

ECOS for small proposals – An example

(HJ - Issue 1.2 dated 24/02/2017)

Introduction

ECOS is originally conceived as a tool for handling large financial proposals. It is mandatory for Projects expected to be 10 Meuros and above even if your contribution within this project is lower than this limit or for any ITT when called by Special Conditions of Tender.

It can also conveniently be used for processing smaller ones by bidders willing to regularly use ECOS since, like for any other software, the more acquainted you become the more time saving you may expect in preparing your financial proposals.

Here is an example demonstrating how to proceed based on a real ITT for a technology development.

We will use the following real case:

Invitation to Tender for New Optical Polishing Techniques - AO/1-8769/16/NL/RA

and we will demonstrate all possibilities of industrial team set up with the following increasing level of complexity:

1. Simple case without sub-contractors
2. Case with Budgetary Sub-Cos
3. Case with ITT-based Sub-contractors contributions

The basic principle is that a lot of data can be copied/pasted from Excel in blocks to facilitate the data entry into ECOS. This means that the data can be collected from tables sorted according to your own numbering system.

Once the data is rapidly entered using these few copy/paste, ECOS will produce all PSS-A forms required in one go while guaranteeing the correctness of the price aggregation thus reducing time for financial proposal preparation.

1- Simple case without sub-contractors

Here is a basic entry case for a simple proposal where only a single contractor is involved. This is usually not the case unless very small proposals.

Considering that all necessary data has already been gathered, for instance into an unstructured simple raw data Excel spreadsheet, the batch of PSS-A forms can be produced within half an Hour

Step 1: Establishing the list of the tasks in Excel

This can be the Tasks list as provided in the SOW or a further development of it. In this demonstration we shall use the list from the SOW to which we will add a Task for Management activities:

Task 1	Critical review and completion of reqts
Task 2	Review of polishing techniques
Task 3	Review of measur. & charact. methods
Task 4	Mirror definition and specification
Task 5	Manufacturing process definition
Task 6	Preparation of the polishing activities
Task 7	Test setup preparation
Task 8	Polishing and testing of samples
Task 9	Evaluation and critical appraisal

Step 2: Assigning the Support Functions in Excel

This is the step that may look the less easy in the overall process but is absolutely necessary to establish a reliable “backbone” of the ECOS file. The Support function system allows to identify the type of activity in an unambiguous and traceable manner. This does not prevent you from using your own numbering system in all the further steps of the financial proposal elaboration.

You will rapidly get familiar with the Support Functions related to your domain of activity. A Support Function dictionary is built-in into ECOS and you may also consult the Support Function dictionary available in pdf format. This may be obtained by application to the ECOS Help Desk if you do not already have it.

The Support Functions are organized in a hierarchical manner. It may happen that your WBS will require to further breakdown the WBS beyond the most detailed level of the Support Function Tree. You shall use the [Split WP] for doing so.

Management activity added	2AA	Task 0	Management
3 Requirement activities	2ADAI1	Task 1	Critical review and completion of req
	2ADAI2	Task 2	Review of polishing techniques
	2ADAI3	Task 3	Review of measur. & charact. method
Optical Engineering	2ADK	Task 4	Mirror definition and specification
3 Manufacturing preparation activities	2BA1	Task 5	Manufacturing process definition
	2BA2	Task 6	Preparation of the polishing activitie:
	2BA3	Task 7	Test setup preparation
Breadboard Manufacturing & Testing	2BB	Task 8	Polishing and testing of samples
Verification activity	2BV	Task 9	Evaluation and critical appraisal

Step 3: Creating the Project

For a small project, for instance an EXPRO or EXPRO+ procurement, producing an ECOS file is not mandatory so you usually do not receive an ECOS ITT file as part of the ITT package

You will have to create your own project. This can easily be achieved entering the few general information needed on this screen.

The screenshot shows the 'Project Will Be Added' form with the following fields and values:

- Programme Identifier: TRP
- Programme Name: TRP
- Project Title: New Optical Polishing Technics
- Initiated by: AAAA (COMPANY A)
- ITT number: 1-8769
- Issuing Company: AAAA
- Req. Cost Item Granularity: 5,000 (min.) to 50,000 (max) EURO
- Support Function Library: Master Support Function Library
- Economic Conditions: 16-01 (YY-MM)
- Conversion Rate Date: 16-11 (YY-MM)
- Earliest Expenses: 17-01 (YY-MM)
- Cost Detail: Detailed (selected), Budgetary
- Reference Number: My Ref Number
- Project Version: 1
- User name: ECOS Administrator

Most of these entry fields are self-explanatory.

Specific attention shall be paid in choosing the **Date of earliest expenses** since no start date on WPs shall be allowed to start before this date of earliest expenses. You may enter the date of proposal submission deadline in absence of any concrete date being expressed.

You will need a **Rate File** defined for your company at the **Date of Economic Conditions** that will be specified.

Conversion Rates Date allows ECOS to pick up the conversion rates for the main countries that may be involved in the proposal and that would quote their prices in non-Euro National Currency

You may specify Geo-return weighting factors if specific ones do apply to the Program and Geo Return min/max distribution requirements per country or Cluster of countries.

Step 4: Building the PT/WBS in ECOS

In this simple case we will use a top node so we will code using letter T.

NB: This is free-coding so it can be any letter or number.

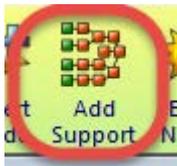
It is convenient to define a top node **O** for recording potential Options. This can always be added afterwards at any time.



We may give the Description “**New Optical Polishing Techniques**” or simply **NOPT**

PT/WBS Number	User WBS Number	Title
LT		TRP
		NOPT

Based on the Support Functions that you have selected depending on the type of activities to be carried out, you develop the PT/WBS.



You will expand the list of support functions as needed

NB: You will need to split the Support Functions **2ADAI** and **2BA** but this will be done as a second stage.

⊕1	System Segment (SYST*)
⊖2	Space Segment (SPAC*)
⊖2A	Project Office (PM,PC,PA,ENG) (ProjOffi)
⊕2AA	Management and Project Administration (Mgmt+PC)
⊕2AC	Product Assurance and Safety (PA&S)
⊖2AD	Engineering (Eng)
⊖2ADA	System Design & Control (Design)
-2ADAA	System Engineering Coordination (SystEng)
-2ADAB	Performances and Budgets (Budgets)
-2ADAC	Configuration Design & Analysis (Config)
-2ADAD	Interfaces Engineering and Control (I/F_Eng)
-2ADAF	Synthesis Engineering (Synthes)
-2ADAG	Reliability, Availability, Maintainability and Saf (RAMS_Eng)
-2ADAH	Radiation Engineering (Radiatio)
-2ADAI	Requirements Engineering (Requirm)
-2ADB	Mission Design & Analysis (Mission)
-2ADC	Data Management and Processing Engineering (DataEng)
-2ADD	Thermal Engineering (ThermEng)
-2ADE	Environment and Life Support System Engineering (ELSSEng)
⊕2ADF	Electrical/Electronic Engineering (ElecEng)
-2ADG	Mechanical Engineering (MechEng)
-2ADH	Structural Engineering (StrucEng)
-2ADI	Propulsion Engineering (PropEng)
-2ADJ	Security Engineering (Sec_Eng)
-2ADK	Optical Engineering (OpticEng)
⊕2ADL	Software Engineering (Sw_Eng)
-2ADN	Human Factors and Microgravity Engineering (HFM_Eng)
-2ADO	Operations and ILS Engineering (Ops_Eng)
-2ADP	Payload Support and Integration Engineering (PL_Eng)
-2ADQ	AOCS/GNC Engineering (AOCS_Eng)
-2ADT	Aerothermodynamics Engineering (Aero_Eng)
-2ADU	Hi-Rel Parts Engineering (PartsEng)
-2ADV	AIT and Verification Engineering (AIV_Eng)
⊕2ADW	Planetary Protection Engineering (PP_Eng)
-2ADX	Interface Engineering for ESA Furnished Equipment (ESAEqEng)
2AE	Charges (Charges)
⊖2B	Mfgt, Assembly, Integration, Test and Verification (MAIT)
-2BA	General Tasks of MAIT (MAIT_GT)
⊕2BB	MAIT of Breadboards (MAIT_BB)
⊕2BC	MAIT of Structural Models (MAIT_SM)
⊕2BD	MAIT of Structural and Thermal Models (MAIT_STM)
⊕2BE	MAIT of Engineering Models (MAIT_EM)
⊕2BF	MAIT of Engineering Qualification Models (MAIT_EQM)
⊕2BG	MAIT of Qualification Models (MAIT_QM)
⊕2BH	MAIT of Training Models (MAIT_TRM)
⊕2BI	MAIT of Protoflight Model (MAIT_PFM)
⊕2BJ	MAIT of Recurring Flight Models (MAIT_FMR)
⊕2BK	MAIT of Flight Spare Kit (MAIT_FSK)
⊕2BL	MAIT of Flight Spare Partial (MAIT_FSP)
-2BS	Ground Infrastruct. and Facilit. (Inf.str.)
-2BT	Coordinated European Test Facilities (CETeF)
-2BV	System, I/Fs, Performance Verification (Verif)

We now split 2ADA1 and 2BA in 3 WPs each to accommodate the Tasks definition

The WPs have be split in 3 parts to accommodate the Tasks definition

PT/WBS Number	User WBS Number	Title
T		TRP
T-2		NOPT
T-2A		NOPT
T-2AA		NOPT
T-2AD		NOPT
T-2ADA		NOPT
T-2ADAI		NOPT
T-2ADK		NOPT
T-2B		NOPT
T-2BA		NOPT
T-2BB		NOPT
T-2BV		NOPT

PT/WBS Number	Title
T	TRP
T-2	NOPT
T-2A	NOPT
T-2AA	NOPT
T-2AD	NOPT
T-2ADA	NOPT
T-2ADAI	NOPT
T-2ADAI1	Act1
T-2ADAI2	Act2
T-2ADAI3	Act3
T-2ADK	NOPT
T-2B	NOPT
T-2BA	NOPT
T-2BA1	Act1
T-2BA2	Act2
T-2BA3	Act3
T-2BB	NOPT
T-2BV	NOPT

Step 5: WP Headers Customizing

Once the PT/WBS is developed, you will now customize the WP Title and eventually assign the WP User numbers. You access the screen by using the [Summary] tab icon from the Task Bar:

Project Edit Maintenance Reports Help

Change Header Change Multiple Import Data Export Data Import Dates Export Dates Generate Turbo Import Turbo Own WP Headers

This can be done by a simple copy/paste once you made sure that the WP are listed according to the ECOS PT/WBS.

Copy/Paste from Excel

Task 0	Management
Task 1	Critical review and completion of reqts
Task 2	Review of polishing techniques
Task 3	Review of measur. & charact. methods
Task 4	Mirror definition and specification
Task 5	Manufacturing process definition
Task 6	Preparation of the polishing activities
Task 7	Test setup preparation
Task 8	Polishing and testing of samples
Task 9	Evaluation and critical appraisal

WBS	User Number	Title	Abbrev.
T-2AA		NOPT	*Mgmt+PC
T-2ADAI1		Act1	*Requir
T-2ADAI2		Act2	*Requir
T-2ADAI3		Act3	*Requir
T-2ADK		NOPT	*OpticEng
T-2BA1		Act1	*MAIT_GT
T-2BA2		Act2	*MAIT_GT
T-2BA3		Act3	*MAIT_GT
T-2BB		NOPT	*MAIT_BB
T-2BV		NOPT	*Verif

WBS	User Number	Title	Abbrev.
T-2AA	Task 0	Management	*Mgmt+PC
T-2ADAI1	Task 1	Critical review and completion of reqts	*Requirm
T-2ADAI2	Task 2	Review of polishing techniques	*Requirm
T-2ADAI3	Task 3	Review of measur. & charact. methods	*Requirm
T-2ADK	Task 4	Mirror definition and specification	*OpticEng
T-2BA1	Task 5	Manufacturing process definition	*MAIT_GT
T-2BA2	Task 6	Preparation of the polishing activities	*MAIT_GT
T-2BA3	Task 7	Test setup preparation	*MAIT_GT
T-2BB	Task 8	Polishing and testing of samples	*MAIT_BB
T-2BV	Task 9	Evaluation and critical appraisal	*Verif

It will now be possible to sort the WP on the [Summary] according to the User numbering if the order is not the same than the ECOS PT/WBS codes. This might prove to be useful since internal listings are likely to be sorted according to your User Numbering system.

The screenshot shows the ECOS software interface. The menu bar includes 'Project', 'Edit', 'Maintenance', 'Reports', and 'Help'. The toolbar contains various icons, with the 'User Order' icon (a red circle with a blue and red arrow) highlighted. Below the toolbar, the main window displays a table with the following columns: WP Number, User Number, Phase, Title, Start, and End. The table content is as follows:

WP Number	User Number	Phase	Title	Start	End
Budgetary Sub-cos					
Total Own Share					
T-2AA	Task 0	BASELINE	Management-----*Mgmt+PC	17-01	18-03
T-2ADAI1	Task 1	BASELINE	Critical review and completion of reqts--*Requirm	17-01	17-02
T-2ADAI2	Task 2	BASELINE	Review of polishing techniques-----*Requirm	17-01	17-02
T-2ADAI3	Task 3	BASELINE	Review of measur. & charact. methods----*Requirm	17-01	17-02
T-2ADK	Task 4	BASELINE	Mirror definition and specification-----*OpticEng	17-03	17-05
T-2BA1	Task 5	BASELINE	Manufacturing process definition-----*MAIT_GT	17-05	17-06
T-2BA2	Task 6	BASELINE	Preparation of the polishing activities--*MAIT_GT	17-06	17-09
T-2BA3	Task 7	BASELINE	Test setup preparation-----*MAIT_GT	17-06	17-09
T-2BB	Task 8	BASELINE	Polishing and testing of samples-----*MAIT_BB	17-09	17-12
T-2BV	Task 9	BASELINE	Evaluation and critical appraisal-----*Verif	18-01	18-03

NB: the screen above shows the User Number button to switch between User WP numbering and ECOS PT/WBS. In this case the order is the same.

Step 6: Generating the Turbo Data Entry (TDE) spreadsheet using User numbering.



Once the WBS is developed and the Rate File assigned to your project, then you may generate an Excel file called **TDE spreadsheet** that will allow you to either:

- Enter your data manually into Excel rather than into ECOS if you prefer working into Excel
- Simply copy / paste the data from an Excel internal spreadsheet to the TDE spreadsheet.

WP Number	WP Title	User Number	Contractual Phase	Start Date	End Date	Price Type	Distribution	Profit 1	Profit 2	Profit 3	1.Labour M	1.Labour E	1.Labour T	VT	VI		
											MANAGER	ENGINEER	TECHNICIAN	days	Thermal Vacuum	days	Vibrations
T-2AA	Management-----	*Mgmt+PC	Task 0					8.0000%	4.0000%								
T-2ADA11	Critical review and completion of reqts--	*RequirM	Task 1					8.0000%	4.0000%								
T-2ADA12	Review of polishing techniques-----	*RequirM	Task 2					8.0000%	4.0000%								
T-2ADA13	Review of measur. & charact. methods----	*RequirM	Task 3					8.0000%	4.0000%								
T-2ADK	Mirror definition and specification-----	*OpticEng	Task 4					8.0000%	4.0000%								
T-2BA1	Manufacturing process definition-----	*MAIT_GT	Task 5					8.0000%	4.0000%								
T-2BA2	Preparation of the polishing activities--	*MAIT_GT	Task 6					8.0000%	4.0000%								
T-2BA3	Test setup preparation-----	*MAIT_GT	Task 7					8.0000%	4.0000%								
T-2BB	Polishing and testing of samples-----	*MAIT_BB	Task 8					8.0000%	4.0000%								
T-2BV	Evaluation and critical appraisal-----	*Verif	Task 9					8.0000%	4.0000%								

You will copy/ paste your data into the corresponding cells

NB: the number of hours have been chosen randomly to fill-in data for the purpose of the demonstration only.

Task	WP Title	Start	End	Price type	Distrib	Hours		
						MAN	ENG	TEC
Task 0	Management	1701	1803	1	A	500	500	
Task 1	Critical review and completion of reqts	1701	1702	1	A	100	50	
Task 2	Review of polishing techniques	1701	1702	1	A		150	
Task 3	Review of measur. & charact. methods	1701	1702	1	A		150	
Task 4	Mirror definition and specification	1703	1705	1	A	10	150	
Task 5	Manufacturing process definition	1705	1706	1	A		130	20
Task 6	Preparation of the polishing activities	1706	1709	1	A		70	60
Task 7	Test setup preparation	1706	1709	1	A		80	50
Task 8	Polishing and testing of samples	1709	1712	1	A		50	150
Task 9	Evaluation and critical appraisal	1801	1803	1	A	50	150	

Start Date	End Date	Price Type	Distribution
17-01	18-03	1	A
17-01	17-02	1	A
17-01	17-02	1	A
17-01	17-02	1	A
17-03	17-05	1	A
17-05	17-06	1	A
17-06	17-09	1	A
17-06	17-09	1	A
17-09	17-12	1	A
18-01	18-03	1	A

1.Labour M	1.Labour E	1.Labour T
MANAGER	ENGINEER	TECHNICIAN
500	500	
100	50	
	150	
	150	
10	150	
	130	20
	70	60
	80	50
	50	150
50	150	

Step 7: Additional entries

A Travel Plan can be entered (Look at Integrated Help and/or Video Training for this feature)

Phase: BASELINE

*Mgmt+PC

Event: WP Description

Event: Travel Plan

Event: Exhibit A

Geo.Return Fact: 1.00

Technical Param

Profit: 8.0000 4.0000 0.0000

Name	Cour	Trip	Departure City	Destination City	Currenc	Per Trip	3/E	Per Day	A/R	Updated By
X C	NL		PARIS	ABINGDON	FR	EUR	600	B	190	8-05-2015 ADMIN
X D	NL		PARIS	BAAR	FR	EUR	500	B	240	8-05-2015 ADMIN
X E	NL		PARIS	JARNAC	FR	EUR	550	B	180	8-05-2015 ADMIN
X F	NL		PARIS	KOUROU	FR	EUR	1000	B	190	8-05-2015 ADMIN
X A	NL		PARIS	NOORDWIJK	FR	EUR	500	B	230	8-05-2015 ADMIN
X B	NL		PARIS	STEVENAGE	FR	EUR	600	B	190	8-05-2015 ADMIN
X B	NL		PARIS	TOULOUSE	FR	EUR	400	B	220	8-05-2015 ADMIN

Purpose/Event	Departure	Cou	Destination	Cou	Trips	Peopl	Cost/Trip	B/E	Days/ Cost/Day	A/R	Amount NC	Amount EUR
Kick-Off Meeting	PARIS	FR	NOORDWIJK	NL	1	3.0	500	B	2.0	230	2880	2880
DDR	PARIS	FR	STEVENAGE	GB	1	2.0	600	B	0.0	190	1200	1200
TRR	PARIS	FR	TOULOUSE	FR	1	2.0	400	B	0.0	220	800	800
TRB	PARIS	FR	NOORDWIJK	NL	1	3.0	500	B	0.0	230	1500	1500

Global Provision: 0 0

Total: 6,380 6,380

Copy from Other WP

A Payment plan can be entered (Look at Integrated Help and/or Video Training for this feature)

Date	Nr	Phase	%	Amount (EUR)	Description
17-01	1	BASELINE	15.00	51.515	Advanced Payment
17-05	2	BASELINE	25.00	102.639	Progress (MS 1): Upon successful completion of tasks 1 to 5 and/or successful DRR and the Agency's acceptance of all related deliverable items. 40% -15% Down Payment recovery
17-08	3	BASELINE	20.00	82.159	Progress (MS 2): Upon successful completion of tasks 6 to 10 and/or successful DRR and the Agency's acceptance of all related deliverable items. 40% -15% Down Payment recovery
18-03	4	BASELINE	40.00	164.318	Final Settlement (MS 3): Upon the successful completion of tasks 11 to 15 and/or successful DRR and the Agency's acceptance of all related deliverable items. 40% -15% Down Payment recovery

Contractual Phase: BASELINE

Description: Progress (MS 1): Upon successful completion of tasks 1 to 5 and/or successful DRR and the Agency's acceptance of all related deliverable items. 40% -15% Down Payment recovery

Date: 17-05 (YY-MM)

Milestone Nr: 2

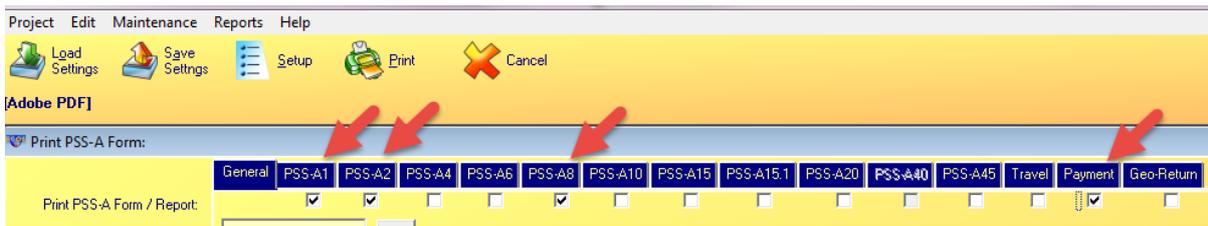
Percent: 25.00

Amount: 102639 EUR

Amount: 102639 EUR

Overall: BASELINE

Step 8: Use Batch Print PSS Reports to produce all required Reports in one go.



Manpower and Price Summary Form no. PSS A8

Subject: T NOPT ITT/RFQ: 1-8769 new opt

National Currency (NC): EUR Conversion Rate: 1.000000 Economic condition: JAN 2016 Contractual Phase(s): *ALL*

Company	AAAA	AAAA	AAAA	AAAA	AAAA	AAAA	AAAA	AAAA	AAAA	AAAA	AAAA	AAAA
WP Title	Management	Critical review and c	Review of polishing t	Review of measur. &	Minor definition and	Manufacturing process	Preparation of the po	Test setup preparatio	Polishing and testing	Evaluation and critic	Total	WBS-
WP Number	*Mgmt-PC	*Requm	*Requm	*Requm	*OptEng	*MAT_GT	*MAT_GT	*MAT_GT	*MAT_BB	*Mat	Level	
	Task 0	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	Task 9		
E	ENGINEER	500	50	150	150	150	130	70	80	100	150	1,530
M	MANAGER	500	100			10					50	660
T	TECHNICIAN						20	60	50	300		430

1. Total Direct Labour Hours
Total Direct Labour Cost

2. Internal Special Facilities

3.1-3.4 Material Costs
3.5.1 High Rel Parts Costs Internal
3.5.2 High Rel Parts Costs 3rd Party
3.6 External major products Cost
3.7 External Services Cost
3.8 Transport/Insurance Cost
3.9 Travel and Substance Cost
3.10 Miscellaneous Cost
3. Total Other Costs (sum of above 3.x)

4. Sub-Total Direct Cost

5-7. General Expenses

8. Sub-Total Company Cost
9. Profit Fee
10. Cost without additional charge

11. Financial Provision for escalation

12. Total Company Price
13. Total Sub-Contractors Price

COMPANY PRICE BREAKDOWN FORM Form No. PSS A2 Page no. 1 Issue 5

RFQ/ITT no.: 5.2.0012 Proposal/Tender No.

Type of Price: Firm fixed price

Economic Condition: JAN 2016

National Currency(NC): EUR

Exchange Rate(X):

Contractual Phase(s): *ALL*

Project/Work Packages: TRP

COMPANY Name: COMPANY A Country: France

Representative Name and Title: Signature:

COMBINED PRICE OFFER TENDERING COMPANY AND SI

LABOUR	Rate Year	No of FTE (calculated U = W / V)	Sold Hours per ManYear V	Manpower effort in Manhours W	Gross Hourly Rates in NC	National Currency (NC) EUR	Total EUR
Direct labour cost centres or categories							
1. Total Direct Labour Hours and Cost				2620		A 293,260	293,260
INTERNAL SPECIAL FACILITIES	Rate Year	Type of Unit	No. of units	Unit rates in NC			
2. Total Internal Special Facilities Cost						B	
OTHER COST ELEMENTS	RtYr	Amounts in NC	OH%	x Amounts =			
3.1 Raw Material							

PAYMENT SCHEDULE REPORT 5405 Issue 1

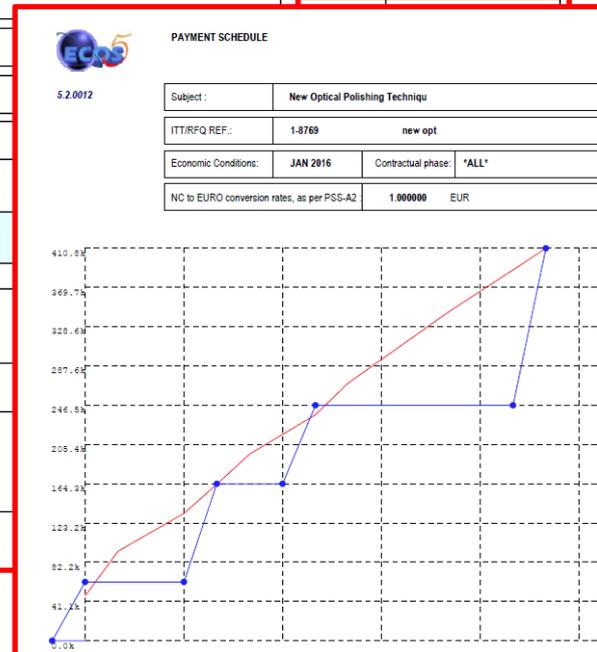
Subject: New Optical Polishing Techniqu

ITT/RFQ REF.: 1-8769 new opt

Economic Conditions: JAN 2016 Contractual phase: *ALL*

NC to EURO conversion rates, as per PSS-A2 1.000000 EUR

Contractual Phase	Milestone number	Date	Percentage	Amount	Milestone Description
BASELINE	1	17-01	15%	61,619	Advanced Payment
BASELINE	2	17-05	25%	102,699	Progress (MS 1): Upon successful completion of tasks 1 to 5 and/or successful DRR and the Agency's acceptance of all related deliverable items. 40% -15% Down Payment recovery
BASELINE	3	17-08	20%	82,159	Progress (MS 2): Upon successful completion of Tasks 6 and 7 and/or successful TRR and the Agency's acceptance of all related deliverable items.
BASELINE	4	18-03	40%	164,318	Final Settlement (MS 3): Upon the Agency's acceptance of all deliverable items due under the Contract and the Contractor's fulfillment of all other contractual obligations including submission of the Contract Closure Documentation.
BASELINE TOTAL			100%	410,794	



2- Case with Budgetary Sub-Cos reservations

Sub-contractors can be entered based on budgetary provisions. This should be reserve only for small identified sub-contractor's contributions or for budgetary reservations for sub-contractors to be selected after contract awards.

In case of a significant sub-contract with already identified sub-contractor(s), an ITT-based process shall be preferred so you can present the details of its price, this improving the quality of your financial proposal.

The Budgetary provisions may concern several tasks, a whole task or only part of it.

For instance one is for a small contribution of an already identified consultant during the requirements review activities of the beginning of the study. Assume this is a consultant from USA Washington D.C. He is identified under the name *Company R* (code **RRRR**).

The booked amount for his services is 10 000 US \$. His contribution is part of task 1 so its WP will be identified under code Task 1-1

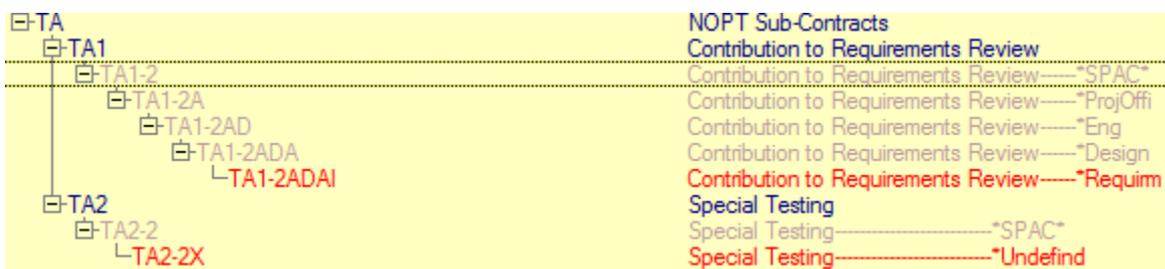
Another one is foreseen to involve a sub-contractor still to be selected for some testing activities that will take place close to the end of the Study. Let's assume that this sub-contractor, even not identified at this stage, will come from Czech Republic for Geo-Return reasons. This reservation shall be recorded under the company code / country code **CZ**.

A 35 000 EUR budgetary reservation is foreseen as part of Task 8. So its WP will be identified under code Task 8-1

We add the following PT Nodes:



To which the allocate the Support Function 2ADAI (Requirements Engineering) to the first PT node TA1 and 2X (to be defined later) to PT node TA2



NB: do not worry about the grey intermediary lines. Only the red lines correspond to actual WP and only these ones will be listed as WP

On the right side of the Cost Tab, headers information can be entered:

T-2BV	Task 9	Evaluation and critical appraisal-----*Verif	18-01	18-03	1	A	8.0000
TA1-2ADAI		Contribution to Requirements Review-----*Requir					8.0000
TA2-2X		Special Testing-----*Undefin					8.0000

T-2BV	Task 9	Evaluation and critical appraisal-----*Verif	18-01	18-03	1	A	8.0000
TA1-2ADAI	Task 1.1	Contribution to Requirements Review-----*Requir	17-01	17-02	1	A	
TA2-2X	Task 8.1	Special Testing-----*Undefin	17-09	17-12	1	A	

The budgetary amounts are entered on the WAC line at the bottom of the Cost Tab

WAC	Title	Company	Start	End	Dist	Currency	Amount (PC)	Amount (NC)	Amount (EUR)
SUB	Review US Techno	RRRR	17-01	17-02	A	USD	10,000	9,069	9,069

WAC	Title	Company	Start	End	Dist	Currency	Amount (PC)	Amount (NC)	Amount (EUR)
SUB	Interferometric measure	CZ	17-09	17-12	A	EUR	35,000	35,000	35,000

The two entries can be seen on the Summary tab

WP Number	User Number	Phase	Title	Start	End	Ty	Di	Pl	WAC	SubCo
Budgetary Sub-cos									0	35 000
Total Own Share									0	0
T-2AA	Task 0	BASELINE	Management-----*Mgmt+PC	17-01	18-03	1	A	8	0	0
T-2ADAI1	Task 1	BASELINE	Critical review and completion of reqts--*Requir	17-01	17-02	1	A	8	5	0
T-2ADAI2	Task 2	BASELINE	Review of polishing techniques-----*Requir	17-01	17-02	1	A	8	0	0
T-2ADAI3	Task 3	BASELINE	Review of measur. & charact. methods----*Requir	17-01	17-02	1	A	8	0	0
T-2ADK	Task 4	BASELINE	Mirror definition and specification-----*OpticEng	17-03	17-05	1	A	8	0	0
T-2BA1	Task 5	BASELINE	Manufacturing process definition-----*MAIT_GT	17-05	17-06	1	A	8	0	0
T-2BA2	Task 6	BASELINE	Preparation of the polishing activities--*MAIT_GT	17-06	17-09	1	A	8	0	0
T-2BA3	Task 7	BASELINE	Test setup preparation-----*MAIT_GT	17-06	17-09	1	A	8	0	0
T-2BB	Task 8	BASELINE	Polishing and testing of samples-----*MAIT_BB	17-09	17-12	1	A	8	0	0
T-2BV	Task 9	BASELINE	Evaluation and critical appraisal-----*Verif	18-01	18-03	1	A	8	0	0
TA1-2ADAI	Task 1.1	BASELINE	Contribution to Requirements Review-----*Requir	17-01	17-02	1	A	8	0	9 069
TA2-2X	Task 8.1	BASELINE	Special Testing-----*Undefin	17-09	17-12	1	A	8	0	35 000

Using the button [User Order] the Task 2.1 is now listed according to the User numbering system.

WP Number	User Number	Phase	Title	Start	End	Ty	Di	Pl	WAC	SubCo
Budgetary Sub-cos									0	35 000
Total Own Share									0	0
T-2AA	Task 0	BASELINE	Management-----*Mgmt+PC	17-01	18-03	1	A	8	0	0
T-2ADAI1	Task 1	BASELINE	Critical review and completion of reqts--*Requir	17-01	17-02	1	A	8	5	0
TA1-2ADAI	Task 1.1	BASELINE	Contribution to Requirements Review-----*Requir	17-01	17-02	1	A	8	0	9 069
T-2ADAI2	Task 2	BASELINE	Review of polishing techniques-----*Requir	17-01	17-02	1	A	8	0	0
T-2ADAI3	Task 3	BASELINE	Review of measur. & charact. methods----*Requir	17-01	17-02	1	A	8	5	0
T-2ADK	Task 4	BASELINE	Mirror definition and specification-----*OpticEng	17-03	17-05	1	A	8	93	0
T-2BA1	Task 5	BASELINE	Manufacturing process definition-----*MAIT_GT	17-05	17-06	1	A	8	99	0
T-2BA2	Task 6	BASELINE	Preparation of the polishing activities--*MAIT_GT	17-06	17-09	1	A	8	7	0
T-2BA3	Task 7	BASELINE	Test setup preparation-----*MAIT_GT	17-06	17-09	1	A	8	80	0
T-2BB	Task 8	BASELINE	Polishing and testing of samples-----*MAIT_BB	17-09	17-12	1	A	8	605	0
TA2-2X	Task 8.1	BASELINE	Special Testing-----*Undefin	17-09	17-12	1	A	8	0	35 000
T-2BV	Task 9	BASELINE	Evaluation and critical appraisal-----*Verif	18-01	18-03	1	A	8	0	0

3- Case with ITT-based Sub-contractors contributions

This is the regular way to involve already identified sub-contractors at the time of the proposal elaboration.

To do so you send them an ITT file containing at least the anchoring node(s) related to their contribution. You may send a fully developed WBS in which case you should pay attention not to forget part of their scope. This is for instance the easiest way to enforce your WBS User numbering system.

In return, you will receive a Tender file that you will integrate, eventually after one or several rounds of negotiations, before generating your own integrated tender file.

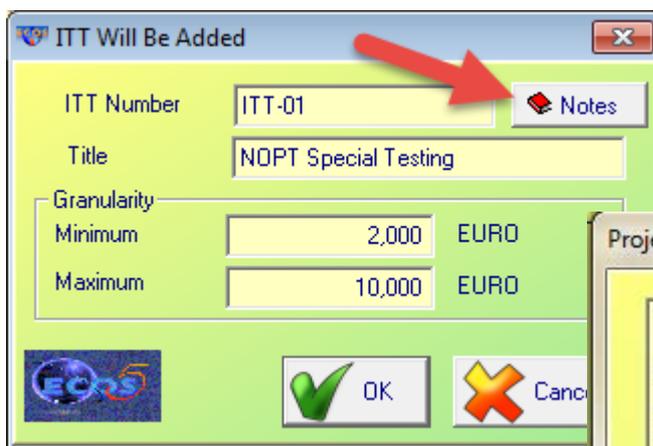
Defining anchoring nodes

Reusing the example of section 2, we will define an ITT for the Special Testing activity that contains the anchoring node TA2:



Special Testing	1.00	BASELINE	ITT_A
Special Testing	1.00	BASELINE	ITT_A
Special Testing		BASELINE	ITT_A & ~WPR~CZ

Then you will issue it:



ITT Will Be Added

ITT Number: ITT-01

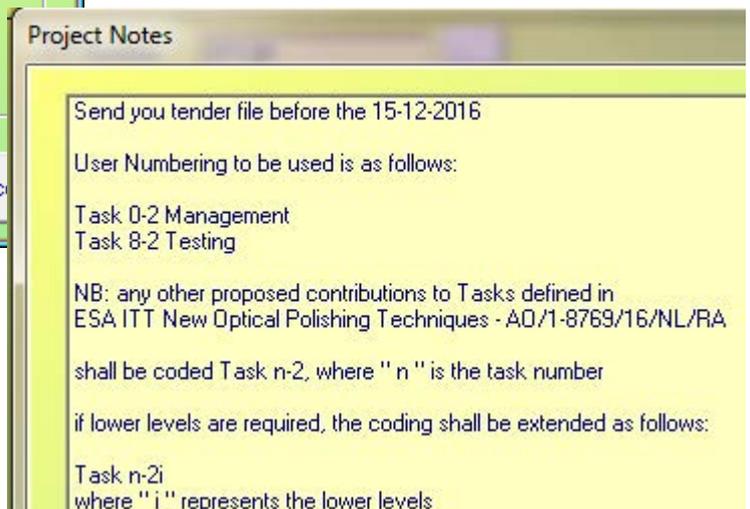
Title: NOPT Special Testing

Granularity:

Minimum: 2,000 EURO

Maximum: 10,000 EURO

Buttons: OK, Cancel, Notes



Project Notes

Send your tender file before the 15-12-2016

User Numbering to be used is as follows:

Task 0-2 Management

Task 8-2 Testing

NB: any other proposed contributions to Tasks defined in ESA ITT New Optical Polishing Techniques - AO/1-8769/16/NL/RA shall be coded Task n-2, where "n" is the task number

if lower levels are required, the coding shall be extended as follows:

Task n-2i

where "i" represents the lower levels

It might be a good idea to include into the Project Notes your WP numbering coding requirements. Here is an example of what such guidance could be

In return you will get a Tender file from the sub-contractor that you will integrate with your own share after successful negotiations before sending your Integrated Tender Answer to your Upper tier contractor.

All details about issuing ITT to sub-contractors and integrating their tenders is explained in the ECOS Integrated Help and the corresponding Video Training Clips.

In our case we have integrated a Tender file coming from Czech company NNNN (dummy company code for the purpose of this demonstration).

The sub-contractors has developed its WBS and customized its WBS as follows according to your Project Notes:

WBS	User Number	Title	Abbrev.
TA2-2AA	Task 0.2	Special Testing Management	*Mgmt+PC
TA2-2BA	Task 7.2	Testing Preparation	*MAIT_GT
TA2-2BB	Task 8.21	tests	*MAIT_BB
TA2-2KC	Task 8.22	OGSE Procured items	*OGSE

The integrated price looks as follows:

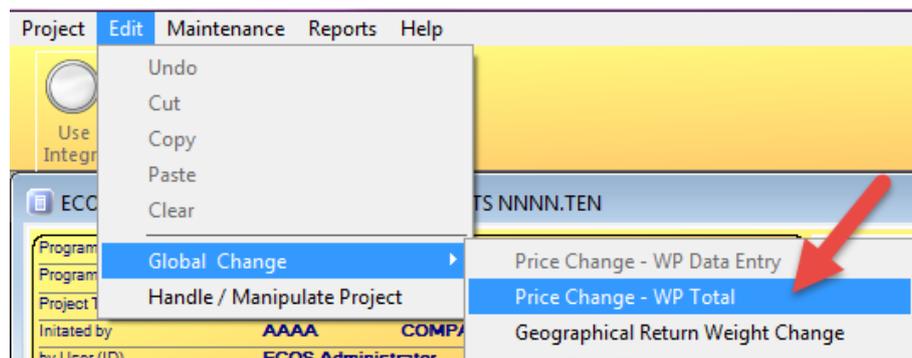
ITT	ITT/RFQ Number	ITT/RFQ Title	Company	Sel	Tender Answer	Reference	Version	Date	Rates	Price for ESA (EUR)
✓	none	none	AAAA	✓	Current project Data				exposed	431,068
✓	budgetary	none	_OTH	✓	Budgetary Sub-Co's				exposed	9,069
✓	ITT-01	NOPT Special Testing	NNNN	✓	SPECIAL TESTS	REF NNNN-01	1	4-12-2016	exposed	40,725
		Integrated Project			Integrated				hidden	480,863

The price presented by company NNNN is higher than your provision of 35 000 EUR.

The normal process is to negotiate with company NNNN and obtain a revised tender within your target or you may ultimately accept a higher price for agreed reasons.

In the event that the tender file arrives at a very late stage, you still have the possibility, as upper-tier, to adjust the tender price that you will retain into your integrated tender answer but this will show some traces so a settled situation with your sub-contractor is always preferable.

To perform such “fast track” retained price adjustment, you open the received Tender file of the sub-co and use the following menu option:



In this case you may want to limit the price of the retained tender to the Target i.e. 35 000 EUR

The screenshot shows a tree view of tender items with the following structure and values:

- NOPT Special Testing NNNN: 40,725 EUR
 - TA2 Special Testing NNNN: 40,725 EUR
 - TA2-2 Special Testing: *SPAC* NNNN: 40,725 EUR
 - TA2-2A Special Testing: *ProjOffi NNNN: 7,601 EUR
 - TA2-2AA Special Testing Management: *Mgmt+PC NNNN: 7,601 EUR
 - TA2-2B Special Testing: *MAIT NNNN: 28,124 EUR
 - TA2-2BA Testing Preparation: *MAIT_GT NNNN: 10,135 EUR
 - TA2-2BB tests: *MAIT_BB NNNN: 17,989 EUR
 - TA2-2K Special Testing: *GSE NNNN: 5,000 EUR
 - TA2-2KC OGSE Procured items: *OGSE NNNN: 5,000 EUR

A dialog box titled "Set new Price for TA2" is open, showing the current price of 40,725 EUR and a new price of 35,000 EUR, which is a 14.06% reduction. The dialog has "OK" and "Cancel" buttons.

The PSS-A6 from your Integrated Tender Answer will now look like this:

5.2.0013 Subject: **New Optical Polishing Techniqu** (Integrated data)

ITT/RFQ REF.: 1-8769 NOPT01 reduced

Economic Conditions: JAN 2016

NC to EURO conversion rates, as per PSS-A2: Multiple Phase(s): *ALL*

Company Name	Country	Brief Description of Tasks	Type of Price	Total company price (item 15 of PSS A2)	NC	Amount NC	Amount EURO
1	2	3	4	5	6	7	
COMPANY A	FR	New Optical Polishing Techniqu	1 FFP	EUR		431,068	431,068
--COMPANY N	CZ	NOPT Special Testing	1 FFP	Euro		35,000	35,000
--COMPANY R	US	Review US Techno	1 FFP	USD		10,000	9,069
TOTAL CONTRACT PRICE PER PRICE TYPE							
				1 Firm fixed price			475,138

The traces of the price reduction show here:

WBS Number	Title	Company	Hours	Labour	Facility	Other	General	Profit	WAC	Escalation
T-2AA	Management-----*Mgmt+PC	AAAA	1,000	121,000			29,150	11,506		3,893
T-2ADAI1	Critical review and completion of reqts--*Requir	AAAA	150	18,700			4,505	1,778		500
T-2ADAI2	Review of polishing techniques-----*Requir	AAAA	150	16,500			3,975	1,569		441
T-2ADAI3	Review of measur. & charact. methods----*Requir	AAAA	150	16,500			3,975	1,569		441
TA2-2BB	tests-----*MAIT_BB	NNNN	320	14,200			2,130	1,306		353
TA2-2KC	OGSE Procured items-----*OGSE	NNNN								5,000
TA2-X	Special Testing-----*Undefind	NNNN								-5,725

On the Summary tab, the Grey line indicates that the Budgetary Sub-co provision has been replaced by the integrated Tender Answer:

WP Number	User Number	Phase	Title	Start	End	Ty	Di	PR1 %	Total NC
Budgetary Sub-cos									9 069
Total Own Share									431 068
T-2AA	Task 0	BASELINE	Management-----*Mgmt+PC	17-01	18-03	1	A	8.0000	165 549
T-2ADAI1	Task 1	BASELINE	Critical review and completion of reqts--*Requir	17-01	17-02	1	A	8.0000	25 483
TA1-2ADAI	Task 1.1	BASELINE	Contribution to Requirements Review-----*Requir	17-01	17-02	1	A	8.0000	9 069
T-2ADAI2	Task 2	BASELINE	Review of polishing techniques-----*Requir	17-01	17-02	1	A	8.0000	22 485
T-2ADAI3	Task 3	BASELINE	Review of measur. & charact. methods----*Requir	17-01	17-02	1	A	8.0000	22 485
T-2ADK	Task 4	BASELINE	Mirror definition and specification-----*OpticEng	17-03	17-05	1	A	8.0000	24 284
T-2BA1	Task 5	BASELINE	Manufacturing process definition-----*MAIT_GT	17-05	17-06	1	A	8.0000	21 885
T-2BA2	Task 6	BASELINE	Preparation of the polishing activities--*MAIT_GT	17-06	17-09	1	A	8.0000	17 688
T-2BA3	Task 7	BASELINE	Test setup preparation-----*MAIT_GT	17-06	17-09	1	A	8.0000	17 988
T-2BB	Task 8	BASELINE	Polishing and testing of samples-----*MAIT_BB	17-09	17-12	1	A	8.0000	81 114
TA2-2X	Task 8.1	BASELINE	Special Testing-----*Undefind	17-09	17-12	1	A	8.0000	35 000
T-2BV	Task 9	BASELINE	Evaluation and critical appraisal-----*Verif	18-01	18-03	1	A	8.0000	32 108