute has no expertise in space activities an European partner may be part of the team (as sub-contractor) but you have to ensure that you are doing the core activities.
    - Example: one of the Large-Space-Integrators, defining requirements and/or specifications or performing tests and/or qualification.

- ✓ if test or qualification facilities are necessary and these are not available in the country or the know-how to do it, you may have an European partner within the ESA Member States (as sub-contractor or service provider).

- ✓ Be sure to **explain** clearly what the sub-contractor is doing and **why they are needed**

See section 2 of the COVER LETTER:

2.   The total budget earmarked for this ITT is :
        700,000 Euros (Seven hundred thousand Euros).

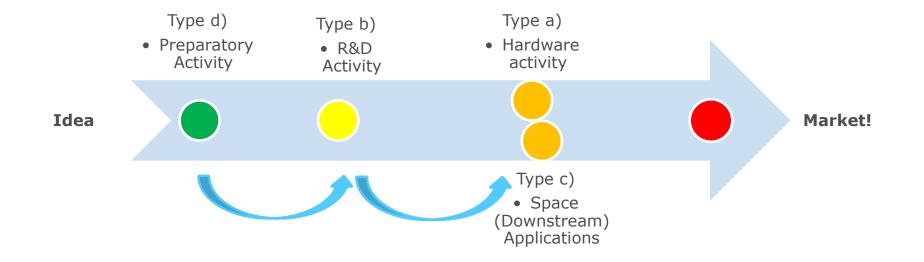# 2. ITT Package – Cover Letter
What type of activities?

The subject of this ITT is exclusively for the following activity types:

a. **Hardware Activities**

b. **Research and Development Activities**

c. **Space Applications**

d. **Preparatory Activities**

e. **Awareness and Education Activities**

2. ITT Package – Cover Letter
What type of activities? Expected flow

2. ITT Package – Cover Letter
What type of activities?

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.

- **No TRL requirements**
- **Up to 50 k€**
- **May be led by any legal entity depending on the specific context while ESA mission related services must be led by industry.**

2. ITT Package – Cover Letter
What type of activities?

b) **Research and Development activities** (including *technology demonstrations, industrial processes and their qualification/certification*) leading to products (hardware or software) or to generic technologies with potential for re-use.

- **The start TRL shall be at least 2 and the target TRL shall be 4 or below**
- **Up to 200 k€**
- **Should be led by industry if the target TRL is higher than 3.** For target TRL 3, or lower, the proposal may be led by industry or academic/research organisation.

2. ITT Package – Cover Letter
What type of activities?

a) **Hardware activities (e.g. flight hardware) related to ESA's missions,** in the form of payloads or its sub-systems, or satellite-platform technologies and sensors, or to generic technologies **with potential for re-use**

- **The start TRL shall be at least 3 and the target TRL shall be at least 5**
- **Up to 250 k€**
- **Must be led by industry (prime contractor). Exceptions may be granted** for activities pertinent to ESA's Space Science Programme, leadership by academia may be allowed if duly justified and in any case an important credible industrial participation is required.

2. ITT Package – Cover Letter
What type of activities?

c) **Space 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**
- **Up to 150 k€**
- **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.
- Inclusion of a **end user** is highly recommended.

2. ITT Package – Cover Letter
What type of activities?

e) **Awareness and education activities: restricted to the development of <u>university courses and curricula</u>** about space technology and its practical application.

- **Up to 30 k€**
- **May be led by either industry, universities/research organizations or other national entities** depending on the context.

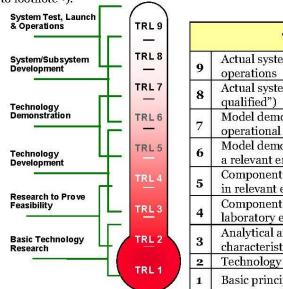# 2. ITT Package – Cover Letter: Annex B - TRL

ANNEX B of the Cover letter

- **Technology Readiness Levels (TRL)**

  - Outline Proposal requires that you identify the start and target TRL of the proposed activity.

  - Contains information to help you identify the start and target TRL.

  - TRL is given for Software, Applications and Services as well as Commonly Used Engineering Terms.

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 4).

Technology Readiness Levels	
9	Actual system "flight proven" through successful mission operations
8	Actual system completed and accepted for flight ("flight qualified")
7	Model demonstrating the element performance for the operational environment
6	Model demonstrating the critical functions of the element in a relevant environment
5	Component and/or breadboard critical function verification in relevant environment
4	Component and/or breadboard functional verification in laboratory environment
3	Analytical and experimental critical function and/or characteristic proof-of-concept
2	Technology concept and/or application formulated
1	Basic principles observed and reported

Type A – H/W
Type C - Apps

Type B – R&D

Type D – Prep.

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.

2. ITT Package – Cover Letter
What content?

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;
- foster the creation of strong and long-term relations between national firms and national universities and research institutions.

2. ITT Package – Cover Letter
What content?

See section 6 of the COVER LETTER:

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.

- Such duplication will lead to rejection of the Outline Proposal.

Programmatic Alignment: Search the workplans (documents) and the websites supplied (ANNEX A of the COVER LETTER) to be sure that your idea/proposal is not already covered. If it is, your proposal will be rejected.

2. ITT Package – Cover Letter Workplans

ANNEX A of the Cover letter

o Links to workplans for all relevant ESA programmes (recent past, current and future)

- Discovery, Preparation, Technology Development (DPTD)
  - Discovery and Preparation Programme
  - Technology Development Element (TDE)
- Science Core Technology Programme (CTP)
- European Exploration Envelope Programme (E3P)
- General Support Technology Programme (GSTP)
- Earth Observation
- Global Navigation Satellite System (GNSS)/Positioning Navitation and Timing (PNT)
- Advanced Research in Telecommunication Systems (ARTES)
- Telecommunication & Integrated Applications
- Space Situational Awareness Programme

o **Intended** Invitations-to-Tender (EMITS) covering all ESA Programmes

o Currently **Open** Invitations to Tender (EMITS) covering all ESA Programmes

A potential Tenderer must check if the activity s/he plans to present is already in ESA plans and Intended Invitations to Tender (ITT).

2. ITT Package – Cover Letter
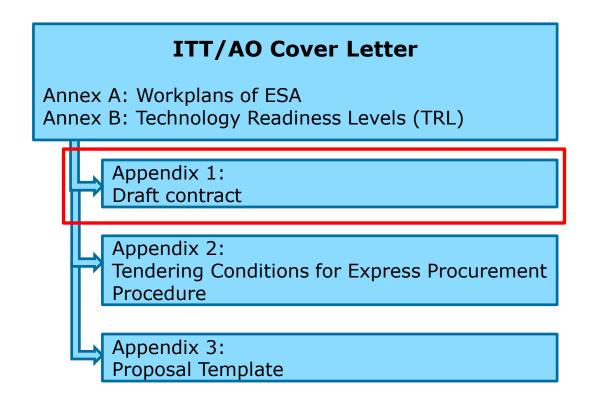## Compliance and number of proposals

Number of proposals for submission per Tenderer

The number of proposals per Tenderer (as prime contractor) is restricted to a maximum **of 2 (two) independent and unrelated** proposals.

- 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);
- Your tender is **valid during a period of fourteen (14) months** from the date of tender submission.
- **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).

2. ITT Package – Appendix 1: Draft Contract

ITT/AO Cover Letter

Annex A: Workplans of ESA
Annex B: Technology Readiness Levels (TRL)

Appendix 1:
Draft contract

Appendix 2:
Tendering Conditions for Express Procurement
Procedure

Appendix 3:
Proposal Template
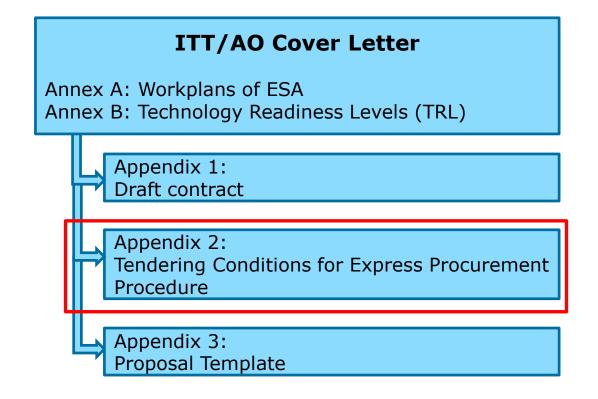
2. ITT Package – Appendix 1: Draft Contract

Full compliance to terms and conditions are expected

- The draft Contract, is based on the <u>EXPRO (+) Contract</u> and the "relevant" parts of the ESA General Clauses & Conditions (ESA GC & C) are embedded in the Contract with some adaptations.

- The Clauses with an "Option" will be finalised at the negotiation stage

- the Draft Contract is tailored for straightforward contracts, should the activity be more complex (e.g. flight hardware activities) the Contract will be adapted accordingly.

- The Annexes form an integral part of the Contract.

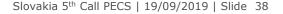# 2. ITT Package – Appendix 2: Tendering Conditions

ITT/AO Cover Letter

Annex A: Workplans of ESA
Annex B: Technology Readiness Levels (TRL)

Appendix 1:
Draft contract

Appendix 2:
Tendering Conditions for Express Procurement
Procedure

Appendix 3:
Proposal Template

2. ITT Package – Appendix 2: Tendering Conditions

- The **EXPRO (+) Tendering Conditions** ("EXPRO/TC") apply instead of the ESA General Conditions of Tender.

- What type of Information will you find ?
  - Formal conditions for tendering (eligibility, negotiation, retention etc.)
  - Compliance and Key Acceptance Factors
  - Communication with ESA
  - Proposal submission conditions
  - General considerations regarding ESA-STAR

- The **Proposal Template** support the compliance with the Special Conditions of Tender.

NOTE: Annex II to the Tendering Conditions contain important practical information for submitting proposals to ESA-STAR.

2. ITT Package – Appendix 3: Proposal Template

ITT/AO Cover Letter

Annex A: Workplans of ESA
Annex B: Technology Readiness Levels (TRL)

Appendix 1:
Draft contract

Appendix 2:
Tendering Conditions for Express Procurement
Procedure
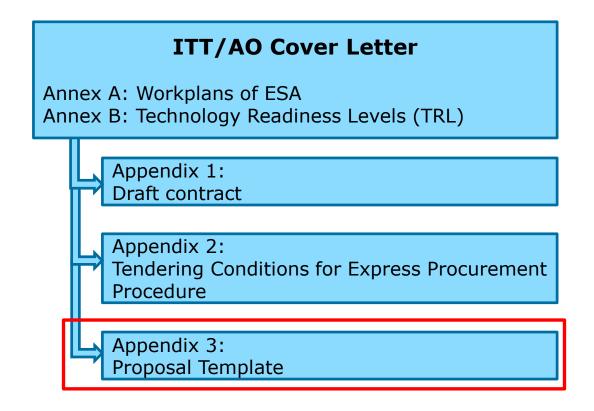
Appendix 3:
Proposal Template

2. ITT Package – Appendix 3: Proposal Template

Structure of the Proposal Template:

- ❑ **Cover Letter**

- ❑ **Part 1** – Technical and Application Part

- ❑ **Part 2** – Management Part

- ❑ **Part 3** – Financial Part
  - ✓ The PSS forms MUST be submitted by both the Tenderer (contractor) and his sub-contractors (one set each).
  - ✓ Please note that all PSS forms **MUST** be signed.

- ❑ **Part 4 –** Contract Conditions Part

2. ITT Package – Appendix 3: Proposal Template

IMPORTANT INFORMATION

- ❑ USE ONLY THE TEMPLATE REVISION PROVIDED FOR THIS CALL.
- ❑ All red font paragraphs of the template are for your information Only. The red font must be deleted.

- ❑ **NO CHANGE** in the structure, title headings, margins, font are allowed.

- ❑ When submitting to ESA-STAR, two document shall be submitted:
    - The signed Cover Letter
    - One single file collating the signed Cover Letter, the proposal, the signed PSS forms and Annexes, if any

- ❑ The total number of pages for the proposal shall not exceed 25 pages. These 25 p. exclude the Cover Letter, the PSS forms and Annexes(if any)

3. The Tender Evaluation Board (TEB)

- After the announced submission deadlines, there is a formal opening (Tender Opening Board) of the outline proposals that have been submitted. The compliant proposals will be accepted for evaluation by the **Tender Evaluation Board (TEB)**. Non-compliant proposals will be rejected and not evaluated.

- TEB is composed of ESA staff supported also by ESA experts in the specific area of the proposal.

- Statement of Non-Disclosure and Non-Interest Form signed by all TEB members.

- The TEB members independently assess proposals, then the board convenes to discuss comments and mark the proposals. A TEB report is written containing all details of the collective evaluation.

- A summary of the TEB report with the technical evaluation, ranking of proposals and recommendations is submitted to the delegation. **No detailed financial information (e.g. hourly rates) will be disclosed.**

3. The Tender Evaluation
Evaluation Criteria

No.	Evaluation Criterion	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.	**20 %**
3	Adequacy of management approach. Credibility of the cost estimation and the proposed schedule.	**30 %**
4	Compliance with the administrative tender conditions of the call for outline proposals and acceptance of the draft contract.	**10 %**

3. The Tender Evaluation Evaluation Criteria

Taking into account the Weighting Factors, the importance of the Criteria in descending order is:

- Criterion 1 – Technical

- Criterion 2 – Programmatic

- Criterion 3 – Management and cost

- Criterion 4 – Legal and administrative

ESA Marking:

100 Perfect

90 Excellent

75 Very good

60 Good

50 Fair

40 Barely acceptable

<40 Below acceptability

Please note that only proposals with an overall mark above 50 will be submitted to the Ministry of Education, Science, Research and Sport of the Slovak Republic for programmatic review and possible recommendation for implementation

3. The Tender Evaluation
Programmatic Review

ESA with the Ministry of Education, Science, Research and Sport of the Slovak Republic performs the programmatic evaluation of the proposals, **with an overall mark higher than 50**:

1. Takes into account the TEB report containing the technical evaluation, marks, ranking and recommendations;
2. Considers programmatic priorities and national interests;
3. Recommends activities for implementation (subject to final approval by ESA programme boards);
4. This meeting is planned for 23 January 2020.

4. The Negotiation Period

See section 11.e) of the COVER LETTER :

e) For the finally recommended proposals, ESA 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; 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.

5. Debriefing – unsuccessful proposals

See section 11.f) of the COVER LETTER :

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.

Important: ask for a debriefing!
It is the best way of learning why your proposal was not recommended and what you need to improve!

Suggestion: even if your proposal was recommended, ask for a debriefing during the negotiation.

6. The Evaluation Process
Expected schedule

Publication in EMITS
- 1 October 2019

Deadline for Submission of Outline Proposals
- 2 December

Tender Evaluation Board (TEB)
- 23 January 2020

First communications to Bidders
- outcomes will be communicated 4 weeks after the meeting
- positive outcomes will be conditional to approval by ESA Delegate Bodies

First contracts
- 3Q2020

7. Questions?

For issues **DIRECTLY** related to this Call contact (**PECS Contract Officer**):

Email: Sandy.Courtois@esa.int   Phone: +31 71 565 8230

For issues **NOT** related to this Call, feel free to contact:

Email: Stephen.Airey@esa.int   Phone: +31 71 565 5395

With (**PECS Support Engineer**) in CC:

Email: Kay.van.der.Made@esa.int   Phone: +31 71 565 8780

Are you ready to for a coffee break
&
PECS activity examples? Questions?

www.esa.int

European Space Agency
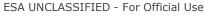
8. Proposal Template (and hints and tips)

The following slides offer insight into **common mistakes and oversights** in proposals. It is not a prescriptive 'do it like this' list and the material must be sensibly applied to your particular case.

There is no substitute for **a good idea.** This presentation will only help you to present the value of your idea in a way it can be well **understood by reviewers**.

Please ensure that your Outline Proposal is compliant with the ITT conditions of tender and cover letter – each ITT can be different. **Do not use a previous template from any other ITT.**

ESA is only allowed to evaluate what is in the 25 pages of the proposal – **Do not assume that the reviewers have "your common knowledge" or that "it is commonly known".** We cannot evaluate intentions, "read in-between-the-lines" or guess what you mean. We are only allowed, outside of the proposal, to consult EMITS or other ESA internal information.

The TEB members have to read typically 20+ proposals in total per TEB – the easier you make it for them to read and understand, the better.

Proposal Template: Common Mistakes

VERY BRIEF summary of SOME of the most common mistakes seen:

Criterion 1 – Technical

1. Objectives difficult to understand or not clearly stated.
2. Poor or missing technical requirements (e.g. not covering the key points, not quantified or verifiable specifications, not matching market need)
3. Poor or missing engineering approach (e.g. Baseline concept not described w.r.t. state of the art, missing reviews or checks, lack of key testing or validation)
4. Poor or inadequate programme of work (e.g. missing customer involvement, missing design or development steps) and inconsistency between text, flowchart, WPD and GANTT.
5. Missing experience or facilities – No information on relevant work done by the company, no or poor relevant CVs for the key personnel, no (or poor information) on facilities and/or having no plan to acquire it.
6. Poor Work Breakdown Structure (e.g. spaghetti WBS and flowchart, too many/few WPD, WP not with tasks for more than one entity)
7. Poor Work Logic Flow diagrams (e.g. not matching WBS/WPDs, not showing decision points/reviews or loops)
8. Poor Work Package Descriptions (e.g. insufficient detail to understand the full scope of the work, no clear responsibilities, inputs and outputs of each WPD)
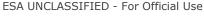
Proposal Template: Common Mistakes

VERY BRIEF summary of SOME of the most common mistakes seen:

Criterion 2 – Programmatic

1. Not meeting the programmatic constraints of the cover letter, such as:
   - Not related to ESA needs or programmes,
   - Not sufficiently space related,
   - No clear benefit for the country,

2. Incorrect designation of the activity type for the scope of the work proposed:
   - Not lead by the appropriate entity for the activity type,
   - No end user involvement in services and applications proposals,
   - Not credible start or target Technical Readiness Level.

Proposals

ESA Marking:

90	Excellent
75	Very good
60	Good
50	Fair
40	Barely acceptable
<40	Below acceptability

- Overall weighted score >50
- No criteria < 40

ESA UNCLASSIFIED - For Official Use

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Proposal Template: Common Mistakes

VERY BRIEF summary of SOME of the most common mistakes seen:

Criterion 3 – Management and cost

1. Poor management plan (e.g. missing how you will monitor the timely implementation of the activity, sub-contractor control or including a steering group or management 'team' instead of a Project Manager)
2. Poor planning (e.g. insufficient detail, no dependencies, too much in parallel, not matching scope of WPD)
3. Non-credible costing (e.g. hours not corresponding to described scope work in WPD, procurement of inappropriate items, excessive travel costs, price = max available envelope, procured items not detailed or justified)
4. Poor definition of deliverables (e.g. missing deliverables, not covering the full scope of work, deliverables not matching WPD outputs)
5. High/very low management hours.
6. Inconsistency between PSS forms and proposal (costed travels not in meeting plan, facilities/service costed for but not mentioned in proposal)

Proposal Template: Common Mistakes

VERY BRIEF summary of SOME of the most common mistakes seen:

Criterion 4 – Legal and administrative

1. Some of the documents not signed or missing (e.g. Cover Letter, PSS Forms)
2. Non compliance with tender conditions (e.g. Introducing changes to the Proposal Template or exceeding the maximum number of pages)
3. Disagreeing with the Draft Contract (that you accepted by signing the Cover Letter)
4. Leaving incomplete part of the essential information (e.g. milestone payments, deliverables, leaving empty the IPR section, management plan section or any other section – please fill it: if it is the case say that it does not apply and why)

8. Proposal Template
Cover letter

PAY ATTENTION TO:

=>   Title
=>   Include a Reference number
=>   Select the right TYPE of activity (a, b, c, d or e)
=>   Who is your Legal representative?
=>   Validity of the proposal
=>   READ entirely the Cover Letter

It MUST be signed
NOT SIGNED => PROPOSAL NOT VALID => REJECTED

REMEMBER: By signing the cover letter you are accepting the contract conditions – so do not, in the proposal, state that you want to modify them.

8. Proposal Template
Cover letter

Hints and tips: The Title

Each call may have many proposals. To aid reviewers, pay attention to the title of your proposal. It should prepare them for what they are about to read and clearly identify your proposal:

- Keep it short
- Keep it clear
- Make it descriptive and relevant
- Do not waste time to think up overly long titles or try to force acronyms for the project.

Examples

- Simple and concise – but OK: *"Increasing coffee sales by responding to customer demands"*
- Overly long and unnecessarily complex: *"Investigating and testing various methods of maximising financial revenue and fiscal returns resulting from bean derived hot beverages sales in a customer focused environment using direct market feedback and other methods."*
- Trying too hard for an acronym: *"Cash maximising Objectives for increased Financial and Fiscal returns in a European Environment for HOt Beverages Sales (COFFEE HOBS)"*

8. Proposal Template
Part 1 – Technical and Application Part

1.0   <u>INTRODUCTION AND SCOPE</u>
[Present the scope and justification of the need/opportunity for the proposed activity]

1.1   <u>TECHNICAL OBJECTIVES:</u>
[Outline the main technical and programmatic objective(s) and end goal(s) of the proposal. Indicate how it will be determined if the activity object of the proposal has effectively achieved its goals]

1.2   <u>REQUIREMENTS:</u>
[Identify and discuss the technical requirements to be able to achieve the specific Technical Objectives as outlined in section 1.1 above. When appropriate the requirements shall be associated to a quantitative value. The verification approach for each requirement shall be identified. Provide a justification / reasoning for such requirements]

1.3   <u>TECHNOLOGY READINESS LEVEL:</u>
[Identify with justification the current level of maturity of the technology (TRL) and the level of technical maturity to be reached at the end of the activity (TRL). Please refer to Annex B to the ITT Cover Letter for the description of TRLs. Please note that the type of activity proposed, Type a, b or c has to be compatible with the start and end TRL expected. Please note that for education, awareness and earth observation related activities, TRLs do not apply]

Attention: It is highly recommended to refer to the SK5_PECS_PROPOSAL SUBMISSION HIGH LEVEL CHECKLIST_19sept19.pdf provided when filling in the proposal template.

8. Proposal Template
Part 1 – Technical and Application Part

Hints and tips: The Objectives

The Objective is what you hope to achieve with the proposal (i.e. the end goal) and the key constraints or conditions under which that should be met. This is sometimes called the mission goal in texts. In theory, everything you propose to do should be derivable from this statement.

1. Objectives should:
    1. Be **short** (1 to 3 sentences)
    2. Be **clear and verifiable**
    3. Contain the **core essence** of what should be achieved

2. Objectives should not:
    1. Describe the work to be done, the work flow or how to do it
    2. Describe the nice to haves/ options
    3. Be overly long and descriptive

"*…this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to Earth"* **– this was the objective stated for a 24 Billion dollar project.**

In **'Application'** part of the proposal you should justify **WHY** this is a good objective and how it fits the programmatic constraints!

8. Proposal Template
Part 1 – Technical and Application Part

Hints and tips: The Requirements

For proposals, requirements are the key measureable features that the product or the work must meet in order to be declared successful. They should take into account what the end user needs/ considers important.

Requirements are:
- Clear, verifiable, quantitative and measureable.
- Requirements tell you what needs to be achieved / realized
- Requirements are what we all use to measure if the objectives were achieved

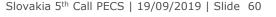Note: Ideally requirements will also be justified in the proposal.

Requirements are not:
- The facilities, tools, experience or personnel that you need to perform the work.

If you are not in a position to properly define a full set of clear, well formulated requirements then consider to either look at a preparatory activity or include an activity focused on requirement definition and include a work package to this end.

Examples… (next slide)

Hints and tips: The Requirements

Example (in a cafeteria):

Well formulated requirements:
- The coffee shall be served at a temperature between 85 and 90°C.
- The coffee shall be delivered to the customer within 4 minutes of being ordered
- The coffee shall be dispensed in 200ml +/- 10ml servings.
- The customer shall receive a biscuit with each coffee, included in the price of the coffee

Poorly formulated requirements:
- The coffee has to be a good temperature
- The coffee must be served quickly
- The coffee shall have big serving sizes
- We want people to have biscuits with their coffee

Not a requirement at all in this sense:
- We need to buy a kettle and coffee cups
- We need to hire someone to make the coffee
- We should do a trade off on what biscuits to give
- We shall get a coffee sellers license

Photos Credit: ISSpresso is the first espresso machine designed & produced by Argotec and Lavazza in a public-private partnership with the Italian Space Agency.

8. Proposal Template
Part 1 – Technical and Application Part

1.4   ENGINEERING APPROACH

1.4.1   State of the Art
[Present and discuss the state of the art. In this section, an overview of other solutions to address the objectives of the proposal are to be described. The objective of this section is for the bidder to demonstrate that they are aware of the field where they intent to contribute, and knowledgeable of the State of the Art].

1.4.2   Technical Steps
[Present and discuss in detail the scientific/technical steps to achieve the objectives outlined under section 1.1. Note: the steps shall be consistent with those reflected in the Work Logic Diagram in section 1.7.1]

1.4.3   Implementation aspects
[Present a first iteration of the baseline design or concept and discuss the trade-offs that need to be taken into account. In this section, the bidder is to show the overall logic of the work being proposed including any key review(s) and decision points. Discuss how the work performed will be validated (e.g. test plan and test approach) and how achievement of the objectives will be proven/ demonstrated]

This is expected to be the core/bulk of the proposal

8. Proposal Template
Part 1 – Technical and Application Part

> **Hints and tips: Engineering Approach -
> - Technical Steps and Implementation Aspects**

1. What is your proposed technical solution/ baseline?

   a. Provide sufficient detail for it to be understood by someone else (e.g. what technique, what waveband, what key technology?)

2. What alternatives exist?

   a. Brief overview of "State of the Art"

   b. Explain why you chose your proposed baseline instead of others. What benefit does it have over the others? What are the trade-offs?

   c. What evidence is there that it will work?

> **Hints and tips: Engineering Approach -**
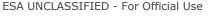> **- Technical Steps and Implementation Aspects**

Coffee Shop Examples

State of the art example.

> *The current state of the art in coffee production is the Caffeine Blaster 100 as used by Star Coffee – the market leader in this area. The Caffeine Blaster 100 can prepare 10 different types of coffee and can prepare 2 cups simultaneously.*

> *The Caffeine Blaster 200 is currently in development and scheduled to be released in 6 months. The CB200 can prepare 12 different coffee types and 4 simultaneous beverages. Other coffee production machines are the protected property of the provider (e.g. Lotsa Coffee) and not for sale to competitors.*

8. Proposal Template
Part 1 – Technical and Application Part

| Hints and tips: Engineering Approach -
- Technical Steps and Implementation Aspects |

Strongly linked to the ***Proposed Work Logic*** – in fact, this is the text description and justification of the logic flow chart and to the Work Breakdown Structure (WBS).

1. What are the **key stages/ steps** in the work/activity?
2. What is the **goal/ purpose** of each step?
3. What will be done in each step?
4. How will each step be assessed, controlled, **reviewed** or validated?
5. How does each step relate to the others?
6. If there are subcontractors: **How** is the work broken up between companies? **Why?**
7. What are the **key trade offs**? What are the key decision points?

> **Hints and tips: Engineering Approach -**
> **- Technical Steps and Implementation Aspects**

Coffee Shop Examples

Technical solution/ baseline example (very brief)

> *In order to achieve the objectives, we will develop our Coffee Master 2000 hot beverage production unit. The Coffee Master 2000 will be based on our Patent # 1234 which uses high pressure steam, partial pre-preparation, automatic end user programmable software adaptation settings to enable the optimal and rapid production of more than 100 types and variations of hot beverage. It is capable of producing 6 beverages simultaneously with 1 operator. A breadboard has already been built and demonstrated the proof of concept of Patent # 1234. A functional diagram of the CM2000 is given in Fig 1.*

8. Proposal Template
Part 1 – Technical and Application Part

1.5 TECHNICAL FEASIBILITY, PROBLEM AREAS AND DEVELOPMENT RISK :
[Provide evidence as to the feasibility of achieving the requirements and objectives identified in sections 1.1 and 1.2.

Identify, present and discuss the main technical problem areas and key development risks that may be expected during the execution of the activity in order to reach the proposed TRL level.

Propose mitigation and preventative actions to reduce the likelihood and potential impact of such risks/problems and discuss credible alternative design or implementation solutions to avoid identified potential technical problems that could become showstoppers]

1.6 APPLICATION OF TECHNOLOGY DEVELOPMENT
[Present the justification and reasoning for the objectives and evidence to show that such objectives meet the criteria of the call as outlined in the Cover Letter of the ITT under point 6. In addition: In the case of applications/services show the interest/involvement of potential users/ customers. For products show the potential market.

The bidder should provide an overview about the expected benefits of the proposed activity to your company/institution.

If the application is pertinent to an ESA Programme(s) please identify which programme would be relevant to your proposal; indicate the structuring effect of the proposed activity, in terms of possible continuation in ESA programmes, the relevant time frame, targeted missions, and cooperation potential]

8. Proposal Template
Part 1 – Technical and Application Part

> **Hints and tips: Problem areas and Risks**

The problem areas and risks discussions are intended to cover TECHNICAL and PROGRAMMATIC problem areas and risks that may arise DURING the work and cannot be pre-emptively resolved prior to the start of work.

Correct identification of risks **shows you understand the work** you are proposing.

Discussion of risks and problems should include a mitigation plan:

- What is the potential impact and what actions will you take to minimize the risk of it becoming a reality?
- What will you do if it does become a reality?
- Provide details to show those mitigating actions are credible and feasible.

Hints and tips: Problem areas and Risks

Good Example:
"The procured coffee machine breaks down during service"

Mitigation options that will be investigated:
a) procure a spare machine,
b) procuring a ready source of spares
c) ensuring a rapid call out repair service

Prevention actions:
a) ensure regular servicing and inspection with company X who have X years experience in this
b) Pre-procure and keep on stock the top parts most at risk of failure

Bad Examples:
"We don't have someone to make the coffee and are not sure to be able to hire someone."
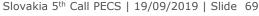"We might not be able to afford a coffee machine."

8. Proposal Template
Part 1 – Technical and Application Part

Hints and tips: Application of Technology Development

This is very strongly linked to the objectives and the requirements (in particular the user requirements).

1. Who will use the technology developed?
2. What will they use it for?
3. Why is it needed?
4. What are the competing technologies/ methods?
5. Why could this be better?
6. Is there a valid business case for continuing after this activity?
7. Does it match the programmatic constraints of the call? (BE EXPLICIT WRT COVER LETTER)

If you don't know the answers to all these and can't convince us then why should we finance the development? Think about a preparatory activity.

8. Proposal Template
Part 1 – Technical and Application Part

1.7   TECHNICAL IMPLEMENTATION / PROGRAMME OF WORK

1.7.1 Proposed Work Logic
[Insert a flow chart showing the logical flow of work from step to step, with reviews, dependencies and iteration loops (as required). Note that this shall be consistent with section 1.4, the WBS and the schedule]

1.7.2 Contents of the proposed work

1.7.2.1 Work Breakdown Structure (WBS)
[For the total scope of the activity; clearly showing each foreseen Work Package (WP) with its title and the name of the responsible company/institute. Ensure work packages are split adequately such that sub-contracted work has its own work packages. Main contractor project management activities shall be identified in the WBS]

8. Proposal Template
Part 1 – Technical and Application Part

1.7   <u>TECHNICAL IMPLEMENTATION / PROGRAMME OF WORK</u>

     1.7.2.2   <u>Work Package Description (WPD)</u>

[Individual WPD shall be established per work package identified in the WBS, describing the following:
- responsible company
- beginning and end date of each work package (e.g.: To+1, etc)
- person responsible for the work package
- description of the activities in the work package, sufficient to understand clearly the scope and depth of the work being performed.
- inputs to the work package
- outputs of the work package
- the outputs to the work packages are to be identified (e.g. TN1 etc.) and shall be included in the List of Deliverables.

With respect to the standard requirements for management, reporting, meetings and deliverables (Appendix 1 to the Draft Contract), please include a dedicated work package for Management and Reporting. All management tasks, such as meetings, progress reports and final documentation shall be carried out under this work package.

For reference see ESA PSS-A20 form, available at http://emits.sso.esa.int/emits/owa/emits.main under Reference Documentation / Administrative Documents / PSS Forms / Issue 5.]
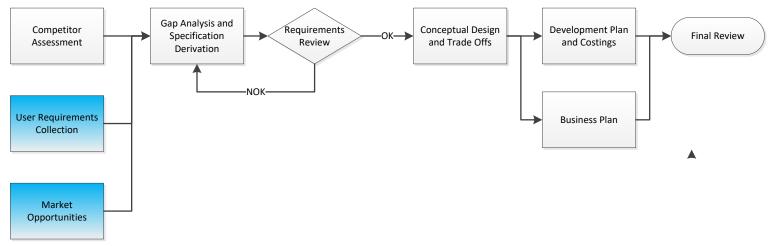
Hints and tips: Flowchart

The Flowchart is intended to show the order in which the work needs to be performed (i.e. the logic) and the checks and balances put in place, i.e. work flow, dependencies, reviews (internal/external)

Should relate directly to the Work Breakdown Structure (WBS), Milestones and GANTT chart.

Hints and tips: WBS

WBS is a management tool to assist the effective definition, monitoring, payment and running of the activity.
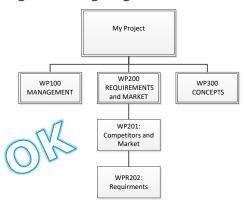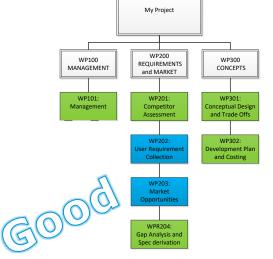
Guidelines

1. Logically structure the main Work Packages following the main tasks of the work flow (preferably 'gated' by reviews)
2. Include WP for management
3. Ensure each company has separate (sub)work packages
4. Ensure all tasks in one work package 'belong together'

Examples – BAD, OK, GOOD

8. Proposal Template
Part 1 – Technical and Application Part

Hints and tips: Work Package Descriptions

1. Essential Data:
   a. Work Package (WP) Title, WP Manager, Company
   b. Start and end dates (T0+) and/or EVENT (PDR, CDR)
   c. Inputs
   d. Description of work (e.g.: tasks and sub-task)
   e. Outputs (each WP will result in a number of technical documents, for example output of WP1 (task 1.1 and task 1.2), there will be TN1.1 and TN1.2

2. TIPS:
   a. WP Manager should be responsible for the work (e.g. have suitable experience)
   b. Duration (Start: T0 + 1, End: T0 +5).
   c. Describe work (bullets) at sufficient detail to understand level of analysis performed, work flow within the WP, reviews to be held etc. Avoid generic ambiguous high level descriptions (e.g. 'Perform design')
   d. Outputs are all deliverables produced, ensure consistency with Deliverables list and deliverable identifiers.

8. Proposal Template
Part 1 – Technical and Application Part

WP 1100

WP Title: Management Phase 1
Company: My Big Coffee Co.
WP Manager: C.Puccinno

Start Event: Kick Off Meeting (KOM)   Planned Date: T0
End Event: Final Presentation   Planned Date: T0+14M

Inputs: Proposal, KOM Minutes

Tasks:
- Organization of meetings and technical reviews
- Weekly team meetings
- Monthly progress meetings with sub-contractors
- Produce Progress Reports for ESA
- Annual Review for ESA & Delegation
- Schedule update using Microsoft Project
- Identify schedule slippage and instigate mitigation actions
- Quality control of deliverables prior to delivery
- Monitoring and control of actions and action item list
- Evaluation of risks and management of mitigating actions
- Cost monitoring and CCN handling (as required)
- Production of Final Technical Data Package
- Final Presentation

Outputs: Progress reports (D1.1), Final Report (D1.2), Contract Closure Documentation (D1.3)

Good

WP 1100

WP Title: Management

WP Manager: A.Nonymous

Start Event: Start of project   Planned Date: 1st April 2017
End Event: End of project   Planned Date: 25th Dec 2018

Inputs: None

Tasks:
- Manage the project
- Control the team
- Write reports
- Produce final documents
- Support some technical work
- Participate in meetings

Outputs: Management documentation, final deliverables

Bad

8. Proposal Template
Part 1 – Technical and Application Part

1.8   BACKGROUND OF THE COMPANY(IES)
[Present an overview of the company addressing the number of personnel; the year in which the company was established; location of sites; and
Briefly describe the directly relevant experience for the Contractor and Sub-contractor(s), if any, for the performance of such a work (the Tenderer may submit additional information on the general background of the entities beyond the 25 pages with Annexes)]

1.9   FACILITIES
[Identify the facilities (including s/w tools) required to perform the proposed work. Submit a brief description of the intended facilities to be used, making it clear how the rights to use those facilities has been secured for this activity (e.g. own facilities, to be bought, to be constructed, sub-contracted, rented…). (the Tenderer may submit additional information on the entities facilities beyond the 25 pages with Annexes)].

8. Proposal Template
Part 1 – Technical and Application Part

Hints and tips: Background and Experience

We are only interested in DIRECTLY RELEVANT background and experience.

Silly Example:
1. **Directly relevant** experience for a Coffee maker: Having made coffee before for themselves or having made multiple types of coffee in a café.
2. Partially relevant experience for a Coffee maker: Having made other (non-coffee) hot beverages, having worked in a café where coffee was made, but not actually making the coffee.
3. Non-relevant experience for a Coffee maker: Cleaning the café, playing football, driving a car.

Do not waste space in the proposal with non-relevant experience.
Relevant patents, papers or publications could be included in Annex(es) (not counted for the page limit).

If the people or bidding team is missing key background, experience or knowledge – **identify this yourself and explain how you will get it**.

Hints and tips: Facilities

Facilities are the things needed **in order to complete the work proposed**. You need to identify *what you need* for the proposed work and *whether you have it*, or *how you gain access* to it.

1. Example Facilities
    1. Test equipment
    2. Specialist design and analysis software
    3. Specialist computing facilities
    4. Specialist manufacturing facilities

2. Examples of things **NOT** considered Facilities:
    1. Your building and address
    2. Your car park
    3. Your desks and office furniture
    4. Standard computers, office s/w and printers

Hints and tips: Facilities

Coffee Shop Example – 'Bad'

Sooper Dooper Coffee Co. has a shop with chairs and tables, we have toilets for customers, a cash desk, brush and several mops. We will need to buy more coffee cups and change the cash desk software.

Coffee Shop Example – 'Good'

Sooper Dooper Coffee Co. has a coffee shop and all facilities and infrastructure to supports its nominal operation. For this activity, use of some specific facilities will be needed:

- Coffee consistency analyser (WP3): Will be procured under this activity as it is needed continuously.
- High pressure burst tester (WP2): Will be rented from 'Pressure test Co.' as required, it is only expected to be needed once.
- Super Nozzle Cleaner (WP4): Will be designed and manufactured as part of this activity
- Coffee CAD Development Software (WP2): We already have 2 full licenses.

8. Proposal Template
Part 2 – Management Part

2.1   TEAM ORGANISATION AND PERSONNEL

2.1.1   Proposed team

2.1.1.1   Overall team composition, key personnel
[Provide an organigram that describes the overall team composition, including participants from all Sub-contractors, if any, and including all key (i.e. having a major role within the team and/or being responsible for one or more WPs, see note here-under) and non-key personnel. The organigram shall clearly show reporting lines, the tasks, position, authority and name of the persons proposed for the work, and in particular the study/project manager and the contracts officer.
Provide details and justification regarding the role and responsibilities of the subcontractor(s), if any as well as the role and responsibilities of each Key personnel]

NOTE: A "key person" is a person, who substantially contributes, in terms of effort and knowledge, to the work carried out under a Contract and who is explicitly nominated to perform such duties. Key persons are individuals with a certain degree of seniority whose knowledge, reputation, and/or skills in the relevant areas or disciplines are critical to achieving the objectives of the Contract.

8. Proposal Template
Part 2 – Management Part

2.1.1.2   Reporting lines within the team

....

2.1.1.3   Time dedication of key personnel
[For each key personnel identified in 2.1.1.1 above, provide a time percentage dedication per year]

Key Personnel	Total Hours dedicated to the Project	Total Working Hours during Project Timeframe	% of Total Working Hours dedicated to the Project
[Function] [Name]....	X	Y	(X/Y)*100
[Function] [Name]....			
[Function] [Name]....			
...			
TOTAL			

2.2   CURRICULA VITAE
[Concise CVs including the directly relevant information for the proposed activity for all key personnel and showing that all major elements of expertise needed are present in the team]

8. Proposal Template
Part 2 – Management Part
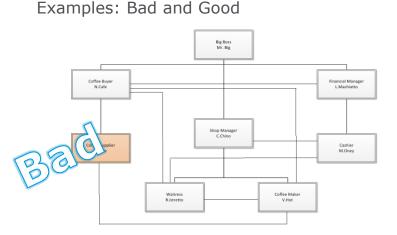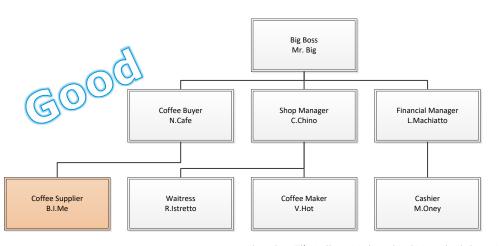
Hints and tips: Overall Team Organisation and Personnel

Provide an organigramme for the Project Team, this is intended to show the reporting lines and responsibility/delegation. It does not show who talks to whom on a daily basis.

- Each sub-contractor should have 1 formal contact point
- NO steering committees in ESA contracts – Project Manager (in discussion with ESA) is responsible for the direction, quality of work, decisions and timeliness.

Examples: Bad and Good

8. Proposal Template
Part 2 – Management Part

Hints and tips: Time Dedication of Key Personnel

A Key Personnel is someone playing a leading role in the activity OR providing irreplaceable experience and expertise.

1. Anyone contributing <<10% of their time is being used very inefficiently and is by definition not playing a leading role. (Unless due to unique expertise)

2. If someone is claimed to be a key personnel because they have irreplaceable experience and expertise – explain the role they play, what this is and how it will be exploited.

3. High numbers of claimed key Personnel does not make the proposal any better. Demonstrated good and effective use of people with the right background and with clear roles is better.

4. The percentage of the working time that each key personnel will dedicate to each Work-package (WP) shall be given. For the management task, if the consortium is not large, the percentage should not be higher than ~10%.

8. Proposal Template
Part 2 – Management Part

2.3   <u>MANAGEMENT PLAN</u>

MANAGEMENT PLAN

[Present your management plan, policies and procedures <u>for this activity</u> including a discussion of the management control organisation (reporting, monitoring, scheduling), the procedure that will be used to exercise control over the project and the proposed subcontracting control (if any), and means for settling disagreements should be described. Include also quality control aspects such as document management and approval, action item tracking, configuration control.... Indicate the authority of the project manager to timely obtain the needed project resources]
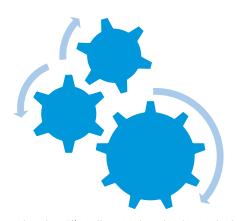
Hints and tips: Management Plan

The management plan should give confidence that the activity will be kept on track, on schedule and on cost to lead to a successful conclusion, with every aspect under control and traceable for duration.

Things to cover in a management plan:

- a) Team organisation - including roles and responsibilities of key   personnel and sub-contractors.
- b) How is technical progress monitored and controlled? (e.g. Progress reports and meetings)
- b) How are tasks given to people?
- c) How is schedule and cost controlled?
- d) How are actions traced?
- e) How are risks identified, traced, mitigated and controlled?
   (e.g. risk assessment matrix)
- f) What configuration and version control is done?
- g) How is the project status communicated to ESA and how often?

8. Proposal Template
Part 2 – Management Part

2.4   PLANNING

    2.4.1   Gantt chart
    [Insert a Gantt chart schedule for the proposed activity, from the start of the activity until the end of the Contract. The Gantt Chart is to include all proposed Work Packages (WP), meetings, milestones, dependencies and highlight the critical path. The schedule from the start of the activity until the end of the contract shall, in principle, not exceed two (2) years unless duly justified. If the scope of the activity is software development then this must be delivered and the standard 6 months warranty period should be reflected in the Gantt chart. This might lead to a total period exceeding 2 years.]

    2.4.2   Proposed Schedule
    [Provide a synthetic summary of the schedule including duration, planning assumptions (e.g. envisaged start date, holidays etc.) and identifying and explaining key planning drivers and dependencies]

    2.4.3   Meeting and Travel Plan
    [Complete the table below showing all planned meetings and travels required in the execution of the work. This should be consistent with the cost given in PSS A2, Exhibit B and shall include not only meetings with the Agency but also meetings with sub-contractors involving travel, field trips, travels to test houses etc.]

8. Proposal Template
Part 2 – Management Part

Hints and tips: Planning – GANTT Chart

The GANTT chart shows you can organise your work, provides a tool to monitor the work, to communicate key dates and to **show what drives the schedule**.

It shows you understand the work involved in what you are proposing.

Some tips for GANTT charts:

1. It should link clearly to WBS and Flow Chart

2. It should show milestones, reviews and **key** deliverables

3. It should show the **key** dependencies between tasks

4. Include to a 'sensible' level (not too much, not too little) – ask can you monitor progress?

5. Is there a critical path? Is it shown and discussed?
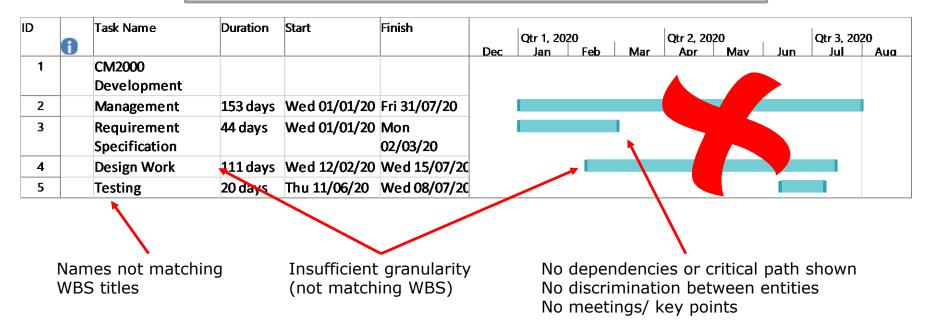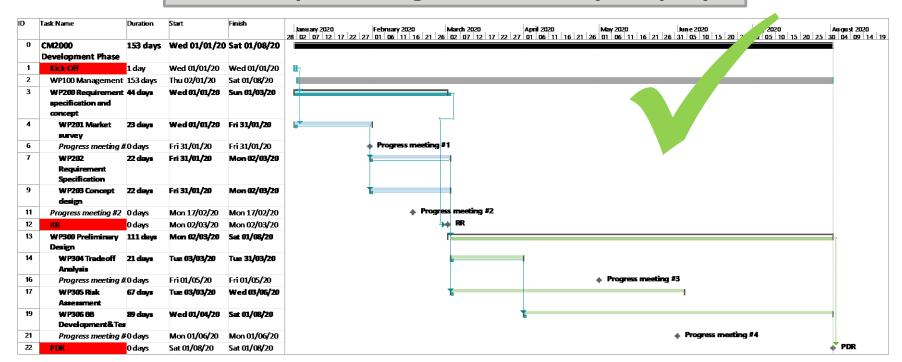
Hints and tips: Planning – GANTT Chart (examples)

ID		Task Name	Duration	Start	Finish		Dec	Qtr 1, 2020 Jan	Feb	Mar	Qtr 2, 2020 Apr	May	Jun	Qtr 3, 2020 Jul	Aug
1		CM2000 Development													
2		Management	153 days	Wed 01/01/20	Fri 31/07/20										
3		Requirement Specification	44 days	Wed 01/01/20	Mon 02/03/20										
4		Design Work	111 days	Wed 12/02/20	Wed 15/07/20										
5		Testing	20 days	Thu 11/06/20	Wed 08/07/20										

Names not matching WBS titles

Insufficient granularity (not matching WBS)

No dependencies or critical path shown
No discrimination between entities
No meetings/ key points

8. Proposal Template
Part 2 – Management Part

Hints and tips: Planning – GANTT Chart (examples)

8. Proposal Template
Part 2 – Management Part

Hints and tips: Meeting and Travel Plan

What to include:
- All meetings with ESA/Country Delegation (e.g. Annual Review, Progress meetings – via telecon)
- All technical reviews, both internal and with ESA (e.g. Requirements Reviews, Design Review, Test Readiness…)
- All meetings with sub-contractors or potential customers (e.g. progress meetings, working meetings, requirement definition meetings)
- All travels to facilities (e.g. Test houses, Ground truth measurement areas)
- Final Presentation (at ESA premises)

Other information to include
- Location (should be most relevant location – can be telecon too!)
- Purpose of meeting (should be clear and obvious)
- Number of attendees

What **NOT** to include
- Any meeting or travel not DIRECTLY needed for progression of the activity (e.g. conferences, promotional activities…)
- Ad-hoc meetings to resolve problems (e.g. supply problems)

8. Proposal Template
Part 2 – Management Part

2.5   <u>DELIVERABLE ITEMS</u>

[A list of foreseen deliverables shall be included. The List of Deliverable Items shall be grouped in Documentation, Hardware and Software and shall include sufficient explanation to unambiguously represent the scope of the deliverable.

For Documentation, the proposal shall indicate, a) list of technical notes b) list of the final deliverables as defined in the Table here-below.

For Software, the proposal shall indicate, if applicable, a) whether the software will be delivered in object and/or source code, b) the format of delivery, c) if any licenses/Third Party licences will be delivered to ESA]

Note that the TDP, FR, FP and CCD are mandatory deliverables for all activities

2.5.1   <u>Documentation</u>

[For each of the deliverable documents proposed by the Tenderer, a description, in the form of a bullet list of the main contents shall be added. This shall be sufficient to understand the contents, scope and depth of the envisaged document or report]

Note: The outputs to the Work Package Descriptions shall be included in the List of Deliverables

8. Proposal Template Part 2 – Management Part

Hints and tips: Deliverables

- Deliverables / Technical notes are everything that is delivered to ESA as part of the contract. Deliverables can be Documents, Hardware or Software
- All deliverables should be uniquely specified (e.g.: TN1, TN2.1, TN2.2, etc)
- It is good practice to also include a description or short contents list to clarify the scope.

ID	Title	Review	Type	Description
TN1	Trade-Off Report	TOR	Doc	ID of key trade offs, trade-off factors, selection and justification
TN2	Design Description	PDR	Doc	Functional design, operational r... materials list, s/w description, I...
TN3	Design Justification File	PDR	Doc	Thermal analysis, mechanical a... modes analysis, reliability analy...
H1	Breadboard	FR	H/W	Full electrical BB in non-represe... components.
S1	Prototype S/W V1	FR	S/W	Full source code in Visual C++ ... executable for Windows v10.

Good

Title	Date
Design documentation	1st April
Final Documentation	4th July
Hardware	5th November
Breadboard	25th December
Prototype S/W V1	1st Jan 2017

Bad

Examples of good and bad deliverable lists

8. Proposal Template
Part 2 – Management Part

Hints and tips: Standards

ECSS — European Cooperation for Space Standardization

ESA implements the European Cooperation for Space Standardization (ECSS) in it's programs. This implementation is **not required** for PECS projects, but it is **recommended** to implement them at least partially to better understand the way ESA programs work and the terminology used and resulting requirements.

ECSS documentation is available for free download from www.ECSS.nl. Registration on the website is free.

The key document to start with for project management is:

- **ECSS-M-ST-10C Project Planning and Implementation (Chapter 4,5 and Annex A)**

8. Proposal Template
Part 3 – Financial Part

3.1   <u>PRICE QUOTATION FOR THE CONTEMPLATED CONTRACT:</u>
[Enter here the total amount quoted as a Firm Fixed Price (FFP), in Euro without cents, delivery duty paid, exclusive of import duties and value added taxes in ESA Member States, etc., in pursuance of the pricing conditions fixed in the "Draft Contract" included in the ITT]

Remarks concerning certain price elements:

a)   Charging of royalties and license fees:
ESA will only accept to pay royalties or licence fees on the condition that they are:
- clearly identified in the tender, with the financial basis for their calculation, method of application and total amount, and
- demonstrated to be of direct and necessary benefit to the work to be performed (thus not merely the consequence of a general agreement or commitment to a Third Party), and
- applied only to that part of the effort to be performed by a Contractor or Sub-contractor that is directly related to the subject matter of the licence or royalty agreement.

8. Proposal Template
Part 3 – Financial Part

(cont.)

3.1   <u>PRICE QUOTATION FOR THE CONTEMPLATED CONTRACT:</u>

Remarks concerning certain price elements:

b)   Quotations free of taxes and custom duties:
Prices shall be quoted free of any value added taxes (VAT) and import duties in the Agency's Member States. Please note that subcontractor are not VAT exempt. In this connection you shall pay attention to the provisions stated in Article 3 of the Draft Contract (Appendix 1 to the ITT). In case you consider that you and/or your Sub-contractor(s) will remain subject to payment of taxes or custom duties, you shall indicate separately the applicable rates, the corresponding estimated amounts, and the reason why exemption from such taxes or duties cannot be obtained.

c)   Currency and conversion rate:
For any Tenderer or proposed Sub-contractor located in countries outside of the Euro zone, the exchange rate used to quote their prices in Euro shall be indicated by the company (or institute) in its costing form PSS-A2. Any other factors (such as hedging costs, forward buying rates) used for the purpose of the calculations shall also be indicated]

8. Proposal Template
Part 3 – Financial Part

Hints and tips: Price Quotation

1. The price of the Contract will be a **Firm Fixed Price without VAT**.

The EU provides International Organisations the privilege to be exempted from VAT for intra-community transactions. ESA, as an International Organisation, is classified as <u>non-taxable.</u> ESA applies this privilege by issuing a VAT EXEMPTION CERTIFICATE for its contract. ESA does therefore not have a EU VAT-ID number

=> The VAT Exemption certificate will be provided with the original contract.

❖ **The Prime Contractor is the only one receiving the VAT EXEMPTION CERTIFICATE** as it is the supplier in direct contractual relationship with ESA. It is the Prime Contractor to invoice ESA directly.

❖ Sub-contractors will not receive the VAT EXCEMPTION CERTIFICATE as they do not stand in a direct contractual relationship with ESA; they are paid by the Prime.

8. Proposal Template
Part 3 – Financial Part

Hints and tips: Price Quotation

2. **The price of the proposed activity must be transparent, clear and credible.**

✓ **TRANSPARENT:** Where does the money go? (e.g: the cost structure, hardware etc.)

✓ **CLEAR:** Level of details is important => PSS forms

✓ **CREDIBLE:** Are the cost credible to achieve the objectives of the proposed activity ?

❑ After the contract is signed by both party, ESA does not require financial reporting on the evolution of the spending.

❑ All financial details are set in the proposal & at negotiation. The proposal and the minutes of meeting will be part of "the rules of the game" together with the Contract for the all duration of the contract.

❑ The <u>financial envelopes given per category in the ITT are **LIMITS**– they are **NOT** goals.</u> Price must be fair and reasonable for the scope of work described in the proposal.

8. Proposal Template
Part 3 – Financial Part

3.2 <u>DETAILED PRICE BREAKDOWN</u>

3.2.1 **Procedures Specifications and Standards (PSS)** costing forms:
[On the basis of the corresponding instructions to each form, complete and insert in Annex to your Proposal the costing form(s) requested below):

- **PSS A1** Company Cost Rates and Overheads
- **PSS A2** Company Price Breakdown Form
- **PSS A2** Exhibit A – Other Cost Element Details (if applicable)
- **PSS A2** Exhibit B – Travel and subsistence plan
- **PSS A8** Manpower & Price Summary per WP

Note that the PSS form templates can be downloaded from EMITS at http://emits.sso.esa.int/emits/owa/emits.main under Reference Documentation / Administrative Documents / PSS Forms / Issue 5. Each of the PSS forms must be signed.

The profit shall not exceed eight percent (8%) of the base cost defined in item no. 9 of PSS A2 form, issue 5 ("Company Price Breakdown Form").

In case of participation of Sub-contractor(s) in the contemplated Contract, each Sub-contractor shall fill in the same forms with respect to its share of the activity and the Tenderer shall fill in forms corresponding to its own share and to the total.

Any PSS forms including those concerning your Sub-contractor(s) are to be signed by the authorised representative of the company (or institute) concerned]

8. Proposal Template
Part 3 – Financial Part: PSS costing forms

Procedures Specifications and Standards (PSS)

-       PSS A1 Company Cost Rates and Overheads
-       PSS A2 Company Price Breakdown Form
-       PSS A2 Exhibit A – Other Cost Element Details (if applicable)
-       PSS A2 Exhibit B – Travel and subsistence plan
-       PSS A8 Manpower & Price Summary per WP

PSS	Type of listing	Forms
PSS-A1	COMPANY COST RATES AND OVERHEADS	
PSS-A2 Incl. Exhibit A&B	COMPANY PRICE BREAKDOWN FORM	
PSS-A4	PROJECT MANPOWER AND PRICE BREAKDOWN FORM	
PSS-A6	CONTRACT PRICE SUMMARY FORM	
PSS-A8	PROJECT MANPOWER AND PRICE SUMMARY PER WP	
PSS-A10	COMPANY MANPOWER AND COST PLAN	
PSS-A15	CONTRACT PRICE PROJECTION in THOUSANDS EURO	
PSS-A15.1	COMPANY PRICE PROJECTION VS. PAYMENT PLAN in THOUSANDS EURO	
PSS-A20	WORK PACKAGE DESCRIPTION	
PSS-A40	HIGH-RELIABILITY PARTS PROCUREMENT QUESTIONNAIRE	
PSS-A45	PRODUCT TREE AND HARDWARE BREAKDOWN	

To get PSS Forms

http://emits.esa.int

8. Proposal Template
Part 3 – Financial Part: PSS costing forms
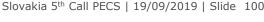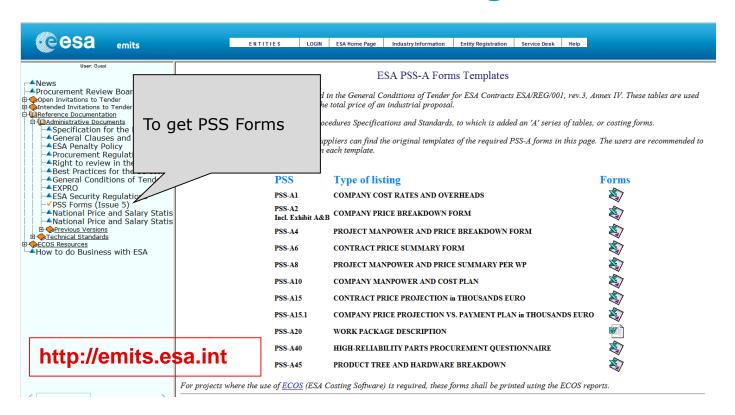
Hints and tips: PSS FORMS

Why do we use PSS Forms ?

☐ **Fairness:** PSSs are standard tools used for all ESA activities/ITT. All costs are presented the same way to allow systematic evaluation.

☐ **Clarity:** PSSs allow to review clearly where the money is allocated.

☐ **Evaluation tool:** e.g number of hours spent per key personnel per Work Package, cost per category, hardware cost…

Check carefully the Instruction Page

BE AWARE: We evaluate into details the cost. We will challenge the number of hours and the cost allocation to verify that the cost are true and credible.

Hints and tips: PSS FORMS

PSS A1

✓ **Present the labour Cost per Category (Project Manager, Mechanical Engineer, Senior scientist, PhD, Engineer ...)**

✓ **No Names**

✓ **ONE hourly rate for ONE labour cost category**

✓ **Fill in the Internal Facilities' part only if cost will be allocated to it.**

Hints and tips: PSS FORMS

PSSA2

- ✓ Full vision of the cost allocated to the activity
- ✓ If applicable, do not forget to include profit and cost of subcontractors
- ✓ **Exhibit A** : Details the cost allocated to hardware, services and miscellaneous
  - • TIPS: Cost must be detailed and verifiable against current market price
- ✓ **Exhibit B**: Details the **travel costs**
  - • No conference unless strictly linked to the need of the activity. We promote teleconference whenever possible. Not everyone need to come to the Final Presentation.
- ✓ The instruction provides all the definitions related to OTHER DIRECT COST ELEMENTS.

Hints and tips: PSS A2
Key review points by Technical Experts

Total # hours
Total # FTE

- Are these reasonable for the duration and scope of work?
- Do they match the # and time allocation of key people?

COMPANY PRICE BREAKDOWN FORM			Form No. **PSS A2**		Page no.	of		Issue 5
RFQ/ITT No.:			**COMPANY**					
Proposal/Tender No.:				Name:				
Type of Price:								
Economic Condition:				Country:				
National Currency (NC):	**XYZ**							
Exchange Rate (X):	1 EURO =	**1.00000**	XYZ	Representative				
Contractual Phase:				Name and Title:				
Project/Work Package(s):				Signature:				

						TOTAL (NC) XYZ	TOTAL (EURO) NC / X
LABOUR							
Direct Labour cost centres or categories Code / Description	No. of FTE (calculated) U = W / V	Sold Hours per ManYear V	Manpower Effort No. of Hours W	Gross Hourly Rate in NC			
Project Manager	0.1	1,750	175	100.00		17,500.00	17,500.00
Waiter staff	2.0	1,750	3,500	20.00		70,000.00	70,000.00
Coffee buyer	0.0	1,750	80	75.00		6,000.00	6,000.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
1	Total Direct Labour Hours and Cost	2.1		3755.0	A	93,500.00	93,500.00
INTERNAL SPECIAL FACILITIES							
Code	Description	Type of unit	No. of units	Unit rates in NC			
						0.00	0.00
						0.00	0.00

8. Proposal Template
Part 3 – Financial Part: PSS costing forms

		Base amounts in NC	+ OH %	OH amounts in NC				
2	Total Internal Special Facilities Cost					B	0.00	0.00
	OTHER DIRECT COST ELEMENTS	Base amounts in NC	+ OH %	OH amounts in NC				
3.1	Raw materials	5,000		0			5,000.00	5,000.00
3.2	Mechanical parts						0.00	0.00
3.3	Semi-finished products						0.00	0.00
3.4	Electrical & electronic components						0.00	0.00
3.5	HIREL parts							
	a) procured by company						0.00	0.00
	b) procured by third party						0.00	0.00
3.6	External Major Products	30,000		0			30,000.00	30,000.00
3.7	External Services	10,000		0			10,000.00	10,000.00
3.8	Transport and Insurances						0.00	0.00
3.9	Travel and Subsistence	5,000		0			5,000.00	5,000.00
3.10	Miscellaneous						0.00	0.00
3	Total Other Direct Cost	50,000.00		0.00		C	50,000.00	50,000.00
4	SUB-TOTAL DIRECT COST				(A+B+C)	D	143,500.00	143,500.00
	GENERAL EXPENSES	Cost items to which % applies	Base Amount in NC	OH %				
5	General & Administration Expenses		93,500	8.0%		E	7,480.00	7,480.00
6	Research & Development Expenses					F	0.00	0.00
7	Other					G	0.00	0.00
8	TOTAL COMPANY COST				D+(E+F+G)	H	150,980.00	150,980.00
		Cost items to which % applies	Base Amount in NC	%				
9	PROFIT		0.0	0.0%		I	0.00	0.00
10	COST WITHOUT ADDITIONAL CHARGE					J		0.00
11	FINANCIAL PROVISION FOR ESCALATION					K		0.00
12	TOTAL COMPANY PRICE				(H+I+J+K)	L	150,980.00	150,980.00
13	TOTAL SUB-CONTRACTOR PRICE					M		0.00
14	REDUCTION for COMPANY CONTRIBUTION					N	980.00	980.00
15	TOTAL PRICE FOR ESA				(L+M-N)		150,000.00	150,000.00

Hints and tips: PSS A2 Key review points by Technical Experts

Other direct cost elements - % of overall cost reasonable? (details reviewed in Exhibits)

Profit <= 8%?

Total – less than max price?

Hints and tips: PSS A2 Exhibit A - Key review points by Technical Experts

COMPANY PRICE BREAKDOWN FORM			EXHIBIT "A" TO PSS A2			Issue 5
			Page No.		No. of Pages	
RFQ/ITT No.:			COMPANY NAME:			
Proposal/Tender No.:			Name and Title:			
National Currency:						
Contractual Phase			Signature			
Applicable to PSS-A2 elements: 3.1-3.4 - 3.6 - 3.7 - 3.10 - 10						
Project / Work Packages						
Cost El. No.	ITEM DESCRIPTION	Type of Price	Purchase Currency	Purchase Amount	Exchange rate 1 NC =	Amount in NC
3.1	Coffee beans		Euro	3,000.00	1.00000	3,000.00
3.1	Tea leaves		Euro	2,000.00	1.00000	2,000.00
3.6	Coffee brewer 2000		Euro	20,000.00	1.00000	20,000.00
3.7	2 year service agreement for Coffee Brewer 2000		Euro	10,000.00	1.00000	10,000.00

Bought in items
- Justified by scope of work?
- Not representing infrastructure?
- Not representing 'normal work' items?
- Sufficiently identified?
- Reasonable cost?

External Services
- Clearly described?
- Clearly needed?
- Value for money?

8. Proposal Template
Part 3 – Financial Part: PSS costing forms

Hints and tips: PSS A2 Exhibit B - Key review points by Technical Experts
READ THE PSS GUIDELINES!

TRAVEL PLAN AND COST DETAIL				EXHIBIT "B" TO PSS-A2								Issue 1	
RFQ/ITT No.:								Project:					
Proposal/Tender No.:								Company:					
Contractual Phase													
Economic Condition:								Type of Price:					
National Currency (NC)*:								Exchange (**X**): 1 EURO =		1	0		
WP Reference Number	WP Title	Purpose/Event	Departure	Destination	Nr. of Trips	Avg.People per Trip	Travel Cost p.p. (NC)	B / E	Avg.Days per Trip	Subsistence Cost p.d. (NC)	A / R	Total Cost (NC)	Total Cost (EURO)
WP 2	Coffee procurement	Inspection and audit	AMS	Kenya	1	1	1,900	E	10	200	A	3,900	3,900
WP 4	Management	Final Presentation	AMS	Noordwijk	1	2	50	E	2	250	A	1,100	1,100
												0	0
												0	0
												0	0
												0	0
												0	0

Meetings:
- Matching meeting plan?
- All clearly justified?

People:
- Matched to scope of meeting?

Travels:
- Flight costs reasonable?
- #days reasonable?
- Subsistence reasonable? (often too low)

Part 3 – Financial Part: PSS costing forms

| Hints and tips: PSS FORMS |

PSSA8

- ✓ **Cost and Hours are broken down per Work Package**
- ✓ **We evaluate whether there is too much, not enough hours allocated to each WP**
- ✓ **Consistency of information is important**
- ✓ **Do not forget to sign the PSSA8**
- ✓ **Do not forget the total !**

**Hints and tips: PSS A8
Key review points by
Technical Experts**

Hours per work
package

- Matching/ reasonable
  for scope of work
  described in WP?
- Reasonable spread of
  hours (i.e. focus at key
  part)?
- Hours spent on
  management
  reasonable?

		WP1	WP2	WP3	WP4						Total WBS-Level
WP Title		Shop set up	Coffee procurement	Equipment setup	Management						
WP Number											
Labour Hours per category	Hours										
Project manager	#				175						175
Waiter staff	#	2,000		1,500							3,500
Coffee buyer	#		80								80
...	#										
...	#										
...	#										
...	#										
...	#										
Total Labour Hours	#	2,000	80	1,500	175						3,755
1. Total Labour Cost	NC	40,000.00	6,000.00	30,000.00	17,500.00						
2. Internal Special Facilities Cost	NC										
3.1-3.4 Material Costs	NC	5,000.00									
3.5 High Rel Parts Costs	NC										
3.6 External Major Products Cost	NC			30,000.00							
3.7 External Services Cost	NC			10,000.00							
3.8 Transport/Insurance Cost	NC										
3.9 Travel and Subsistence Cost	NC		3,900.00		1,100.00						
3.10 Miscellaneous Cost	NC										
3. Total Other Costs (sum of above 3.x)	NC	5,000.00	3,900.00	40,000.00	1,100.00						50,000.00
4. Sub-Total Direct Cost	NC										
5.- 7. General expenses	NC										
8. Sub-Total Company Cost	NC										
9. Profit Fee	NC	3,200.00	480.00	2,400.00	1,400.00						
10. Cost without additional charge	NC										
11. Financial Provision for escalation	NC										
12. Total Company Price	NC										
	EURO										
13. Total Sub-Contractors Price	NC										
	EURO										
14. Reduction for Company contribution	NC				-980.00						
15. Total Price for ESA	NC	48,200.00	10,380.00	72,400.00	19,020.00						150,000.00
	EURO	48,200.00	10,380.00	72,400.00	19,020.00						

8. Proposal Template
Part 3 – Financial Part

PLEASE NOTE!

All fields in National Currency and in EURO must be filled in.
Please do not forget to fill in the exchange rate.

For non-profit organizations, no profit can be accepted. For other organisations, the profit shall not exceed 8% of the Total Company Cost shown on line 8, which excludes the base value of 3.5b. Subcontractor prices are not considered to be own company cost and, being already inclusive of profit, are shown on line 13 of the PSS A2 (Issue 5).

Final presentation shall take place at the Agency's premises. The cost of attendance/participation to conferences can only be covered if it is directly pertinent to the work being proposed, and shall be justified.

Overheads on procurements and labour rates are intended to cover admin costs and **general office supplies and overheads.**

8. Proposal Template
Part 3 – Financial Part

3.2.2 Milestone Payment Plan

Milestone (MS) Description	Schedule Date	Payments from ESA to (Prime) Contractor (in Euro)	Country (ISO code)
Progress (MS 1): Upon successful completion of WP xxx and/or successful [review] and acceptance by the Agency of all related deliverable items [Deliverable reference e.g D.1 or TN1 ..].	To + ... months		
Progress (MS 2): Upon successful completion of WP xxx and/or successful [review] and acceptance by the Agency of all related deliverable items [Deliverable reference e.g D.1 or TN1 ..].	To + ... months		
Final Settlement (MS 3): Upon the Agency's acceptance of all deliverable items due under the Contract and the Contractor's fulfilment of all other contractual obligations including submission of the Contract Closure Documentation	To + ... months	*(not less than 10% of the total contract price)*	
TOTAL			

8. Proposal Template
Part 3 – Financial Part

Note: The advance payment constitutes a debt of the Contractor to the Agency until it has been offset against a subsequent milestone. The amount of the advance payment should be offset by the same amount.

Prime (P)	Company Name	ESA Entity Code (at contract signature)	Country (ISO code)	Advance Payment (in Euro)	Offset against	Offset by Euro	Condition for release of the Advance Payment
P				*Amount* *(not more than **35%** of the total contract price for SMEs and not more than 10% for non-SMEs)*	MS 1	...Amount (same amount as the advance payment)	Upon signature of the Contract by both Parties

8. Proposal Template
Part 3 – Financial Part

[You are requested to indicate below for information purposes only, the Milestone Payment Plan that is envisaged for Sub-contractor(s)]

For Information purposes only : Amounts in Euro for Contractor and Subcontractor(s)						
Milestone (MS) Description	Prime Contractor	*Insert Country (ISO code)*	Sub-contractor name	*Insert Country (ISO code)*	Sub-contractor name	*Insert Country (ISO code)*
MS1						
MS2						
MS3						

8. Proposal Template
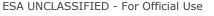## Part 3 – Financial Part

PLEASE NOTE!

- All claims for payment shall be linked to the **achievement of defined schedule milestones**. These milestones are to be in the form of significant events in the programme to be selected on the basis of providing a check point for progress in the work performed. E.G.
  - Successful completion of Reviews
  - Acceptance of deliverables

- **Progress reports are not sufficient to make payments**

- **Advance payments** to be made after contract signature, may be agreed in line with:

  - The Advance payment **constitutes a debt of the Contractor to the Agency** until it has been set-off against a subsequent milestone. The advance payment shall nominally be set-off against the 1st progress payment.
  - Advance payments for SMEs are 35% of the contract price. SMEs are classified according to the criteria of the European Commission (Recommendation 2003/361/EC of 6 May 2003 (OJ L 124, 20.5.2003, p. 36)).

- **The final payment milestone** shall not be less than **10% of the contract price**.

8. Proposal Template
Part 3 – Financial Part

3.3   COST TO COMPLETION
[A cost to completion is not required for Education, Awareness or Preparatory Activities. A cost to completion would be positive for all other activities with a completion TRL of 6 or less. This information is provided for information only and is not binding in any way for either party (ESA or Tenderer)]

3.3.1   Further steps/ Activities needed to complete the development
[Identify each of the main development steps / activities that would be needed AFTER COMPLETION OF THIS ACTIVITY to progress the work to higher TRL - if applicable]

3.3.2   Estimated Cost per step
[Provide a rough estimate of the expected cost of each further step or activity that would be needed in order to reach higher TRL (two levels above the final TRL achieved during the proposed work) – if applicable]

Further Step/ Activity	Estimated cost (Euro)	Estimated Start date	Estimated end date

4.1 INTELLECTUAL PROPERTY RIGHTS

4.1.1. Background Intellectual Property and Third Party Intellectual Property Rights
[SELECT **ONE** OF THE TWO OPTIONS]

[OPTION1]
[If you intend to use for this activity, your own or Third Party intellectual property rights (IPR), you have to identify them with their IPR status at the time planned for the execution of the proposed activity and to specify with the name of the owner, that you are entitled to get the appropriate licence within your price quotation for the Contract, for their access and use for the performance of this contract and in accordance with the Draft Contract conditions.
Please, fill in the table below indicating the items covered by Background Intellectual Property (BIP)which are proposed to be used for the present activity].

Exact name of BIPR Item	Owner, Country	Description	Reference: Patent / Issue / Revision / Version/ /Licence #	Contract / Funding Details under which the IPR was created	Name of the affected deliverable
					Include reference of the deliverable

[OPTION2]
In line with Article 6.3 of the Draft Contract, no Background Intellectual Property and no Third Party Intellectual Property Rights will be used to achieve the objectives of the work.

8. Proposal Template
Part 4 – Contract Conditions Part

4.1   INTELLECTUAL PROPERTY RIGHTS

4.1.2   Foreground Intellectual Property
[Present the expected Foreground Intellectual Property Rights that will be created as a result of the present activity].

4.1.3   Ownership of Foreground Intellectual Property (Article 6.2.1 of the draft Contract)
[SELECT AND PROVIDE DETAILS OF ONE OF THE TWO OPTIONS]

[OPTION 1]
Please confirm that the Foreground Intellectual Property Rights created as a result of the present activity will belong to the Tenderer.

[OPTION 2]
In the case of the participation of Sub-contractor(s), explain the agreement reached between the parties on the ownership of the Intellectual Property and the principles for its exploitation, use and benefits.]

Please confirm that the Agency shall have an irrevocable right to use the information used in that application, for its own requirements on the terms set out in Article 6.2.2 of the draft Contract.

8. Proposal Template
Part 4 – Contract Conditions Part

> **Hints and tips: Intellectual Property Rights**

1. Background IPR
   a. Intellectual property existing already BEFORE the ITT.
   b. That is USED for the work of the ITT
   c. That had no ESA financial aid to develop.
   d. Must be listed, must be able to be evidenced (e.g. via patent, notebook or other means)
   e. Impact on the deliverables must be described
      - Which deliverables is it included in?
      - How does it affect that deliverable and ESA's rights?

2. Foreground IPR
   a. Intellectual property developed DURING the Activity
   b. IP shall remain vested in the company
   c. ESA shall also have rights
   d. It shall not affect the deliverables/ rights on the deliverables

8. Proposal Template
Part 4 – Contract Conditions Part

START
We have an Idea! We have a recipe for astronaut food!

Objective: supply good tasting protein rich cereal bars to space travellers.

Original Recipe – protein rich but tastes awful

BACKGROUND IPR

'Micro-Ecological Life Support System Alternative' programme (MELiSSA) Project: spirulina recipe improved after experiments and testing.

Final Recipe – Specific modifications from lessons learned result in a good tasting product

FOREGROUND IPR

8. Proposal Template
Part 4 – Contract Conditions Part

4.2   <u>IMPORT AND EXPORT LICENCES</u>

[This section is only to be completed in case of items or services that are subject to envisaged or probable inclusion of import/export restrictions, other than those from the Tenderer's own country, in either the body of the work performed under this activity or in a resulting product or service.]

    4.2.1   <u>Import and Export Licences applicable to this Activity</u>
            [SELECT ONE OF THE TWO OPTIONS]

            [OPTION1]
            The Tenderer declares that no items subject to import or export control will be used in the execution of this activity.

            [OPTION2]
            The Tenderer declares that the following items, subject to import or export control will be used in the execution of this activity:

Item	Control Type and Country of Origin	Deliverable affected	Comment

8. Proposal Template
Part 4 – Contract Conditions Part

(cont.)

4.2 <u>IMPORT AND EXPORT LICENCES</u>

    4.2.2 <u>Import and Export Licences applicable to a product or services arising from or resulting from this Activity</u>

        [SELECT ONE OF THE TWO OPTIONS]

        [OPTION1]

        The Tenderer declares that any products or services arising from or resulting from this activity will not be subject to import or export control or make use of any import/ export controlled items.

        [OPTION2]

        The Tenderer declares that the following items, subject to import or export control, are expected to be used in an end product or service eventually arising from or resulting from this activity.

Item	Control Type and Country of Origin	Deliverable affected	Comment

Slovakia PECS Calls Planning

Events of Interest	5th PECS Call (This Call)	6th PECS Call (Expected)
Attention: TENTATIVE ONLY!		
Industry/Academia Briefing	19 September 2019	TBD
Publication of the Call on EMITS	01 October 2019	
Proposal Submission Deadline	02 December 2019	
Outcome Letters	Feb/Mar 2020	

WHAT CAN YOU DO WITH ESA & EU PARTNERS?

ALL OF THIS IS POSSIBLE THANKS TO THE COLLABORATION OF MEMBER STATES

ESA is active across **every area** of the **space sector**

World leader in **science** and **technology**

Over 80 satellites developed, tested, and operated **since 1975**

More than 220 launches from Europe's Spaceport in Kourou

European Space Agency

Mark your calendar: Industry Space Days

B2B meetings

Conference presentations

Exhibition

- The ISD is a **B2B event** organised by the SME Office to facilitate business among space companies with a special emphasis on increasing the involvement of SMEs in space activities

- The 8th edition of the ISD will take place on **16 – 17 September 2020** at ESA/ESTEC

SME Support: Communication & Training

10–11 September	ECOS 5.3 (second session)	ESA/ESTEC
14 October	ECSS - Q-10 Q-20 PA/QA	Livestream, 13:30 –17:00
15 October	ECSS - Q-40 Safety	Livestream, 9:00 –12:30
15 October	ECSS - Q-60 EEE Components	Livestream, 13:30 –17:00
16 October	ECSS - Q-70 Materials, Mechanical Parts and Processes	Livestream, 9:00 –12:30
16 October	ECSS - Q-70 Materials, Mechanical Parts and Processes	Livestream, 13:30 –17:00
29–30 October	Product Assurance in ESA projects	ESA/ESTEC
31 October	Rate Calculation Training course	ESA/ESTEC
5–7 November	R&D proposal writing course	ESA/ESTEC
4 December	EEE components procurement: different cost areas and their relevance	ESA/ESTEC
Q4 2019 (tbd)	Intellectual Property Rights	ESA/ESTEC

- The SME Office organises and supports various training courses for SMEs
- SME **Portal** www.esa.int/sme
- SME Office **Helpdesk** sme-office@esa.int
- SME **Newsletter** https://bit.ly/2TzBL0q
- http://www.esa.int/About_Us/Business_with_ESA

THANKS FOR YOUR ATTENTION

QUESTIONS?

New, Cooperating and Associate States Section:
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