



Deliverable Title	D8.2 Quality assurance plan
Deliverable Lead:	Agencia Estatal Consejo Superior de Investigaciones Científicas
Related Work Package:	WP8: Organize dissemination & robotics community outreach activities
Related Task:	T8.1, T8.2, T8.3, T8.5
Author(s):	Pilar Raya
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Instrument:	Coordinate and Support Action
Start Date of Project:	01.01.2018
Duration:	36 months
Abstract	<p>The Quality Assurance (QA) plan reports on the quality measures to be adopted within INBOTS CSA to ensure quality of work and management. They are reported both at general and partner levels, and describe the actions to ensure:</p> <ol style="list-style-type: none"> (1) Quality follow-up in terms of resources, capacity and budget, (2) coherent information exchange, and (3) work according to quality standards.



Versioning and Contribution History

Version	Date	Modified by	Modification reason
v1.0	13/02/2018	Pilar Raya	First version
V2.0	26/02/2018	Pilar Raya	Second version
V3.0	07/03/2018	José L. Pons	General revision and minor modifications in section 2, 7.
V4.0	04/04/2018	Pilar Raya	Comments suggested after the peer review process were considered

List of Abbreviations and Acronyms

Abbreviation/Acronym	Meaning
AB	Advisory Board
CA	Consortium Agreement
DoA	Description of Action
EC	European Commission
GA	Grant Agreement
WP	Work Package
CSA	Coordination and Support Action
WG	Working Group
MST	Management Support Team
PC	Project coordinator

Table of Contents

Versioning and Contribution History	2
Table of Contents	3
Executive summary	4
1. Introduction	5
2. Management Structure – roles and responsibilities	6
3. Monitoring and reporting progress	6
4. Meetings.....	7
5. Conflict resolutions	7
6. Risk Management plan.....	7
7. Document production and review	12
7.1 Formats.....	12
7.1.1.Reports and Deliverables.....	12
7.1.2.Presentations	13
7.1.3.Meeting Minutes and Agenda.....	13
7.2. Review procedure	13
7.3. Repository	14
8. Web page.....	14
8.1. Project logo	14
8.2. Social media	14
Annex I. Deliverable Template	15
Annex II. Presentation Template.....	16
Annex III. Agenda Template.....	17
Annex IV. Minutes Template	18
Annex V. Peer Review Report Template.....	19

Executive summary

The purpose of the Quality Assurance (QA) Plan is to provide a single point of reference on the quality assurance processes that will govern the course of the INBOTS project. This deliverable defines the project organization, procedures, roles and responsibilities related to the quality control and quality assurance activities that will be carried out.

It describes how the project will execute its day-to-day activities from a quality perspective, and ensures that standards, processes, and procedures are defined and their execution is continuously monitored, corrected when necessary and improved. It exposes the proposed risk management approach of the project for managing and controlling all project risks. Moreover, this plan will address the roles and responsibilities of the organization, the risk identification, as well as risk assessment and mitigation plans.

This document is based on the terms and conditions established in the Grant Agreement (GA) and its Annexes, as well as in the Consortium Agreement (CA).

The use of the present guidelines can ensure better collaboration among the consortium partners. This deliverable is to be used by all the project partners in order to ensure quality assurance of project processes and outputs and prevent possible deviations from the project work plan.

1. Introduction

The establishment of a Quality Assurance (QA) Plan is the very first accomplishment of WP8 – Project management. The present document gives a practical guidance to all the partners for checking the progress of the project and assuring the quality of its outputs and results.

This document reports on the procedures to be followed for the management of the resources, documentation production, project dissemination activities amongst others. In particular it describes:

- Project management structures, role and responsibilities of the different project management bodies, the decision-making procedures as well as the communication channels within the consortium.
- Reporting requirements for WP leaders and project partners, procedures for the production of deliverables, reports, and financial statements. These procedures include document naming and version numbering protocols as well as formats to be used for various purposes. Templates, where appropriate, are provided in the Annexes;
- Procedures for the review and distribution of the various types of deliverables, reports, demos, publications and prototypes.
- Overall project monitoring and risk assessment procedures
- Procedure to be followed by all project partners for communication, publication and dissemination activities.
- Rules for the use of the project webpage and social media

2. Management Structure – roles and responsibilities

The management structure aims at safeguarding the effective cooperation among the members of the Consortium and at producing high quality deliverables to the Commission during the various stages of the project life. The overall management structure will endorse links between INBOTS CSA partners and build and strengthen new interactions, especially by enabling and fostering the transfer of complementary expertise between the involved research, industry, end-users and other relevant stakeholders players and countries. Within the INBOTS CSA Consortium, each participant will take an active part in the efficient implementation of the CSA, and will cooperate, perform and fulfil, promptly and on time, all of its obligations as foreseen in the GA.

The Management Structure was addressed in the deliverable D8.1: Project management handbook.

3. Monitoring and reporting progress

The INBOTS consortium believes that one of the crucial factors for success in this kind of collaborative project is to maintain an efficient communication flow between the partners. The INBOTS consortium will use a web-based cooperative workgroup tool as a platform for cooperative work documentation. It will be hosted by CSIC.

Reporting is performed on a two-level scheme:

- Three-monthly: The WP leader submits a brief summary progress report (2-3 pages) to the CSA Coordinator. This includes short information about progress, results obtained (e.g. deliverables) and compliance with the work programme.
- Annually: The work package leaders will submit to the CSA Coordinator a summary progress report showing the technical work carried out during the year. The CSA Coordinator will prepare a consolidated annual progress report for the EC. Also, every 12 months the CSA Coordinator will prepare a consolidated overview of the budgetary situation of the project on the basis of the costs statements from the partners.

The coordinator will submit to the EC technical and financial reports in the following 'reporting periods':

- RP1: from month 1 to month 18
- RP2: from month 19 to month 36

4. Meetings

Kick-off meeting (milestone 1): clearly planning the initial work for each WP.

WP annual meetings will take place on a yearly basis rotating physical location. Partial supplementary meetings can take place upon request from any partner. These annual meetings will serve to debate and discuss the relevant topics, to address ongoing activities and to plan the work for the subsequent period.

WP progress teleconference meetings will be held every two months to monitor and verify the work progress of their respective WP. These meetings will help update project status on a regular basis as well as having the opportunity to discuss technical, operational and administrative issues on a timely fashion.

WPs coordination teleconference meetings: between the leaders of each WP.

INBOTS conferences, where annually the entire consortium will meet to discuss the results achieved during the year and share the knowledge with the community (milestones 3, 4 and 5).

Annual consortium plenary meeting, that will be realized the day after or the day before the conference's closure/starting.

5. Conflict resolutions

The most prominent decisions (e.g. re-allocation of resources) will be made by the Steering Committee by majority vote. The consortium agreement will define the details. Any conflict, which impacts on organisational, technical or administrative issues, is discussed and solved by majority and, if necessary, by the Steering Committee. In case of an important impact to the CSA scope, plan or contractual obligations, the proposal for implementing the change is submitted to the Project Officer and review board for final approval.

6. Risk Management plan

During the implementation of the INBOTS CSA, internal and external risks, as well as any other issues that might affect the project progress, will be identified and monitored in order to carry out mitigation actions as soon as possible. The management process will identify and monitor technical and management risks as well as any other issues that might affect the project progress towards its objectives, in order to carry out mitigation actions as early as possible. Risks can arise from unexpected technical difficulties or scientific findings, poor communication or cooperation between the partners, resource shortage by the partners, objectives not achievable in terms of budget or feasibility, partners leaving the consortium, human operational errors, etc.

Each partner has the responsibility to report immediately to their respective WP leader any risky situation that may arise and may affect the project objectives or their successful completion. Any change in the time schedule of the deliverables or in the allocated budget must be reported to the corresponding WP Leader or to the Project Coordinator. In case of problems or delays, the

Steering Committee will be consulted and it may set up task forces in order to take the necessary actions. In case there is no resolution, the project Management Board will be consulted and will establish mitigation plans to reduce the impact of risk occurring. Responses may include: strengthened supervision, adjustments to project strategy, changes to implementation arrangements and changes in budget allocations.

The partners performed a risk analysis jointly during proposal preparation. It is included in part A (Annex I of DoA).

6.1. Risk Management: Roles and responsibilities

Quality and risk management will be performed under the supervision of the Project Coordinator, who will be responsible for the following tasks:

- Allocating the required resources and time to execute the Quality Assurance Plan within the scope of the project budget and schedule
- Developing, distributing and implementing the Quality Assurance Plan
- Monitoring the project to identify any new or changing risks
- Updating the initial risk list with the support of the consortium
- Contributing to risk mitigation and contingency planning
- Coordinating with the consortium to monitor risks and implement risk response strategies
- Managing quality control procedures on deliverables
- Monitoring the effectiveness of the risk management strategies
- Reporting regularly to the consortium and
- Making the final decision on risk actions, in co-ordination with the WP Leaders.

Steering Committee responsibilities include:

- Developing and/or updating the risk response strategy
- Monitoring the assigned risks and informing the Project Coordinator of any threats or opportunities to the project
- Assessing the probability that a risk will occur and specifying the criteria used to assess the probability; and
- Assessing the impact of risks on project cost, time, scope, and quality objectives, and specifying the criteria used to assess the impact.

Work Package (WP) Leaders are responsible for the following tasks within their work package(s):

- Identifying and describing any risk
- Helping to identify the risk owners and assisting in developing the risk response strategies
- Performing the risk response steps assigned
- Reporting on the progress of the risk response to the Project Coordinator; and
- Assisting the Project Coordinator in activities associated with risk monitoring and control.

6.2. Risk Processing

Risk identification, analysis, response planning and monitoring and control are the steps involved in processing risk.

The Consortium before the beginning of the project forecast a table of risks. This table will be completed and updated during the project progress. This *Risk Management Register* will be maintained and will be used to record all possible risks of the project and any subsequent measures or actions required. The Risk Management Register will be placed on the intranet website and will be continuously updated.



6.3. Risk Identification

Risk identification will be done throughout the life-cycle of the INBOTS project, with an emphasis on identifying risks as early as possible so effective response planning and subsequent monitoring can take place.

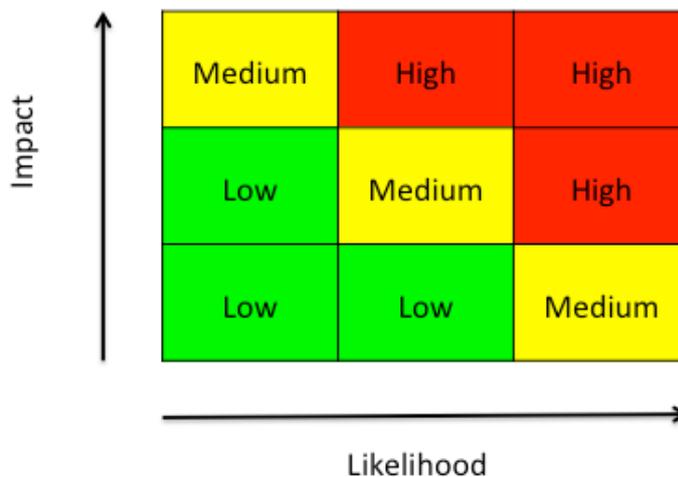
Risk Identification will be performed within work packages. WP leaders will report the risks and suggestions for the risk priority to the Steering Committee, which will agree on the final risk priority as well as on the respective response strategy.

Identified risks will be included into the Risk Management Register. This register will be accessible to the consortium through the Intranet platform.

6.4. Risk Analysis

After a risk or group of risks has been identified and documented, it is important to assess the probability that the risk may occur and if it occurs, the size of the possible impact.

The exposure to a given risk is estimated using the following risk matrix:



Concerning each risk, the Steering Committee will estimate the probability it could become a problem (Low/Medium/High). The results of risk analysis will be included into the Risk Management Register.

6.5. Response Planning

During risk response planning, strategies and plans are developed to minimise the effects of the risk to a point where it can be controlled and managed. During response planning, higher priority risks should receive more attention than lower priority risks. Every risk that poses a threat should be assigned to a responsible party during response planning.

The following strategies will be taken (depending on the risk category):

For high and medium - priority risks: Mitigation

Risk mitigation involves reducing the probability and/or the impact of a risk to an acceptable level. Taking early and proactive action against a risk is often more effective than attempting to repair the damage a realised risk has caused. Contingency planning is an example of risk mitigation.

For low-priority risks: Acceptance

Acceptance is often taken as a risk strategy since it is very difficult to plan responses for every identified risk. Risk acceptance should normally only be utilised for low-priority risks. Risk acceptance can be passive, where no action is taken at all, or active. The most common active approach to risk acceptance is to develop a cost and/or schedule revision to accommodate known (or unknown) threats. Utilising a risk acceptance approach determines that the risk should be monitored rather than reassessed.

The results of response planning will be included into the Risk Management Register.

6.6. Risk Monitoring and Control

Each Work Package Leader is responsible for the Risk Management within their Work Package. Each project partner is highly encouraged to communicate and discuss any (possible) risks and response planning with their Work Package Leader.

It is the responsibility of all INBOTS partners to communicate the Project Coordinator about the status and effectiveness of each risk and mitigation plan in order to update the Risk Management Register and assess the relevance of the tools. Risk exposure will be continuously reevaluated and modified accordingly and the results of monitoring and control will be documented.

7. Document production and review

7.1 Formats

The following are the formats specified for use in partner communication, documentation, reporting, and deliverable production.

In the Annexes, the project document templates can be found. The latest version of all the templates will be always available in the project Intranet to all partners.

7.1.1. Reports and Deliverables

Reports and Deliverables will be produced in Microsoft Word: working drafts and editable working copies will be supplied to partners as Word documents. The Project Coordinator will make a final release version as a PDF file. This PDF version will also be made available to partners and will be regarded as the definitive version of the Report or Deliverable.

Reports and Deliverables should have a consistently styled cover sheet and structure, based on the template contained in this document (Annex I). The cover should contain:

- Title and ID of the project
- Logos of the project and of the H2020 Programme
- Title of the document
- Related Work package(s)
- Related task(s)
- Author(s)
- Dissemination level
- Due submission date
- Actual submission date
- Abstract

All pages should be numbered and the document identification number should be included in the footer. They should also use the page layout (headers) suggested in the same Annex. Furthermore, they should abide to the following rules:

- Have a list of abbreviations used within the deliverable
- Have a table of contents
- Start with an one-page Executive Summary or Abstract
- Include a References section at the end of the document
- Include all technical details and other information in Annexes

The content of each deliverable report depends on the type of provided information. As a general principle, the responsibility for the content of each deliverable report is always with the author(s). Nevertheless, the reports should always meet a set of quality criteria, as described below:

- A. Completeness. Information provided in the deliverable report must be reliable and must correspond with reality. This means that all background information used in the reports should be appropriately supported by references. Foreground information should be supplied in a clear fashion such that misinterpretation will be avoided.
- B. Accuracy. Information used in the deliverable report should be focused on the key issues and be written in a fashion that takes into consideration the scope of the specific research work and its target audience.
- C. Relevance. All information used should be provided to the depth needed for the purpose of the reports, according to the project and programme objectives.
- D. Appearance and structure. Although deliverable reports will be authored by different partners, it is important that reports are prepared with uniform appearance and structure, such that they appear as originating from a single initiative. It is therefore necessary to observe the templates provided in the Annex I.
- E. Punctuality. The report should be released on time.

7.1.2. Presentations

A template for project presentations is provided in the Annex II in order to facilitate their production as well as to guarantee the consistency and quality of images.

7.1.3. Meeting Minutes and Agenda

All participants will be reminded of plenary meeting dates 30 days in advance. The meeting Chair will circulate an agenda not later than two weeks before the meeting. Agenda structure and appearance should be in accordance with template present in Annex III. All necessary working documents will be uploaded in the Intranet at least five working days in advance of the meeting date.

Minutes will be circulated to the Partners no later than three weeks after the meeting. Minutes shall be deemed to be approved if no objection has been sent to the Coordinator within 7 days of the circulation of the minutes. Template of Minutes can be found in Annex IV.

7.2. Review procedure

CSIC has administrative responsibility for the transmission of all deliverables to the European Commission. Deliverables must be in final draft at least two weeks before the deadline, in order to undergo an internal review procedure from all the partners involved in the drafting process. At the same time, the Coordinator designates two persons of the Consortium for formal peer review. These reviewers should not have been involved in the preparation of the said deliverable. The designated partners write a short report, according to the form shown in Annex V. At least one week before the deadline, all feedback provided by the internal peer reviewer and the rest of partners is forwarded to the author of the deliverable, who updates and completes it.

7.3. Repository

The quality records resulting from the review process are to be maintained by the Consortium and can be made available when necessary. All quality records are to be filed to allow easy retrieval. The records are retained for the time required under the Grant Agreement. An analysis of the records is carried out to indicate unsatisfactory trends so that corrective action can be taken. All records are kept in a suitable environment to minimize damage.

8. Web page

The project webpage has a public area open to everybody and a restricted area that can be accessed by project partners only.

The public area of the project webpage will be maintained and updated by WP7 Leader (INNCOME). Requests for updates or changes in the structure of the project webpage should be proposed through the Coordinator. The WP7 leader will also promote the visibility of the web page to Google and other important search engines.

Any news related to the project should be communicated to WP7 Leader. WP7 Leader will prepare the content to be published on the webpage and will submit it to the Coordinator for approval.

The restricted area will be used for storing and sharing of project documents (official documents, templates, deliverables and documents related to each of the WPs.). It is also a working area for all the project related documents. Access to the Restricted Area will be available only to registered members of the project consortium, who will have a personal account created with rights to this area.

8.1. Project logo

The project logo can be found on the project Intranet.

8.2. Social media

The project uses the following social media:

LinkedIn: <https://www.linkedin.com/company/inbots-csa/>

Twitter: https://twitter.com/INBOTS_CSA

Facebook: <https://www.facebook.com/INBOTSCSA/>

Any content to be shared using social media should be sent to the WP7 Leader.

Annex I. Deliverable Template



Deliverable Title	DX.X Deliverable Title
Deliverable Lead:	Title of the lead organisation(s)
Related Work Package:	WP[N°]: [WP Title]
Related Task:	Tx.x [Task Title]
Author(s):	Name of Author(s)
Dissemination Level:	
Due Submission Date:	dd.mm.yyyy
Actual Submission:	dd.mm.yyyy
Project Number	780073
Instrument:	Coordinate and Support Action
Start Date of Project:	01.01.2018
Duration:	36 months
Abstract	[Couple sentences to describe the objectives and key outcomes of the deliverable.]

	<i>This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 780073</i>
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Annex II. Presentation Template



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 780073



Annex III. Agenda Template

<div style="text-align: center;">  <p>Inclusive Robotics for a better Society</p> <p>TITLE OF THE DOCUMENT</p> <p>Version X.X</p> <p>Click here to select the date.</p> <p><small> This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 780073</small></p> </div>	<div style="text-align: right;">  <p>TITLE OF THE DOCUMENT Date: XX.XX.20XX</p> </div> <p style="text-align: center;">DOCUMENT HISTORY</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">HISTORY OF CHANGES</th> </tr> <tr> <th style="width: 15%;">Version</th> <th style="width: 15%;">Date</th> <th style="width: 70%;">Change</th> </tr> </thead> <tbody> <tr> <td>1.0</td> <td>XX.XX.20XX</td> <td>Initial version</td> </tr> </tbody> </table> <p style="text-align: right;"><small> This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 780073</small></p> <p style="text-align: right;">1</p>	HISTORY OF CHANGES			Version	Date	Change	1.0	XX.XX.20XX	Initial version
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Version	Date	Change								
1.0	XX.XX.20XX	Initial version								

Annex IV. Minutes Template

<p style="text-align: center;">Inclusive Robotics for a better Society</p> <p style="text-align: center;"> INBOTS Inclusive Robotics for a better Society</p> <p style="text-align: center;">MEETING MINUTES Version 1.0 12 January 2018</p> <p style="text-align: center;"></p> <p style="text-align: center; font-size: small;">This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 780073</p>	<p style="text-align: center;"> </p> <p style="text-align: center;">DOCUMENT HISTORY</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">HISTORY OF CHANGES</th> </tr> <tr> <th>Version</th> <th>Date</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>1.0</td> <td>12.01.2018</td> <td>Initial version</td> </tr> </tbody> </table> <p style="text-align: center; font-size: small;">INBOTS MINUTES Date: XXXX.20XX</p> <p style="text-align: right;">1</p>	HISTORY OF CHANGES			Version	Date	Change	1.0	12.01.2018	Initial version	<p style="text-align: center;"> </p> <ol style="list-style-type: none"> 1. DATE: 2. LOCATION: 3. PARTICIPANTS: 4. AGENDA FOR THE MEETING (if applicable): 5. MEETING MINUTES AND CONCLUSIONS: <p style="text-align: center; font-size: small;">INBOTS MINUTES Date: XXXX.20XX</p> <p style="text-align: right;">2</p>
HISTORY OF CHANGES											
Version	Date	Change									
1.0	12.01.2018	Initial version									

Annex V. Peer Review Report Template

Procedures used for peer review

The INBOTS Consortium uses a peer review process for its internal quality assurance for deliverables to assure consistency and high standard for documented project results. The Peer Review is processed individually by selected reviewers. The allocated time for the review is about two weeks. The author of the document has the final responsibility to collect the comments and suggestions from the Peer Reviewers and decide what changes to the document and actions are to be undertaken.

Overall Peer Review Result

Deliverable is:			
<input type="checkbox"/> Fully accepted	<input type="checkbox"/> Accepted with reservation	<input type="checkbox"/> Rejected unless modified as suggested	<input type="checkbox"/> Fully rejected

Comments of Peer Reviewers

One table for each reviewer

Comments of: [Reviewer name]			
Review result			
Deliverable should be:			
<input type="checkbox"/> Fully accepted	<input type="checkbox"/> Accepted with reservation	<input type="checkbox"/> Rejected unless modified as suggested	<input type="checkbox"/> Fully rejected
General comments			
Specific comments			
Criterion A: Completeness			
Reviewer comment:			



Author response:
Criterion B: Accuracy Reviewer comment: Author response:
Criterion C: Relevance Reviewer comment: Author response:
Criterion D: Appearance & Structure Reviewer comment: Author response:
Criterion E: Punctuality Reviewer comment: Author response: