

Plan for European Cooperating States (PECS) 1st Call in Cyprus Overview

Cyprus: ESA European Cooperating State



The first legal step in the cooperation was the signature of the Cooperation Agreement between Cyprus and ESA in 2016.

A first Cooperation Agreement with Cyprus was signed in 2009. Following the technical visit to Cypriot entities in 2011, an updated review of selected companies, institutes and universities was carried in June 2015, affirming significant increase in awareness of ESA's activities.



Summary of 1st PECS Call in Cyprus



- The ITT was issued on EMITS on 19th September 2016.
- The total budget: **1,200,000€**
- **28** proposals were received.
- The total requested budget amounts to **3,844,000€**
- Statistics:
 - a) Research and Development (54%)
 - b) Space application, product and services (10%)
 - c) Preparatory Activities (14%)
 - d) Awareness and Education (22%)



Recommended Proposals: Statistics

- As an outcome of the 1st PECS Call, **10** proposals were recommended by ESA Tender Evaluation Board (TEB).
- Due to budget ceiling for this Call, **7** proposals will be implemented.
- These were ESA recommended proposals according to the higher total score. These are the areas:
 - a) Research and Development (71%)
 - b) Space application, product and services (14%)
 - c) Preparatory Activities (0%)
 - d) Awareness and Education (14%)

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Summary of Recommended Proposals: Statistics



- Bidders of recommended proposals
 - Industry (29%)
 - Academia (71%)
- The recommended proposals fall into the following areas:
 - Earth Observation (29%)
 - Navigation (14%)
 - Education (14%)
 - Technology (43%)



Next Steps



- Rejected Letters were sent end of March / early April. No news, good news!!
- Currently, ESA is undergoing internal approval process.
- Early July, Cyprus and ESA will sign the PECS Charter.
- First Cyprus financial contribution will be paid.
- After the previous steps have been undertaken:
 - Bidders of recommended proposals will be contacted for contract negotiation by early Autumn.
 - ESA will send clarification points and will propose a date for negotiation via teleconference.
 - If all negotiation points are successfully addressed, a contract will be placed. The start date (or kick-off) will be chosen by successful bidder.



Opportunity to improve in view of common mistakes

- Evaluation Criteria
- Common Mistakes
 - Criterion 1: Technical and Implementation
 - Criterion 2: Programmatic
 - Criterion 3: Management, cost and schedule
 - Criterion 4: Administrative Tender Conditions
- Hints and Tips

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 Cyprus. Consistency with programmatic objectives. 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 %

Tender Evaluation Board (TEB) Marking



ESA Marking:

90 Excellent

75 Very good

60 Good

50 Fair

40 Barely acceptable

<40 Below acceptability



Criterion 1: Common Mistakes



- Objectives difficult to understand or not clearly stated.
- Poor or missing technical requirements (e.g. not covering the key points, not quantified or verifiable, not matching market need).
- Poor, brief or missing engineering approach (e.g. Baseline concept not described, engineering approach too brief to understand what will be done or how, lack of key testing or validation)
- Poor or inadequate program of work (e.g. missing customer involvement, missing design or development steps) and inconsistency between text, flowchart, Work-Package Description (WPD) and GANTT chart.



Criterion 1: Common Mistakes



- 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.
- Poor Work-Package Description (e.g. insufficient detail to understand the full scope of the work, no clear responsibilities, inputs and outputs of each WPD missing).
- Poor WBS (e.g. “spaghetti” WBS and flowchart, too many/few Work Packages (WP)).



Criterion 2: Common Mistakes



- Not meeting the programmatic constraints of the cover letter (e.g. not related to ESA need or programmes, not space related, not credible start or target TRL, no clear benefit for the country, no user involvement in services and applications proposals)
- Review Workplans (links) provided with Invitation to Tender (ITT) material that is published in relevant Annexes.



Criterion 3: Common Mistakes



- Lack of management structure, unclear roles or rationale for entit(ies) in proposed consortium, WP managers not identified, missing time allocation of key personnel per WP, lack of project team structure. Poor management plan (e.g.: lack of monitoring, lack of details on how bidder will address risks, etc).
- Poor planning and scheduling or missing rationale to support the proposed approach. Lack of completeness and/or coherent time allocation per key personnel and within the project as per Work Breakdown Structure (WBS).
- PSS not complete or not aligned with project as per WBS.



Criterion 4: Common Mistakes



- Lack of clear statements on Intellectual Property Rights (IPR), including Background and Foreground Rights.
- Lack of clarity on “Export and Import Restrictions”.
- Lack of clear statements in relation to insurance waiver.



Hints and Tips

Proposal: Title



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

- Keep it short and clear
- Make it descriptive and relevant
- Acronyms are not needed



Proposal: 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. In theory, everything you propose to do should be derivable from this text.

Objectives should:

1. Be short (some sentences) and clear
2. Contain the core essence



Proposal: Requirements (I)



For proposals, requirements are the key measurable 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 measurable.
- 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.



Example (in a cafeteria):

Well formulated requirements:

- The coffee shall be served at a temperature between 85 and 90°C.
- The coffee shall be dispensed in 200ml +/- 10ml servings.

Poorly formulated requirements:

- The coffee has to be a good temperature
- The coffee shall have big serving sizes

Not a requirement at all in this sense:

- We need to buy a kettle and coffee cups
- We should do a trade off on what biscuits to give

1.4 ENGINEERING APPROACH

1.4.1 Technical Steps

[Present and discuss in detail the scientific/technical steps to achieve the objectives and the committing requirements outlined under sections 1.1 and 1.2. Note: the steps shall be consistent with those reflected in the Work Logic Diagram in section 1.7.1]

1.4.2 Implementation aspects

[Present a first iteration of the concept and the baseline design/approach. The baseline design covers for instance the system architecture and a functional decomposition presented in block diagrams, providing also internal and external interfaces. Discuss the current state of the art and the trade-offs that need to be taken into account and show the overall logic of the work being proposed including any key review 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

Proposal: Engineering Approach (1)



Strongly linked to Section ***Proposed Work Logic***

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:
 1. How is the work broken up between companies? Why?
7. What are the key trade offs? What are the key decision points?



Proposal: Engineering Approach (2)



- 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?)

- What alternatives exist?
 - a. 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 evidence is there that it will work?
 - a. Provide sufficient detail that the credibility can be understood/ checked by someone else



Proposal: Problem Areas



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 minimise 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.



Proposal: Application of Technology Development



This is 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? Why is it needed?
3. What are the competing technologies/ methods? Why could this be better?
4. Is there a valid business case for continuing after this activity?
5. Does it match the programmatic constraints of the call?

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.



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 critical path clearly shown. Note that this shall be consistent with section 1.4, the WBS and the schedule]

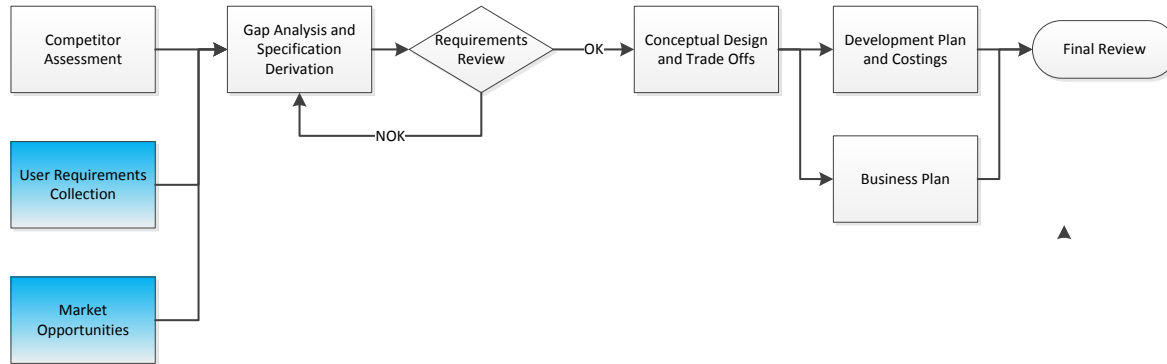
1.7.2 Contents of the proposed work

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 and subcontractor project management activities shall be identified in the WBS]

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.

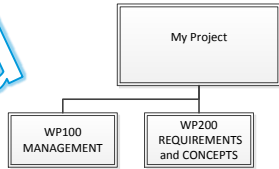


Work Package Structure (WPS)

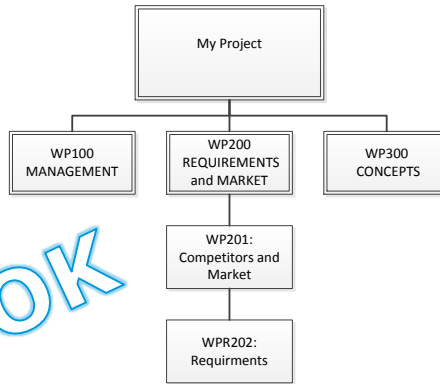
WBS assists in the effective definition, monitoring, payment and running of the activity. Here are some guidelines

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 all tasks in one work package 'belong together'

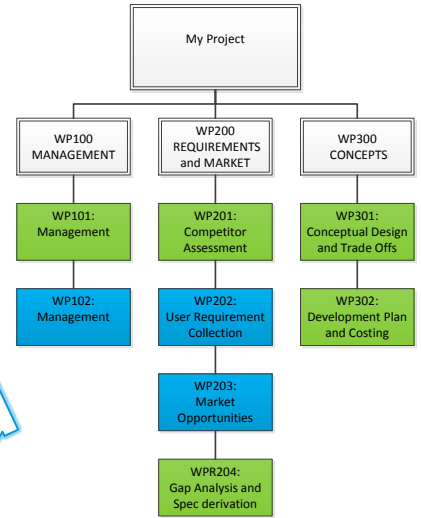
Bad



OK



Good



Work Package Description (WPD)



1. Responsible entity
2. Beginning and end date of each work package
3. Person responsible for the work package (i.e.: WP Manager)
4. Description of the activities in the work package, sufficient to understand clearly the scope and depth of the work being performed.
5. Inputs to the work package
6. Outputs of the work package (e.g.: Technical Notes, Software, Hardware, Samples)

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 internal meetings, progress reports and final documentation shall be performed under this work package.



Work Package Description (WPD)



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:	
<ul style="list-style-type: none">• Organization of meetings and reviews• Weekly team meetings• Monthly progress meetings with sub-contractors• Produce Progress Reports for ESA• 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: 1 st April 2017
End Event: End of project	Planned Date: 25 th Dec 2018
Inputs: None	
Tasks:	
<ul style="list-style-type: none">• Manage the project• Control the team• Write reports• Produce final documents• Support some technical work• Participate in meetings	
Outputs: Management documentation, final deliverables	

Bad



Background and Experience



We are only interested in DIRECTLY RELEVANT background and experience.

“Silly” Example:

- Directly relevant experience for a Coffee maker: Having made coffee before for themselves or having made multiple types of coffee in a café
- Non-relevant experience for a Coffee maker: Cleaning the café, playing football..

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.



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

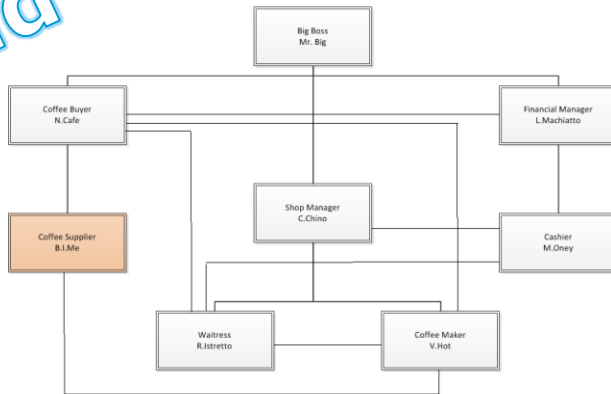
2. Examples of things **NOT** considered Facilities:
 1. Your building and address
 2. Your desks and office furniture
 3. Standard computers, office s/w and printers

Team Organisation and Personnel

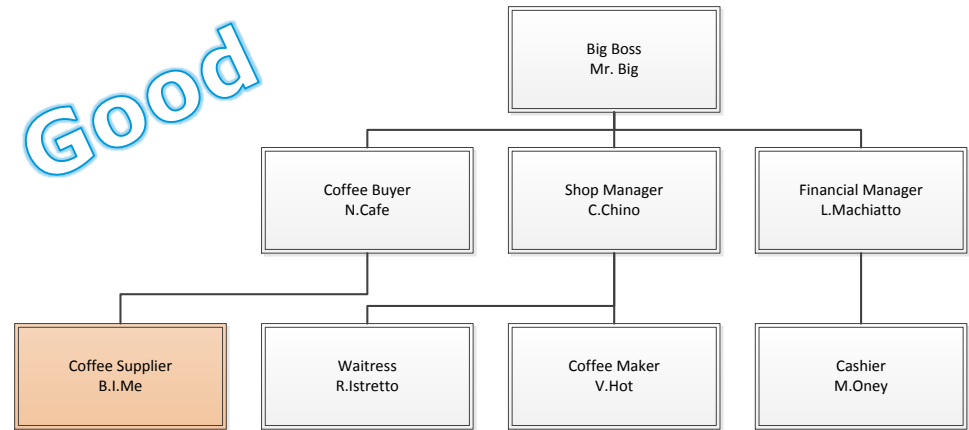
Provide an organigramme for the Project Team, this is intended to show the reporting lines and responsibility/delegation.

- 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.

Bad



Good



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%.



Role of the management plan in the proposal is to 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 the entire duration. Things to cover in a management plan:

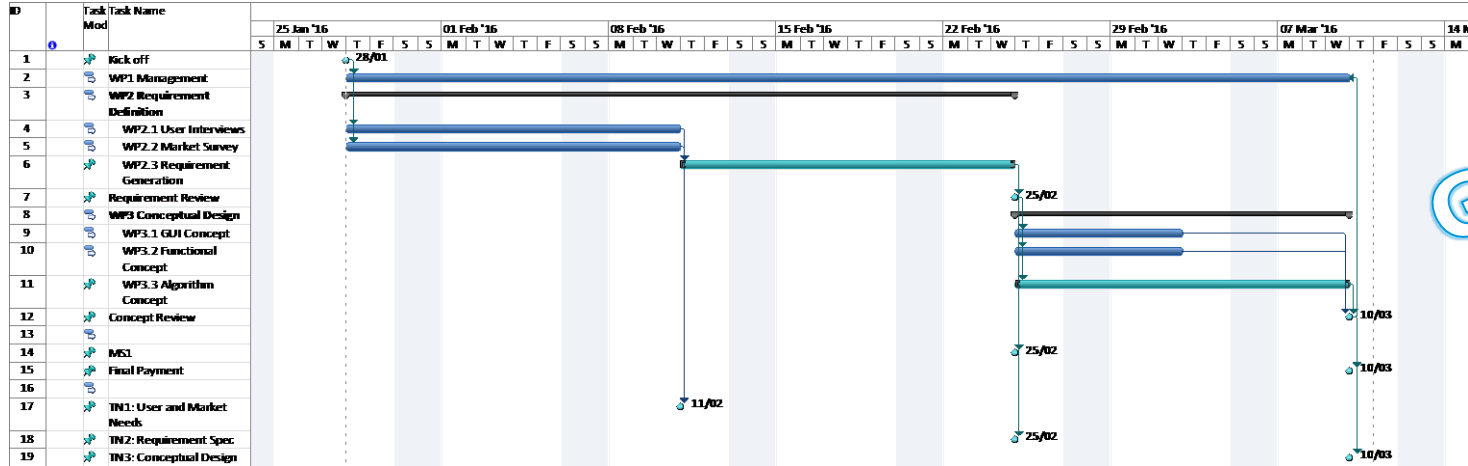
- Team organisation – incl. roles and responsibilities of key personnel and sub-contractors.
- How is technical progress monitored and controlled? (e.g. Progress reports and meetings)
- How are tasks given to people?
- How is schedule and cost controlled?
- How are actions traced?
- How are risks identified, traced, managed and controlled?
- What configuration and version control is done?
- How is the project status communicated to ESA and how often?

The GANTT chart shows you can organize 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.

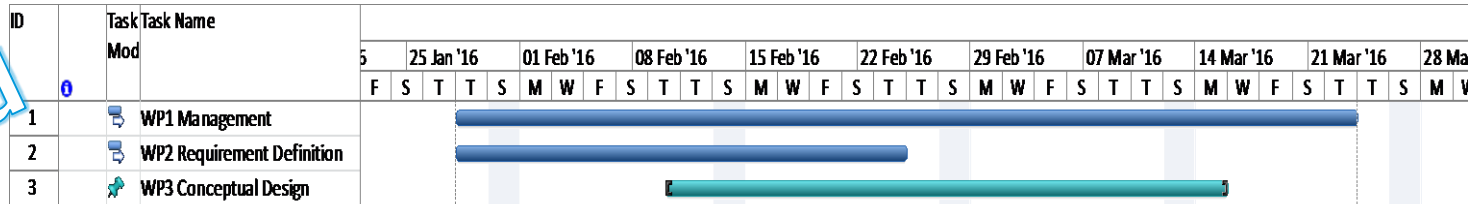
Some tips for GANTT charts:

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)

Gantt Chart - Examples



Good



Bad

What to include:

- All meetings with ESA (e.g. progress meetings)
- All reviews, both internal and with ESA (e.g. Requirements Reviews, Design Review....)
- 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

Other information to include

- Location (should be most relevant location)
- Purpose of meeting (should be clear and obvious)
- Number of attendees (the minimum required)

What **NOT** to include

- Any meeting or travel not **DIRECTLY** needed for progression of the activity

List of 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.

Good

ID	Title	Revision	Type	Description
TN1	Trade-Off Report	TO R	Doc	ID of key trade offs, trade-off factors, selection and justification
TN2	Design Description	PD R	Doc	Functional design, operational modes, h/w description, parts list, materials list, s/w description, ICD
H1	Breadboard	FR	H/W	Full electrical BB in non-representative housing using commercial components.
S1	Prototype S/W V1	FR	S/W	Full source code in Visual C++ version 123.45 and compiled executable for Windows v10.

Bad

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



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 non-taxable. 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 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 EXEMPTION CERTIFICATE as they do not stand in a direct contractual relationship with ESA; they are paid by the Prime.

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

- **TRANSPARENT:** ESA must know how the money will be spent (e.g: the cost structure, etc.)
- **CLEAR:** Level of details is important => PSS forms
- **CREDIBLE:** ESA will assess if the cost is adequate 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 financial envelopes given per category in the ITT are CEILING limits – they are NOT goals. Price must be fair and reasonable for the scope of work described in the proposal (e.g. WPD)

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 organisations, 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.**

Milestone Payment Plan

All claims for payment shall be linked to the **achievement of defined milestones**.
For example:

- Successful completion of Reviews
- Acceptance of deliverables

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 of all related deliverable items.	To + ... months		
Progress (MS 2): Upon successful completion of WP xxx and/or successful [review] and acceptance of all related deliverable items.	To + ... months		
Final Settlement [1] (MS 3): Upon the Agency's [OPTION] provisional acceptance of software and [END OPTION] 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	<i>(not less than 15% of the total contract price)</i>	
[OPTION] Final Settlement [2] (MS4) Upon final acceptance of software and successful completion of the 6 month warranty period	To + ... months	<i>(not less than 5% of the total contract price)</i>	
TOTAL			

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.
- An advanced payment is not granted automatically; a significant need for cash at the beginning of the contract must be demonstrated.
- Advance payments for SMEs may be increased to a maximum of 35% of the contract price, if justified. 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**.
- For software deliverables **5% of the contract price** will be due after expiry of the 6 months warranty period.

Definition as per the ESA General Clauses and Conditions reference “ESA/REG/002, rev.2”:

“Intellectual Property Rights” means all Registered Intellectual Property Rights, and all unregistered intellectual property rights granted by law without the need for registration with an authority or office including all rights in information, data, blueprints, plans, diagrams, models, formulae and specifications together with all copyright, unregistered trade marks, design rights, data base rights, topography rights, know how and trade secrets or equivalent rights or rights of action anywhere in the world.

The full document is available on the following link:

<http://emits.sso.esa.int/emits/owa/emits.main>

Reference Documentation - Administrative Documents - General Clauses and Conditions.

The definition is given in Annex IV, Page 3.

- **Background IPR (BIPR)**

- A clear list of the BIPR, with source of creation (contract, own R&D, etc...), source of funding, and affected deliverables, shall be presented. It is not enough to state that BIPR have been identified without providing a list thereof.

- **Third party IPR**

- The same applies for Third party IPR.

- **Foreground IPR**

- The same applies for expected Foreground IPR.
- In addition, often the contractual regime of ownership is detailed but nothing is confirmed regarding the rights of use by ESA. It shall be confirmed that the rights of use by ESA shall be the ones as provided for in the Draft Contract provided within the Call.

1. Background IPR

- a. Intellectual property existing BEFORE the ITT, used in the work of project
- b. That had no ESA financial aid to develop (if it does, it is Foreground IPR)
- c. Must be listed, must be able to be evidenced (e.g. via patent,)
- d. 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

- **Explicit statement**

Here as well, an explicit statement shall be provided, instead of a mere statement “not applicable” or “not relevant”. For example, the following could be used: “This has been checked and it results that no export/ import restriction is expected during the activity”.

Insurance Waiver

A clear option shall be chosen already in the proposal:

- a) accepting Clause 18.1.6 of ESA GCCs or
- b) confirming that an insurance waiver has been obtained and will be provided at Contract signature.

Other points

PSS Forms

To be provided for the total price + per company

To be signed (all of them)

Cost to completion

Time dedication and CVs

To be provided for all identified key personnel.

Time dedication consists of the percentage of time dedicated to the activity out of the total working time of the key personnel.

Documents shall be readable!!!

(PSS Forms and schedule Gantt chart e.g.).

Warranty

This shall be explicitly confirmed when there is deliverable SW, specially:

In the planning (6 month warranty to be added to the duration of the activity).

In the Milestone Payment Plan (final milestone to be added after successful completion of the warranty, to be equal to at least 5% of the total contract price).

DO NOT change the proposal template, use it as is!

Thank you for your attention.
Questions?