

D13.1

Project quality plan

Project number	830892
Project acronym	SPARTA
Project title	Strategic programs for advanced research and technology in Europe
Start date of the project	1 st February, 2019
Duration	36 months
Programme	H2020-SU-ICT-2018-2020

Deliverable type	Report
Deliverable reference number	SU-ICT-03-830892 / D13.1 / V1.1
Work package contributing to the deliverable	WP13
Due date	April 2019 – M03
Actual submission date	2 nd June, 2020

Responsible organisation	TNK
Editor	Patrick Leczek
Dissemination level	PU
Revision	V1.1

Abstract	The project quality plan (the project handbook) constitutes a set of project templates, explanations on the project management process, the review process, quality checks and meeting organisation, which is communicated to all partners
Keywords	Quality planning, quality assurance, quality control



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Executive Summary

This Project Quality Plan shows how quality aspects are taken into account in a variety of processes and activities within the SPARTA project. The interrelated quality processes – planning, assurance and control – have impact on the project work from its start to its end.

- Quality planning refers to quality policies like meeting, deliverable or publication policies, the
 definition of responsibilities as well as the creation of a project visual identity including a
 project logo, project-like designed templates etc. In order to communicate adequately within
 the project as well as with/to project-external persons, several tools, such as project policies
 including meetings, deliverables and the publication process of scientific papers, are
 established and explained in this document.
- Quality assurance involves the establishment of Interim Management Reports (IMR), clear definition of responsibilities and regular, clearly guided telephone conferences. A welldefined internal review process further supports the quality assurance of deliverables.
- Quality control focuses on feedback through internal processes (internal review process) and external advices (Advisory Board). It further monitors how feedback is implemented and assures the project outcomes through proactive risk management.

The plan is effective throughout the lifetime of the project, but is open to revision when necessary. Responsibilities for quality planning, assurance and control are shared between all partners, which allow various views on quality issues in order to reach the optimal outcome.



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Chapter 1 Introduction

The project quality plan is an essential part of the SPARTA project management. Its purpose is to describe how quality will be managed throughout the project-lifecycle. Quality always has to be planned in a project in order to prevent unnecessary rework, as well as waste of cost and time. Quality should also be considered from both, an outcome and process perspective. The processes and activities that produce deliverables need to fulfil certain quality levels in order to reach the expected high-quality outcome. To address all quality requirements and quality assurance mechanisms in the SPARTA project, an internal document called the 'Project Quality Plan' has been developed by the project team. This plan acts as the quality go-to resource for the project and all partners will adhere to the project quality plan. The quality plan is based on state-of-the-art quality management methodologies (e.g. ISO 21500) combined with the experience of the WP13 Leader Technikon, who successfully implemented it in several other research projects funded under H2020 and FP7 (e.g. ALFA, VESSEDIA, EURO-MILS).

Each project has its own characteristics in terms of partners, WPs etc. and therefore requires a tailor-made quality plan, clear definitions of responsibilities and contact persons. These elements, as well as guidelines on to how to get on board of the SPARTA project are described within Chapter 2. The overall **Quality Management Strategy** of SPARTA is addressed in Chapter 3. It is divided into three key activities:

Quality Planning

Quality planning comprises quality policies and procedures relevant to the project for both project deliverables and project processes. It defines who is responsible for what and which documents compliance with the European Commission guidelines. A project visual identity represents the project internally, in partners' organisations as well as externally. In order to communicate adequately within the project as well as to project external persons, several tools are established and introduced in this chapter. Clearly defined project policies in terms of policies for deliverable naming, meetings, scientific publications or the procedure of internal deliverable review, etc. give safety to the project partners, as they have clear guidance how to deal with upcoming issues.

Quality Assurance

Quality assurance creates and monitors project processes, which need to be performed effectively to reach the targeted outcome. "Assurance" intends to prevent mistakes and defects and to guarantee the high quality of the processes. This involves the establishment of Interim Management Reports, clear definition of responsibilities as well as regular and clearly guided telephone conferences (telcos) but also face-2-face meetings. These activities within SPARTA are summarized in Section 3.2.

Quality Control

Quality control will be actively performed by all partners, e.g. by acting as an internal reviewer of deliverables. A clear internal review process has been defined before deliverable submission to provide feedback to the editor. A proactive risk management process has already been mentioned within the DoA. The risk management has been established as planned in order to guarantee the project quality and avoid delays or failures. Feedback on the project progress and outcomes by the Advisory Board will support the quality control activities and guide the project into the right direction. This is described in Section 3.3.

The specific SPARTA quality requirements regarding meetings, deliverables and Interim Management Reports are outlined in Chapter 4.

The goal of the following chapters is to give an overall explanation and more operational guidelines of how the targeted high-quality can be assured.



Chapter 2 Getting on Board

This chapter introduces the project characteristics in order to allow new members to get easier on board and find the most important information at a glance. Therefore, this chapter will introduce shortly the main elements of the SPARTA project in terms of participants, WPs and responsibilities.

2.1 Project Structure

SPARTA is a research and innovation project with fourteen Work Packages (WPs) and 44 partners, coordinated by CEA and supported by TNK. The complete list of beneficiary partners is as follows:

	-										
1)	CEA	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES									
2)	JR	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH									
3)	TNK	TECHNIKON FORSCHUNGS- UND PLANUNGSGESELLSCHAFT MBH									
4)	CETIC	CENTRE D'EXCELLENCE EN TECHNOLOGIES DE L'INFORMATION ET DE LA COMMUNICATION									
5)	UNamur	UNIVERSITE DE NAMUR ASBL									
6)	CESNET	CESNET ZAJMOVE SDRUZENI PRAVNICKYCH OSOB									
7)	BUT	VYSOKE UCENI TECHNICKE V BRNE									
8)	NIC	CZ.NIC, ZSPO									
9)	FTS	FORTISS GMBH									
10)	FHG	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.									
11)	SAP	SAP SE									
12)	TUM	TECHNISCHE UNIVERSITAET MUENCHEN									
13)	UBO	RHEINISCHE FRIEDRICH-WILHELMS-UNIVERSITAT BONN									
14)	UKON	UNIVERSITAT KONSTANZ									
15)	UTARTU	TARTU ULIKOOL									
16)	KEMEA	KENTRO MELETON ASFALEIAS									
17)	NCSR	NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"									
18)	EUT	FUNDACIO EURECAT									
19)	IND	INDRA SISTEMAS SA									
20)	TEC	FUNDACION TECNALIA RESEARCH & INNOVATION									
21)	VICOM	FUNDACION CENTRO DE TECNOLOGIAS DE INTERACCION VISUAL Y COMUNICACIONES VICO									
22)	ANSSI	SECRETARIAT GENERAL DE LA DEFENSE ET DE LA SECURITE NATIONALE									
23)	IMT	INSTITUT MINES-TELECOM									
24)	INRIA	INSTITUT NATIONAL DE RECHERCHE ENINFORMATIQUE ET									

AUTOMATIQUE



25) TCS	THALES COMMUNICATIONS & SECURITY SAS								
26) YWH	Yes We Hack								
27) CINI	CONSORZIO INTERUNIVERSITARIO NAZIONALE PER L'INFORMATICA								
28) CNIT	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI								
29) CNR	CONSIGLIO NAZIONALE DELLE RICERCHE								
30) ISCOM	ISTITUTO SUPERIORE DELLE COMUNICAZIONI E DELLE TECNOLOGIE DELL'INFORMAZIONE								
31) LEO	LEONARDO - SOCIETA PER AZIONI								
32) KTU	KAUNO TECHNOLOGIJOS UNIVERSITETAS								
33) L3CE	LIETUVOS KIBERNETINIU NUSIKALTIMU KOMPETENCIJU IR TYRIMU CENTRAS								
34) LKA	The General Jonas Zemaitis Military Academy of Lithuania								
35) MRU	MYKOLO ROMERIO UNIVERSITETAS								
36) LIST	LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY								
37) SMILE	security made in Lëtzebuerg (SMILE) g.i.e.								
38) UNILU	UNIVERSITE DU LUXEMBOURG								
39) LMT	Latvijas Mobilais Telefons								
40) ITTI	ITTI SP ZOO								
41) NASK	NAUKOWA I AKADEMICKA SIEC KOMPUTEROWA - PANSTWOWY INSTYTUT BADAWCZY								
42) PPBW	STOWARZYSZENIE POLSKA PLATFORMA BEZPIECZENSTWA WEWNETRZNEGO								
43) INOV	INOV INESC INOVACAO - INSTITUTO DE NOVAS TECNOLOGIAS								
44) IST	INSTITUTO SUPERIOR TECNICO								

The interaction, responsibilities and decision-making power is clearly split between the established project bodies as shown in Figure 1. The governing culture of the SPARTA project is based on democracy, co-determination and clear leadership.

The defined SPARTA project bodies, the decision-making process as well as the responsibilities were bindingly described in the Consortium Agreement and in the Grant Agreement.



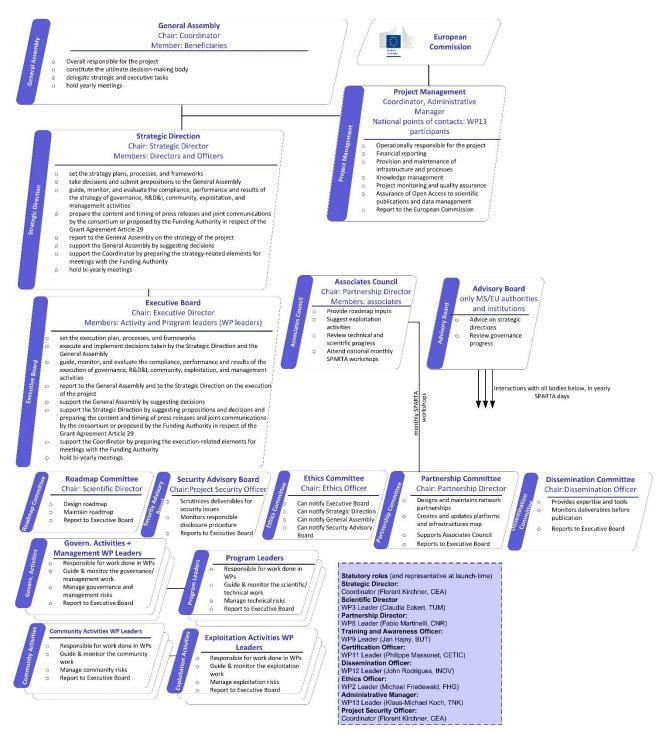


Figure 1: SPARTA Management structure

The **General Assembly** (GA) is the assembly of all partners. It was established within the proposal and therefore included into the Consortium Agreement (see CA 6.3.1):

"The General Assembly is the ultimate decision-making body of the Consortium to which both the Executive Board and the Strategic Direction shall report and be accountable. In addition to the rules described in"



The following representatives have been defined to present their organization within the SPARTA General Assembly:

• **CEA** Florent Kirchner

• JR Christian Derler

TNK Klaus-Michael Koch

CETIC Philippe Massonet

UNamur Jean-March Van Gyseghem

• **CESNET** Martin Zadnik

• **BUT** Jan Hajný

• NIC Jiří Průša

FTS Vivek Nigam

FHG Michael Friedewald

• SAP Volkmar Lotz

• TUM Claudia Eckert

UBO Michael Meier

UKON Daniel Keim

UTARTU Raimundas Matulevicius

• **KEMEA** Dimitris Kavallieros

NCSR Thanasis Sfetsos

EUT Juan Caubet Fernández

• IND Isabel González Hervás

• **TEC** Ana Ayerbe

VICOM Séan Gaines

ANSSI Geoffroy Hermann

IMT Hervé Debar

INRIA Thomas Jensen

TCS Pascal Bisson

YWH Guillaume Vassault-Houlière

• **CINI** Alessandro Armando

CNIT Nicola Blefari Melazzi

CNR Fabio Martinelli

ISCOM Rita Forsi

• LEO Christina Leone

KTU Algimantas Venckauskas

L3CE Egidija Versinskiene

LKA Jūratė Novagrockienė

MRU Regina Valutyte



 LIST Djamel Khadraoui **SMILE** Pascal Steichen UNILU Paulo Verissimo LMT Armands Meirāns ITTI Michal Choras **NASK** Adam Kozakiewicz **PPBW** Rashel Talukder INOV Elisabete Carreira IST Carlos Ribeiro

The **Strategic Direction** (SD) is the supervisory body consisting of the coordinator and other members selected by the Coordinator among the WP Leaders of the Project. A Coordinator representative chairs the Strategic Direction. It was established within the proposal and therefore included into the Consortium Agreement (see CA 6.3.3):

The following representatives have been defined for the SPARTA Strategic Direction:

WP1: CEA Florent Kirchner Michael Friedewald WP2: FHG TUM **WP3**: Claudia Eckert WP4: L3CE Egidija Versinskiene WP8: CNR Fabio Martinelli **BUT** WP9: Jan Hajný WP11: **CETIC** Philippe Massonet

INOV

WP12:

The **Executive Board** (EB) is the assembly of all work package leaders and is chaired by a coordinator representative, Thibaud Antignac from CEA. It was established within the proposal and therefore included into the Consortium Agreement (see CA 6.3.2):

"The Executive Board is the supervisory body for the execution of the Project which shall report to both the Strategic Direction and the General Assembly and be accountable to the General Assembly. In addition to the rules described."

The following representatives have been defined for the SPARTA Executive Board:

John Rodrigues

WP1: CEA Thibaud Antignac WP2: **FHG** Michael Friedewald WP3: TUM Claudia Eckert WP4: L3CE Egidija Versinskiene WP5: IMT Hervé Debar WP6: CINI Alessandro Armando

[&]quot;The Strategic Direction is the supervisory body for the strategy of the Project and a decision-making body of the Consortium which shall report and be accountable to the General Assembly. In addition to the rules described in"



Michal Choras WP7: ITTI WP8: **CNR** Fabio Martinelli WP9: **BUT** Jan Hajný WP10: **SMILE** Pascal Steichen WP11: **CETIC** Philippe Massonet WP12: INOV Nelson Escravana

WP13: TNK Patrick LeczekWP14: CEA Thibaud Antignac

2.2 Steps towards Participation

1) Initial registration

New participants in the project need to contact the coordinator (CEA) and the administrative support (TNK) (<u>bodies.coordination@internal.sparta.eu</u>) in order to receive access, among other things, to the SPARTA Subversion server (SVN).

2) Contact details and mailing list

All contact details will be added to the SPARTA contact list and the new participant to relevant mailing lists upon subscription requests, as these are central tools for all project internal communication.

Further details are described in Deliverable D12.2 – "Internal and external IT communication infrastructure and project website".

3) Project handbook

New participants will receive the handbook as short introduction to get familiar with:

- the SPARTA infrastructure (SVN, public website, mailing lists, conference call tools, etc.),
- the *project structure* (partners, hierarchy of bodies, most important documents at a glance) see Section 2.1,
- the project procedures (decisions, meetings, deliverables, publications) and
- the *project templates* (the internal handbook includes links to the templates on SVN).

The project handbook is designed in a way to be easily consulted and it provides quick answers in the project area. It is available as a PDF file on the SVN and should be a living document. This implies that it will be updated regularly to record and list the lessons learned in order to improve the quality of the project. The partners will be involved in the revision process and informed about handbook modifications. In general, TNK will be the main responsible partner for updating the project handbook. Given the specific nature of SPARTA, which is a project aiming at establishing a governance model, the content of the Project Handbook will change regularly as processes evolve. Modifications and updates will be performed whenever necessary, e.g. if there are changes to the mailing lists or if the project structure or the bodies composition changes. In any case, partners are always invited to propose updates when required.

4) Security incident process

In case a participant detects any potential security issues, he or she is invited to send an email to security@sparta.eu (project-internal and -external email address for security matters). The Security Advisory Board, the Project Security Officer, the coordination, and the administrative support are recipient of this address to ensure a quick reaction and investigation.



5) Introduction to partners and start

Once being familiar with the project policies and the IT tools, newcomers will find the most relevant documents like the Description of Action (DoA), Grant Agreement (GA) and Consortium Agreement (CA) on the SPARTA working directory - the SVN.



Chapter 3 Quality Management Strategy

Quality is the degree to which the project results fulfil the project's requirements. In order to fulfil and exceed the project requirements, a Quality Management Strategy has been defined within the SPARTA project through three key processes, namely Quality Planning, Quality Assurance and Quality Control. These three processes are connected and interact in order to guarantee efficient and high-quality work.

3.1 Quality Planning

Quality management planning determines quality policies and procedures relevant to the project for both project deliverables and project processes, defines who is responsible for what, and documents compliance with certain guidelines.

3.1.1 Visual Identity

The creation of a corporate visual identity plays a significant role in the way the SPARTA project presents itself to both internal and external stakeholders. A corporate visual identity expresses the values and ambitions of our project and its characteristics. In addition, it provides the project with visibility and distinctiveness. Our corporate visual identity is of great importance for people being aware of the project and remember its name and core objectives at the right time. The following subchapters present the actions, which were taken in order to create a visual identity of the project

3.1.2 Project Policies

The internal project guidelines, or so-called project policies, were established to organize internal and external processes in terms of meetings, deliverables and publications, to ensure quality.

3.1.2.1 Meetings

Usually we try to execute the project meetings at partner's premises and, if not possible, the host can also arrange/ask for offers for conference rooms in venues such as hotels. As the consortium consist of 44 Partners, nearly all face-to-face (f2f) meetings will be held in smaller groups. When possible, it is recommended to co-locate meetings with SPARTA or other events involving the community.

In general, the face-to-face meetings can be divided into the following three types of meetings:

- SPARTA Days: every 6 months, open to the public
- SPARTA Associates Workshops: every month, open to the Associates
- SPARTA Meetings: as needed, open to the consortium only

The following checklist might be helpful for hosting upcoming meetings/ workshops:

Meeting Room(s):

On the first day we would need one big room for approx. 20-30 people (if every partner who
needs to participate shows up with 2 persons; a participant list will be created which provides
further details on the number of participants).



- For the second day parallel sessions might be suitable. To plan such sessions, one-two rooms (for approx. 10-15 persons each) would be required. (It will be discussed in advanced how many break-out sessions will be necessary for the dedicated meeting.)
- Are there any costs for the conference room/ day/ person? (coffee break, lunch, social event?)
- Are there any other expenses expected?

Infrastructure/Equipment:

- Free WLAN at conference
- Internet connection
- Projector in each room
- Flip charts and pens
- Power plugs for all participants
- Optional: Microphone/Speaker for large rooms
- Optional: Telco mode for remote attendants

According to our Consortium Agreement (CA), the chairperson of a Consortium Body shall give written notice of a meeting to each member of that Consortium Body as soon as possible and no later than the minimum number of days stated in the CA (e.g. 45 calendar days for an ordinary General Assembly meeting and 20 calendar days for an ordinary Executive Board meeting. The chairperson also shall prepare and send the agenda to the members well in advance (details about the days are listed in the CA 6.2.3.3).

The chairperson, or a delegate, of the meeting and/or telephone conference is also responsible that meeting minutes are produced and circulated to the members. These meeting minutes shall be considered as accepted if, within 20 calendar days from receipt, no member has sent an objection to the chairperson. Afterwards the accepted minutes shall be sent to all members (they are stored on SVN).

3.1.2.2 Deliverables

Deliverables must be put into the "Deliverables/Dxx.x" folder of the corresponding WP on SVN. Please use the following **file naming:**

• SPARTA-[Dxx.x]-[ORG-short-name]-[Type-of-deliverable]-[Dissemination-level]-[Due-Month]-[State].[Extension]

Type of deliverables

- "R" (Document, report)
- "DEM" (Demonstrator, pilot, prototype)

Deliverables marked with type "DEM" will be accompanied by a small written report outlining its structure and purpose in order to justify the achievement of the deliverable.

• "DEC" (Websites, patent filings, videos, etc.)

Deliverables marked with type "DEC" will be accompanied by a small written report outlining its structure and purpose in order to justify the achievement of the deliverable.

"OTHER" (Other)

Deliverables marked with type "OTHER" will be accompanied by a small written report outlining its structure and purpose in order to justify the achievement of the deliverable.



"ORDP" (Open Research Data Pilot)

Deliverables marked with type "ORDP" consists in the Data Management Plan and its accompanying guidelines.

"ETHICS" (Other)

Deliverables marked with type "ETHICS" are specific deliverables required by the European Commission to ensure processes and materials related to the project satisfy ethical expectations.

Dissemination level

- "PU" (Public): for deliverables which will be publicly disclosed.
- "CO" (Confidential): for deliverables which will be disclosed only to the consortium and the European Commission.

As deliverables are the most important outcome of the project, excellent quality needs to be ensured. Therefore, an internal review process has been defined, which is described in detail in Section 3.3.2. Additionally, a more detailed description concerning document management and the projects' collaborative tools can be found in Deliverable D12.2 "Internal and external IT communication infrastructure and project website".

3.1.2.3 Policy for publication of Results

Prior notice of any planned publication, including complete draft of the publication shall be submitted to the Dissemination Committee at least 30 days before the publication in accordance with the CA (8.4.2). Any objection to the planned publication shall be made in accordance with the GA in writing to the coordinator and to the Party or Parties proposing the dissemination within 14 calendar days after receipt of the notice. If no objection is made within the time limit stated, the publication is permitted. (CA 8.4.2)

The beneficiaries may agree in writing on different time limits to those set above, which may include a deadline for determining the appropriate steps to be taken.

Furthermore, the paper/article, or the link to it will be published on our **official SPARTA project website**. Please inform the coordinator (CEA) and the administrative support (TNK) (at bodies.coordination@internal.sparta.eu) as soon as a link or document in pdf format is available. The European Commission will then be informed about the publication via our website and also via Social Media.

In addition, in order to comply with GA Article 29.2, to provide open access to scientific publications, these papers will be uploaded partners' repositories.

All publications or any other dissemination relating to foreground that was generated with the assistance of financial support from the Union shall display the EU emblem and include the following statement (GA 29.4):

"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 830892."

In any event, the chair of the Ethics Committee, on its own initiative, or having being contacted by a Party or an appropriate Consortium Body, may object a publication, should it consider including any information which may affect the public's interest, inclusing security-related issues in relation with the Security Advisory Board.

As prior notice needs to be given 30 days before the submission, all partners have sufficient time to review the planned publication. This additional review process further contributes to high quality publications.



3.2 Quality Assurance

The focus of quality assurance is on the creation and monitoring of processes. Quality assurance creates and monitors project processes, which need to be performed effectively to reach the targeted outcome. This involves the establishment of Interim Management Reports, clear responsibilities and regular, clearly guided telephone conferences and face-to-face meetings.

3.2.1 Interim Management Reports (IMR)

The basic idea of internal "Interim Management Reports" is to implement a tool, which forces each partner to provide information regarding their ongoing and planned work as well as information on the resources spent. The IMR is planned as a short report on a quarterly basis. It is an efficient tool to provide the coordinator a good understanding of the status and progress of the work and to detect any possible delays or deviations well in advance. Furthermore, the cumulative report serves as a helpful basis for the creation of the periodic reports due to the European Commission. The following sections explain the structure and the section targets of the IMR. While Chapter 1 of the IMR gives a short introduction to the partners, Chapter 2 "Explanation of the work carried out by the beneficiaries and overview of the progress including deviations" asks for partner information regarding the work performed within the respective quarter. This helps the coordinator to monitor partner activities and the progress made within the last quarter. It further asks the WP leader explicitly for the achievements and results per WP, in order to have a clear view on the results and how they will impact the ongoing work. This information will also be used in top of traditional meetings to detect communication opportunities.

It is also of high importance to add a section which gives the partners the opportunity to describe deviations and corrections. This section gives ideas of issues partners have to cope with and that may be related to other deeper problems. This will be at the core of the risk management process followed for the project coordination and management.

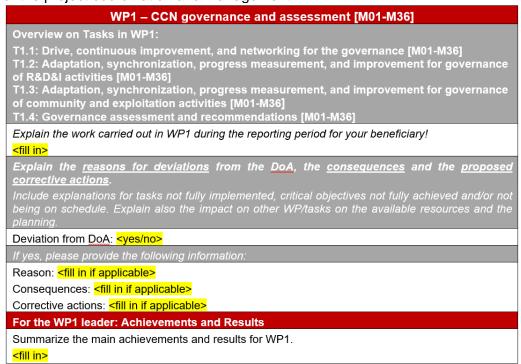


Figure 2: Extract of IMR Chapter 2 "Explanation of the work carried out by the beneficiaries and overview of the progress including deviations"

The IMR gives the coordinator and all partners the position to share information about ongoing work of the overall project, to be up to date and always able to provide an informed answer. The third chapter of the IMR focuses on the use of efforts. A dedicated table where partners fill in rough



estimates of their efforts each quarter provides a good comparison of "plan" vs. "is" person months. The IMR is also used as a tool to help the coordinator and the administrative manager to control the risk of rejection of costs during the financial reporting: it provides a basis on which the partners may be advised on the eligibility of costs and activities¹.

	Total	Actual Expenditure											
WP	Planned (according to DoA)	M01- M03	M04- M06	M07- M09	M10- M12	M13- M15	M16- M18	Total (M01- M18)	Total in %	Remaining resources			
WP1	0,00	<fill in=""></fill>	0.00	0%	0.00								
WP2	0,00	<fill in=""></fill>	0.00	0%	0.00								
WP3	0,00	<fill in=""></fill>	0.00	0%	0.00								
WP4	0,00	<fill in=""></fill>	0,00	0%	0.00								
WP5	0,00	<fill in=""></fill>	0,00	0%	0.00								
WP6	0,00	<fill in=""></fill>	0,00	0%	0.00								
WP7	0,00	<fill in=""></fill>	0,00	0%	0.00								
WP8	0,00	<fill in=""></fill>	0,00	0%	0.00								
WP9	0,00	<fill in=""></fill>	0.00	0%	0.00								
WP10	0,00	<fill in=""></fill>	0.00	0%	0.00								
WP11	0,00	<fill in=""></fill>	0.00	0%	0.00								
WP12	0,00	<fill in=""></fill>	0.00	0%	0.00								
WP13	0,00	<fill in=""></fill>	0.00	0%	0.00								
Total	0.00	0	0	0	0	0	0	0.00	0%	0.00			

Figure 3: Extract of IMR Chapter 3 "Effort Overview"

This well-thought-out IMR concept will support the quality assurance within the SPARTA project in order to cope with potential risks, leap chances, and monitor the projects process towards objectives.

¹ Legal note: please note these advices are not committing advices: each partner is eventually responsible to ensure it satisfies the eligibility conditions stated by the Funding Authority.



3.2.2 Responsibilities & Internal Review

Transparency of roles and responsibilities has a big impact on the project success. Uncertainty can dramatically affect individual, organisational as well as the consortium performance. Therefore, as already mentioned in Chapter 2 responsible persons for each organisation and per WP were defined. In a further step, responsibilities for deliverables are defined. The table below shows an excerpt of the deliverables and milestones of the project and their main benchmarks. While organisations leading deliverables were already defined within the DoA, the concrete editor (ie., a person from the organisation) responsible for requesting and guiding partner inputs towards a punctual and high-quality submission, is named two months before the submission deadline. Following the principle of clear leadership, only one person can be editor for each deliverable. In line with the internal review process (described in Section 3.3.2), two specific internal reviewers will be defined for each deliverable and clear deadlines for first draft version, the review feedback as well as for the submission are established.

ACR	Level	Туре	SPARTA - Deliverables and Milestones	WHO	Editor name	WP	Del. Month	Review Start	Deadline	upcoming DEADLINES	Name of Reviewer 1	Name of Reviewer 2	Delivered to EC insert date	State	Comments / Requests, etc.	Accepted by EC
D14.2	CO	Ethics	H - Requirement No. 2	CEA	Thibaud Antignac	WP14	M01	07/02/2019	28/02/2019	Submitted	None	None	01/03/2019	submitted		
D14.3	co	Ethics	POPD - Requirement No. 3	CEA	Thibaud Antignac	WP14	M01	07/02/2019	28/02/2019	Submitted	None	None	01/03/2019	submitted		
MS1		MS	Successful SPARTA project start	CEA	Thibaud Antignac	WP1- WP14	M01	07/02/2019	28/02/2019	Submitted	,	ı	08/03/2019	submitted	- Successful lick-off meeting (1st General Assembly Meeting): kick-off meeting on filt and 19th of February 2019 with all partners (no formal General Assembly as no vote was required); - All legal requirements ready: GA is signed by EC and CEA, accession forms are being signed, final version of CA is ready and has been sent to partners for signature; - internal communication infrastructure set-up: mailing lists and SVN operational, Mattermost set-up and under deployment.	
D12.1	PU	R	Dissemination and communication plan, updates and evaluation	INOV	Elisabete Carreira (INOV)	WP12	M03	09/04/2019	30/04/2019	Deadline this month	Michael Friedewald (FHG)	Diane Bahrami (CEA)				
D12.2	PU	DEC	Internal and external IT communication infrastructure and project website	TNK	Patrick Leczek (TNK)	WP12	M03	09/04/2019	30/04/2019	Deadline this month	Hervé Debar (IMT)	Florent Kirchner (CEA)				
D13.1	PU	R	Project quality plan	TNK	Patrick Leczek (TNK)	WP13	M03	09/04/2019	30/04/2019	Deadline this month	Juan Arraiza Irujo (VICOM)	Thibaud Antignac (CEA)				
D13.2	со	R	Innovation management plan	VICOM	Borja Anza Porras (VICOM)	WP13	M03	09/04/2019	30/04/2019	Deadline this month	Fabio Cocurullo or Claudio Porretti (LEO)	Christophe Slim (CEA)				

Table 1: Deliverable and Milestones Overview



3.2.3 Telephone Conferences & Meetings

Communication is definitely one of the most essential foundations of successful project collaborations. Therefore, the SPARTA consortium established regular telcos and video-telcos (e.g. monthly Executive Board telcos requesting WP status reports and checking the project progress and several WP-internal/ cross-WP meetings and telcos). Currently, TNK provides their telco system for regular Executive Board telcos and the WP Leaders are responsible to define a system for their WP-internal telcos. The virtual meetings are planned in parallel to the face-to-face meetings. The face-to-face meetings are needed because of the complexity and large number of interfaces to be developed within this project.

To ensure the project success, it is necessary to implement an efficient meeting structure. At the beginning of the SPARTA project, the Kick-off meeting took place on 18th and 19th of February 2019 in Paris-Saclay, France. The different expectations and schedules were discussed in order to make a definitive plan about the further work plan and required actions.

We plan two Executive Board and two Strategic Direction meetings per year which will be combined with the General Assembly meetings once a year (planned venue is at a partner's premises). In addition, there will be some WP-internal/cross-WP face-to-face meetings on request, but based on the partners' experience, there will be more remote conferences than physical meetings. Each beneficiary is responsible for appropriately managing its travel and other costs in order to ensure a continuity in its representation to the different kinds of relevant meetings throughout the project.

At the end of each period of the SPARTA project, there will be a Review Preparation meeting one day before the official Review meeting takes place (planned venue: EC premises in Brussels, or if applicable: partner's premises). At the end of the SPARTA project, there will be a Project finalisation meeting. Further it is planned to participate in several workshops and conferences.

3.3 Quality Control

The focus of quality control is on feedback and deviation management in the project. Quality control ensures that feedback: it is taken into account from internal as well as from external advisors and therefore positively influences the work towards the project objectives. Risk Management is an integral element of quality control as the proactive notice of deviations from the DoA allows the consortium to control the consequences or even transform those consequences into opportunities.

3.3.1 Advisory Board

The consortium will be supported and advised by an external Advisory Board (AB), consisting of selected European organisations. Their valuable feedback to the technical process of the project brings many benefits for the SPARTA project. The AB members will provide an external unprejudiced view advising on strategic directions of the project in terms of detailed technical goals and impact, comment on economic feasibility and achieved or missed targets. To attain high quality results within the SPARTA project, a strong cooperation with the AB members will actively be pursued and facilitated by frequent interaction in the form of face-to-face meetings, conference calls and feedback rounds.

Through the integration of an AB, interim feedback of large importance regarding the overall orientation of the project outcome is expected. This supports the path towards objectives and controls the quality of the project work as well as the quality of expected outcomes.

The coordinator is the chair of the AB and is in charge of preparing the implementation of the AB's suggestions. If confidential information is to be provided to the AB members, the coordinator will ensure that a non-disclosure agreement (NDA) is executed between the consortium and each AB member.



3.3.2 Internal Review Process

To ensure submitted deliverables of high quality, an internal review process has been defined. The main goal of this process is to establish internal feedback by partners who did not directly participate as editor or contributors to the deliverable before submitting it to the European Commission. Ideally, the internal reviewers are selected amongst partners not contributing to the WP. The reviewers should be assigned at least two months before the submission deadline. As a pre-step of the review process, the editor has to share the Table of Content (ToC) with the reviewers and the management team at least one and a half before submission deadline, so they are able to check if something important is missing in the ToC. The review feedback should primarily focus on the content of the deliverable (soundness, readability, proper coverage of what the deliverable is supposed to report on) and additionally report on typos, formatting, and overall appearance.

The review process is shown and explained below. Please note the exact dates may be adapted for some deliverables depending on their characteristics (size or importance for instance) and/or timing (holidays for instance); such modifications will be announced well ahead of time to the relevant partners.

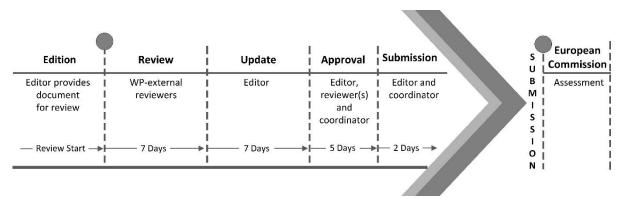


Figure 4: Internal Review Process

Below are described the steps of the internal review process. Each step has a driver which is responsible for enabling a smooth step execution, for detecting any issue susceptible to cause delay or quality issue in the deliverable production and/or delivery, for propagating the information about these issues to the impacted participants to the process, for ensuring the step ends timely, and which is the main contact point of the parties involved at this step.

At the end of an Internal Review Process, all the files are kept in the SVN for traceability purpose. An example of result is:

- WP13-Project-management
 - o Deliverables
 - D13.1
 - SPARTA-D13.1-ReviewForm-ORG.docx
 - SPARTA-D13.1-TNK-R-PU-M03-Draft.docx
 - SPARTA-D13.1-TNK-R-PU-M03-Final.docx
 - SPARTA-D13.1-TNK-R-PU-M03-Final.pdf
 - SPARTA-D13.1-TNK-R-PU-M03-Updated.docx
 - Reviews
 - SPARTA-D13.1-Review-CEA.docx
 - SPARTA-D13.1-Review-VICOM.docx
 - o SPARTA-D13.1-ReviewForm-CEA.docx
 - SPARTA-D13.1-ReviewForm-VICOM.docx



3.3.2.1 Steps driven by WP leaders

Step 0 "Edition":

- 1. The editor and the contributors produce the High-Quality Deliverable draft and activates the "Track changes" mode before saving to ensure the comments which will be made by the reviewers are noticeable.
- **2.** The editor puts it on the SVN in the "Deliverables/Dxx.x" directory of the relevant WP folder named as <u>SPARTA-[Dxx.x]-[ORG-short-name]-[Type-of-deliverable]-[Dissemination-level]-[Due-Month]-Draft.[Extension].</u>
- **3.** The editor also puts a copy of the review form template available at "00-Contacts-Howtows-Guides-Templates/Templates" named as <u>SPARTA-[Dxx.x]-ReviewForm-ORG.docx</u> which will be used by the reviewers.
- 4. The editor also creates an empty directory "Reviews" which will be used by the reviewers.
- 5. The editor sends an email to the internal reviewers with the WP leader and the coordination in copy to notify them that the deliverable is ready for review.

Step 1 "Review" - 7 days:

- 1. The reviewers (each) make a copy of the deliverable in the sub-directory "Reviews", named as <u>SPARTA-[Dxx.x]-Review-[ORG-short-name].[Extension].</u>
- 2. The reviewers (each) read the High-Quality Deliverable and compare the content against its objective as defined in the work plan.
- 3. The reviewers (each) check the "Track changes" mode is activated and give feedback by adding comments and edits in the deliverable draft with mark-up as follows: typos and small changes are directly entered on the text while using "track changes". Comments are entered into the text as MS Word comments.
- 4. The reviewers (each) make a copy of the review form in the sub-directory "Reviews", named as <u>SPARTA-[Dxx.x]-ReviewForm-[ORG-short-name].docx.</u>
- 5. The reviewers (each) fill in the **Internal Review Template**. The internal review form guides the reviewers through specific questions, in order to make sure that the content complies with the quality claims of the EC (e.g. accordance with the DoA, required information, structure, etc.) as well as the project partners. It monitors the structure as well as the compliance with the description in the DoA. This gives feedback to editor of this Deliverable in a clearly structured form and helps the editor to address all comments. Below a screenshot of the internal review form in SPARTA is presented.
- 6. The reviewers (each) send an email to the editor with the WP leader and the coordination in copy to notify them that the deliverable is ready for update.



Review Form for the Internal Reviewer SPARTA deliverable:



* Type of comments: M = Major comment, m = minor comment, a = advice							
Date of Internal Review:	Internal R	Reviewer:					
	Answer	Comments	Type*				
1. Is the deliverable in accordance	e with						
i. the Description of Action? https://sparta.technikon.com/02- Legal-Documents/02-DoA/	Yes No		□ M □ m □ a				
ii. the international State-of-the-Art?	Yes No		☐ M ☐ m ☐ a				
2. Is the quality of the deliverable	e such						
i. that it can be sent to the EC?	Yes No		M m a				
ii. that it needs further editing?	Yes No	_	М m а				
iii. that the content needs to be improved?	Yes No		□ м □ m □ a				
3. Does the Deliverable include							
i. a clear structure (e.g. appropriate, understandable presentation of the work performed)	Yes No		M m a				
ii. a sufficient and meaningful executive summary	Yes No		М m а				
iii. an appropriate introduction	Yes No		М m а				
iv. a meaningful summary & conclusion	Yes No		М m а				

Figure 5: Internal Review Form

Step 2 "Update" – 7 days:

The editor makes the necessary changes and updates. For the updates, it is important
that in general, comments are not directly removed. Instead, there must be first a
discussion between the involved authors to update the deliverable according to the
received comments. Secondly, the editor either adds text to comment how they were
addressed or adds additional comments on its own.



- 2. The editor puts the results of this step in a file named as named as <u>SPARTA-[Dxx.x]-[ORG-short-name]-[Type-of-deliverable][Dissemination-level]-[Due-Month]-</u> *Updated.[Extension].*
- 3. The editor sends an email to the internal reviewers and the coordination and with the WP leader in copy to notify them that the deliverable is ready for approval.

3.3.2.2 Steps driven by the Coordinator

Step 3 "Approval" - 5 days:

- 1. The reviewers (each) check their comments have been addressed and, if required, update their review form and confirm to the coordination, with the editor and the WP leader in copy, that the deliverable is ready for final check and release.
- 2. The coordinator checks the deliverable and may propose comments and changes or confirms that the deliverable is ready for final check and release.

Step 4 "Submission" - 2 days:

- 1. The editor makes the last fixes, performs a final check, and puts them in a file named as <u>SPARTA-[Dxx.x]-[ORG-short-name]-[Type-of-deliverable]-[Dissemination-level]-[Due-Month]-final.[Extension].</u>
- 2. The editor sends an email to the coordination with the internal reviewers and the WP leader in copy to notify them that the deliverable is final.
- 3. The administrative support performs a final check (formatting updates, consistency check, check of front page, etc.) and create the final pdf named as <u>SPARTA-[Dxx.x]-[ORG-short-name]-[Type-of-deliverable]-[Due-Month]-Final.pdf.</u>
- 4. The Coordinator finally submits the final document to the EC.

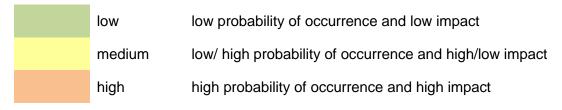
3.3.3 Risk Management

To guarantee the achievement of the objectives of the SPARTA project, it is essential to identify and understand the significant project risks.

The continuous risk management process is based on the early identification of, and the fast reaction to, events that can negatively affect the outcome of the project. The frequent meetings of the project bodies therefore serve as the main forum for risk identification. The identified risks are then analysed and graded, based on impact and probability of occurrence.

Technical and organisational risks were analysed and graded, based on their probability of occurrence in order to answer the governing question: "How likely and how critical is the risk?" Knowing how a risk impacts the project is important as several risks of the same type can be an indication of a larger problem.

The risks defined in the DoA, will be graded into low/medium/high risk levels.



The risks will be monitored on a regular basis and an updated risk table will be provided within the periodic reports. Further, a detailed classification and evaluation will be provided within D13.3 "*Risk Assessment Plan*" in M12. The Risk Assessment Plan will show how potential risks are assessed and mitigated in order to avoid any negative influence on the SPARTA project objectives.



In addition to the above-mentioned tools and procedures, the project partners' and the project management team's profound experience with H2020 projects implicates a high level of competence, expert knowledge, skills and qualifications, which further increases the quality of the project work. Furthermore, besides these hard skills, also soft skills, such as motivation, team spirit, and interpersonal interaction contribute to high quality project performance.



Chapter 4 SPARTA Quality Requirements

The following subchapters describe specific requirements that must be taken into account every time one of the processes described in Chapter 3 is carried out. The fulfilment of these requirements is essential to achieve the expected quality throughout the project duration. As described in Chapter 3 the responsibilities for quality planning, assurance and control are shared, but clearly defined.

4.1 Meetings and Telephone Conferences

Details about the SPARTA meeting process can be found in Section 3.1.2.1 and 3.2.3

The host of a SPARTA internal meeting has to prepare a 1-2 pager with logistic information about one month before the meeting. This 1-2 pager is checked by the project management team (coordinator CEA and administrative support TNK) and discussed within the EB-call to make sure that the meeting allocation fits the planned meeting and the number of participants. The number of participants can be evaluated by a participant list on SVN, which needs to be filled by all partners at least one and a half months before the meeting. The coordinator together with the meeting host, has to prepare the agenda about one month before the meeting as well. For those people not able to physically attend the meeting, the host is responsible for preparing a possibility to join the meeting remotely.

All these specific requirements are already taken into account when choosing the host of the next meeting. If a partner volunteers to host a meeting, but is not able to fulfil the meeting process described in Section 3.1.2.1, he will not be chosen for hosting it. A similar procedure accounts for public SPARTA meetings.

The Executive Board meetings are held every 6 month (as required by the CA). In addition to the formal EB meetings, monthly EB calls are scheduled.

The coordinator is continuously in touch with the EB members, regularly collects discussion items and prepares the agenda for these conf calls. To ensure the quality of the conf calls, the agenda has to be shared with the EB one week before the conf call. Every third conf call is extended to three hours and each EB member has to prepare slides demonstrating the progress within the project. These extended conf calls are aligned with the quarterly Interim Management Reports, which enable the EB members to use the information provided by all partners and to evaluate and discuss the risk assessment.

The following table provides an overview of the SPARTA quality requirements for meetings.

Nr.	Category	Requirement	Metric(s)				
R1	Meetings and telephone conferences	Notice of upcoming meetings sent on time	Less than 10% non-conformities				
R2	Meetings and telephone conferences	Meeting agenda sent on time	Less than 10% non-conformities				
R3	Meetings and telephone conferences	Review of actions from previous meetings during the meeting itself	Done in all meetings				
R4	Meetings and telephone conferences	All points from the Agenda are addressed during the meeting itself	Less than 5% non-conformities				



Nr.	Category	Requirement	Metric(s)
R5	Meetings and telephone conferences	Meeting minutes sent on time	Less than 10% non-conformities
R6	Meetings and telephone conferences	Validation of the meeting minutes from the previous meeting/conf call	Done in all meetings/conf calls

Table 2: SPARTA quality requirements for meetings

4.2 Deliverables

Details about the Deliverables and the review process can be found in Section 3.1.2.2 and Section 3.3.2.

The Coordinator gets in touch with the responsible organisation as well as the dedicated reviewers already one and a half months before the submission deadline to check the first draft of the table of content. The reviewers then provide feedback on the table of content and already possible shortcomings on an early stage. The editor is responsible for updating the table of content accordingly.

The editor has to send the deliverable 3-4 weeks before submission to the reviewers as well as the project management team. The reviewers perform a review of the deliverable and make sure that it meets all requirements described in the DoA. This is the minimum quality requirement for SPARTA. Our aim is that the content of deliverables goes even beyond to what is described in the DoA.

The editor is responsible to check the feedback of the reviewers and to update the deliverable accordingly. The final version of the deliverable is then sent to the reviewers and the project management team for final approval. If a deliverable does not fulfil the quality requirements of SPARTA, this process will be repeated until it is at least in line with the DoA. The caused delay has to be explained and justified by the Editor, who - together with the Management team - checks, if the delay affects other deliverables or the project progress in general.

The reviewers have to fill a deliverable review form, which serves as an internal prove that at least the minimum quality requirement - deliverable complies with the DoA - is achieved.

As soon as the reviewers give their okay, the project management team performs a final check and formatting updates, before the coordinator officially submits the deliverable via the participant portal.

If a deliverable is not ready for submission by the official submission deadline, the coordinator will inform the project officer about the delay and mention if this delay has any impact on other deliverables or the project progress in general.

The following table provides an overview of the SPARTA quality requirements for deliverables.

Nr.	Category	Requirement	Metric(s)
R7	Deliverables	Content is line with the DoA or goes even beyond	No deviations
R8	Deliverables	Editor/Reviewer roles assigned on time	Less than 10% non- conformities
R9	Deliverables	TOC sent on time	Less than 10% non- conformities



Nr.	Category	Requirement	Metric(s)
R10	Deliverables	Draft sent on time	Less than 10% non- conformities
R11	Deliverables	Reviews sent on time	Less than 10% non- conformities
R12	Deliverables	Final version sent on time	Less than 10% non- conformities
R13	Deliverables	Approval made on time	Less than 10% non- conformities
R14	Deliverables	Submission made on time	Less than 10% non- conformities

Table 3: SPARTA quality requirements for deliverables

4.3 Interim Management Reports and Risk assessment

Details about the Interim Management Reports and the Risk assessment can be found in Section 3.2.1 and 3.3.3 respectively.

The Interim Management Reports have to be provided by each Partner on a quarterly basis. For this purpose the management support Technikon creates individual templates, which allow all partners to prepare their report without blocking any other partner. The individual reports are then checked by Technikon and if shortcomings (e.g. inconsistencies in the description and effort overview) are identified, the responsible partner is contacted individually and needs to update his report. In the end, Technikon prepares a cumulative report with the inputs from all partners, which is checked by CEA. If shortcomings or inconsistencies are identified, they will be discussed in the next EB conf call and fixed latest within the next Interim Management Report.

The following table provides an overview of the SPARTA quality requirements for IMRs and Risk assessment.

Nr.	Category	Requirement	Metric(s)
R15	IMR	IMR filled on time	Less than 10% non-conformities
R16	IMR	No request for revision required by SPARTA Management	Less than 10% need to be revised
R17	IMR	No inconsistencies identified in the Cumulative Report	Done with all Cumulative Reports
R18	Risk Assessment	Risk assessment filled in on time	Less than 10% non-conformities
R19	Risk Assessment	No request for revision required by SPARTA Management	Less than 10% need to be revised

Table 4: SPARTA quality requirements for IMRs and Risk assessment



Chapter 5 Summary and Conclusion

This Project Quality Plan demonstrates that quality aspects are taken into account in a variety of processes and activities within the SPARTA project. The interrelated quality processes – planning, assurance and control – impact the project work from its start to its end. The project aims at obtaining a high degree of quality, where outcomes are achieved in terms of the effectiveness and efficiency of working practices, as well as products and standards of project deliverables and outputs. This plan seeks to establish the procedures and standards to be employed in the project, and to allocate responsibility for ensuring that these procedures and standards are followed.

The project management team (coordinator CEA and administrative support TNK) monitors that the above-described processes are fulfilled. In case of any deviations to the planned work the management team is in charge of taking necessary mitigation measures. The plan is effective throughout the lifetime of the project, but is open to revision with the governance and process improvements which will happen during the execution. As described in Chapter 3, responsibilities for quality planning, assurance and control are shared, but clearly defined, between all partners, which allow various views on quality issues in order to reach the optimal outcome.

However, being this a public deliverable, not all details about the quality processes and requirements are included.

Technikon prepared a project- and a financial-handbook, including more detailed information, which is available for all project partners on the SPARTA Subversion server.



Chapter 6 List of Abbreviations

Abbreviation	Translation
АВ	Advisory Board
CA	Consortium Agreement
СРА	Critical Path Analysis
DoA	Description of Action (Annex 1 of the Grant Agreement)
ЕВ	Executive Board
EC	European Commission
F2F	Face-to-Face
GA	Grant Agreement
H2020	Horizon 2020
ICT	Information and Communication Technologies
IMR	Interim Management Report
NDA	Non-Disclosure Agreement
PM	Person Month
PR	Periodic Report
RTD	Research and Technical Development
SME	Small and Medium-sized Enterprise
SVN	Subversion server
Telco(s)	Telephone Conference(s)
ТоС	Table of Content
WP	Work Package