Compliant PSS-A Forms for ESA Projects

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- 3. PSS-A1
- 4. PSS-A2
- 5. Other forms: PSS-A8, A10, A15.1
- 6. Guidelines for bidders
- 7. Contacts
- 8. Q&A





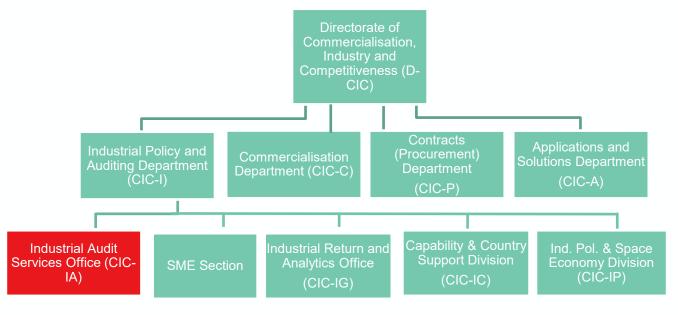
1. Introduction

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Industrial Audit as a Corporate Function:

- Defines rules and policies for cost and pricing and certifies their applicability in ESA projects
- Establishes rates agreements with industry
- Judges the reasonability and allowability of costs charged in ESA contracts and contract proposals.
- Supports ESA Programmes on all aspects related to the industrial cost analysis
- Collaborates with other National Audit Authorities



*Multi-location: ESTEC, HQ, ESAC, ESOC

Audit Services



The ESA Industrial Audit team is directly responsible for all cost auditing aspects:



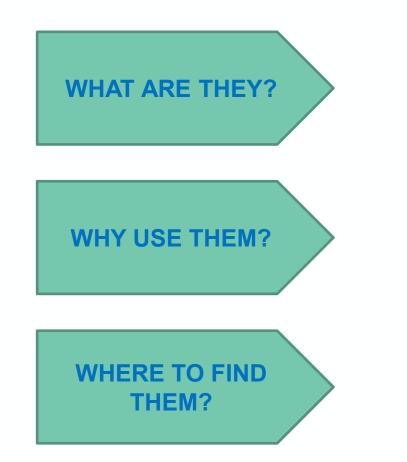
In addition, the ESA Industrial Audit team **supports industry** in many ways:

- Coordination on the development of policies and regulations (ie. GCC, Profit Policy);
- > Harmonisation and coordination of methodologies with National Audit Authorities;
- PSS-A forms education, advice & support;
- Tools and publications (e.g. SOGETI);
- > Training and consultancy (e.g. dedicated email address: pss@esa.int, bilaterals).

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Procedures, Specifications and Standards (PSS)



All companies participating in an ESA Invitation To Tender are required to complete a financial proposal which must also include the ESA Procedures, Specifications and Standards Forms – known as PSS forms. These forms are simply a standard set of different tables used to break down costs (by cost element, work package and time period etc.) and give transparency to the total price of an industrial proposal.

The use of the ESA PSS forms to show cost data is a requirement defined under the General Conditions of Tender for ESA Contracts (ESA/REG/001, rev.3, Annex IV), in order to ensure the same approach for all tenderers and to enable a proper review, comparison and selection by a Tender Evaluation Board (TEB).

The Excel formatted PSS forms (ISSUE 5) and their detailed instructions can be found in the ESA-STAR Tendering system.

(https://esastar-publication-ext.sso.esa.int/supportingDocumentation/details/18)

ESA-STAR Tendering



LINK: <u>https://esastar-publication-ext.sso.esa.int/supportingDocumentation/details/18</u> under "Reference Documentation" > "Administrative Documents" > "PSS Forms (Issue 5)"

esa-star Publication			Supporting Documentation -	۹ 🌲 🖲
All Documents Reference Documentation		PSSA6_i5.xlsx		
✓ Administrative Documents □ Best Practices for the se		PSSA8_i5.xlsx		
□ C1-C4 Clauses □ ESA Penalty Policy		PSSA10_i5.xlsx		
☐ ESA Security Regulations ☐ EXPRO ☐ General Clauses and Con		PSSA15_i5.xlsx		
□ General Clauses and Con □ General Clauses and Con □ General Conditions of Te		PSSA15.1_i5.xlsx		
Generic Product Tree		PSSA20_i5.docx		
□ National Price and Salar □ National Price and Salar		PSSA40_i5.xlsx		
\Box Personal Data Protectio \Box Policy on the Prevention		PSSA45_i5.xlsx		
Procurement Regulation PSS Forms (Issue 5)	· ·	I. Select form		Download +
				2. Scroll to
				bottom of list
				to Download
	_			→ THE EUROPEAN SPACE AGEN

Most Used PSS Forms



All Documents		in this p	page. The users are recommended to <u>read ca</u>					
Reference Documentation	PSS	Type of listing	Forms					
	PSS-A1	COMPANY COST RATES AND OVERHEADS	See the attachment: PSSA1_i5.xlsx					
_	PSS-A2 Incl. Exhibit	COMPANY PRICE BREAKDOWN FORM	See the attachment: PSSA2_i5.xlsx					
	PSS-A4	PROJECT MANPOWER AND PRICE BREAKDOWN FORM	See the attachment: PSSA4_i5.xlsx					
vpical	PSS-A6	CONTRACT PRICE SUMMARY FORM	See the attachment: PSSA6_i5.xlsx					
equirement	PSS-A8	PROJECT MANPOWER AND PRICE SUMMARY PER WP	See the attachment: PSSA8_i5.xlsx					
	PSS-A10	COMPANY MANPOWER AND COST PLAN	See the attachment: PSSA10_i5.xlsx					
,	PSS-A15	CONTRACT PRICE PROJECTION in THOUSANDS EURO	See the attachment: PSSA15_i5.xlsx					
	PSS-A15.1	COMPANY PRICE PROJECTION VS. PAYMENT PLAN in THOUSANDS	EURO See the attachment: PSSA15.1_i5.xlsx					
· · · · · · · · · · · · · · · · · · ·	PSS-A20	WORK PACKAGE DESCRIPTION	See the attachment: PSSA20_i5.docx					
	PSS-A40	HIGH-RELIABILITY PARTS PROCUREMENT QUESTIONNAIRE	See the attachment: PSSA40_i5.xlsx					
	PSS-A45	PRODUCT TREE AND HARDWARE BREAKDOWN	See the attachment: PSSA45_i5.xlsx					
	For projects	where the use of <u>ECOS</u> (ESA Costing Software) is required, these forms sh	all be printed using the ECOS reports.					
_								
 NOTE: Several sets of the same forms may be required for each company 1 set per contractual phase/period 1 set per price-type 1 set per (sub-)contract 1 set 'consolidated' for the Prime tenderer. 								

- Each ITT will specify which PSS forms are required to be submitted with the financial proposal. Not all of them will always be required.
- The most common PSS Forms are the PSS A1, A2 (including Exhibit A and B), A8, A10 and A15.1.
- Only the more complex development programs will require additional forms. This presentation will focus on the forms mentioned above.

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Example of Excel download



File Home Insert Page Layout Formulas Data Review View Add-ins Acrobat ProtTable Recommended Table Pictures Streenshot Table Table	AutoSave		.	PSSA2_i5 - Last Modified: 0	8/06/2019 🔻	, D Sea	irch					
PrivotTable Recommended Table Pictures Shapes Icons 30 Models Screenshot May Add-ins Recommended Add-ins Recommended Add-ins Recommended Add-ins Charts Maps PivotChart 30 Une Charts Tables Illustrations Add-ins Charts Charts Charts Tables Charts Tables Illustrations Add-ins Charts Charts Charts Charts Tables Charts Tables Illustrations FOR COMPLETING THE COMPANY PRICE BREAKDOWN FORM PSS A2 is to be completed by the tenderer and each of his sub-contract ors regardless of the type of price, under which the tender is submitted. Whenever a Company is proposed to participate under more than one sub-contract the company shall complete one form for every sub-contract proposed.	File H	lome Insert Page Layo	ut Formulas Data	Review View Add-ins	Acrobat							
A B C D INSTRUCTIONS FOR COMPLETING THE COMPANY PRICE BREAKDOWN FORM PSS A2 and EXHIBITS Form PSS A2 is to be completed by the tenderer and each of his sub-contractors regardless of the type of price, under which the tender is submitted. Whenever a Company is proposed to participate under more than one sub-contract the company shall complete one form for every sub-contract proposed. FURPOSE This form has been designed to provide the Agency with the complete price as calculated by the tenderer and each individual sub-contract as well as the summary calculation of the overall total price of the tender. GENERAL NOTES (a) The Agency reserves the right to audit the tenderer's data on which the price is calculated, in accordance with the provisions of the General Clauses and Conditions for ESA Contracts. (b) When calculating the price, the identical rates, overheads, Internal Facilities cost etc. as stated on the PSS A1 form are to be used.		Recommended Table Pictur	res Shapes Icons 3D	Get Ad	Recommended	□ ~ □ ~ □ ~ ④ ~ ≪ ~ ڧ ~ ⓑ ~ ♥ ~ ⊡ ~ ↓ ~	PivotChart 3D Line (
A B C D 1 Instructions for completing the company price breakbown form Price breakbown form 2 Instructions for completed by the tenderer and each of his sub-contractors regardless of the type of price, under which the tender is submitted. Whenever a Company is proposed to participate under more than one sub-contract the company shall complete one form for every sub-contract proposed. 6 PURPOSE 7 PURPOSE 10 GENERAL NOTES 11 (a) The Agency reserves the right to audit the tenderer's data on which the price is calculated, in accordance with the provisions of the General Clauses and Conditions for ESA Contracts. 11 (b) When calculating the price, the identical rates, overheads, Internal Facilities cost etc. as stated on the PSS A1 form are to be used.		Tables	Illustrations	Add-	ns	Charts	Tours S					
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PSS A2 and EXHIBITS 3 4 5 6 7 PURPOSE 10 6 9 10 6 11 (a) The Agency reserves the right to audit the tenderer's data on which the price is calculated, in accordance with the provisions of the General Clauses and Conditions for ESA Contracts. (b) When calculating the price, the identical rates, overheads, Internal Facilities cost etc. as stated on the PSS A1 form are to be used.	1 A			В			C D					
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10 GENERAL NOTES 11 (a) The Agency reserves the right to audit the tenderer's data on which the price is calculated, in accordance with the provisions of the General Clauses and Conditions for ESA Contracts . (b) When calculating the price, the identical rates, overheads, Internal Facilities cost etc. as stated on the PSS A1 form are to be used.		-			culated by the tenderer and	each individual sub-contr	act as					
 General Clauses and Conditions for ESA Contracts . (b) When calculating the price, the identical rates, overheads, Internal Facilities cost etc. as stated on the PSS A1 form are to be used. 		GENERAL NOTES										
	11	(a) The Agency reserves the right to audit the tenderer's data on which the price is calculated, in accordance with the provisions of the										
	12											
(c) Exhibit A to PSS A2 shall be completed for all cost contributors of items 3.1-4, 3.6-8, 3.10 and item 10 as applicable.	13											
(d) Exhibit B to PSS A2 shall be completed for all cost contributors of item 3.9. This annex represents the Travel Plan .	14											
(e) Where applicable, the exchange rate for conversion of National Currency to Euro shall be declared (X).	15											
(f) Never mix rates and overheads of dim cent Companies. Any aggregated total shall show the price detail of the responsible company and Instructions PSSA2 Exhibit A Exhibit B +				nanies <u>Anv andredated total</u>	shall show the price detail (of the responsible compar	ov and					
	Ready											

Each PSS Form comes with an "Instructions Tab" which details each section of the form



ESA offers free-of-charge a software for the preparation of the price proposal.

- Mandatory for large projects (>10M €)
- Ensures full compliance

ECOS version 5 is currently running stand-alone ie. not integrated in ESA-STAR.

NOTE: In the future, it is hoped that a more user friendly and simplified ECOS (ie. version 6 being a new development) is to be used for all procurements and integrated in ESA-STAR.

Training offered in ESTEC and manual/video training available.

https://www.esa.int/About_Us/Business_with_ESA/How_to_do/Introduction_to_ESA_Costing_Software (ECOS)

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2. Simple Cost and Rates Structure

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Simple Cost and Rates Structure



Simplest Rate Calculation All-Inclusive Average Company Hourly Rate		Annual Budget 2021		
LABOUR				
Direct FTEs		25		А
Sellable Hours per Annum per FTE		1620		В
Sellable Hours per Annum (total)		40500		C = A * B
Indirect FTEs		5]	
COSTS		k€		
Direct Salaries		1250		
+ Employers Statutory Social/Pension Charges (direct FTE)	20%	250		
+ Other Employers Payroll Charges/Benefits (direct FTE)	10%	125		
Payroll Cost for Direct Staff		1625	1	D
Payroll Cost for Indirect Staff (includes Indirect Salaries, Statutory Social/Pension, Other		250	Ь	E
Total Gross Company Payroll Cost		1875		F = D + E
Rent and Utilities		280		
Insurance		50		
Office supplies/Training		75		
Building Maintenance/cleaning/security		100		
ICT (internet, telephone)		50		
Total other Indirect (Overhead) Operating Costs	C	555	D	G
Total Company Direct + Indirect COST BASE		2430		H = F + G
Project Direct Costs (eg. Raw Materials, Travel, Transport, External services, EEE, etc.)		230		

HOURLY RATES				
Basic Hourly Rate	€/Hr	40.12	40.12	I = D / C
Direct Overhead	€/Hr	19.88	49.54%	J = (E + G) / C
Gross Hourly Rate (all-inclusive)	€/Hr	60.00	60.00	K = I + J (K = H / C)

- In order to complete the Financial Proposal using the PSS Forms, you will need to calculate your labour, facility and overhead rates.
- Since every entity has a different view of, or management information requirement for their cost accounting structure, there can be no standard structure for rates and hence the PSS forms are designed to cater for all eventualities, which can sometimes make them appear more complex than they really are.
- Not all rate and overhead elements, available in the standard PSS formats, need apply! In the simplest format all labour, facility & overhead costs can be accounted for in one average company Hourly rate, which covers all expected direct labour and indirect/overhead expenses, as shown here in this simple example.



Example with Overhead as a flat €/Hour	Grade	D	С	В	А	
Entity X	Skill	Assistant Technician	Technician	Engineer	Expert Engineer	Total Budget 2021
Direct FTEs		2	6	15	2	25
Sellable Hours per Annum pp		1,620	1,620	1,620	1,620	
Sellable Hours per Annum		3,240	9,720	24,300	3,240	40,500
		€	€	€	€	€
Rate Category Average Gross Employees Salary per Annum		22,500	40,000	55,000	70,000	
+ Employers Statutory Social/Pension Charges	20%	4,500	8,000	11,000	14,000	
+ Other Employers Payroll Charges/Benefits	10%	2,250	4,000	5,500	7,000	
= Gross Company Payroll Cost of Employment per person		29,250	52,000	71,500	91,000	
Gross Company Payroll Cost (Direct Staff)		58,500	312,000	1,072,500	182,000	1,625,000
Company Overhead (includes indirect payroll cost)		64,400	193,200	483,000	64,400	805,000
Company Cost per annum		93,650	245,200	554,500	155,400	2,430,000
Company Rate/Hour Labour	€/Hr	18.06	32.10	44.14	56.17	40.12
Company Rate/Hour Overhead *	€/Hr	19.88	19.88	19.88	19.88	19.88
Company Gross Rate/Hour	€/Hr	37.93	51.98	64.01	76.05	60.00

 In a slightly more complex structure, the company may identify costs and rates according to its technical expertise categories.

NOTE:

FTE = Full-Time Equivalent (All headcount has to be determined in FTE)

1 person working full-time from 1/1 to 31/12 = 1 FTE 1 person working full-time from 1/1 to 30/6 = 0.5 FTE 1 person working part-time (50%) from 1/1 to 31/12 = 0.5 FTE 1 person working part-time (70%) from 1/7 to 31/12 = 0.5 * 70% = 0.35 FTE

Simple Cost and Rates Structure – with descriptions

C



Simplest Rate Calculation All-Inclusive Average Company Hourly Rate	Annual Budget 2021
LABOUR	
Direct FTEs	25
Sellable Hours per Annum per FTE	1620
Sellable Hours per Annum (total)	40500
Indirect FTEs	5

COSTS		k€
Direct Salaries		1250
+ Employers Statutory Social/Pension Charges (direct FTE)	20%	250
+ Other Employers Payroll Charges/Benefits (direct FTE)	10%	125
Payroll Cost for Direct Staff		1625
Payroll Cost for Indirect Staff (includes Indirect Salaries, Statutory Social/Pension, Other		250
Total Gross Company Payroll Cost		1875
Rent and Utilities		280
Insurance		50
Office supplies/Training		75
Building Maintenance/cleaning/security		100
ICT (internet, telephone)		50
Total other Indirect (Overhead) Operating Costs		555
Total Company Direct + Indirect COST BASE		2430
Project Direct Costs (eg. Raw Materials, Travel, Transport, External services, EEE, etc.)		230

	All costs covered by your rates structure are subject to the conditions, and exclusions found in the General Clauses and Conditions for ESA Contracts, ESA/REG/002 Annex I documentation	
А	These are your engineers who can directly allocate their time to projects, usually via a time recording system (ESA/REG/002 Annex I Clause 3.1 b.)	
в	These are the average available hours after allowing for time spent on indirect activities, such as process improvements, proposal preparation etc. i.e. the hours that can effectively	
Ъ	be sold to 3rd party contracts at an hourly rate = "sellable hours"	
C = A * B	Total Sellable Hours	

	Total Budgeted / Forecast annual costs of the business and/or actual profit and loss accounts for previous financial year (eg. 2020). Should be in National Currency!						
	Gross salary costs per year for all direct staff						
	Statutory employment costs (according to national employment law) for all direct staff						
	Voluntary employment costs e.g. additional contributions to pension, life assurance, meal allowances etc. for all direct staff						
D	ESA/REG/002 Annex I Clause 3.1b) - Direct Labour Cost that portion of gross wages or salaries incurred for work, which can be specifically identified and measured to be performed on a Contract These costs (Salaries, Social Charges, Pension Costs and other payroll related charges) are allocated to the Contract by means of hourly rates						
E	Indirect Labour Cost (cost for Indirect functional people e.g. CEO, CFO, HR, Finance, Receptionist etc.)						
F = D + E	Total Labour Cost						
G	ESA/REG/002 Annex I Clause 3.2.1 - An indirect cost is one which has not been treated as a direct cost. Indirect Costs (overhead) are those costs, which, though necessarily having been incurred for the conduct of a Contractor's business in general, cannot be identified and measured as directly applicable to contracts.						
H = F + G	Total labour and overhead costs: Does not include direct material/other costs which are directly charged to the project in Section 3 of the PSS forms.						
	ESA/REG/002 Annex I Clause 3.1Direct costs - meaning the cost of direct materials and other direct costs which can be specifically identified and measured as having been used or to						
	be used on the Contract. (Invoices charged directly or via stock/inventory).						

HOURLY RATES					
Basic Hourly Rate	€/Hr	40.12	40.12	I = D / C	
Direct Overhead	€/Hr	19.88	49.54%	J = (E + G) / C	Overhead may be stated as €/Hr or as a % of the Basic Hourly Rate.
Gross Hourly Rate (all-inclusive)	€/Hr	60.00	60.00	K = I + J (K = H / C)	Rates to be used in the PSS A1. All-inclusive rates include all overhead costs in the hourly rate.
					14

More Complex Example

wore	Comp		imple							•eesa
An entitys cost	s can be represent	ed in a combinatio	ypically SME n of many ways	S Simple Cost Structure	Complex Cost Structure	Company Annual Budget	Α	в	C	
					INDUSTRIAL OVERHEAD		485,000	509,000	805,000	
	INDIRECT	INDIRECT		O V F R	FACILITIES		80,000	0	0	Recovered
	EXPENSES	EXPENSES	INDIRECT COST POOL	E A R T H E E S A D	PROCUREMENT / MATERIAL HANDLING		5,000	6,000	0	with Rates & OHs in
					A	General & Administration = G&A	and overhead rates	140,000	240,000	0
	PAYROLL - SALARIES, SOCIAL CHARGES & PENSIONS	INDIRECT SALARIES			Research & Development = R&D		95,000	50,000	0	(2430k)
		DIRECT SALARIES		Direct Labour Rates	DIRECT SALARIES		1,625,000	1,625,000	1,625,000	
	DIRECT SUBCONTRACTS, RAW MATERIALS & OTHER PROJECT DIRECT EXPENSES & PURCHASES	DIRECT SUBCONTRACTS, RAW MATERIALS & OTHER PROJECT DIRECT EXPENSES & PURCHASES	DIRECT COST POOL	I N V O I C E	DIRECT SUBCONTRACTS, RAW MATERIALS & OTHER PROJECT DIRECT EXPENSES & PURCHASES	Costs	230,000 500,000			Recovered Directly in PSS Form
100%	100%	100%	100%	S 100%	100%	Annual	3,160,000	3,160,000	3,160,000	Same Coat to be

Same Cost to be recovered

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Cost/ Profi

Price

212,800

212,800

3,372,800 3,372,800 3,372,800

212,800

Recommendations for SMEs



- > Aim for only labour hourly rates (all-inclusive) no complicated rates structure!
- ➢ Use only a few labour categories (min 4-5 FTE in each category).
- Companies with <20 heads, only 1 or 2 categories.</p>

DO NOT USE 'MARKET RATES'!

(calculated rates must give a true representation of company costs and exclude profit)

- Ensure costs are allowable and reasonable, in accordance to Annex I to the ESA GCC.
- > Consider future evolutions of the company.



3. PSSA1 – Company Cost Rates and Overheads

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PSS A1 – Summary of the labour, facility and overhead rates • esa

COMPANY RATES AND OVERHEADS	FORM No.	PSS A1	Page no. 1	of 1			Issue 5	
			COMPANY NAME:	Company X				
RFQ/ITT no.:	ESA ITT Number 1234	45/NL/XM		FR				
PROPOSAL no.:	PT/12345/A		Name and title:					
ECONOMIC CONDITIONS:	2021							
NATIONAL CURRENCY (NC):	EURO		Signature:					
VALIDITY PERIOD :	From. 01/01/2021	To. 31/12/2021						
ESA Audit agreement reference / date								
						Agr	reed by	
					MOD	ESA		
					-		Status	
					(x		applicable)	,
1. LABOUR					(
Direct labour cost centres or categories		Basic Hourly Rate	Direct Overhead	Gross Hourly Rate				
Code and Name		(NC)	(% or Rate in NC)	(NC)				
CAT 1 Engineering		40.12	19.88	60.00				
2. INTERNAL SPECIAL FACILITIES			-					
Facility Code and Name		Туре	of Unit	UNIT RATE				
				(NC)				
3. OTHER COST ELEMENTS								
Standard ESA type	Accordi	ng to normal compan	y type	OVERHEAD %				
3.1 - 3.10 Various Other Direct Cost Elements								
GENERAL EXPENSES								
According to ESA type	According to normal	Applicable on o	ost element no.	OVERHEAD %				
	company type							
5. General & Administration expenses								
6. Research & Development expenses								
7. Other (specify)								

State whether the proposed rates are audited/agreed by ESA or a National Audit Authority (e.g. MoD)

- PSS forms are designed to allow for all company cost allocation methodologies that may exist across all member states and indeed, within them.
- But not all rate and overhead elements need apply. In our example we cover all expenses in one average company gross hourly rate.

PSS A1 - Header



COMPANYRATES AND OVERHEADS	FORM No. PSS A1		Page no. 1	of 1	Issue 5
			COMPANY NAME:	Company X	
RFQ/ITT no.:	ESA ITT Number 12	345/NL/XM		FR	
PROPOSAL no.:	PT/12345/A		Name and title:		
ECONOMIC CONDITIONS:	2021				
NATIONAL CURRENCY (NC):	EURO		Signature:		
VALIDITY PERIOD :	From. 01/01/2021	To. 31/12/2021			
ESA Audit agreement reference / date					

Rates representative of your annual budget/forecast (or latest P&L) expenses and excluding profit, are stated in the PSS A1, along with the header details identifying the Economic Conditions of the tender and the applicable cost rates. They may, or may not, be agreed rates.

In any presentation of the cost structure, the rates applied must not lead to a double counting of the expenses, covered by the rates calculation, shown on slide 10. Details identifying the Economic Conditions & related cost rates

COMPANY RATE CARD OVERHEADS	FORM N	PSS AT	Page no.	d 1 Company X	toe1
NG2177 HD.	ESA/TT Number 1	INC. MILLING		-	
ROPORAL MIL CONUMIC CONDITIONS AFTOMAL CURRENCY (MC) COTY REPORT	PT-12345A 2016 EURO Fran. 8161/2016	Te 31/12/2014	Name and the Dignature		
SA Auto spectrum otherance / data					Speed by
LABOUR					
Devid Vallow cost centres ar categories Coste and Name		Basic Houry Rate (MC)	Desit Deetloat (N. or Page in NC)	Since Hearty Faire (MC)	
CAT 1 Engineering	_	40.12	10.88	40.00	
INTERNAL SPECIAL FACE/RES					
facility Code and Name		54	17.048	Start Halls	
NC1 Permai Vacuum Chamber			the state	#5.00	
OTHER COST ELEMENTS					
Sanderd ESA (per 11-3-12 Variaus Sher Smith Cost Earnerity	Material Purchase	ng la normal compa	0.004	LON	
and the contracts					
According to 25X type	According to normal company, Sales	April dia or 1	tod stamped to	CURRENC N	
Careral & Administrative supervises		1. Direct Labour I	Cent	15.0%	
E. Research & Soveligment express (Other (specific)		4. Sub-total - Dre	ect Calef	1.5%	



1. LABOUR			
Direct labour cost centres or categories	Basic Hourly Rate	Direct Overhead	Gross Hourly Rate
Code and Name	(NC)	(% or Rate in NC)	(NC)
CAT 1 Engineering	40.12	19.88	60.00

Simple company - one average Gross Hourly Rate

In our simple example, all direct labour and all indirect expenses are covered in one average company hourly rate.

COMPANY RATES AND OVERHEADS	FORM N	P55.41	Page No.	1.1	
			COMPANY NAME	Company X	
REGITT NO.	ESAITT Number 1	34576,00		18	
PROPOSAL NO.	PT-12345A	1	Name and Ba		
CONCINE CONDITIONS	2016				
IN TICRINE, CURRENCY (NC)	2016		Signature		
VALENTY PERIOD	From 05/05/2016	Ta. 31/12/2016			
ESA Audit agreement reference / date					
					Agreed 1
					8 2 1
					3 -
					1000
LABOUR	_			_	
Direct labour cost centres or categories		Basic Hourly Rate	Direct Overhead	Gross Hourly Rate	
Code and Name		(NC)	(% or Rate in NC)	(NC)	
CAT 1 Engineering		40.12	19.88	60.00	
	-	l her	1.04	100.000	
and have					
facility contract faces				100	
				.MD	
NC1 Permai Vacuum Damber			~	(M) #5.00	
NC1 Thermal Viscours Chariter	1				
Standard 25.4 type		ng ta normal compar		Denes 1	
NC 1 Thermal Viewum Chamber 1 Dheith Cold Scotters Dansert F24 spe 11-3 10 Januar One Sect Continents	Accent Material Purchase	ng ta normal compar			
NC 1 Thermal Viewum Chamber 1 Divers CORTELINENTS Dansert F24 spe 1-310 Annual One Sect Continents 2005Au, CORTELS	Material Purchase	ng la termai compa		Denes 1	
NC 1 Thermal Viewum Chamber 1 Dheith Cold Scotters Dansert F24 spe 11-3 10 Januar One Sect Continents	Material Purchase	ng la termai compa	1.504	Line	
NC) Thermal Viecoum Chamber Dheth Coll? ELDebries Sendert 254 type 1.119 Cense Dec Dec Demets EDBRes, EURINES Scooling to 554 type	Material Purchase	ng la termai compa	of denset is	Line	
NC 1 Thermal Viewum Chamber 1 Divers CORTELINENTS Dansert F24 spe 1-310 Annual One Sect Continents 2005Au, CORTELS	Material Purchase	ng la torrine contant Annalise e c	to Spine and observations	CHENERE IS LONG	

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PSS A1 – Internal Special Facilities (ISF)



2. INTER	NAL SPECIAL FACILITIES				
Facility C	ode and Name		Type of Unit	UNIT RATE	
				(NC)	
TVC 1	Thermal Vacuum Chamber		Hour	85.00	 Facility Unit Rates
3. OTHE	R COST ELEMENTS		•	•	
Standard	d ESA type	Accordi	ng to normal company type	OVERHEAD %	
3.1 - 3.10	Various Other Direct Cost Elements	Material Purchases		1.0%	
	•	•			

- all expenses are covered with one \geq If average company hourly rate, as shown in slide 7, the separate overhead elements shown here, cannot be applicable in our example, since this would imply more than 100% of expenses are covered.
- However, in more complex cost rate structures there may be rates for the utilisation of special facilities e.g. Vacuum Chambers, Clean Rooms, Vibration Tables, Wind Tunnels etc. and maybe direct overhead percentages on some other direct cost elements (eg. Procurement, Material handling etc).

				%	on other
COMPANY RATES AND OVE RHEAD	FORM N	PSSAt	Page no.	1.00.1	time 5
			COMPANY NAME	Company X	
AFGETT NO.	ESA/ITT Number 1	234576,034		18	
HOPOSAL ML	PTITZIASA	1	Name and Ba		
CONCINC CONDITIONS	2016				
IN THOMMS, CLAMPIONICY (NC)	ELMO		Signature		
ALEXTY PERIOD	From 01/01/2016	Ta. 31/12/2016			
SA Audit agreement referen te / date					
					Agreed by
					2 8
					1010
					is over and over
LABOUR					
lived labour cost centres or categories		Basic Hoarty Rate	Desit Deetheat	Gross Hearly Kate	
lote and filame			(Northganin MC)	(MC)	
LAT 1 Engenerated		40.12	10.84	40.00	
2. INTERNAL SPECIAL FACILITIES					
acility Code and Name		Туре	of Unit	UNIT RATE	
				(NC)	
VC 1 Thermal Vacuum Chamber		н н	our	85.00	
Standard ESA type	A	ling to normal compar	av troo	OVERHEAD %	
3.1 3.10 Various Other Direct Cost Elements	Material Purchase		iy iype	1.0%	
Validus Other Direct Cost Elements				1.070	
According to PDA type	Accedity is come	Automation of the		Cutment N	
	CONTRACTOR OF MERICA				
General & Administration supervises		1. Direct Labour (level.	15.0%	
Reparch & Development expenses		A Sub-total - Dire	et Cast	1.5%	
Other (specific)					

st elements

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PSS A1 – General Expenses



GENERAL EXPENSES			
According to ESA type	According to normal	Applicable on cost element no.	OVERHEAD %
	company type		
5. General & Administration expenses		1. Direct Labour Cost	15.0%
6. Research & Development expenses		4. Sub-total - Direct Cost	1.5%
7. Other (specify)			

n some companies a further breakdown of the cost structure may identify costs to be covered by a General & Administration overhead %

A company may identify a % to cover costs incurred funding their own R&D

As mentioned before, in our example separate percentages to identify G&A and R&D are not required, since ALL expenses are covered in one average company hourly rate

COMPANY RATES AND OVERHEADS	FORMINE	PSS.At		Company X	tmar 5
AP TTQ/TH	ESA/ITT Number 12	34576,00		-	
PEOPOSIA, RE. ECONOMIC CONDITIONS SETTONIA, CURRENCY (RC) INLEXTY PERIOD ESA Audit agreement reference / date	PT/12345A 2016 EURO Fram. 0101/2016	Te 31/12/2014	Name and Bis		
					Agreed by Oran Stress Defense Defens
1 LABOR	-				2 PP STORE
Direct labour cost centres or categories Costs and Name		Basic Hourly Rate (MC)	Desct Overhead (Nor Rep in NO	Gross Haarly Rater (MC)	
CAT 1 Engreening		40.12	10.88	40.00	
C WIERING, SPECIAL FACE/RES Facility Colt and Name		- Spec	1.04	Stat fails	
TVC 1 Thermal Vacuum Chamber 1 Dives contracted on				85.00	
GENFPAL EXPENSES	Material Purchase	a la surdad contrat	5 Ser	Denear 1	
According to ESA type	According to normal company type	Applicable on	cost element no.	OVERNEAD %	
5. General & Administration expenses		1. Direct Labour	Cost	15.0%	
6. Research & Development expenses		4. Sub-total - Dir	ect Cost	1.5%	
7. Other (specify)					



4. PSSA2 – Company Price Breakdown

+

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*

PSS A2 – Header



The PSS forms have a descriptive header, and a body covering cost and price details.

In the header for the PSS A2 (the main summary price form) you will recognise that several elements were already included on the PSS A1.

COMPANY PRICE BREAKDOV	VN FORM		Form I	Vo. PSS A2	Page no. 1 of	1 Issue 5
RFQ/ITT No.:	ESA ITT Numb	ESA ITT Number 12345/NL/XM C				
Proposal/Tender No.:	PT/12345/A	2345/A			Company X	
Type of Price:	FFP			Country:	FR	
Economic Condition:	2021					
National Currency (NC):	EURO			Representative		
Exchange Rate (X):	1 EURO =	1.00000	EURO	Name and Title:		
Contractual Phase:				Signature:		
Project/Work Package(s):	Total					

PSS A2 – Header, Price Type/Exchange Rate



- Although ESA contracts are placed in Euro, all proposals are required to show the bidders national currency, where necessary converted to Euro at an exchange rate, which is to be justified in the proposal text (eg. if the duration of the contract is 2 years, the average exchange of the currency over the last two years as published at the ECB (European Central Bank) could be a reasonable value).
- When there is a requirement for a Fixed price Contract with price variation (FP+V), the exchange rate must reflect the economic conditions stated in the ITT. The applicable exchange rate can be found in the Sogeti publication of National Price & Salary Statistics found on ESA-STAR (see slide 4).

	COMPANY PRICE BREAKDOWN F	ORM		Form No
	RFQ/ITT No.:	ESA ITT Number	12345/NL/XM	
	Proposal/Tender No.:	PT/12345/A		
ESA/REG/002, rev.3 Annex II	Type of Price:	FP+V		
Specific to the ITT	Economic Condition:	Jul-18		
National Currency e.g. Pounds Sterling	National Currency (NC):	GBP		
ESA/REG/001, rev.5 Annex 4	Exchange Rate (X):	1 EURO =	0.78830	GBP
	Project/Work Package(s):	Total		

PSS A2 – Contractual Phase/ Subcontractors



If the contract foresees a phased approach, PSS forms should be produced for each Contractual Phase.

If there are Sub-Contractors, PSS forms should be produced for each Subcontractor.

Finally the Project/Work Package description is the last identifying detail.

	COMPANY PRICE BREAKDOWN	COMPANY PRICE BREAKDOWN FORM FORM FORM				Page no.	1 of 1	Issue 5
	RFQ/TT No.: ESA ITT Number 12345/NL/XM C			COMPANY				
For example;	Proposal/Tender No.:	PT/12345/A			Name:	Company X		
Phase A: Study and Analysis	Type of Price:	FFP			Country:	FR		
B: Definition C/D: Design & Development	Economic Condition:	2016						
E: Operations	National Currency (NC):	EURO			Representative			
Phase can be left blank when n/a.	Exchange Rate (X):	1 EUR0 =	1.00000	EURO	Name and Title:			
	Contractual Phase:					1		
Description of project and/or work package for which this form is	Project/Work Package(s):	Total			-		
summarising the cost.								

PSS A2 – Cost and Price Summary



	Cost / Price Data						TOTAL (NC)	TOTAL (EURO)
	LABOUR							
	bour cost centres or categories Description	No. of FTE (calculated) U = W / V	Sold Hours per ManYear V	Manpower Effort No. of Hours W	Gross Hourly Rate in NC			
CAT 1	Engineering	25.0	1,620	40,500	60.00		2,430,000	2,430,000
CAT2	Manufacturing							
1	Total Direct Labour Hours and Cost	25.0		40500.0		Α	2,430,000	2,430,000
	INTERNAL SPECIAL FACILITIES							
Code	Description		Type of unit	No. of units	Unit rates in NC			
2	Total Internal Special Facilities Cost					в		
	OTHER DIRECT COST ELEMENTS	Base amounts in NC	+ OH %	OH amounts in NC				
3.1 - 3.10	Various ODC	230,000					230,000	230,000
3	Total Other Direct Cost	230,000.00				С	230,000	230,000
4	SUB-TOTAL DIRECT COST				(A+B+C)	D	2,660,000	2,660,000
	GENERAL EXPENSES	Cost items to whi	ich % applies	Base Amount in NC	OH %			
5	General & Administration Expenses					Е		
6	Research & Development Expenses					F		
7	Other					G		
8	TOTAL COMPANY COST				D+(E+F+G)	Н	2,660,000	2,660,000
		Cost items to whi	ich % applies	Base Amount in NC	%			
9	PROFIT	Line 8	(H)	2,660,000.0	8.0%	I	212,800	212,800
10	Cost Without Additional Charge					J		
11	Financial Provision For Escalation					Κ		
12	TOTAL COMPANY PRICE				(H+I+J+K)	L	2,872,800	2,872,800
13	Total Sub-Contractor Price					М	500,000	500,000
14	Reduction For Company Contribution					Ν		
15	TOTAL PRICE FOR ESA				(L+M-N)		3,372,800	3,372,800

The PSS-A2 is used to summarise the Total Price.

Separate forms by Work Package may be presented to support the total PSS-A2, although the PSS-A8 should suffice.

The labour categories and rates should be those indicated already in PSSA1

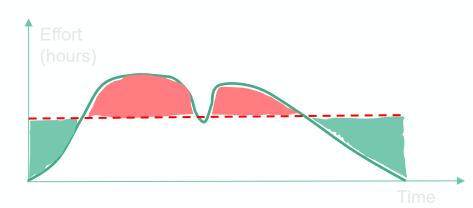


	LABOUR												
	Ū	Description (calculated) Man Year No. of Hours in N		oss Hourly Rate in NC			E	EURO					
CAT 1	Ingineering		AT 1 Engineering		5.0	1,620	40,500)	60.00		2,430	,000 2	2,430,00
CAT 2	Manufacturing												
1	Total Direct Labour Hours and Cost	2	5.0		40500.0)		Α	2,430,	000 2	,430,00		
				Cost / Price Data						TOTAL	TOTAL		
ABOUR				LABOUR									
no 1 costs the manneywar affart required at				5	No. of FTE (calculated) U = W / V	Sold Hours per Man Year V	Manpower Effort No. of Hours W	Gross Hourly R in NC	Rate	NC	EURO		
					25.0	1,620	40,500	60.00		2,430,000	2,430,0		
gross hourly rate, which in our example,				ů.	25.0		40500.0			2 430 000	2,430,0		
lirect	labour AND all indire	toe		INTERNAL SPECIAL FACILITIES		-				_,,	_,,		
			Code	Description		Type of unit	No of units	Unit righter in NC					
; other	overnead categories	on							-	-	-		
are not	t applicable.		-		Base amounts	1000	OH amounts		-		_		
			3.4 - 3.50		14 AC		in MC	_	-	236.60	224		
			3	Total Other Direct Cost	230.000-00				¢	230.000	2.20		
burb(oses the average so	bld	4	SUB-TOTAL DIRECT-COST				(A=8=C)	0	2,668,999	2,660		
	0			GENERAL EXPENSES	Cost items to art	ch N apprint	Base Amount in NC	Orth					
nan y	rear used in the rat	es					-						
s enter	ed here in order to deri	Ve	7	Other							-		
number of full time equivalent heads that				TOTAL COMPANY COST				D-Æ-F-G	8 18	2,660,000	2,644		
		nat			Cost items to sh	on % appring	Base Amount in NC			-			
	•			PROFIT	Line I	245	2.560,000 0	1.0%	1	212,800	212		
	activity.		10								-		
			12							2,872,800	2.872		
			13	Total Sub-Contractor Price					M	500.000	50		
				Reduction For Company Contribution					N				
	Code / CAT 1 CAT 2 1 ABOUR the ma urly rat direct e other are not are not s purp man y s enter of full ti	Direct Labour cost centres or categories Code / Description CAT 1 Engineering CAT 2 Manufacturing 1 Total Direct Labour Hours and Cost ABOUR the manpower effort required urly rate, which in our examp direct labour AND all indirect e other overhead categories are not applicable. s purposes the average so man year used in the rate s entered here in order to derive	Direct Labour cost centres or categories No. 6 (calculated control of the cost o	Direct Lab our cost centres or categories Code / Description No. of FTE (calculated) U = W/V CAT 1 Engineering 25.0 CAT 2 Manufacturing 1 1 Total Direct Labour Hours and Cost 25.0 CABOUR Image: Cost of the state	Direct Labour cost centres or categories No. of FTE (calculated) Sold Hours per ManYear CAT 1 Engineering 25.0 1,620 CAT 2 Manufacturing 25.0 1,620 1 Total Direct Labour Hours and Cost 25.0 1 ABOUR ABOUR Labour AND all indirect to other overhead categories on are not applicable. Sold Hours per ManYear Sold Hours per ManYear Manufacturing 1 Total Direct Labour Hours and Cost 25.0 Code / Description Code	Direct Labour cost centres or categories No. of FTE (calculated) Sold Hours per ManYear Manpower I No. of Hours W CAT 1 Engineering 25.0 1,620 40,500 CAT 2 Manufacturing	Direct Labour cost centres or categories No. of FTE (calculated) U = W/V Sold Hours per Manyower Effort No. of Hours W CAT 1 Engineering 25.0 1,620 40,500 CAT 2 Manufacturing - - - 1 Total Direct Labour Hours and Cost 25.0 40500.0 - ABOUR	Direct Labour cost centres or categories No. of FTE (calculated) U = W/V Sold Hours per ManYear Manpower Effort No. of Hours W Gross Hourly Rate in NC CAT 1 Engineering 25.0 1,620 40,500 60.00 CAT 2 Manufacturing 1 Total Direct Labour Hours and Cost 25.0 40500.0 60.00 ABOUR ABOUR Annotacturing 25.0 40500.0 Manyacturing Manyacturing	Direct Labour cost centres or categories No. of FTE (calculated) Sold Hours per Man Year Manpower Effort No. of Hours Gross Hourly Rate in NC CAT1 Engineering 25.0 1,620 40,500 60.00 CAT2 Manufacturing 0 0 0 0 0 1 Total Direct Labour Hours and Cost 25.0 40500.0 A ABOUR Item manpower effort required at urly rate, which in our example, direct labour AND all indirect e other overhead categories on are not applicable. Sold Hours and Cost 28.0 1.820 40500.0 Se purposes the average sold man year used in the rates s entered here in order to derive of full time equivalent heads that to this activity. 1 Telefore 28.0 1.820 40500.0	Direct Labour cost centres or categories No. of FTE (calculated) U = W/V Sold Hours per Manyear Manpower Effort W Grass Hourly Rate in NC NC CAT 1 Engineering 25.0 1.620 40,500 60.00 2.430 CAT 2 Manufacturing 0 0 0 0 0 2.430 ABOUR It total Direct Labour Hours and Cost 25.0 40500.0 A 2.430 ABOUR It total Direct Labour Hours and Cost 25.0 40500.0 A 2.430 ABOUR It total Direct Labour AND all indirect e other overhead categories on are not applicable. Indirect to derive of the sactivity. 1 total Direct to derive of to this activity. 1 total Direct to derive of to this activity. 1 total Direct tabour Hours and Cost 28.0 1.820 A	Direct Labour cost centres or categories No. of FTE (calculated) Sold Hours per Man Year Manpower Effort No. of Hours Gross Hourly Rate in NC NC E CAT1 Engineering 25.0 1,620 40,500 60.00 2,430,000 2 CAT2 Manufacturing 1 1 Total Direct Labour Hours and Cost 25.0 1,620 40,500 60.00 2,430,000 2 ABOUR ABOUR Cate of the source of the		



Labour hours per category/rate need to be indicated for each Work Package.

Labour hours are linked to the effort required to complete the work and achieve the milestones according to agreed/required schedule.



- Hours per period (see PSS-A10) shall be **realistic**;
- Charged hours per person shall be in line with the assumptions used for the rates calculation (i.e. Sellable Hours);
- Bidders shall ensure to be able to deliver the declared hours. Project hours are expected to be recorded in **timesheets**.



Sellable hours vs. Available hours

Typically, assuming 40 hrs/week ie. 8 hours per day

Available Work Hours Analysis	Days	Hours
Number of Work Hours per Week		40
Number of Work Hours per Day		8
1 year	365	2920
- Weekends	-104	-832
- Public Holidays	-10	-80
- Annual leave	-25	-190
Theoretical Available Work Hours	226	1808
- Absences (eg. Sickness)	-9	-72
+ Overtime	5	40
Average 'Worked Hours' Available per FTE	222	1776

Average Availability

Timesheet	Days	Hours						
1 year (Availability)	222	1776						
- Administration & Training	-8	-64						
- Management	-6.5	-52						
- Internal projects / R&D	-5	-40						
Time on Projects	202.5	1620						
Average Sellable Hours								



	INTERNAL SPECIAL FACILITIES								
Code	Description	Type of unit	No. of units	Unit rates in NC					
2	Total Internal Special Facilities Cost				в				

INTERNAL SPECIAL

FACILITIES

Line 2 is rarely used in small/medium sized companies, but in more complex cost rate structures there may be rates for the utilisation of special facilities e.g. Vacuum Chambers, Clean Rooms, Vibration Tables, Wind Tunnels etc.

	Cost / Price Data						LATOT AL	TOTAL .
	LABOUR							
	bour cost canthes or calegories Description	No. 0777E (calculated) (2 = W/V	Sold Hours per Merifikar V	Manpower Effort No. of Hours	Gross Hourly Rate in NC			
CAT 1 CAT2	Engineering	25.0	1,620	40,500	79.00		2.835.000	2,835,000
1	Total Direct Labour Hours and Cost	25.0		40500.0			2.835.000	2,875,800
	INTERNAL SPECIAL FACILITIES							
Code	Description		Type of unit	No. of units	Unit rates in NC			
2	Total Internal Special Facilities Cost					в		
	CONTRACTORY CONTRACTORY	in NC	1018	in NC			_	
11-31	Various ODC Total Other Direct Coal	230.000				e	230.000	230.000
4	SUB-TOTAL DIRECT COST	2262306236			(A+8+4)	0	3.065.000	3.065.000
-	GENERAL EXPENSES	Cost dama to a	And its applies	Same Amount in NC	On th	÷		
5	General & Administration Expenses			_		1	_	
	Research & Development Expenses							
7	Other					6		
	TOTAL COMPANY COST				D=(E=F=G)		3,065,000	3,065,000
		Cost dema to el	nich % applies	Base Amount in NC	16			
	PROFIT	Line	4.94	3.045.0001	8.0%		245,298	245,298
10	Cost Wehout Additional Charge					÷		
11	Financial Provision For Escalation					_		
12	TOTAL COMPANY PRICE				(H=l=,J=K)	٤.	3,310,200	3,310,200
13	Total Sub-Contractor Price					M	500.000	500,000
54	Reduction For Company Contribution					Ν		
15	TOTAL PRICE FOR ESA				(L-M-N)		3,810,200	3,810,200

Internal Special Facility (ISF) rates – Not so common in SME



Special cost centres that attract a total cost relatively large:

- Direct ownership and operating costs
- Asset depreciation
- Electricity/Gas consumption
- Consumables
- Maintenance
- Dedicated operators
- Accommodation (surface and services)
- Management & Administration
 - Need to define the *recovery base [units]*
- Operating time (hours/days)
- Occupation (square meters)
- Throughput (datarate/nr of cycles/...)

Utilization = sold units per year

- + When ISF rates are established, their cost is allocated according to the utilization and excluded from the Overheads.
- Utilization level needs to be sufficient to generate reasonable rates. There is a risk of under-recovery if insufficient units are sold.



History/experience shows that bidders with no-audited rates sometimes either **misunderstand** or **misuse** this section.

- The charged costs MUST be excluded from other rates and overheads.
- Operating costs of these facilities MUST be eligible (GCC Annex I).
- Charged units MUST be correlated to the actual work and schedule.
- Charging such facilities shall be normal practice and the contractor is expected to record the sold units in adequate logsheets.

Note: ISF rates are typically used in larger companies where the major cost driver is the cost of the facility and its operation, rather than the man hours associated with using it.

PSS A2 – Other Direct Cost (ODC) Elements



	OTHER DIRECT COST ELEMENTS	Base amounts in NC	+ OH %	OH amounts in NC				
3.1 - 3.10	Various ODC	230,000					230,000	230,000
3	Total Other Direct Cost	230,000.00				С	230,000	230,000
4	SUB-TOTAL DIRECT COST				(A+B+C)	D	3,065,000	3,065,000

OTHER DIRECT COST ELEMENTS

Line 3 indicates the direct costs associated with delivering the required work.

In more complex cost rate structures, there may be direct overhead percentages on some other direct cost elements, but not in our simple example where all expenses are covered by one average company hourly rate.

MUST detail all the ODC expenses in EXHIBIT A

Bidders must be able to provide details of the estimation of such costs, when required. Ideally quotations from suppliers.

	Cost / Price Data						LATOT AL	TOTAL
	LABOUR							
	bour cost centres or calegories Description	No. 07712 Italituded U-W/V	Solt Hours per Merifikar V	Margowar (Mot Als. of Hours W	Oncess Hourty Rate in NC		.80	ELRO
CAT 1	Engineering	25.0	1.620	40,500	40.00		2,430,000	2.430.0
CATE	Manufacturing							
1	Total Direct Labour Hours and Cost	25.0		40500.0			2.430.000	2,430,8
	INTERNAL SPECIAL FACE/THES							
Code	Descripton		Type of unit	No d'unte	Unit rates in NC			
2	Total Internal Special Pacifies Cost					8		
	OTHER DIRECT COST ELEMENTS	Base amounts in NC	+ OH %	OH amounts in NC				
3.1 - 3.10	0 Various ODC	230,000					230,000	230,00
3	Total Other Direct Cost	230,000.00				С	230,000	230,00
4	SUB-TOTAL DIRECT COST				(A+B+C)	D	3,065,000	3,065,0
_	GENERAL EXPENSES	Cost items to an	son to apprice	Base Amount in NC	ONB			
. 1	General & Administration Expenses					1		
	Research & Development Expenses					1		
-	Other					6		
	TOTAL COMPANY COST				D=(E=F=G)		2,668,888	2,660,0
_		Cost items to an		Base Amount in NC		_	_	_
	PROFIT	Line I	196	2,560,000 1	1.0%	1	212,800	212,8
10	Cest Webest Additional Charge					÷		
	Fearcal Provision For Excatation					_		
12	TOTAL COMPANY PRICE				(H=L=I=H)	1	2,872,800	2,872,8
13	Total Sub-Contractor Price					MN	500,000	500.0
14	Reduction For Company Contribution TOTAL PRICE FOR ESA				0.48.00		3.372.800	



Bidders must be able to provide details of the estimation of such costs, when required. Ideally quotations from suppliers.

Large procurements should either

- Be treated as **sub-contracts**, if significant development and risk is involved; or
- Reported as CWAC (Cost Without Additional Charge).

The assessment of 'large' is left to the TEB.

ODC - examples



3.1 to 3.4 Materials

Raw materials, mechanical parts, semi-finished products, electric and electronic components. (Also included here is <u>general production material</u> bought for stock which is charged to the project based on the amount withdrawn from stock).

3.5 HIREL Parts

For expenditures related to "High Reliability" (HIREL) parts (a.k.a. EEE Parts) used for space systems, the following special provisions shall apply:

- a) If the HIREL parts are procured by the tenderer for his own part of the work, the usual overhead may be used
- b) If the HIREL parts are procured by a third party (i.e. Agent, Prime Contractor, ESA), the overheads shall be limited to those overhead activities which are carried out by the tenderer themselves.

The overheads on HIREL parts shall only be applicable to the vendor price and shall not be applicable to any Agent charges. Overheads on Agents' services, if applicable, shall be quoted separately under External Services or as a Cost Without Additional Charge. Details of such procurements are given (if requested) in PSS-A40.

3.6 External Major Products

External Major Products are defined as fully manufactured items such as assemblies, devices, modules etc., which are normally produced for other customers by the tenderer or by another manufacturer and which are intended to be fitted readily, without major processing (machining, modifications, etc.), into the deliverable items, or constitute as such a deliverable item by itself. Participating companies supplying such items are not Work Package responsible.

3.7 External Services

External Services are defined as services to be rendered by a third party, such as hire of facilities, computing/analysis services, manpower services including consultancies, foundries (ASICs, MMICs, etc), plating of parts, services for procurement of HIREL parts etc. Participating companies supplying such items are not Work Package responsible.

Consultants and ad-hoc specialized labour support can be charged as External Services.

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Procurement/Material Handling Overhead – Not common for SME

In a complex structure, companies may have a Procurement or Material Handling overhead in order to allocate specific indirect costs (mainly labour) related to the procurement of external products, supplies or services needed for a contract or the procurement, management and handling (logistics) of materials (e.g. typically companies engaged in manufacturing activities)

Typical costs allocated to procurement or material handling overhead may include:

- Personnel/Services following up procurements or performing logistics operations etc. (purchase order management, placement of orders on the basis of standard documents, processing)
- Handling of goods received, stored and distributed.
- QA activities on incoming and outgoing materials/products
- Purchasing, General Procurement, Supply Chain management (not subco management!)
- Stock management, inventory, warehousing costs
- **Obsolescence**, Scrap
- Transport cost of incoming material (not shipping out products !)
- Custom duties / fees, Export control
- Materials related Facility Management, IT tools and support

E.g. A particular case is for High-Reliability parts (Hi-rel parts), such as EEE, for which it might be necessary to buy extra components and perform activities related to their acceptance/verification/gualification/calibration.

NOTE: This is not an extra overhead! – It simply is overhead cost from the overall indirect cost pool, being recovered in a different way (via a % on a base), rather than through the overhead hourly rate.

Procurement/Material Handling Overhead - Not common for SME



These overheads are established as a % allocation on the bare purchase cost of the supplies (*Base Amount*).

It is important to define a reliable base amount, then the calculation is simply:

OH% = indirect cost allocated / base amount *100

It is recommended to

- Refer the base amount to clear accounts of supplies, where there is no mix of supplies for which the overhead is applicable and not.
- The base amount should consider also the *stock change* (variation of supplies from previous years).
- The base amount should be calculated on the total average of the past 3 to 5 years and considering forecasts. It should be stable. (Often the procurement base is not always stable and may vary substantially over time!)
- Procurement base typically relates to items quoted in 3.1 3.5a, 3.6, 3.7 of the PSSA2



	GENERAL EXPENSES	Cost items to which % applies	Base Amount in NC	OH %		
5	General & Administration Expenses				Е	
6	Research & Development Expenses				F	
7	Other				G	

GEN	IERAL	EYD	ENS	ES.
GLN		. слг		

Lines 5, 6 and 7 are only used for the allocation of indirect expenses, NOT already covered by the gross hourly rate applied in line 1.

In our simple example all expenses are covered by one average company hourly rate, so no additional general expenses are applicable.

	Cost / Price Data						LATOT AL	TOTAL
	LABOUR							-
	bour cost centres or calegories Description	No. of FTE Italituded U = W/V	Sold Hours per Merificar V	Margowar Effort No. of Hours W	Gross Houry Rate In NC		80	£LR0
CAT 1	Engineering	25.0	1,620	40,500	40.00		2,430,000	2,430.0
CAT 2	Manufacturing							
1	Total Direct Labour Hours and Cost	25.0		40500.0		A	2,430,000	2,430,00
	INTERNAL SPECIAL FACE/THES							
Code	Description		Type of unit	No of units	Unit rates an INC	_		
2	Total Internal Special Facilities Cost					8		
	OTHER DIRECT COST ELEMENTS	Base amounts in NC	+01%	OH amounts In NC				
11-11	Vanous ODC	236,000					238.000	230.0
3	Total Other Direct Cost	230.000.00				¢	230.000	230.00
4	SUB TOTAL DIRECT COST				(A=8=C)	0	2,668,888	2,668,86
	GENERAL EXPENSES	Cost items to w	hich % applies	Base Amount in NC	OH %			
5	General & Administration Expenses					Е		
6	Research & Development Expenses					F		
7	Other					G		
	TOTAL COMPANY COST				DefferFeG		2,668,000	2,660,00
		Cost Berns to er		date Amount in NC		_	_	
	PROFIT	Line	196	2,560,000 5	1.0%	1	212,800	212,8
10	Cest Webest Additional Charge					÷		
	Financial Provision For Excalation				10.1.1.1.10	_		
12	TOTAL COMPANY PRICE				(HoloJoR)	1	2,872,800	2,872,80
13	Total Sub-Contractor Price					MN	508,300	500.00
15	Reduction For Company Contribution TOTAL PRICE FOR ESA				010.00	-	3.372.800	

General & Administrative (G&A) Overhead



Used by only few, typically larger organisations.

Normally, particularly for SMEs, these costs would be already included in the general overhead hourly rate.

Costs allocated to a possible G&A OH, are for example:

- Proposal & Tender / Bidding pre-contract cost (cost prior to the effect date stated in the Contract) in anticipation of the award of the Contract or pursuant to its negotiation.
- Corporate fees, management fees, head office fees or shared services agreements;
- Management and Administration Functional Cost Centres;
- Other General Charges as defined by individual company.

The recovery base for the calculation of the G&A % should normally be the total Labour cost and Internal Special Facilities cost including the relevant overheads.

NOTE: This is not an extra overhead! – It simply is overhead cost being recovered in a different way (via a % on a base), rather than through the overhead hourly rate.

Company Own Funded Research & Development



(This is NOT work carried out on Funded R&D contracts awarded to the company by a paying customer)

- There are 2 main types of Own Funded R&D,
 - Basic & Applied Research (General R&D), proof of concept, the "R" out of R&D and
 - Product Development (Specific), the "D"
- Basic & Applied Research (general R&D):
 - Planned investigation undertaken with the intent of gaining new scientific or technical knowledge and understanding. Such investigation may, or may not be directed towards a specific practical aim or application (ie. proof of concept).
 - ESA's contribution to a company's General Research and Development expenses is limited in accordance with Annex 1, Part III, Clause 4.2y to the General Clauses and Conditions for ESA contracts, ESA/REG/002, rev.3. This limitation is 5% for Large System Integrators and 7.5% for other companies, based on the total Labour cost, Internal Special Facilities cost and Material cost including the relevant overheads.

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Company Own Funded Research & Development



(This is NOT work carried out on Funded R&D contracts awarded to the company by a paying customer)

- Product development (PD) (and/or Improvement);
 - the next stage of R&D. It's the "D" out of R&D. PD is specific to a task, not like "General R&D, previously described
 - PD is a systematic program of work going beyond basic and applied research, which is directed towards the creation of new or improved products, system components, materials, devices, or services, and/or to install new processes or systems prior to the commencement of commercial production or commercial applications, and/or to improving substantially those already produced or installed.
 - The hours/costs associated with Non-Space related PD are considered as direct sellable hours/direct costs deemed to be recoverable against future sales of the product/service developed and therefore not considered an allowable indirect activity to be included in the overheads.
 - Hours spent on Co-Funded Contracts are considered as direct sellable hours/direct costs deemed to be recoverable against future sales of the product/service developed and therefore not considered an allowable indirect activity to be included in the overheads.

R&D Overhead



In some companies, the cost for general research activities is recovered via a Research and Development overhead. Typically for SMEs, general research cost where applicable should be recovered via the general overhead rather than a separate overhead rate.

According to ESA rules, for SMEs general R&D cost allowable in rates is limited to 7.5% of the Total Cost Base.

During an audit, it would be verified that:

- 1. The costs was actually incurred;
- 2. The cost actually qualifies as general R&D as per ESA rules;
- 3. The cost is reasonable and within the limits.

The base for R&D includes Labour cost, Internal Special Facilities cost, Material cost (3-3.5a) and including the relevant overheads (G&A). The cost of the R&D activity itself must, of course, be excluded from the base.

NOTE: This is not an extra overhead! – It simply is overhead cost being recovered in a different way (via a % of a base), rather than through the overhead hourly rate.



		Cost items to which % applies	Base Amount in NC	%			
9	PROFIT	Line 8 (H)	2,660,000.0	8.0%	Т	212,800	212,800

Refer to new profit policy on the ESA Learning Hub!

https://learninghub.esa.int/content/industry -information-webinar-aboutesa%E2%80%99s-new-profit-policy-2023

PROFIT

The ITT will indicate the MAXIMUM allowable %, for the profit/fee, to be shown on line 9

Typical value is **now defined in ITT in %** of the total company cost (item 8 on PSS-A2).

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In Co-funded contracts the allowable profit is 0%.
```

	Cost / Price Data						TOTAL (NG)	TOTAL (EURO)
	LABOUR							
	ibour cost centres or calegories Description	No. of FTE Italitudated U = W/V	Sole Hours per Merificar V	Margowar Effort No. of Hours W	Gross Houry Rate In NC		80	£LR0
CAT 1	Engineering	25.0	1.620	40,500	60.00		2.430.000	2.430.00
CAT 2	Manufacturing							
1	Total Direct Labour Hours and Cost	25.0		40500.0			2,430,000	2,430,000
	INTERNAL SPECIAL FACE/THES							
Code	Descripton		Type of unit	No d'unte	Unit rates at AC			
2	Total Internal Special Facilities Cost							
	OTHER DIRECT COST ELEMENTS	Base amounts in NC	+ OH %	OH amounts IN MC				
31-31	Various ODC	234,000					230.000	230.000
3	Total Other Direct Cost	230.000-00				¢	230.000	230.000
4	SUB-TOTAL DIRECT COST				(A=8=C)	0	2,668,800	2,668,899
	GENERAL EXPENSES	Cost items to an	ICA & Applies	Base Amount in NC	OHB			-
. 8	General & Administration Expenses					1		
	Research & Development Expenses							
1	Other					6		
	TOTAL COMPANY COST				D=(E=F=G)	н	2,648,888	2,668,000
		Cost items to wh	ich % applies	Base Amount in NC	%			
9	PROFIT	Line 8	3 (H)	2,660,000.0	8.0%	I	212,800	212,800
10	Cost Webout Additional Charge					÷		
11	Financial Provision For Excalation					ĸ		_
12	TOTAL COMPANY PRICE				(HeleJell)	1	2,872,800	2,872,800
13	Total Sub-Contractor Price					M	500,000	500.000
14	Reduction For Company Contribution					N		
15	TOTAL PRICE FOR ESA				088.80		3,372,800	3,372,800



15	TOTAL PRICE FOR ESA	(L+M-N)		3,372,800	3,372,800
14	Reduction For Company Contribution		Ν		
13	Total Sub-Contractor Price		Μ	500,000	500,000
12	TOTAL COMPANY PRICE	(H+I+J+K)	L	2,872,800	2,872,800
11	Financial Provision For Escalation		Κ		
10	Cost Without Additional Charge		J		

Line 10 Cost Without Additional Charge - consider this a special item/deliverable, for which the company does not wish to, or is not allowed to by contractual conditions to add any additional charge. In reality, not many proposals will use this line.

Most proposals will be priced at a specific point in time (Economic Condition). Line 11 allows for a financial provision for escalation, for work carried out in years beyond the pricing conditions.

Line 13 shows any Subcontractors Price. No overhead, or profit is chargeable on top of this price, which should be supported by an accompanying Subcontractor PSS-A2.

Line 14 is for discount (detailed in Exhibit A).

Line 15 is the Total Price for ESA.

				(L+M-N)	3,37	2,8	800 3,3	72,800
	Cost / Price Data			-			TOTAL (NC)	TOTAL
	LABOUR							
Direct La Code /	bour coal centres or calegories Description	No. 0771E Italitutated U = W/V	Sold Hours per Merificar V	Margowar (Rot No. of Hours W	Gross Hourty Rate in NC		80	ELRO
CAT 1	Engineering	25.0	1.620	40,500	90.00		2,430,000	2.430.00
CATE	Manufacturing							
1	Total Direct Labour Hours and Cost	25.0		40500.0		A	2,430,000	2,430,00
	INTERNAL SPECIAL FACILITIES							
Code	Descripton		Type of unit	No d'unte	Unit rates in NC			
2	Total Internal Special Facilities Cost					8		
	OTHER DIRECT COST ELEMENTS	Base amounts In NC	+01%	OH amounts IR.NC				
31-31	Vanous ODC	230,000					230.000	230.00
3	Total Other Direct Cost	230,000-00				¢	230.000	230.00
4	SUB TOTAL DIRECT COST				(A=B=C)	0	2,668,888	2,668,99
	GENERAL EXPENSES	Cost items to an	tion the appoints	Base Amount in NC	OHB			
8	General & Administration Expenses							
	Research & Development Expenses					1		
7	Other					6		
	TOTAL COMPANY COST				D+(E+F+G)	н	2,668,000	2,668,00
		Cost items to an	uch % appries	Base Amount in NC				
	PROFIT	Line	196	2.560,000 1	2.0%	1	212,800	212,80
10	Cost Without Additional Charge					J		
11	Financial Provision For Escalation					К		
12	TOTAL COMPANY PRICE				(H+I+J+K)	L	2,872,800	2,872,800
13	Total Sub-Contractor Price					М	500,000	500,000
14	Reduction For Company Contribution					Ν		
15	TOTAL PRICE FOR ESA				(L+M-N)		3,372,800	3,372,800

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8	TOTAL COMPANY COST		
		Cost items to which % applies	Base Amount in N
9	PROFIT		0
10	COST WITHOUT ADDITIONAL CHAI	RGE	
11	FINANCIAL PROVISION FOR ESCA	ALATION	
12	TOTAL COMPANY PRICE		
13	TOTAL SUB-CONTRACTORS PRICE	E	
14	REDUCTION for COMPANY CONTR	IBUTION	

15 TOTAL PRICE FOR ESA

These charges must be detailed in Exhibit A.

The 'Cost Without Additional Charge' (CWAC), item 10 of PSS-A2, collects different types of provisions:

- Cost which is not quoted in the work package price;
- Expenses for which overheads and profit are not applicable;
- Expenses for which the company decides not to charge overheads and profit;
- Pass-Through costs (eg. ESA requests to rent a special facility and pays the bill directly- no profit);
- Cost-Risk contingency budget; ۲
- Other (incl. rounding). .

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Financial Provision for Escalation - considerations



A Financial Provision for escalation is a contingency to cover a foreseen inflation of prices.

Only Applicable:

- a) in the case of **Firm** and Fixed Price (FFP), the bidder is allowed to input a provision for the escalation of the cost ...
- b) if the evolution of the economic conditions in the period relevant to the execution of the work are estimated to lead to significant Price level differences.

ASSUMING that rates and direct cost refer to the indicated economic conditions.

Such provision MUST be justified with all details, including the cost elements and their foreseen variations (in the Financial Proposal and can include the reference to the justification in Exhibit A).

NOTE: In case of FP+V (Fixed Price + variation), the bidder shall propose a PVF (**Price Variation Formula**) to be reported in the contract.

P = P0 * (10% + cL * L1/L0 + cM * M1/M0)where cL ~ % Labour cost and cM ~ % ODC cost (and 10% is fixed) L0, L1, M0, M1 are SOGETI indices ... see ESA-STAR.



- Any company responsible for one or more Work Packages (WP) shall be treated as a Subcontractor. A Subcontractor is NOT 3.6 (External Major Products) nor 3.7 (External Services)!
- A sub-contract is a contract to be entered into by the tenderer with a third party for a clearly defined task related to the tenderer's offer and which is sufficiently non-standard to require specifications/task descriptions to be generated specifically. It also excludes those elements which fall under a definition contained under Other Costs Elements. It is thus distinguished from a Purchase Order, which is placed on the basis of standard documents. A sub-contractor can themselves place sub-contracts.
- A company is not allowed to charge any overhead nor profit on its subcontractors cost.
- ESA/REG/001SubcontractorAn economic operator who is under contract to a contractor
of the Agency to provide supplies or services in support of a
contract placed by the Agency.
- ESA/ REG/00210.4Unless otherwise authorised by the Agency, the conditions of the sub-contracts shall
secure the Agency's rights as provided for under the Contract. The conditions of the
sub-contracts shall furthermore reflect the rights and obligations of each
Subcontractor tailored to the Subcontractor's area of responsibility.

PSSA2 - Exhibit A



COMPANY P	RICE BREAKDOWN FORM	EXHIBIT	"A" TO PSS A2			lssue 5
			Page No).	No. of Pages	
RFQ/ITT No.:			COMPANY NAME:			
Proposal/Tend	ler No.:		Name and Title:			
National Curre	ncy:					
Contractual Ph	ase		Signature			
Applicable	to PSS-A2 elements: 3.1-3.4 - 3.6 - 3.7 - 3.10 - 10					
Project / W	/ork Packages					
Cost El. No.	ITEM DESCRIPTION	Type of Price	Purchase Currency	Purchase Amount	Ex change rate 1 NC =	Amount in NC

- Very important for the justification of the price.
- Provides detail of the different cost items.



FRAVEL PLAN AND COST DETAIL				EXHIBIT "B" TO PSS-	A2								lssue
RFQ/ITT No.:									Project:				
Proposal/Tender No.:									Company:				
Contractual Phase													
Economic Condition:								T	ype of Price:				-
National Currency (NC)*:							Ex	change	(X): 1 EURO =	1	C)	
WP Reference Number	WP Title	Purpose/Event	Departure	Destination	Nr. of Trips	Avg.People	Travel Cost	B/F	Avg.Days per	Subsistence Cost	A/R	Total Cost	Total Cost
			Dopartaro	Boothaton		per Trip	p.p. (NC)	5,2	Trip	p.d. (NC)	,,,,,	(NC)	(EURO)
												0	
												0	
												0	

Travel PLAN

- Estimate costs in accordance to company policies
- Travel cost = door to door transport (e.g. taxi + plane + rental car)
- Subsistence = daily allowance per person per day or typical expenses (meals, hotel, personal needs)

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5. PSSA8, PSSA10, PSSA15.1

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PSS A8 – Cost by Work Package



For the PSS A8, the cost/price data of the PSS A2, is simply repeated in more detail, that is, showing the summary Work Package breakdown.

COMPANY MANPO	WER AND P	RICE SI	JMMARY PEI	RWP				Forr	n no. PSS	A8				Page 1 of 1	lssue
TT/RFQ:			ESA ITT Num	ber 12345/N	L/XM							Price Type:	FF	-p	
Proposal/Tender No.:			PT/12345/A	2010/12	2,7 411						Econom	ic Conditions:	20		
Company Name:			Company X									irrency (NC):	EU	-	
Contractual Phase:			0									ate: 1 EUR =	1.0	000	
MBS-Level (Number and	I Title):		Total												
														_	
	WP Title		WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP10	WP11	WP12	
	WP Number		1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	Total WBS-Lev
abour Hours per category		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
Engineering		#	8,100	6,100	6,050	4,860	3,240	3,240	3,240	1,620	1,620	810	810	810	40,500
otal Labour Hours		#	8,100	6,100	6,050	4,860	3,240	3,240	3,240	1,620	1,620	810	810	810	39,69
I. Total Labour Cost		NC	486,000	366,000	363,000	291,600	194,400	194,400	194,400	97,200	97,200	48,600	48,600	48,600	2,430,000
2. Internal Special Facilities	Cost	NC		000,000		201,000		101,100		01,200	01,200	10,000	10,000		2,100,00
	0001														
3.1-3.10 Various ODC		NC	10,000	2,000	3,000	12,000	10,000	50,000	50,000	50,000	20,000	10,000	5,000	8,000	230,00
3. Total Other Costs (sum of	fabove 3.x)	NC	10,000	2,000	3,000	12,000	10,000	50,000	50,000	50,000	20,000	10,000	5,000	8,000	230,00
4. Sub-Total Direct Cost		NC	496,000	368,000	366,000	303,600	204,400	244,400	244,400	147,200	117,200	58,600	53,600	56,600	2,660,000
57. General expenses		NC													
3. Sub-Total Company Cost		NC	496,000	368,000	366,000	303,600	204,400	244,400	244,400	147,200	117,200	58,600	53,600	56,600	2,660,00
. Profit Fee		NC	39,680	29,440	29,280	24,288	16,352	19,552	19,552	11,776	9,376	4,688	4,288	4,528	212,80
0. Cost without additional of	charge	NC												0	
 Financial Provision for e 	escalation	NC												0	(
2. Total Company Price		NC	535,680	397,440	395,280	327,888	220,752	263,952	263,952	158,976	126,576	63,288	57,888	61,128	2,872,800
		EURO	535,680	397,440	395,280	327,888	220,752	263,952	263,952	158,976	126,576	63,288	57,888	61,128	2,872,80
3. Total Sub-Contractors P	'rice	NC					150,000							350,000	500,00
		EURO	0	0	0	0	150,000	0	0	0	0	0	0	350,000	500,000
4. Reduction for Company	contribution	NC													
5. Total Price for ESA		NC	535,680	397,440	395,280	327,888	370,752	263,952	263,952	158,976	126,576	63,288	57,888	411,128	3,372,80
		EURO	535,680	397,440	395,280	327,888	370,752	263,952	263,952	158,976	126,576	63,288	57,888	411,128	3,372,80

= PSS-A2 per Work Package

Note: WP structure to be aligned to the WBS

Total of all columns = PSS-A2

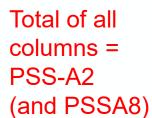
PSS A10 – Cost by Time Period



This time, for the PSS A10, the cost/price data of the PSS A2 is represented in line with the expected schedule of the project.

COMPANY MANPO	VER AND CO	ST PL	AN					Form	n no. PSS A	10				Page 1 of 1	lssue {
ITT/RFQ:			ESA ITT Nui	mber 12345/I								Price Type:	FFI		
Proposal/Tender No.:			PT/12345/A							1	National Cur	rency (NC):	EURO		
Company Name:			Company X							Ex	change Rate	: 1 EUR =	1.00	00	
WBS-Level (Number	and Title):		Total								Economic	Conditions:	201	6	
Time period	expressed in:		month	month/quart	er/year										
	Time Period		1	2	3	4	5	6	7	8	9	10	11	12	Total
	Start [MM-YY]		01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-14	09-14	10-14	11-14	12-14	
	End [MM-YY]		01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-14	09-14	10-14	11-14	12-14	
_abour Hours per category															
Engineering		#	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	40,500
Total Direct Labour hours		#	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	37,12
1. Total Direct Labour Cost		NC	202.500	202,500	202,500	202,500	202.500	202.500	202,500	202,500	202,500	202,500	202,500	202.500	2,430,000
			202,000	202,000	202,000	202,000	202,000	202,000	202,000	202,000	202,000	202,000	202,000	202,000	2,400,000
2. Internal Special Facilities C	Cost	NC													(
3.1-3.4 Material Costs		NC	60,000		70,000		100,000							0	230,000
3. Total Other Direct Costs (s	sum of above 3.x)	NC	60,000	0	70,000	0	100,000	0	0	0	0	0	0	0	230,000
4. Sub-Total Direct Cost		NC	262,500	202,500	272,500	202,500	302,500	202,500	202,500	202,500	202,500	202,500	202,500	202,500	2,660,000
5-7 General Expenses		NC													(
8. Sub-Total Company Cost		NC	262,500	202,500	272,500	202,500	302,500	202,500	202,500	202,500	202,500	202,500	202,500	202,500	2,660,000
9. Profit		NC	21,000	16,200	21,800	16,200	24,200	16,200	16,200	16,200	16,200	16,200	16,200	16,200	212,800
10. Cost without additional ch	harge	NC												0	(
11. Financial Provision for es	calation	NC	0	0	0	0	0	0	0	0	0	0	0	0	(
12. Total Company Price		NC	283,500	218,700	294,300	218,700	326,700	218,700	218,700	218,700	218,700	218,700	218,700	218,700	2,872,800
		EURO	283,500		294,300	218,700	326,700	218,700	218,700	218,700	218,700	218,700	218,700	218,700	2,872,800
13. Total Subcontractors Price	e	NC		50,000		50,000		50,000	150,000					200,000	500,000
		EURO	0	50,000	0	50,000	0	50,000	150,000	0	0	0	0	200,000	500,000
14. Reduction for Company (Contribution	NC													(
15. Total Price for ESA		NC	283,500	268,700	294,300	268,700	326,700	268,700	368,700	218,700	218,700	218,700	218,700	418,700	3,372,80
		EURO	283,500	268,700	294,300	268,700	326,700	268,700	368,700	218,700	218,700	218,700	218,700	418,700	3,372,800
															= PSS-A2

= PSS-A2 per period



The PSS A15.1 is used to establish the milestone payment plan and is presented in thousands of euro, irrespective of the national currency used in the proposal.

	COMPANY PRICE PROJECTION	/s. Paymei	NT PLAN ir T	HOUSANDS	EURO	For	m no. PSS A	15.1				Page 1 of 1	lssue 5
	ITT/RFQ:		ESA ITT Num	ber 12345/NL	./XM					Price Type:	F	FP	
	Proposal/Tender No.:		PT/12345/A						Economi	c Conditions:	2	016	
	Company Name:		Company X					1	National Curre	ency (NC) (*):	KE	URO	
	WBS-Level (Number and Title):		Total	Ì		1		Ex	change Rate	(*): 1 EUR =	1.	0000	
	Time period expressed in:	month	month/quarte	er/year									
	Period	1	2	3	4	5	6	7	8	9	10	11	12
	Start [MM-YY]	01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-14	09-14	10-14	11-14	12-14
Include Profit	End [MM-YY]	01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-14	09-14	10-14	11-14	12-14
and subco)	1. MILESTONES	ко		PM1		PM2		PM3		PM4			Final Delivery
	2. EXPENDITURES PER PERIOD	284	269	294	269	327	269	369	219	219	219	219	419
	CUMULATIVE EXPENDITURES	284	552	847	1,115	1,442	1,711	2,079	2,298	2,517	2,735	2,954	3,373
	3. PAYMENT PLAN PER PERIOD	500		500		500		650		650			573
Does not	CUMULATIVE PAYMENTS	500	500	1,000	1,000	1,500	1,500	2,150	2,150	2,800	2,800	2,800	3,373
nclude	4. DEVIATION												
Advance Payments	CUMULATIVE EXPENDITURES VS. PAYMENTS	217	(52)	154	(115)	58	(211)	71	(148)	283	65	(154)	0

The total expenditure and price, match that of the corresponding PSS A2, A8 and A10.

PSS A15.1 – Milestone Payment Plan



1. MILESTONES	ко		PM1		PM2		PM3		PM4			Final Delivery
2. EXPENDITURES PER PERIOD	284	269	294	269	327	269	369	219	219	219	219	419
CUMULATIVE EXPENDITURES	284	552	847	1,115	1,442	1,711	2,079	2,298	2,517	2,735	2,954	3,373
3. PAYMENT PLAN PER PERIOD	500		500		500		650		650			573
CUMULATIVE PAYMENTS	500	500	1,000	1,000	1,500	1,500	2,150	2,150	2,800	2,800	2,800	3,373
4. DEVIATION												
CUMULATIVE EXPENDITL RES VS. PAYMENTS	217	(52)	154	(115)	58	(211)	71	(148)	283	65	(154)	0

Profile @ PSS A10

Milestones

Neutral cash flow

In order to negotiate as near as possible a neutral cash flow, the expenditure profile, identified in the PSS A10, is matched against a proposed milestone payment plan.

COMPARY PRICE PROJECTION +6. PAYMENT PLAN IN THOUSANDS EURO						n na PSEA	45.1				Page 1 d1	lone?
ETAPO ETAPO									Pite Type			
Proposal Tender No.		PT-023454						Econom	Conditions		16	1
Company Name		Company X						elene Care	my (MC) (7)	10	HELPO	
185-Level (Number and Title)		Total			_		Exchange Rate (*) 1 EUR -			1.08900		
Ten period aspected in	naréh		wine .									
Partial	1	1	3	4	5		7		9			w
Star (185-11)	01-18	62-56	03-94	04-16	05-14	05-14	07-98	00-M	(0-16	10-M	5.6	Q-1
Exc(9951/1)	01-16	02-14	03-M	04-58	05-14	00-16	07-94	00-16	05-16	10-M	0.94	2-8
L MILESTONES	KD		-		1982		1983		-			Final
2. EXPENDITURES PER PERIOD	284	269	294	269	327	269	369	219	219	219	219	419
CUMULATIVE EXPENDITURES	284	552	847	1,115	1,442	1,711	2,079	2,298	2,517	2,735	2,954	3,373
3. PAYMENT PLAN PER PERIOD	500		500		500		650		650			573
CUMULATIVE PAYMENTS	500	500	1,000	1,000	1,500	1,500	2,150	2,150	2,800	2,800	2,800	3,373
4. DEVIATION												
CUMULATIVE EXPENDITURES VS. PAYMENTS	217	(52)	154	(115)	58	(211)	71	(148)	283	65	(154)	0

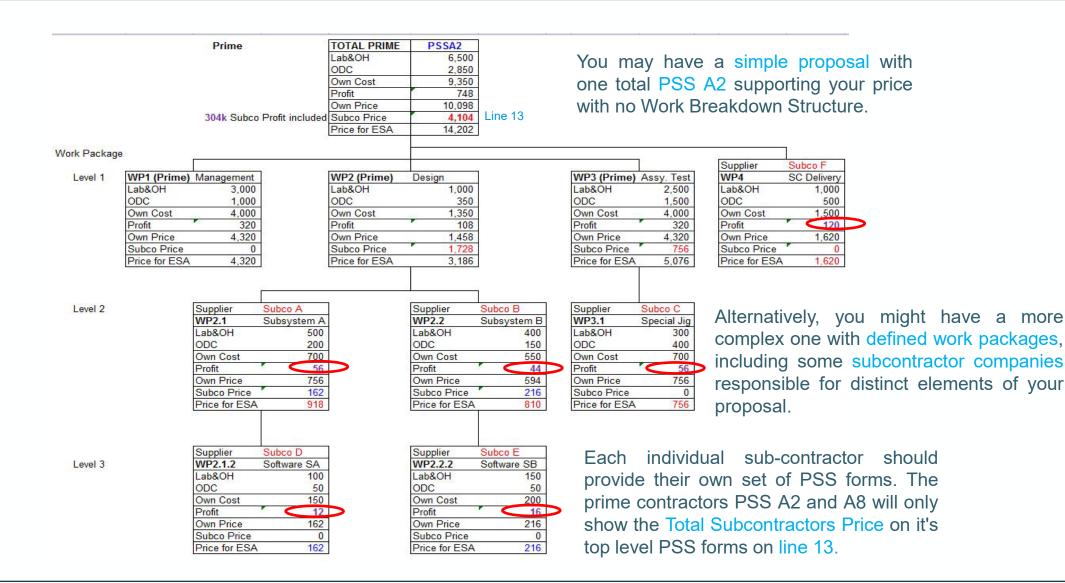


The result is then presented in a simple graph, showing cumulative expenditure against cumulative payments.

COMPANY PRICE PROJECTION V	/s. PAYME	NT PLAN in T	HOUSANDS	EURO	For	m no. PSS A	15.1				Page 1 of 1	Issue (
IT/RFQ:		ESA ITT Nur	1ber 12345/NI	/XM					Price Type:	F	=P	
Proposal/Tender No.:		PT/12345/A						Econom	ic Conditions:)16	
Company Name:		Company X		-	-				rency (NC) (*):		JRO	
VBS-Level (Number and Title):		Total							(*): 1 EUR =		000	
VBS-Level (Number and Title).		TOLAI					EX		(). I EUR -	1.0	000	
Time period expressed in:	month	month/quarte	er/year									
Period	1	2	3	4	5	6	7	8	9	10	11	12
Start [MM-YY]	01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-14	09-14	10-14	11-14	12-14
End [MM-YY]	01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-14	09-14	10-14	11-14	12-14
. MILESTONES	ко		PM1		PM2		PM3		PM4			Final Deliver
. EXPENDITURES PER PERIOD	284	269	294	269	327	269	369	219	219	219	219	419
UMULATIVE EXPENDITURES	284	552	847	1,115	1,442	1,711	2,079	2,298	2,517	2,735	2,954	3,373
. PAYMENT PLAN PER PERIOD	500		500	*	500		650		650	000000000000000000000000000000000000000		573
UMULATIVE PAYMENTS	500	500	1,000	1,000	1,500	1,500	2,150	2,150	2,800	2,800	2,800	3,373
. DEVIATION												
CUMULATIVE EXPENDITURES VS.	217	(52)	154	(115)	58	(211)	71	(148)	283	65	(154)	0
4,000						CUMULATIVE E	EXPENDITURES			E PAYMENTS		
3,000 2 ,500												
2,000 ER						_						
s 2,000												
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SNO 1,000												
2,500 2,000 2,000 2,000 1,500 1,000 4 4 500												
1,000	-	_		1			1				1	

Consistent with PSS-A10

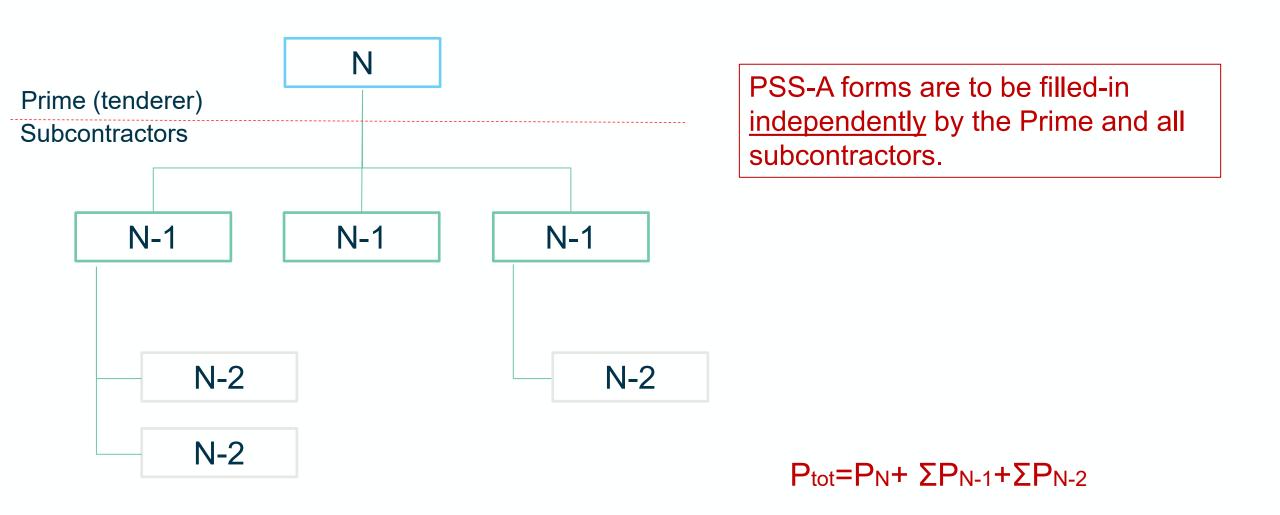
Example Work Breakdown Structure including Subcontractors



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Build-up of the Consortium price





Consistency is key



All work packages are summed up into the Prime PSS A2. Note that the subcontractors price is shown below the Prime profit line, since the profit attributable to the subs, in total 304k, is already included.

As mentioned before, the basic principles of coherence remain between the PSS forms of the Prime and the Subcontractor, flowing through the PSS A8, A10 and A15.1.

PSSA8 (Prime)	WP1	WP2	WP3	WP4	Total
Lab&OH	3,000	1,000	2,500		6,500
ODC	1,000	350	1,500		2,850
Own Cost	4,000	1,350	4,000	0	9,350
Profit	320	108	320		748
Own Price	4,320	1,458	4,320	0	10,098
Subco Price	0	1,728	756	1,620	4,104
Price for ESA	4,320	3,186	5,076	1,620	14,202

PSSA10 (Prime)	Q1	Q2	Q3	Q4	Total
Lab&OH	1,650	1,700	1,800	1,350	6,500
ODC	1,500	900	400	50	2,850
Own Cost	3,150	2,600	2,200	1,400	9,350
Profit	252	208	176	112	748
Own Price	3,402	2,808	2,376	1,512	10,098
Subco Price	918	810	756	1,620	4,104
Price for ESA	4,320	3,618	3,132	3,132	14,202

Each individual sub-contractor should provide their own set of PSS forms. The prime contractors PSS A2, A8, A10 will only show the Total Subcontractors Price on it's top level PSS forms on line 13.

PSSA15.	1 (Prime)	Q1	Q2	Q3	Q4
Start [N	/M-YY]	Jan	Apr	Jul	Oct
End [M	M-YY]	Mar	Jun	Sep	Dec
1. MILES	STONES	1	2	3	4
2. EXPEN	IDITURES	4,320	3,618	3,132	3,132
CUMULA	TIVE Exp	4,320	7,938	11,070	14,202
3. PAYME	ENT PLAN	6,000	500	6,000	1,702
CUMULA	CUMULATIVE Pay		6,500	12,500	14,202
4. DEV	IATION	1,680	(1,438)	1,430	0
15,000 -		· ·		IULATIVE	Exp
10,000 -		*			
5,000 -		4			
0 -	1	2 1	Time 3	3	4

Other forms



PSS-A4 is a summary of the WPs : company + # hours + price

PSS-A6 is a summary per company and per price type

PSS-A20 is the ESA standard format of the 'WP Description'

PSS-A40 gives full detail of hi-rel parts

PSS-A45 is NON-COST : product tree and hardware matrix

Remember, more detailed definitions of each PSS line item can be found in the PSS templates

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6. Contacts



1. PSS-A forms and ECOS

https://esastar-publication-ext.sso.esa.int/supportingDocumentation/details/18 (PSS Forms) https://www.esa.int/About_Us/Business_with_ESA/How_to_do/Introduction_to_ESA_Costing_Software (ECOS)

- 2. Specific question on an ITT: contact <u>contract officer</u>.
- 3. Generic questions on PSS forms etc.: contact ESA Industrial Audit at PSS@ESA.INT





7. Q&A

Any Questions?