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MANAGEMENT REQUIREMENTS FOR DEMONSTRATION PROJECTS - CALL FOR PROPOSALS FOR DOWNSTREAM - APPLICATIONS IN ARTES 4.0 (UNDER BASS, 4S OR 5G PROGRAMME LINES)FEASIBILITY STUDIES/DEMONSTRATION PROJECTS

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1. INTRODUCTION

The "Management Requirements" (MR) document provides a set of requirements to the Consortium in charge of the Demonstration Project for the management of the project during its life cycle, i.e. from the Negotiation Meeting, which precedes the signature of the Contract, until the Final Review.

2. OBJECTIVES OF THE ARTES 4.0 DOWNSTREAM APPLICATIONS DEMO PROJECTS

The objectives of ARTES 4.0 Downstream Applications demonstration projects (called hereinafter "demo projects") are to:

- Validate the business case and the associated technical solutions of the proposed user/customer-driven services
- Deliver a profitable and sustainable service after the conclusion of the demo project
- Show the key-need and added value of using at least one space-asset (i.e. Satcom or GNSS or Earth Observation or technology developed for the International Space Station).

The above objectives shall be achieved via the development of a "pre-operational service" to be validated by the pilot users in their relevant operational context.

3. MILESTONE REVIEW MEETINGS (MRM) AND ASSOCIATED DELIVERABLE DOCUMENTS

The following paragraphs describe the sequence of Milestone Review Meetings (MRM) that will mark the implementation of the demo project. Through the sequence of MRM, ESA will monitor the progress of the contractual activities, assess the quality and completeness of the deliverables and, when relevant, will authorise the relevant milestone payments.

For each of the review meetings indicated below, the MR do also provide guidelines on:

- Their main purpose
- The applicable deliverables

Each of the MRM shall be attended by at least one representative of each partner of the consortium (i.e. prime and sub-contractors). Representatives of users and customers are strongly invited to participate too.

The documentation supporting each milestone review meeting shall be delivered to ESA no later than five (5) working days before the meeting takes place.

Besides the review meetings indicated below, additional technical meetings can be envisaged if required by the specific implementation approach proposed by the Contractor (e.g. in case of an AGILE approach this is quite often required).

The following documents shall be delivered at the different MRMs, as specified in section 4. of this document:

3.1. Business Plan (BP)

The purpose of the Business Plan is to explain how the project will lead to a business which generates a profit. As the project progresses, it gives the project team and ESA a common view of the financial planning for the business, for example how many units are expected to be sold in a year

3.2. Requirements Document (RD)

The purpose of the Requirements Document is to make sure that all the user's needs are listed and agreed. These needs are turned into measurable requirements which can be later tested by the consortium in the System Verification Document

3.3. System and Service Architecture (SSA)

The purpose of the System and Service Architecture document is to specify the overall pilot system starting from the high-level architecture down to its constituent building blocks. The SSA shall describe the extent of development and/or integration of hardware, software and content elements and choice of the most appropriate system to be used in the project.

3.4. System Verification Document (SVD)

The purpose of the System Verification Document is to plan the repeatable tests which will show how the system meets the requirements set out in the Requirements Document. Once the tests have been planned, they will be run by the consortium and the results recorded and presented to ESA

3.5. Pilot Utilisation Plan (PilUP)

The Pilot Utilisation Plan is a practical guide to how the pilot shall be run. It demonstrates that the consortium has thought about the practical consequences of taking the product and services to the field. The Pilot stage of the project is one of the most hectic parts of the project and it's easy to lose track of the objectives when trying to solve urgent issues. That's where the KPIs come in. They help keeping the team focussed on what things are important, like getting great customer feedback scores and making sure that the product/service is used as much as possible during the Pilot

3.6. Project Web Page (PWP)

The Project Web Page is intended for publication on the ESA Business Applications portal and shall not contain any proprietary information. Each month, starting from the publication of the Project Web page and ending with the conclusion of the contractual activities, the Contractor shall provide an updated version of the "Current Status" paragraph of the Project Web Page as part of the Monthly Progress Report

3.7. Final Report (FREP)

The Final Report shall present in about 20-30 pages (pictures, Index and Appendix included) an overview of the activities carried out during the project. It is "the business visiting card" of the project presenting in a concise way the business idea and the service developed by the project, the main activities carried out during the project, highlighting the pilot results and the intended commercial roll-out strategy, the achievements and lessons learnt, any other relevant/important topics and it shall include a brochure of the product/service. The Final Report is intended for general audience and publication. Therefore, it shall not contain any sensitive information, nor complex technical details. It should provide some highly interesting or impactful pictures (e.g. users while they utilise the system during the pilot stage) and graphs, diagrams or tables as needed.

The templates to be used for the deliverable documents of the different MRMs, as well as the draft Agendas for the MRM, can be found at https://business.esa.int/documents.

4. MILESTONE REVIEW MEETINGS

The following Milestone Review Meetings (MRM) typically apply to a Demonstration Project that follows a waterfall development approach. The Contractor can follow an alternative approach, providing it is properly described in the Full Proposal and agreed by ESA.

An overview of the typical sequence of meetings (in line with a waterfall method) is presented in the following block diagram:
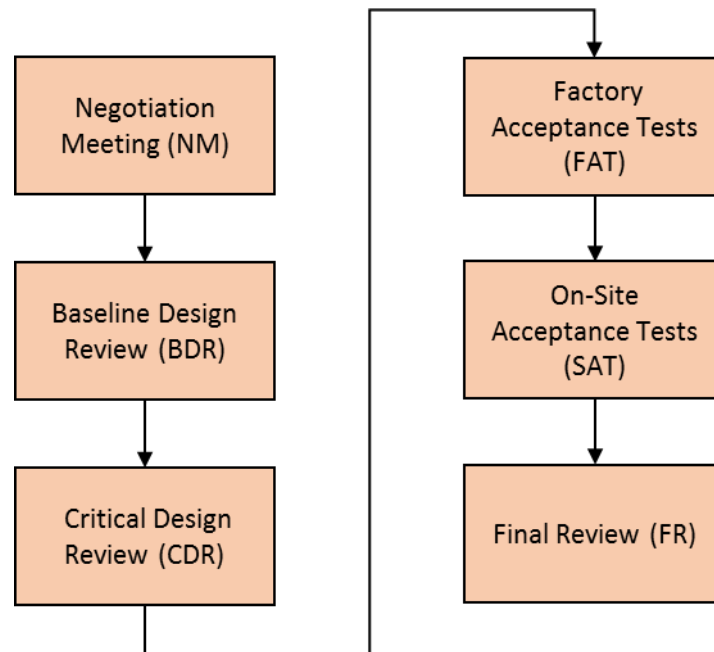
Figure 1 Sequence of Milestone Review Meetings

4.1. Negotiation Meeting (NM)

The purpose of the Negotiation Meeting (NM) is to confirm that all points of clarification and negotiation raised by ESA have been successfully addressed, to discuss and agree on the project planning via the Project Bar Chart (PBC), to negotiate the contract and to review the activities for the next MRM.

The NM is also the opportunity for the team to meet the ESA Technical Officer and create the basis for an effective working cooperation throughout the project duration.

4.2. Baseline Design Review (BDR)

Between the NM and the Baseline Design Review (BDR) the Contractor shall finalise the User Needs and the User Requirements in cooperation with the pilot users and identify a mature set of System Requirements. Needs and Requirements will be described in the Requirement Document (RD).

The RD is the key deliverable of the BDR milestone.

As part of the RD, a 2-page brochure shall be produced. The brochure shall be a concise yet stunning communications tool using attractive images. It shall give clear messages to your customers stating why your product/service is so great in a language which is correctly judged for your targeted customers.

Additional deliverables of the BDR are:

- The **Project Web Page (PWP)**
- An update of the **Business Plan (BP)** document to reflect the latest information, assumptions, and strategies in this living document
- First Draft of the **Service and System Architecture (SSA)**
- The project planning via the **Project Bar Chart (PBC)**
- In case of subcontractor(s), evidence that the contract(s) with subcontractor(s) are in place and signed

The successful completion of the BDR will mark the beginning of the design activities in preparation of the Critical Design Review (CDR) milestone.

In preparation of the BDR, the Contractor may organise a **User Workshop** inviting the pilot Users and Customers, with the objective to consolidate and validate the RD.

4.3. Critical Design Review (CDR)

At the end of the design and prior to the beginning of the procurement and development activities, the Critical Design Review (CDR) shall be carried out for finalising the System Requirements in the RD and present the design activities in the System and Service Architecture (SSA) document.

The SSA will also include a licensing assessment of the external SW / HW elements (e.g.: COTS) proposed to be integrated in the product / service. This assessment shall confirm the compatibility between the external components' licenses and the licensing scheme proposed for the targeted product/ service.

The SSA document is the key deliverable of the CDR milestone.

The design activities shall demonstrate the adequacy and the readiness of the project to proceed with the procurement and development activities and shall include a review of the trade-off processes performed for the main design choices of hardware and software elements.

Additional deliverables due for the CDR are:

- The **System Verification Document (SVD),** including the Verification List and the Procedure List. Each test must have a clear pass/fail criterion. The Test Reports will be then compiled at next MRM
- The updated project planning via the **Project Bar Chart (PBC)**

In the case that the activities due for BDR and those due for CDR could be effectively run in parallel with limited or no relevant risks (please note that there is no rule for this as it is very much specific to each project), the Contractor may propose to ESA to combine the two MRM (BDR+CDR) into one single meeting.

4.4. Factory Acceptance Test (FAT)

At the end of the development and integration activities and prior to starting the deployment of the pilot-demonstration system, the Contractor shall set up a Factory Acceptance Test (FAT) MRM devoted to demonstrating that the system/service is compliant with the set of requirements agreed at the BDR.

In preparation of the FAT, the Contractor shall fill-in the Test Reports section of the SVD with the complete set of results achieved during the internal verification activities.

The SVD is the key deliverable of the FAT milestone.

During the FAT, a subset of the tests agreed with ESA will be repeated in-front-of the ESA Technical Officer and the results will be attached to the minutes of the FAT meeting.

Whenever practical, the verification session with ESA can take place via a web conference (e.g. WebEx) during which the contractor shall follow a test plan which involves navigating the user interface. This part of the verification session shall be documented via a video/screengrab to be added to the minutes of the milestone meeting.

Additional deliverables for the FAT are:

- An update of **Pilot Utilisation Plan (PilUP)** document
- An update of the **Business Plan (BP)** document to reflect the latest information, assumptions, and strategies in this living document
- The updated project planning via the **Project Bar Chart (PBC)**
- A **Co-Funding Confirmation Arrangement (CFCA)** from the prime stating that the co-funding arrangement for the Prime and any Sub Contractors declared in the full proposal is still available and expected to be so until completion of the activity

The successful completion of the FAT will kick-off the activities for the deployment of the pilot-demonstration system.

4.5. On-Site Acceptance Test (SAT)

Following the deployment of the pilot-demonstration system and prior to the beginning of the pilot-demonstration stage, the On-Site Acceptance Test (SAT) MRM is held. The purpose is twofold:

- To verify the readiness of the deployed service to start the pilot demonstration through the execution of a subset of the tests described in the SVD

- Finalise and approve the PilUP with the utilisation baseline of the pilot activities agreed with the pilot users and final decision on the process to be used for the assessment of the service during the pilot operations including the methodology, the pilot objectives and the set of Key Performance Indicators (KPIs) that will measure the level of success of the pilot-demonstration activities

The SAT has two key deliverables: the SVD and the PilUP.

- The SVD documenting the verification of the pilot-demonstration system
- The PilUP to show the readiness of the project to kick-off the pilot activities together with the POSR layout

An additional deliverable of the SAT is the updated project planning via the **Project Bar Chart (PBC).**

During the SAT, a subset of the tests agreed with ESA will be repeated in-front-of the ESA Technical Officer and the results will be attached to the minutes of the SAT meeting.

Whenever the level of technical and operational risks justifies a simplified approach, the Contractor and/or ESA may propose to combine the FAT and the SAT MRM in a single meeting.

4.6. Final Review (FR)

At the Final Review (FR) the Contractor shall present a global overview of the activities carried out during the project and summarise (within the PilUP document) the outcome of the pilot stage, including conclusions and recommendations gathered from the consortium and the pilot users. At the FR the Contractor shall also present the action plan associated with the service operational/commercial deployment, as applicable.

The key deliverables of the FR Review Milestone are:

- **The Final Report (FREP)**, in which the Contractor, in 20 to 30 pages, shall present a summary of the activities carried out in the frame of the project. This document shall not contain commercially sensitive information
- **Summary and Achievements (S&A)** shall provide a concise overview of the project and its main achievements. This document will be used internally by ESA, and whenever needed for reporting to the National Delegations of the ESA Member States
- **Single Slide Presentation (SSP)** will provide a pitch about the project according to the following template:
  https://business.esa.int/sites/business/files/SSP%20Template.pptx
- **The Final Data Package (FDP)**, consisting in an archive containing the latest version of all deliverables (BP, RD, PWP, SSA, SVD, PilUP, FREP, PBC, S&A), and the collection of Digital Media (DM) consisting of digital video, brochure and pictures aimed for the branding and marketing of the product(s) and service(s) developed

As part of the FR, a bilateral discussion between the project team and ESA about what worked and what not in the context of the project shall be carried out. The main points shall be recorded as part of the Minutes of the Meeting of the FR.

4.7. Final Presentation Day

On a regular basis, Final Presentations Days are organised at ESA (typically at ECSAT, UK or at ESTEC, NL) or at National Delegations' premises to bring together the ESA Business Applications projects with the purpose of raising reciprocal awareness, promoting possible synergies and delivering presentations on specific themes of potential interest to the participants. The National Delegations of the respective projects are also invited by ESA to attend the Final Presentation Days. The Contractor shall attend and actively contribute with a presentation in one of the Final Presentations Days, to be decided in coordination with the ESA Technical Officer. The presentation made by the Contractor will be published on the ESA web site after the event, and therefore it shall not contain any proprietary information.

5. ADDITIONAL REQUIREMENTS

5.1. Document Confidentiality

All deliverable documents produced in the frame of the project and marked as "Proprietary Information" will be treated in confidence (see Clause 52.2 of the ESA General Clauses and Conditions). Project Web Page and the Final Report shall not contain any "Proprietary Information", since they are intended for un-restricted access.

5.2. Contractor Project Manager

The nominated Project Manager (PM) shall be responsible for the management and execution of all work to be performed and for the coordination and control of the work within the project team. The PM will be the official point of contact with the Agency during the execution of the work.

During the contract execution, the PM shall notify the Agency of any critical risk that may arise, analysing the cause, assessing the potential impacts on the project in terms of time, objectives and scope and formulating in the shortest possible time a mitigation strategy.

5.3. Reporting – Minutes of Meetings (MOM)

Written Minutes of Meetings attended by ESA shall be prepared and made available by the Contractor and have to be signed at the end of the meeting. The minutes shall clearly identify all agreements made and actions accepted together with, where relevant, an update of the Action Item List.

To establish a uniform and consistent procedure to identify the Action Items among the different ARTES 4.0 applications projects, the Contractor shall keep track of the Action Items adopting the following action identification scheme:

Action X.Y

> where X is the identifier of the meeting (0: Negotiation Meeting, 1: First MRM, 2: Second MRM, etc.), and Y is the Action number starting from 01 at each new meeting.

In case of urgent or critical problems, new Actions can be originated by the Agency and/or by the Contractor even outside the normal scheduled meetings.

5.4. Reporting – Monthly Progress Reports (MPR)

The Contractor shall provide, within the first five working days of each month, a concise status report summarising the main activities performed in the last month, a list of the activities planned to be performed in the coming month, and any potential problems in the development and commercialisation programme and the corrective action planned or taken by the Contractor.

Within the progress report, the updated Current Status paragraph to be inserted in the Project Web Page shall be provided. To the extent possible, the progress report and annexed documentation should be delivered in MS Word format by using the Distributed Project Collaboration Tool or as an attachment to email.

5.5. Electronic Documentation

All documentation shall be delivered in electronic form, using preferably MS Word or Adobe Acrobat format with all pictures and tables embedded in the document. The documentation shall not impose limitations on the ability to be commented and printed.

5.6. Distributed Project Collaboration Tool

During the execution of the project the web-based project collaboration tool shall be used. This collaborative environment is intended to replace the usual electronic communication tools (e.g. E-Mail with attached document and/or FTP) within the project team and in the communication with ESA, as well as for recording and tracking Action Items. Credentials and guidelines for accessing the tool will be provided in due time, typically by the Negotiation Meeting.

5.7. Media Relations and Events

When issuing a press release about the contract award the following wording shall be included:

"This project is being co-funded by the European Space Agency under ARTES 4.0 Business Applications – Space Solutions."

It is not allowed to claim that the product or service which is developed under this contract is endorsed/certified or approved/qualified (or any similar language) by the European Space Agency.

5.8. Pilot Operations Summary Report (POSR)

Whenever agreed with the ESA Technical Officer, following the SAT and for the whole duration of the pilot-demonstration stage the Contractor shall deliver once every two weeks, unless otherwise agreed with ESA, an overview of the status of the pilot and associated utilisation in the form of the Pilot Operation Summary Report (POSR) Excel spreadsheet.

5.9. List of Deliverables

The items that will be delivered during the project are summarised in the table below.

| Acronym	Deliverable	Initial Submission	Updating
PBC	Project Bar Chart	within the proposal	as part of the MPR and at reviews
MPR	Monthly Progress Report	TO + 1 month	every month, within first five working days
MOM	Minutes of Meetings	NM	every meeting
RD	Requirements Document	within the proposal	BDR
SSA	System and Service Architecture	within the proposal	BDR, CDR
PilUP	Pilot-Demonstration Utilisation Plan	within the proposal	FAT, SAT
DM	Digital Media (as part of the FDP)	FR	
SVD	System Verification Document	CDR	FAT, SAT
BP	Business Plan	within the proposal	BDR, other milestones as relevant
POSR	Pilot-Demonstration Operations Summary Report	SAT	Once every two weeks basis, unless otherwise agreed with ESA
PWP	Project Web Page	BDR	current Status to be updated as part of the Monthly Progress Report
FREP	Final Report	FR	
FDP	Final Data Package	FR	
S&A	Summary and Achievements	FR	
SSP	Single Slide Presentation	FR	
HW	Hardware and User Manuals	FR	
SW	Software and User Manuals	FR	

Table 1 List of deliverables

Each deliverable document shall include a title page reporting the project name, the contract number, the title of the document, a reference identifier, the author(s) and related organisation(s), the date of issue and the revision number.

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ANNEX A: GUIDELINES FOR THE DEVELOPMENT OF USER AND SYSTEM REQUIREMENTS

This document is intended to serve as Guideline to develop Requirements during ARTES 4.0 Applications Projects.

Elements

The following diagramme shows the logical flow linking User Requirements with System Requirements.
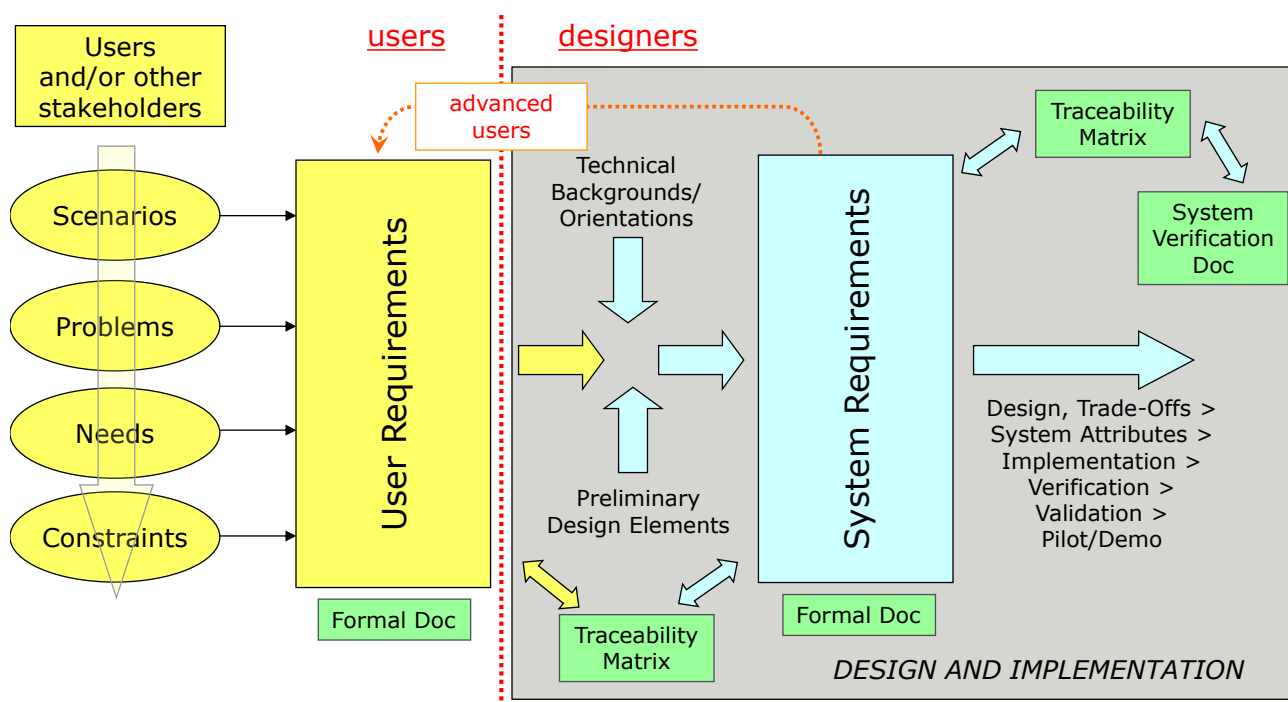
Logical separation of the requirements depending on the involvement of the different agents:

User Requirements – the "WHAT"

Proposed definition: Statement originated by the users describing the functions and capabilities that the system shall bring to them during its utilization

- Related to a process that the user must be able to accomplish using the system / service
- Derived from the analysis of user expectations, problems, needs, constraints and scenarios.
- Originated by: users, based on an in-depth interaction with the designer. This dialogue helps to translate the user needs into verifiable user requirements.

System Requirements – the "HOW"

Proposed definition: Statement typically originated by the designer about what the system shall do and/or shall be to fulfil the User Requirements (e.g. associated to constraints, environment, operational and performance features)

- Derived from the user requirements, need to be verifiable and traceable to the user requirement.
- Originated by: designer/system engineer.

Ground rules applicable to both UR and SR

➢ They need to be agreed and meaningful for both users and designer (i.e. need of constant dialogue)
➢ They should be limited to a single thought, concise, simple and stated in a positive way
➢ In particular for SR, they shall be needed (i.e. responding to at least one UR)
➢ They need to be verifiable and attainable
➢ Presented in formal documents
➢ Each requirement shall be accompanied by:
- Rationale: helps to understand and interpret the requirement, and to transform knowledge in project asset. Needs to be documented and linked to the requirement, likely in a design document (e.g. Design Justification File).
- Verification method: needs to be considered and documented while writing the requirements (e.g. some of the possible verification methods being Review of Design (RoD), Test (T), Simulation(S) etc.).

Hint: words such as "*adequate, easy, high speed, maximise, minimise, quickly, robust, sufficient, use'-friendly*" are likely to indicate unverifiable requirements and should not be used.

- Allocation: identify to which part of the system/subsystem applies a given requirement. This helps to identify possible internal interfaces, find redundant or inconsistent requirement and ensure completeness.
- Traceability: needed to identify a requirement source, helps correct omissions, redundant or unnecessary requirements. Requirements can be traceable by assigning unique identifiers to each requirement. Traceability matrices can be used to quickly check the UR and SR dependences.

Ground rules for Project Management towards Requirements process

- Inclusion of a Requirements Review in the projects, as part of the BDR. Characterized by the following:
  - Includes the Users and Designers
  - Gives the opportunity to the designer to explain the System Requirements and the associated rationale
  - Collect User feedback on System Requirements

The following diagramme shows the different stages characterising a typical ARTES 4.0 Applications Demo Project. It highlights the different intermediate milestones with respect to the project stages, and the transition from User Requirements to System Requirements.

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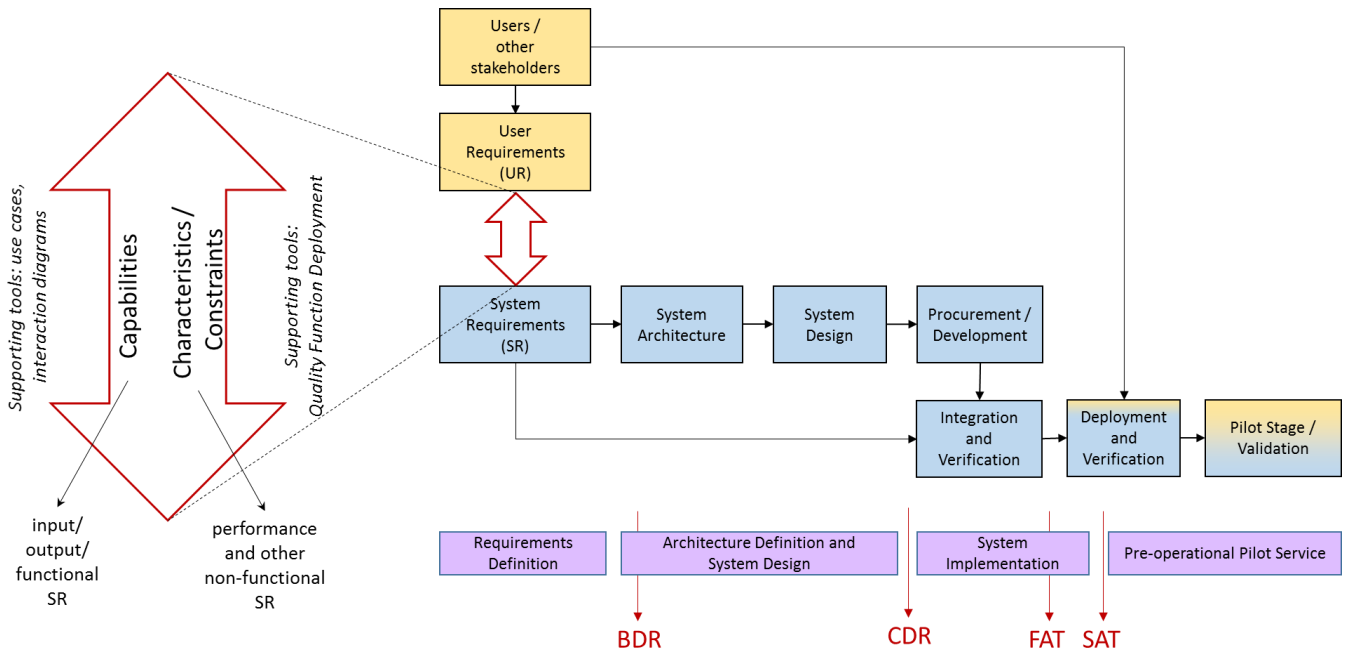
Tools for Requirements development and project evaluation

In order to properly define, write and implement the User and System Requirements, several tools can be used for organizational purposes. One the possible methods to perform this task is the Quality Function Deployment (QFD), which helps the system designer(s) in order to ease and guide a correct requirements process.

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ANNEX B: LAYOUT OF CONTRACT CLOSURE DOCUMENTATION

ESA/ESTEC Contract No. ...... [INSERT NUMBER]

"[INSERT ACTIVITY TITLE]",

hereinafter referred as the "Contract"

Section 1 – Parties, Contract Duration and Financial Information

Contractor	[CONTRACTOR NAME]		
Sub-Contractor(s) (state if not applicable)	[NAME AND COUNTRY]		
Contract Duration	From: To:	Phase 1 from: to:	
		Phase n from: to:	
Total Contract Price (including all CCNs, Work Orders, Call of Orders)	EUR		
and Total Contract Value (in case of co-funding; state if not applicable)	EUR		
Broken down as follows:	Original Contract Price	XXX EUR (XXX EUR)	

	and original Contract Value (in case of co-funding; state if not applicable)	EUR		
	CCN x to n	**EUR**	in total	
	Work Order x to n	**EUR**	in total	
	Call-Off Order x to n	**EUR**	in total	

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Section 2 – Recapitulation of Deliverable Items

2.1   Items deliverable under the Contract

If any of the columns do not apply to the item in questions, please indicate "n/a".

Table 2.1.1 –Items deliverable according to the Statement of Work

Type	Ref. No.	Name / Title	Description	Replacement Value (EUR)/ Other	Location [1]	Property of	Rights granted / Specific IPR Conditions [2]
Documentation					n/a	n/a	
Hardware							
Software			(Delivery in Object code)				
Other							

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[1] In case the item is not delivered to ESA, please indicate the location of the deliverable and the reason for non-delivery (e.g. loan agreement, waiver, future delivery, etc.)

[2] e.g. IPR constraints, deliverable containing proprietary background information (see also 2.1.4 below)

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Table 2.1.2 –Other Deliverable Items: Inventory of Items produced or purchased under the Contract (*if applicable*)

No Fixed Asset has been acquired under the Contract by the Contractor and/or its Sub-Contractor(s).

Item Name	Part/ Serial Reference Number	Location	Value	ESA DECISION		
				Deliver to ESA	Sell or Dispose of	Leave in (Sub-) Contractor's Custody

Table 2.1.3 –Customer Furnished Items and Items made available by the Agency

Any Customer Furnished Items and/or Items made available by the Agency to the Contractor and/or its Sub-Contractor(s) under the Contract, are listed in the following List of Customer Furnished Items and Items made available by the Agency. The following tables certify which of the items have been returned to the Agency and which of the items remain in the custody of the Contractor, and/or a Sub-Contractor(s) and/or a Third Party for further ESA work or for other purposes.

Customer Furnished Items

Item Name	ESA Inventory Number	Location	Insurance Value	ESA DECISION		
				Confirmation of Receipt	Deliver	Leave at (Sub-) Contractor's Disposal

Items made available by the Agency

Item Name	ESA Inventory Number	Location	Replacement Value	Deliver	Leave at (Sub-) Contractor's Disposal

Table 2.1.4 –Background Information used and delivered under the Contract (see Clause 57 of the General Clauses and Conditions)

The following background information has been incorporated in the deliverable(s):

Proprietary Information (title, description)	Owner (Contractor, Sub-Contractor(s), Third Party/ies)	Affected deliverable (which documents, hardware, software, etc.)	Description impact on ESA's rights to the deliverable[3]	Other/comments

[3] if not explicitly stated otherwise, the contractual stipulations shall prevail in case of conflict with the description provided in this table

Section 3 – Output from / Achievements under the Contract

3.1 Service Readiness Level (SRL)

Indicate the SRL of the application / service developed under the Contract using the classification given below:

Initial SRL	Planned SRL as activity outcome	Actual SRL at end of activity

1	Basic principles observed and reported
2	Application/service concept formulated, market opportunities not yet addressed
3	Concept analysis performed and target market identified
4	Application/service verification in laboratory environment, market segment(s) and customers/users identified
5	Application/service verified using operational elements, customers/users not involved
6	Demonstration of prototype in relevant environment, price policy identified
7	Trials with customers/users to validate utilisation and business models
8	Application/service completed and validated, commercial offer ready
9	Application/service operationally deployed and used by paying customers

NOTE: The SRL shall be assessed by ESA.

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3.2   Achievements and Technology Domain

Not Applicable

3.3   Application of the Output/ Achievements

Not Applicable

3.4   Further Steps/Expected Duration

Please tick off as appropriate:

☐   No further development envisaged.

☐   Further development needed:

…………………………………………………….

Please describe further development activities needed, if any, to reach TRL 5/6 including an estimate of the expected duration and cost.

3.5   Potential Non-Space Applications

Not Applicable

Section 4 – Statement of Invention

[OPTION 1: NO INVENTION]

In accordance with the provisions of the above Contract, ……………[Company] hereby certifies both on its own behalf and that of its consortium/Subcontractor(s), that no Intellectual Property Right(s) has(ve) been registered in the course of or resulting from work undertaken

for the purpose of this Contract; and that no inventions have been made in the course of or resulting from work undertaken for the purpose of this Contract that generated knowledge that could be registered as Intellectual Property Rights.

[**OPTION 2:** INVENTION]

In accordance with the provisions of the above Contract, ……………[Company] hereby certifies both on its own behalf and that of its consortium/Subcontractor(s) that the following Intellectual Property Right(s) has(ve) been registered in the course of or resulting from work undertaken for the purpose of this Contract.

……………………

[**OPTION**]: In accordance with the provisions of the above Contract, ……………[Company] hereby certifies both on its own behalf and that of its consortium/Subcontractor(s) that the following inventions have been made in the course of or resulting from work undertaken for the purpose of this Contract but have not been registered as Intellectual Property Rights:

……………………

[**OPTION**]: In accordance with the provisions of the above Contract, ……………[Company] hereby certifies both on its own behalf and that of its consortium/Subcontractor(s) that the following inventions have been made in the course of or resulting from work undertaken for the purpose of this Contract and are foreseen for and/or in the process of registration:

The Agency's rights on such registered and/or unregistered Intellectual Property Rights shall be in accordance with the ESA GCC Part II provisions as amended by the above Contract.

The above statements provided in the various sections of this Annex A "Layout for Contract Closure Documentation" for ESA Contract No.
4000xxxxxx/xx/XX/XXX/xxx *[insert the corresponding Contract number]* have been made after due verifications.

The Contractor furthermore certifies that all its obligations with regard to Fixed Assets, if any, have been fulfilled.

If required by ESA, an updated version shall be provided for incorporating amendments requested by ESA.

Name of Contractor:	
[insert Contractor name]	
Authorised signatory:	
[insert Authorised signatory full name]	*[signature of the Authorised signatory]*
Date:	
[insert date]	

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ANNEX C: LIST OF ACRONYMS

ARTES	Advanced Research in Telecommunication Systems
BASS	Business Applications – Space Solutions
BDR	Baseline Design Review
CFCA	C-Funding Confirmation Arrangement
BP	Business Plan
CDR	Critical Design Review
COD	Contract Outcome Data
COTS	Commercial Off The Shelf
DM	Digital Media (as part of the FDP)
ESA	European Space Agency
FAT	Factory Acceptance Test
FDP	Final Data Package
FR	Final Review
FREP	Final Report
HW	Hardware
KPI	Key Performance Indicator
KSF	Key Success Factor
MOM	Minutes of Meetings
MPR	Monthly Progress Report
MR	Management Requirements
MRM	Milestone Review Meeting
NM	Negotiation Meeting
PBC	Project detailed Bar Chart
PBC	Project Bar Chart
PD	Portable Demonstrator
PilUP	Pilot-Demonstration Utilisation Plan
PM	Project Manager
POSR	Pilot-Demonstration Operations Summary Report
PWP	Project Web Page
RD	Requirements Document
S&A	Summary and Achievements
SAT	On-Site Acceptance Test
SSA	System and Service Architecture
SVD	System Verification Document
SW	Software