

The Proposal Template: Hints & Tips

Riga, 12/06/2024

Summary of the presentation

- Disclaimer
- Common Mistakes
- **The proposal template – Cover Letter**
- **The proposal template Part 1 – Technical and Application**
- **The proposal template Part 2 – Management**
- **The proposal template Part 3 – Financial**
- **The proposal template Part 4 – Contract Conditions**

- This presentation material does not contain sufficient information to be used, in any way, in the context of any ESA CfPs (Call for Proposals).
- This presentation is just to help understand, in a simplified manner, some of the key elements associated with the template for this call.
- Proposal templates can vary; however, some main elements are provided in this presentation to serve as an example and guidance. Do not copy any part of the examples given.



Please ensure that your Proposal is compliant with the requirements contained in the specific CfP documentation!

During this presentation we will draw your attention to **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 your idea in a way it can be **understood by reviewers**.

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

Remember:

- **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 ESA-STAR 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 for both them and you.

Proposal Template

Common Mistakes / Checklist before submission





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

Criteria 1

 **CHECK YOUR PROPOSAL AGAINST THIS LIST!**

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, not matching market need).
3. Poor or missing engineering approach (e.g. baseline concept not described, 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, WBS, 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 WPD (e.g. insufficient detail to understand the full scope of the work, no clear responsibilities, inputs and outputs of each WPD).
7. Poor WBS (e.g. spaghetti WBS and flowchart, too many/few WP, WP with tasks for more than one entity).

Criteria 2

1. Not meeting the programmatic constraints of the cover letter (e.g. not related to ESA needs 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).



Criteria 3: Management, planning, costing parts

1. Poor management plan (e.g. missing how you will monitor the timely implementation of the activity, subcontractor control, 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). The goal is fair costing w.r.t. entities standard cost structure!
4. Poor definition of deliverables (e.g. missing deliverables, not covering the full scope of work, deliverables not matching WPD outputs).
5. High (>10%) / very low (<5%) management hours w.r.t. total hours.
6. Inconsistency between PSS forms and proposal (costed travels not in meeting plan, facilities/service costed for but not mentioned in proposal).

Criteria 4: Compliance with administrative tender conditions

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).



ChatGPT on the perils of using ChatGPT for technical proposals... (with which we fully concur)!

“The heedless deployment of ChatGPT for the composition of exalted formal technical proposals serves as a prelude to a veritable Shakespearean tragedy, replete with a tempest of perilous pitfalls and woeful repercussions.

Behold, the core sin of ChatGPT, for it is but a mere conduit of algorithmic patterns, bereft of the profound wellspring of domain-specific knowledge and contextual acuity so profoundly requisite for the meticulous construction of precise and accurate technical proposals. This lamentable inadequacy begets a pandemonium of inaccuracies, shrouded in the mists of misunderstanding, and plagued by a dearth of technical erudition within the composition. Furthermore, ChatGPT, like a capricious maven of linguistic arts, flirts with the peril of inadvertently infusing biases and inappropriate lexicons into the sacred tapestry of the proposal, thus casting a long shadow upon its professionalism and moral rectitude. Deprived of the faculties to engage in the noble art of rigorous inquiry and the verification of information veracity, ChatGPT’s creation may verily descend into a labyrinthine netherworld, a nightmarish domain of erroneous data and references, heretical to the gods of intellectual integrity.

The over-reliance upon ChatGPT for such august undertakings may be likened to a tragic fall from grace, wherein the quality, reliability, and probity of the document shall be irreparably besmirched, and it shall be consigned to the annals of ineffectuality, unfit for the discerning gaze of noble professional and technical audiences. Hence, it is paramount to wield ChatGPT as a humble tool, an adjunct to human sagacity, and to accompany its output with the indomitable vigilance of human scrutiny, for to do otherwise would be to court calamity and ignite the flames of intellectual hubris.”



The Cover Letter contains details on:

- The **Title**
- The team submitting the proposal
- The **Cost** of the proposal
- The **type** of activity (**a, b, c, d, e, f, g**)
- The **Duration** of the proposal
- Who the point of contact is
- The Acceptance of contract conditions
- The Statement concerning export restrictions
- The Statement on free competition
- The Legal representative
- The Validity of the proposal



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.



The Cover Letter MUST be signed!



Hints & 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)”*

Proposal Template

Part 1 – Technical and Application



- 1.0 Introduction and Scope
- 1.1 Technical Objectives
- 1.2 Requirements
- 1.3 Technology Readiness Level
- 1.4 Engineering Approach
- 1.5 Technical Feasibility, Problem Areas And Development Risk
- 1.6 Prospect For Exploitation And Use
- 1.7 Technical Implementation / Programme Of Work
- 1.8 Background Of The Company(ies)
- 1.9 Facilities



1.0 Introduction and Scope

- Provide the **background and rationale** of what you are proposing to do.
- Keep it **succinct** (not more than half a page), but **clear** enough to provide **sufficient context** for your development.





1.1 Technical 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.

Objectives should:

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

Objectives should not:

1. Describe the work to be done, the workflow 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!





1.2 Requirements

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/realised
- 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.



1.2 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

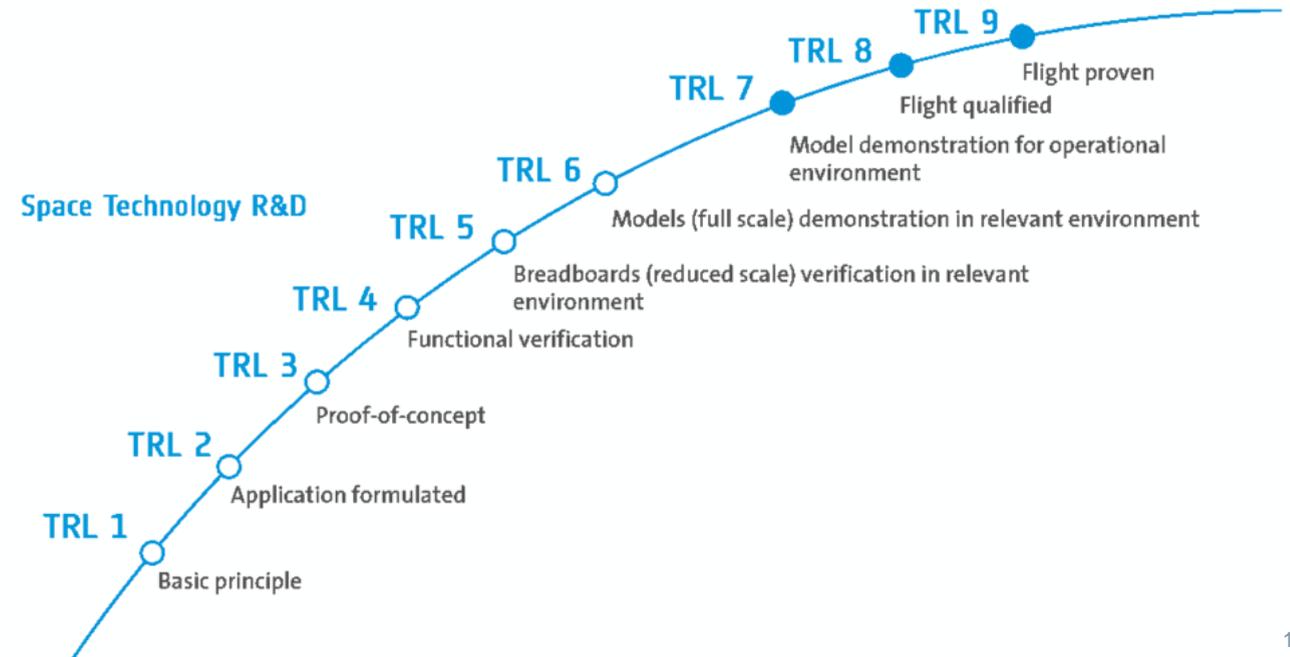
Not a requirement at all in this sense:

- 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



1.3 Technology Readiness Level

- **Indicate** and **substantiate** the current TRL level of the technology.
- Refer to **Annex A** to the CfP 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 indicated in the **Cover Letter** of the CfP.





1.4 Engineering Approach

1.4.1 State of the Art

- Provide a brief overview of “State of the Art”.
- Explain why you chose your proposed baseline instead of others, what benefit does it have over the others?
- Show you know your competitors and their products

1.4.2 Technical Steps

- Present and discuss **in DETAIL** the scientific/technical steps to achieve the set objectives.
- This needs to correspond to the **Work Flow Logic!**
- This is the text description and justification of the flow chart and the Work Breakdown Structure.



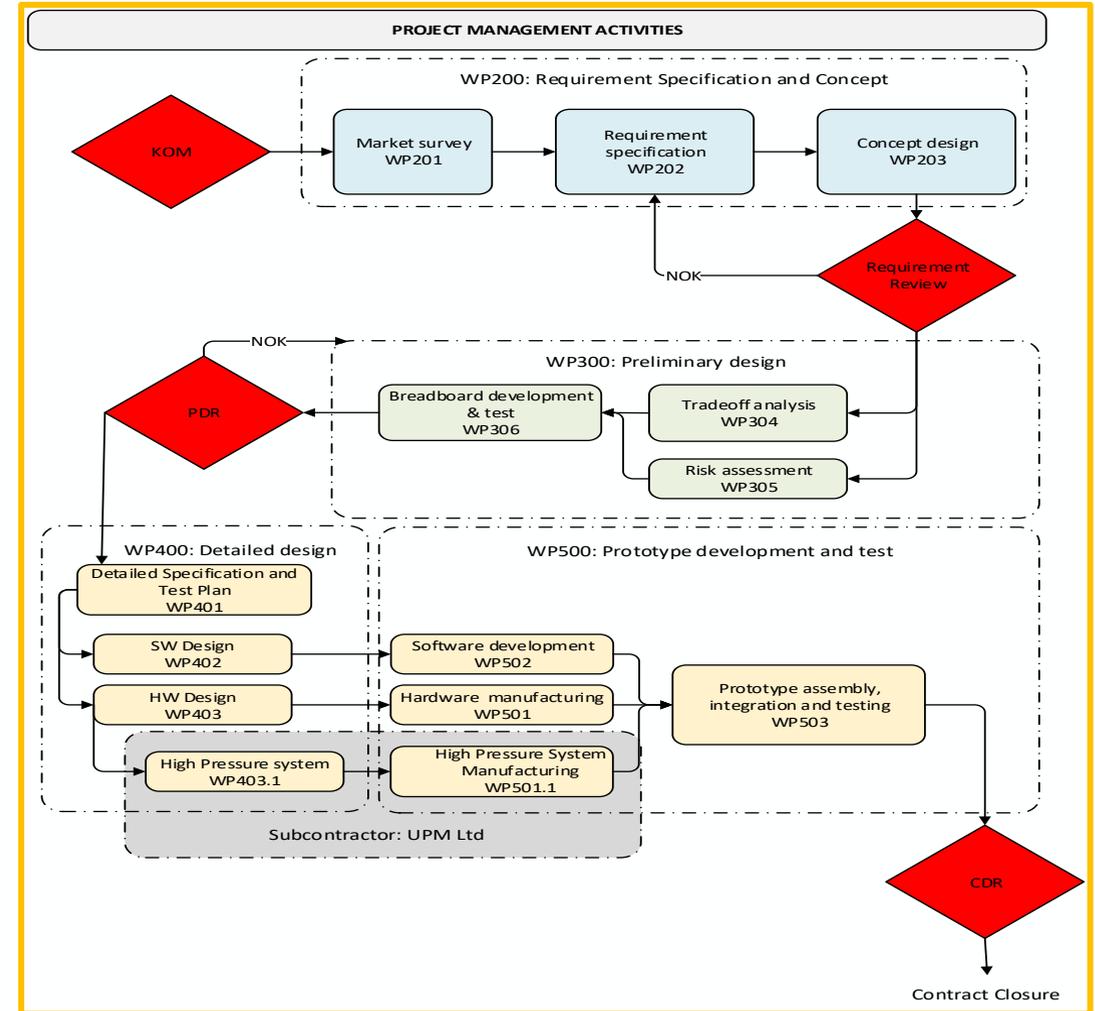
This is expected to be the core/bulk of the Proposal



1.4 Engineering Approach

1.4.3 Proposed Work Logic

- Include the **reviews** and decision points (check points). Technical ECSS reviews are key for credibility and typically align with payments.
- **Consistency** with WBS (and easy traceability)
- Parallel/serial consistency is logical (consistent with GANTT chart)
- **Subcontractor work** is clear
- Dependencies are clear





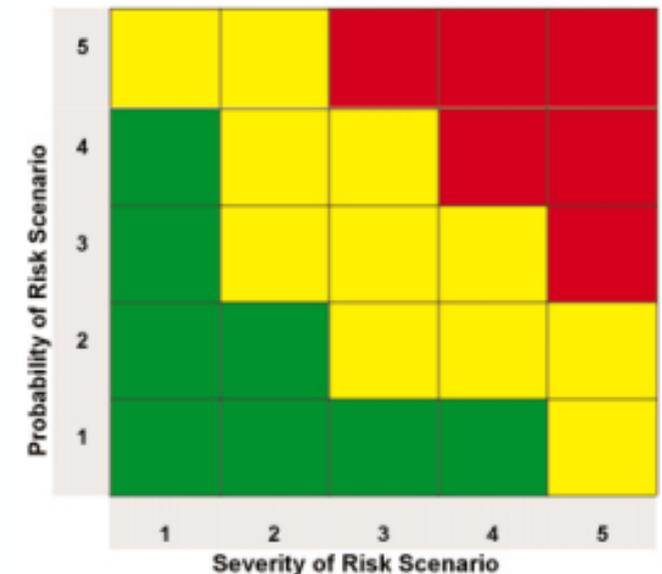
1.5 Technical Feasibility, Problem Areas And Development Risk

The problem areas and risks discussions are intended to cover primarily TECHNICAL (and PROGRAMMATIC where there is a key dependency/ timeliness issue), 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 and potential problems **shows you understand** the work you are proposing and can manage it properly.

Discussion of risks and problems should include a mitigation and prevention actions:

- What is the potential **impact** if the problem/risk arises?
- **Prevention:** What actions will you take to minimise the risk of it becoming a reality?
- **Mitigation:** What will you do if the worst case happens, how will you ensure the project can continue (can it?)?
- Provide details to show those mitigating actions are credible and feasible.
- **DO NOT** focus on manpower issue, management issues
- **DO** include technical issues, risks and problems
- **DO** include planning issues related to critical path items





1.6 Prospect For Exploitation And Use

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 w.r.t. 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.



1.7 Technical Implementation / Programme Of Work

1.7.1 Work Breakdown Structure (WBS)

- Logically structure the main Work Packages following the main tasks of the workflow (preferably ‘gated’ by reviews)
- Work logic is preferably **‘gated’ by technical/engineering reviews**
 - Preliminary Requirements Review (PRR), System Requirements Review (SRR), Preliminary Design Review (PDR), etc. These typically are aligned with payment milestones.
 - See ECSS-M-ST-10C Project Planning and Implementation (Chapter 4,5 and Annex A) for standard review definitions.
- Include **WP for management**
- Ensure **each company** has separate **(sub)work packages**
- Ensure all tasks in one work package ‘belong together’

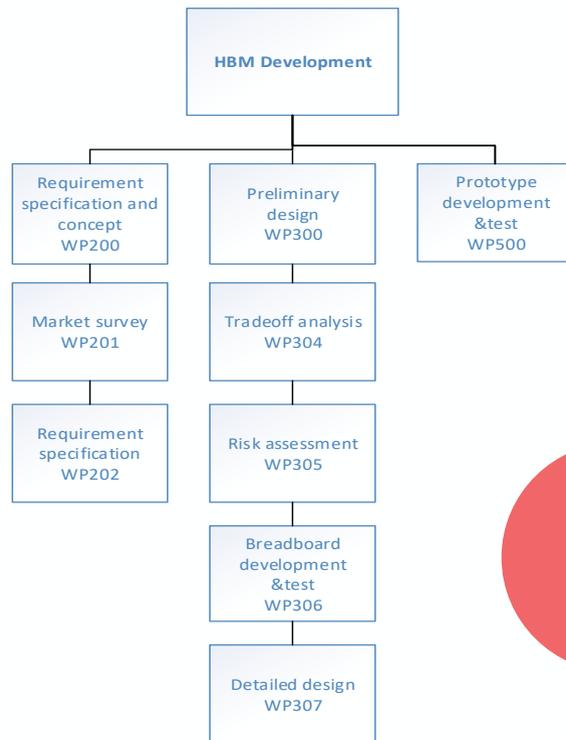


This section should be coherent with the earlier sections of the Proposal!

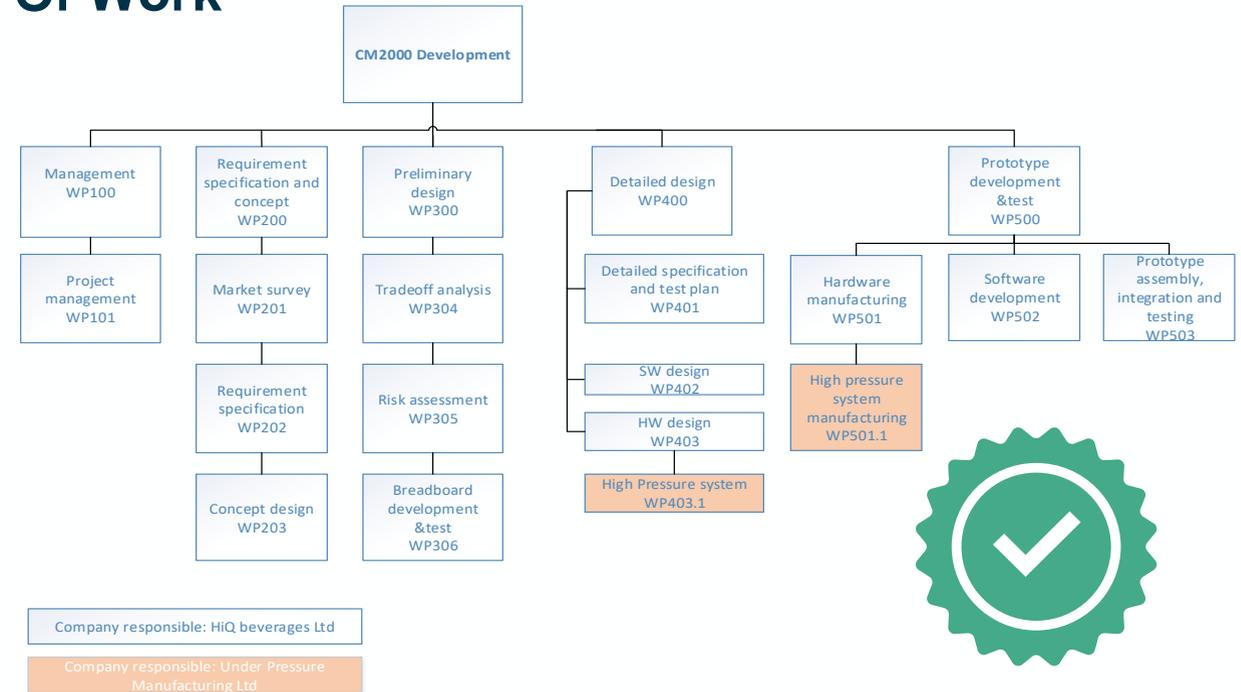
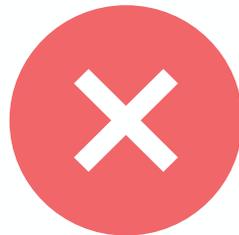


1.7 Technical Implementation / Programme Of Work

1.7.1 Work Breakdown Structure (WBS)



- No Management
- No split by company
- Not organised by core Task/Phase (WP307 is major WP not sub-WP)
- Insufficient detail in WP500 for Planning



- ✓ Management is partly clear w.r.t. entities, but work package leaders aren't shown and require cross referencing
- ✓ Clear split by company and management of subcontractor is implied. Color coding by company/entity is good
- ✓ WP400 is significant with necessary subordinate WPs
- ✓ WP500 Subordinate WPs give fair indications core tasks & credible planning



1.7 Technical Implementation / Programme Of Work

1.7.2 Work Package Description (WPD)

- The WPDs form the **detailed description** of the work that will be performed
- They **scope the work** and the deliverables
- They allow a **basis for the costing**
- They **discriminate the work** and responsibilities of the different companies/entities

Note that the ECSS propose a standard template for a WBS and WPD (for the WPD the ESA PSS A20 form can be used)



This section should be coherent with the earlier sections of the Proposal!



1.8 Background Of The Company(ies)

We are only interested in RELEVANT background and experience.

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



1.9 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.

Example Facilities

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

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



Proposal Template

Part 2 – Management



- 2.1 Team Organisation and Personnel
- 2.2 Curricula Vitae
- 2.3 Management of Subcontractor(s)
- 2.4 Planning
- 2.5 Deliverable Items



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,
- include participants from all **subcontractors**, if any
- include all **key** (i.e. having a major role within the team and/or being responsible for one or more WPs) personnel.





NOTE: Key Personnel!

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

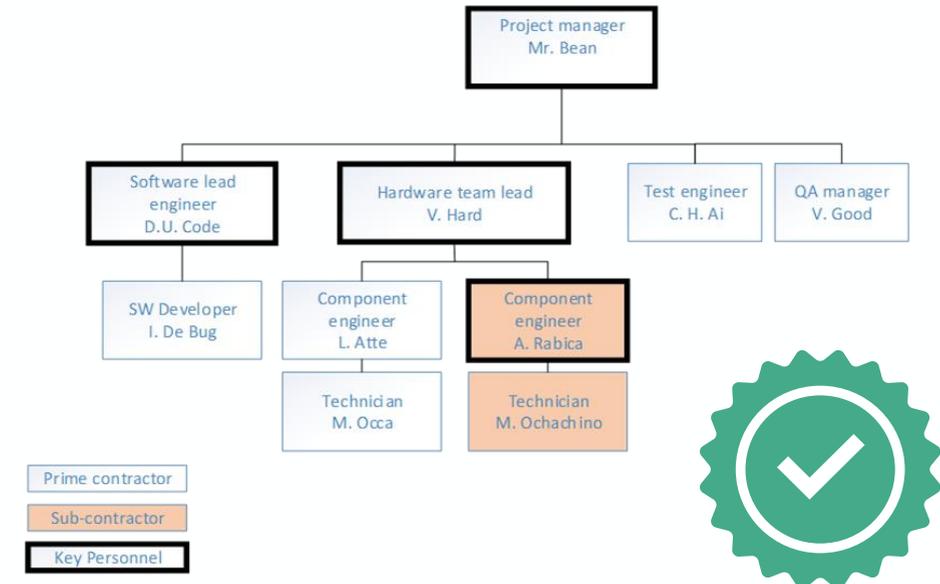
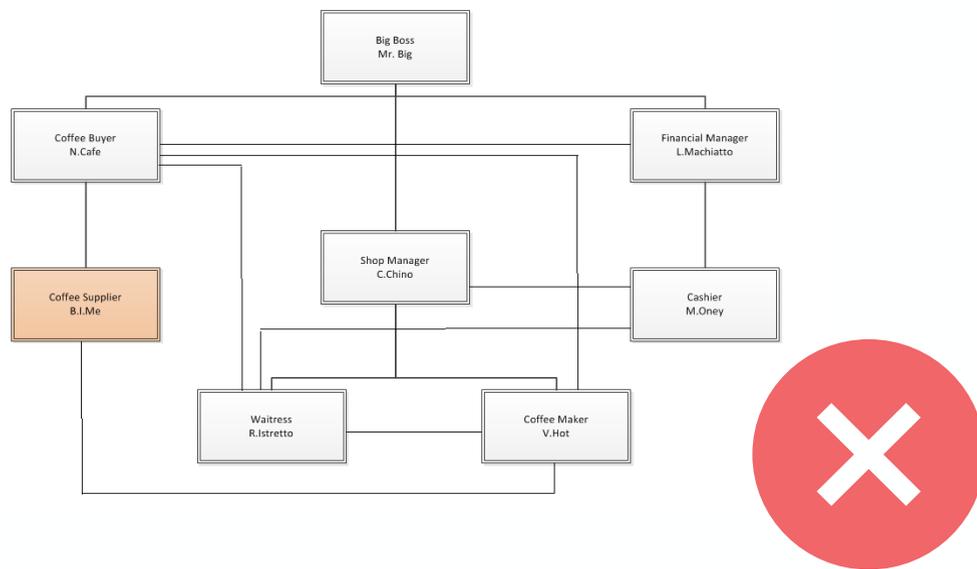
1. Anyone contributing **<10%** of their time is being used very inefficiently and is by definition not playing a leading role (unless due to unique expertise).
2. If someone is claimed to be a Key Personnel because they have irreplaceable experience and expertise – **explain the role** they play, what 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%.**



2.1.1.1 Overall team composition, Key Personnel

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

- Each subcontractor 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.





2.1.1.2 Rationale of the proposed industrial organisation

- Rationale of the team composition
- Rationale of the split of work between Prime Contractor and subcontractor(s) (if any)
- Justification for the choice of subcontractor(s) (if any)

2.1.1.3 Position of each of the team members within his/her own company's (or institute's) structure and within the proposed team

- Removed for this template

2.1.1.4 Time dedication of Key Personnel

- Check consistency with PSS Forms



2.2 Curricula Vitae

- One summary resume per **key** person
- Include:
 - Role
 - Relevant experience
 - Very summarised version of other experience
- CVs (of Key Personnel) shall not be attached to the Proposal but shall be submitted separately in the dedicated Curriculum Vitae folder in esa-star.





2.3 Management of Subcontractor(s)

- Most space developments require multidisciplinary International teams.
- In cases where you involve of subcontractor(s), present the management plan and procedures to exercise monitoring and control over the contributions from subcontractor(s) (e.g. progress meetings, reports, supplier reviews).





2.4 Planning

2.4.1 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.

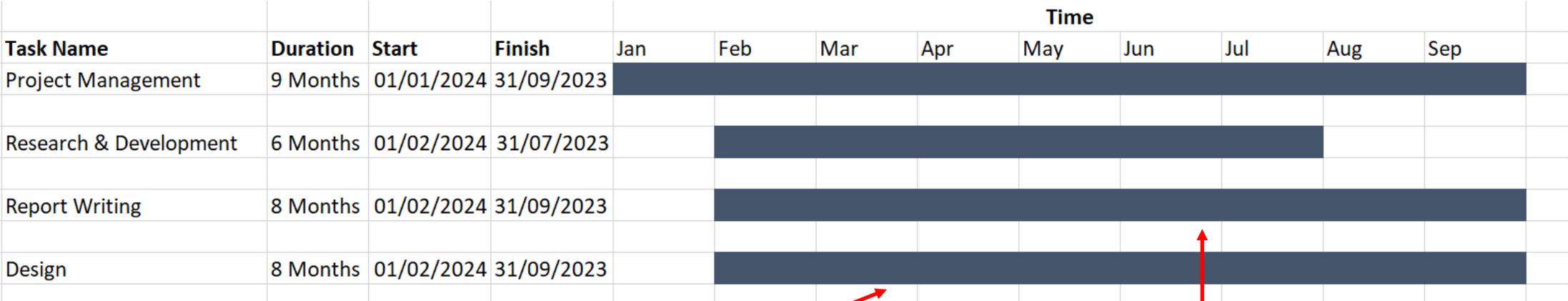
Some tips for GANTT charts:

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?



Bad GANTT chart

Not done in a project management tool giving little confidence in the PM experience of the bidder!



Names not matching WBS titles

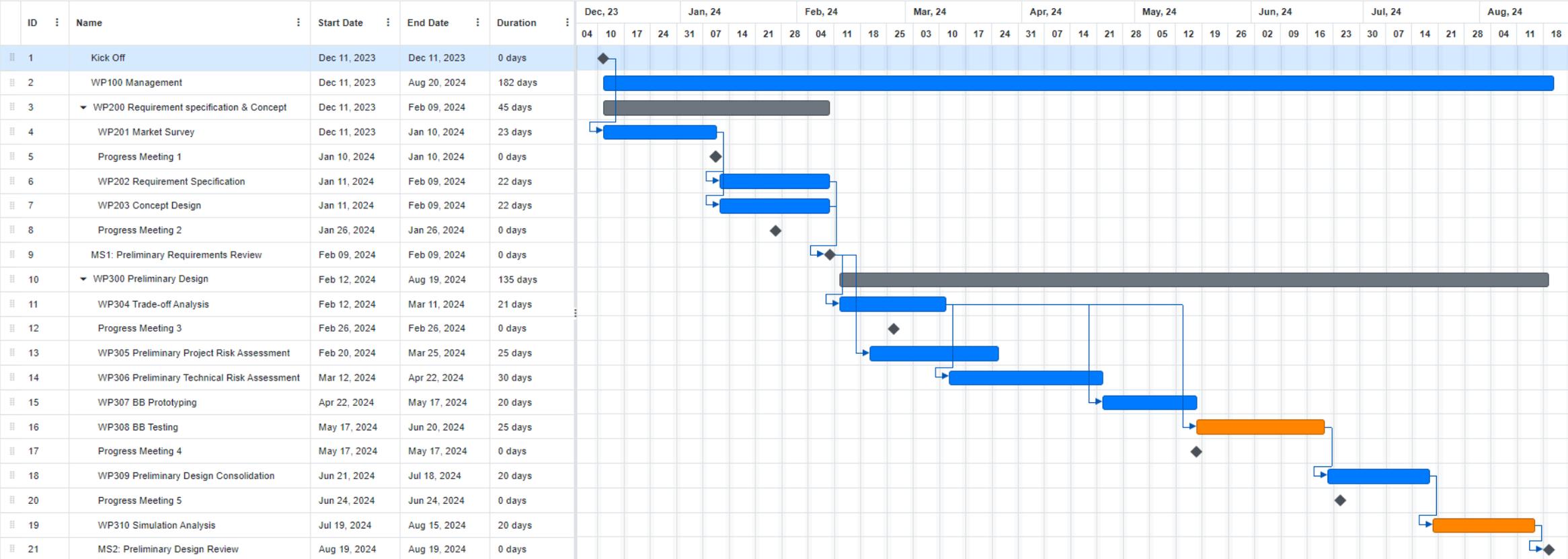
Insufficient granularity (not matching WBS)

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

Proposal Template: Part 2 – Management



Good GANTT chart



■ Prime Contractor
■ Subcontractor





2.4 Planning

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

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.

- All meetings with ESA (e.g. progress meetings – note these may be via telecon)
- All 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)

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)



2.5 Deliverable Items

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.

2.5.1 Documentation

- Ensure there is a detailed description of each deliverable to avoid later discussion! (i.e. a table of contents)
- Ensure consistency with WPDs!

2.5.2 Other Deliverables (Hardware, Software, Models, Data, etc.)

- Often other deliverables are forgotten



Proposal Template

Part 3 – Financial



- 3.1 Price Quotation For The Contemplated Contract
- 3.2 Detailed Price Breakdown
- 3.3 Cost to Completion



3.1 Price Quotation For The Contemplated Contract

[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 CfP]

Remarks concerning certain price elements:

a) Charging of royalties and licence fees

ESA will only accept to pay royalties or licence fees on the condition that they are:

- clearly identified in the Proposal, 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 subcontractor that is directly related to the subject matter of the licence or royalty agreement.



3.1 Price Quotation For The Contemplated Contract

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 subcontractors 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 CfP). In case you consider that you and/or your subcontractor(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 subcontractor 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].



Hints & 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 non-taxable. ESA applies this privilege by issuing a VAT EXEMPTION CERTIFICATE for its contract. ESA does therefore not have an 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.
- Subcontractors 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.



Hints & 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 financial envelope in the CfP is an earmarked budget – it is **NOT** a goal. Price must be fair and reasonable for the scope of work described in the Proposal.



3.2 Detailed Price Breakdown

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 esa-star Publication at [https://esastar-publication.sso.esa.int/supportingDocumentation/underReferenceDocumentation/Administrative Documents/PSS Forms/Issue 5](https://esastar-publication.sso.esa.int/supportingDocumentation/underReferenceDocumentation/AdministrativeDocuments/PSSForms/Issue5). Each of the PSS forms must be signed.
- Note for co-funded activity, the PSSA2, Exhibit A and Exhibit B and PSSA8 should present the total cost of the activity including the co-funded amount. No profit can be charged on co-funded activity. The amount co-funded by the Tenderer shall not include any additional co-financing from other public R&D or other public programmes. The difference between the total cost of the activity and the total price of the present Contract shall be funded by the Contractor through [its internal funds/or specify as required], and shall not be recharged to the Agency in other Contracts, nor in the form of overhead.
- For fully funded activity, 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”).



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



Proposal Template: Part 3 – Financial



How to retrieve PSS forms?

The screenshot shows the ESA Star Publication website interface. The top navigation bar includes 'News', 'ESA Tender Actions', 'Non ESA Tender Actions', 'ESA Interactions', and 'Supporting Documentation'. The main content area is titled 'PSS Forms (Issue 5)' and displays a table with columns for 'Publication Date' (18/03/2021), 'Last Update On' (22/03/2021 12:34 CET), and 'Supporting Documentation Type' (Administrative Documents). Below the table, there is a list of PSS forms: PSSA1_i5.xlsx, PSSA2_i5.xlsx, PSSA4_i5.xlsx, PSSA6_i5.xlsx, and PSSA8_i5.xlsx. The left sidebar contains a list of documents, with 'PSS Forms (Issue 5)' highlighted. Red annotations indicate the steps to retrieve the forms: Step 1 is clicking the 'esa-star Publication' logo, and Step 2 is clicking the 'Supporting Documentation' menu item and the 'PSS Forms (Issue 5)' link in the sidebar.



Why do we use PSS Forms?

- **Fairness:** PSSs are standard tools used for all ESA activities/CfP. 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...

Carefully check the Instruction Page

BE AWARE

- We evaluate in detail the cost.
- We will challenge the number of hours and the cost allocation to verify that the cost are true and credible.
- Use the standard cost categories effective for any other work done by your organisation.



PSSA1

- ✓ 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.



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 & 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. 1 of 1	Issue 5
RFQ/ITT No.:	18.187.04				COMPANY		
Proposal/Tender No.:	1				Name:	HIQ Beverages Ltd	
Type of Price:	FFP	Firm Fixed Price			Country:	Estonia	
Economic Condition:	2018				Representative		
National Currency (NC):	EUR				Name and Title:	Mr. Bean	
Exchange Rate (X):	1 EURO =	1.00000	EUR		Signature:		
Contractual Phase:	N/A				Project/Work Package(s):		
					TOTAL (NC)		TOTAL (EURO)
					EUR		NC / X
LABOUR							
Direct Labour cost centres or categories Code / Description		No. of FTE (calculated) U = W / V	Sold Hours per Man Year V	Manpower Effort No. of Hours W	Gross Hourly Rate in NC		
	Project Manager	0.2	1,600	300	39.24	11,772.00	11,772.00
	Senior Engineer	0.9	1,800	1,550	57.84	89,652.00	89,652.00
	Junior Engineer	0.3	1,800	550	36.72	20,196.00	20,196.00
	Technician	0.2	1,800	400	28.44	11,376.00	11,376.00
	QA Manager	0.0	1,800	80	48.72	3,897.60	3,897.60
						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	1.6		2880.0	A	136,893.60	136,893.60
INTERNAL SPECIAL FACILITIES							
Code	Description	Type of unit	No. of units	Unit rates in NC			
	Pressure testing Chamber	Day	1	1,000		1,000.00	1,000.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00



Hints & Tips: PSS A2 – Key review points by Technical Experts

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

Profit <= 8%?

Costing should be done from the bottom up. A reduction can be offered, if the budget exceeds the financial envelope for the activity type.

Total – less than earmarked budget?

2	Total Internal Special Facilities Cost				B	1,000.00	1,000.00
	OTHER DIRECT COST ELEMENTS	Base amounts in NC	+ OH %	OH amounts in NC			
3.1	Raw materials	1,455	5.0%	73		1,527.75	1,527.75
3.2	Mechanical parts	1,973	5.0%	99		2,071.65	2,071.65
3.3	Semi-finished products					0.00	0.00
3.4	Electrical & electronic components	733	10.0%	73		806.30	806.30
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					0.00	0.00
3.7	External Services	3,000	15.0%	450		3,450.00	3,450.00
3.8	Transport and Insurances					0.00	0.00
3.9	Travel and Subsistence	3,100	10.0%	318		3,498.00	3,498.00
3.10	Miscellaneous	600	5.0%	30		630.00	630.00
3	Total Other Direct Cost	10,941.00		1,042.70	C	11,983.70	11,983.70
4	SUB-TOTAL DIRECT COST				(A+B+C) D	149,877.30	149,877.30
	GENERAL EXPENSES	Cost items to which % applies		Base Amount in NC	OH %		
5	General & Administration Expenses	1		136,893.60	3.75%	E	5,133.51
6	Research & Development Expenses					F	0.00
7	Other					G	0.00
8	TOTAL COMPANY COST				D+(E+F+G) H	155,010.81	155,010.81
		Cost items to which % applies		Base Amount in NC	%		
9	PROFIT	1		155,010.8	8.0%	I	12,400.86
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	167,411.67	167,411.67
13	TOTAL SUB-CONTRACTOR PRICE					M	23,969.90
14	REDUCTION for COMPANY CONTRIBUTION					N	0.00
15	TOTAL PRICE FOR ESA				(L+M-N)	167,411.67	191,381.57



Hints & Tips: PSS A2 – Key review points by Technical Experts

COMPANY PRICE BREAKDOWN FORM		EXHIBIT "A" TO PSS A2			Issue 5	
RFQ/ITT No.: 18.187.04		Page No. 1			No. of Pages 1	
Proposal/Tender No.: 1		COMPANY NAME: HiQ Beverages Ltd				
National Currency: EUR		Name and Title: Mr. Bean				
Contractual Phase: N/A		Signature				
Applicable to PSS-A2 elements: 3.1-3.4 - 3.6 - 3.7 - 3.10 - 10 Project / Work Pac CM2000 Development; WP300, WP400, WP500						
Cost El. No.	ITEM DESCRIPTION	Type of Price	Purchase Currency	Purchase Amount	Exchange rate 1 NC =	Amount in NC
3.1	Raw Materials: Copper, Stainless Steel for component manufacturing	FFP	EUR	1,455.00	1.00000	1,455.00
3.2	Mechanical Parts: Soldering support equipment, mechanical seals, slides, hinges, toggle clamps	FFP	EUR	1,973.00	1.00000	1,973.00
3.4	Electrical & electronic components: resistors, capacitors, LEDs, transistors, etc	FFP	EUR	733.00	1.00000	733.00
3.7	External Test Facility: ASTM f2990 Certified Commercial Coffee Brewers Testing Facility at Brewzone, Italy	FFP	EUR	3,000.00	1.00000	3,000.00
3.9	Travel and Subsistence: Meeting with Subco, testing travel to Italy (see Exb. B)	FFP	FFP	3,180.00	1.00000	3,180.00
3.10	Miscellaneous: raw food material for testing (coffee, cocoa beans, tea, syrups, milk)	FFP	FFP	600.00	1.00000	600.00

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?
- Referenced in the proposal?



Hints & Tips: PSS A2 Exhibit B – Key review points by Technical Experts

TRAVEL PLAN AND COST DETAIL										EXHIBIT "B" TO PSS-A2				Issue 1	
RFQ/ITT No.:	18.187.04			Project:						CM2000 Development					
Proposal/Tender No.:	1			Company:						HiQ Beverages Ltd					
Contractual Phase	N/A			Type of Price:						FFP					
Economic Condition:	2018			Exchange (X): 1 EURO =						1		EUR			
National Currency (NC)*:	EUR														
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)		
WP400	Detailed Design	Progress meeting #5	Tallinn, Estonia	Riga, Latvia	1	2	100	E	2	120	R	680	680		
WP500	Prototype Development and Test	Critical Performance test at ASTM F2990 Certified Commercial Coffee Brewers Testing Facility	Tallinn, Estonia	Brewzone, Italy	1	2	300	E	2	150	R	1,200	1,200		
WP500	Prototype Development and Test	Final Presentation of Project Outcome	Tallinn, Estonia	Noordwijk, Netherlands	1	2	250	E	2	200		1,300	1,300		
Total Cost, WBS level 1 (equal to the item 3.9 of PSS-A2)												3,180	3,180		

Meetings:

- Matching meeting plan?
- All clearly justified?

People:

- Matched to scope of meeting?

Travels:

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



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 PSS forms
- ✓ Do not forget the total!



Hints & 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?
- Is the PSS complete? (Often not fully filled out)
- Procurements associated to correct WP?

COMPANY MANPOWER AND PRICE SUMMARY PER WP										Form no. PSS A8	Page X of Y	Issue 5	
ITT/RFQ:		18.187.04								Price Type: FFP			
Proposal/Tender No.:		1								Economic Conditions: 2018			
Company Name:		HQ Beverages Ltd								National Currency (NC): EUR			
Contractual Phase:		N/A								Exchange Rate: 1 EUR =		01-1900	
WBS-Level (Number and Title):		1 Workpackage											
WP Title	Management	Requirement Specification and concept	Preliminary Design	Detailed Design	Prototype Development & Test							Total WBS-Level	
WP Number	100	200	300	400	500								
Labour Hours per category													
#													
Project Manager	300											300	
Senior engineer		190	140	680	540							1,550	
Junior Engineer		50	100	100	300							550	
Technician			120	40	240							400	
QA Manager			10	10	60							80	
...													
...													
...													
Total Labour Hours	300	240	370	830	1,140							2,880	
1. Total Labour Cost	NC	11,772.00	12,825.60	15,669.60	44,628.00	51,998.40						136,893.60	
2. Internal Special Facilities Cost	NC					1,000.00							
3.1-3.4 Material Costs	NC			1,933.00		2,472.70						4,405.70	
3.5 High Rel Parts Costs	NC												
3.6 External Major Products Cost	NC												
3.7 External Services Cost	NC					3,450.00						3,000.00	
3.8 Transport/Insurance Cost	NC												
3.9 Travel and Subsistence Cost	NC				780.00	2,718.00						3,498.00	
3.10 Miscellaneous Cost	NC					630.00						630.00	
3. Total Other Costs (sum of above 3.x)	NC	0.00	0.00	1,933.00	780.00	9,270.70						11,983.70	
4. Sub-Total Direct Cost	NC	11,772.00	12,825.60	17,602.60	45,408.00	62,269.10						149,877.30	
5.- 7. General expenses	NC	441.45	480.96	587.61	1,673.55	1,949.94						5,133.51	
8. Sub-Total Company Cost	NC	12,213.45	13,306.56	18,190.21	47,081.55	64,219.04						155,010.81	
9. Profit Fee	NC	977.08	1,064.52	1,455.22	3,766.52	5,137.52						12,400.86	
10. Cost without additional charge	NC												
11. Financial Provision for escalation	NC												
12. Total Company Price	NC	13,190.53	14,371.08	19,645.43	50,848.07	69,356.56						167,411.67	
	EURO												
13. Total Sub-Contractors Price	NC				12,943.80	11,026.10						23,969.90	
	EURO												
14. Reduction for Company contribution	NC												
15. Total Price for ESA	NC												
	EURO	13,190.53	14,371.08	19,645.43	63,791.87	80,382.66						191,381.57	



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.



3.2.2 Milestone Payment Plan

Determines how much gets paid, when and what are the conditions for payment

ESA pays against achieved results = Payment milestone dates typical align with technical review milestones successfully concluding with all associated deliverables accepted by the Agency.

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 [1] (MS 3): Upon the Agency's [OPTION] final acceptance of software and [END OPTION] and 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 10% of the total contract price)</i>	
TOTAL			



Hints & Tips:
Not more than 2 payments in a 12 month period!
Balance to be cash neutral!

Acceptable Milestone Description

Preferred description is linked to a review

Payments should be balanced to predicted expenditure profile

Milestone (MS) Description	Schedule Date	Payments from ESA to (Prime) Contractor (in Euro)	Country (ISO code)
Progress (MS 1): Upon successful completion of the Requirements Review and acceptance of deliverables D1a, D1b, D1c, D2 and D3.	To + 2 months	75,000	EE
Progress (MS 2): Upon successful completion of the Preliminary Design Review and acceptance of deliverables D4a-c, D5, D6a-b, D7.	To + 7 months	74,570	
Final Settlement (MS3): Upon successful completion of the CDR and 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 +18 months	41,812	
TOTAL		191,382	



Hints & Tips:

SME status is sufficient justification for automatic 35% AP!
 All non-SMEs must provide clear justification for $\leq 10\%$ AP!

Note:

The advance payment constitutes a debt of the Contractor to the Agency until it has been offset against a subsequent milestone.

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				<i>Amount (not more than 35% of the total contract price for SMEs and not more than 10% for non-SMEs)</i>	MS 1	Amount	Upon signature of the Contract by both Parties

In this case the 66,984€ would be paid at contract signature.
 At the first milestone (75K€) on a further 8,016€ would actually be transferred.

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	HiQ Beverages Ltd		EE	66,984	MS 1	66,984	Upon signature of the Contract by both Parties



You are requested to indicate for information purposes only, the Milestone Payment Plan that is envisaged for subcontractor(s)

For Information purposes only : Amounts in Euro for Contractor and Sub-contractor(s)				
Milestone	Prime Contractor HiQ Beverages Ltd	Insert Country (ISO code) EE	Subcontractor A Under Pressure Manufacturing Ltd	Insert Country (ISO code) LV
Advance	61,984		5,000	
MS-1	8,016		0	
MS-2	55,600		18,970	
MS-3	41,812		0	
TOTAL	167,412		23,970	

See page 32 of example proposal



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.**



3.3 Cost To Completion

A cost to completion would be positive for all activities with a **completion TRL of 6 or less** (not necessary for education activities). 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.

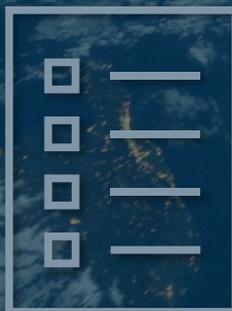
3.3.2 Estimated Cost per step

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

Proposal Template

Part 4 – Contract Conditions



4.1 Intellectual Property Rights

4.2 Import and Export Licenses



4.1 Intellectual Property Rights

4.1.1 Background Intellectual Property and Third Party Intellectual Property Rights

Background IPR

- a. Intellectual property existing already BEFORE the CfP.
- b. That is USED for the work of the CfP
- 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?

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

Hints & Tips:

Foreground IPR is typically expected out of any technical development.

FIPR contributes to advancement of products and services and commercial business cases.



4.1 Intellectual Property Rights

4.1.2 Foreground Intellectual Property

Present the expected FIPR that will be created as a result of the activity.

4.1.3 Ownership of Foreground Intellectual Property

Please review carefully *Articles 6 of the Draft Contract*. Please provide two statements of compliance:

- 1. the Contractor will own all Intellectual Property Rights and have the right to apply for, and to own, any Registered Intellectual Property Rights arising from Work performed under this Contract in line with the clause Articles 6.2.1 the draft Contract and*
- 2. 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 the draft Contract.*

In the case of the participation of subcontractor(s), explain the agreement reached between the parties on the ownership of the Intellectual Property and the principles for its exploitation, use and benefits.



4.2 Import And Export Licenses

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 Import and Export Licences applicable to this Activity

[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



4.2 Import And Export Licenses

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

[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



You made it!



Feel free to contact:

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You made it! Questions?
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