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CRritical **SY**STem Engineeering **Acce**Leration

Quality Plan

D101.020

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1 Introduction

1.1 Role of this Document

Quality assurance is implemented by the management procedures described in the Crystal Project Handbook (D101.030). The project handbook provides quality-related guidelines and serves as a reference book for all project members in order to identify their responsibilities and to address project related processes. Since the quality assurance measures are deeply integrated in the project processes it has been decided to combine both aspects in a single document, namely in D101.030. Therefore, this document is just an excerpt of D101.030. The Project Officer has been informed about this approach.

1.2 Quality Management Overview

The quality management is led by the Technical Coordinator and the Administrative Project Manager who are responsible for quality assurance throughout the project. Quality in this context can be seen as meeting the project expectations achieved by way of deliverables and activities performed to produce those deliverables. In particular, Quality Management within CRYSTAL is oriented towards the following objectives:

- Assure conformance of processes and tasks with the Description of Work and Grant Agreement and its Annexes
- Supervise project plan correspondence of effort and delivery dates

The major means to achieve this goal is the project structure (see Section 2.1) with precisely defined responsibilities for the individual roles (WP & SP leaders, Technical Board, Steering Board, Technical Coordinator, and Administrative Project Manager), the deliverable review process and the internal and external reporting process. WP1.3 is responsible for strategic quality management and the corresponding realization in all SPs. In particular, the quality management of this project is based on the following:

- Quality Assurance activities have to be implemented throughout the entire project by the entire CRYSTAL consortium. This means that every project partner shall review his own results before transmitting them to someone else.
- The quality control of the deliverables is established by the CRYSTAL deliverable review process (see Section 6).
- Continuous internal reporting shall ensure a holistic project view of all project partners (see Section 5).
- Well defined communication structure and rigorous tracking of meetings and other events (see Section 4).
- Issues arising in the course of the quality control that might pose a risk or increase the probability of a risk will be reported to the Technical Coordinator (see Section 8).

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2 Project Structure

Figure 1-1 depicts the overall project structure, which is further refined in the following sub-chapters.

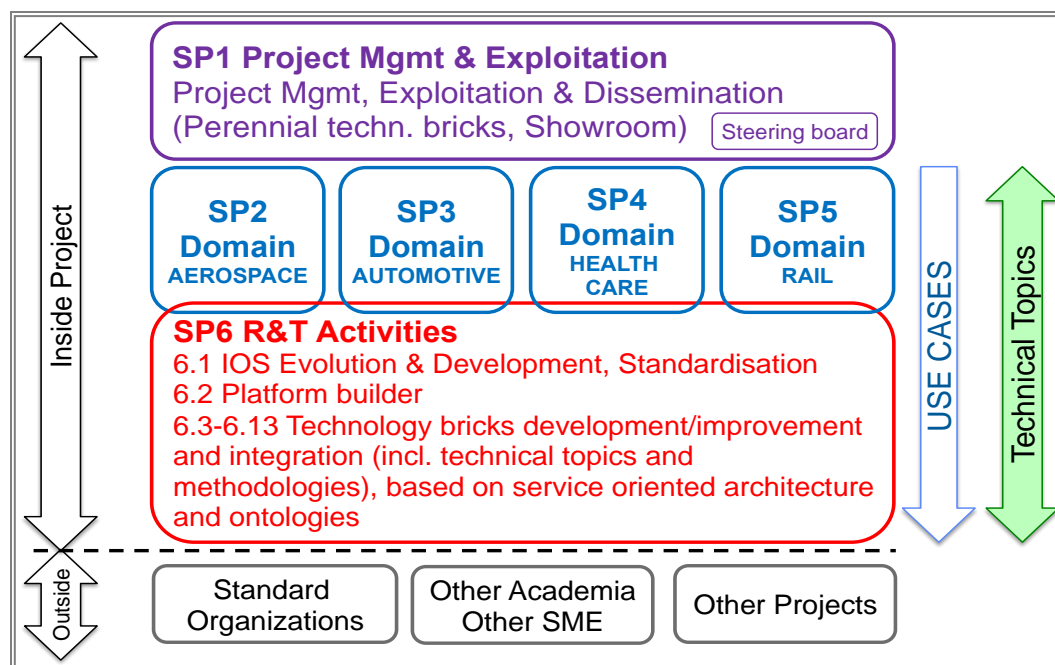


Figure 1-1: Overall project structure

2.1 Project Members

In order to find contact details of individual project members, please go to the [Member List](#) which includes basic information such as name, email address and telephone number of all project members.

AVL Project World > CRYSTAL > Member list > All Items =									
In this list you can find responsible persons, who are involved in the project. To add a new contact please contact crystal@avl.com									
CRYSTAL	Home	Search this site...						I Like It	Tags & Notes
Surveys		Part.No.	Last Name	First Name	Company Full	Company Short	SP / Domain	Phone	Mobile
Test		1	PFLUGL	Horst	AVL List GmbH	AVL	AUTOMOTIVE	+43 3167871587	+43 6648379426
		1	HAMEDLER	Annemarie	AVL List GmbH	AVL	AUTOMOTIVE	+43 3167875792	+436648509105
Sites		1	EL SALLLOUM	Christian	AVL List GmbH	AVL	AUTOMOTIVE	+43 3167873056	+43 66488631653
Internal		1	AFFENZELLER	Josef	AVL List GmbH	AVL	AUTOMOTIVE	+43 316787253	+436641817397
Zusammenarbeit UseCase 3.2		1	KUNDNER	Ingrid	AVL List GmbH	AVL	AUTOMOTIVE	+43 3167875697	+43 6648509421
Reporting		1	CRYSTAL	Projectteam	AVL List GmbH	AVL	AUTOMOTIVE		+43 6646437320
		1	PAULWEBER	Michael	AVL List GmbH	AVL	AUTOMOTIVE	+43 316787240	+43 6643587129
Lists		1	SAMS	Theodor	AVL List GmbH	AVL	AUTOMOTIVE	+43 316 787 1940	+43 664 1423471
Calendar		1	STIEGLBAUER	Gerald	AVL List GmbH	AVL	AUTOMOTIVE	+43 3167877803	+43 6648509302
Dissemination		2	LAURENT	Odile	AIRBUS Operations SAS	A-F	AEROSPACE	+33 561181276	
Reviews		3	Sander	Dietmar	Airbus Operations GmbH	A-G	AEROSPACE	+49 40 743 64199	
Project Structure		4	WU	Xiaodong	Airbus Operations Ltd	A-UK	AEROSPACE	+44 1179365232	
List of Deliverables		5	INVERNIZZI	Donatella	Alenia Aermacchi SPA	ALA	AEROSPACE	+39 0818874640	
Member list		5	TODINO	Anna	Alenia Aermacchi SPA	ALA	AEROSPACE		
Publications		5	TRANCHERO	Bruno	Alenia Aermacchi SPA	ALA	AEROSPACE	+39 011 7563891	
Patents, Trademarks etc.		5	VALFRE	Elena	Alenia Aermacchi SPA	ALA	AEROSPACE	+39 011 7565625	
Exploitable Foreground									

Figure 1-2: Member List

For each member it is also indicated whether the member is part of the steering board or technical board (column “SB”, “TB”), and whether the member is the main contact person of the partner (column “MC” or its proxy).

2.2 General Assembly (GA)

The General Assembly is composed of one representative of each partner for the purpose of high-level decision-making. The GA will discuss and decide on overall project management - and strategic management issues. Typical subjects for GA meetings are: project status and evolution, review of resource status, major changes in the project program including re-distribution of budget, major changes in dissemination and exploitation strategy and co-operation with third parties and related projects. Decisions of the GA will be taken on the basis of voting as regulated by the APCA, and is binding for all partners. Each partner will have one vote, with decisive vote for the coordinating partner in case of a draw. In case of conflicts between parties, major technical or organizational problems and similar serious events arising during the lifetime of the project, each partner has the right to call for an extraordinary meeting to describe the problem to the GA. The GA members and their proxy are listed in [CRYSTAL Contacts Mailing List.xlsx](#).

2.3 WP & SP Leaders and Co-Leaders

The Sub Project leaders are all members of the Technical Board (TB) and they are chairing their own overall sub project meetings. They are responsible for the successful development and results of the whole sub projects. Sub project leaders are hierarchical at a higher level as work package leaders. Work package leaders deal with the technical development and overall coherence and technical implementation of the project outputs.

Each Sub Project leader has the following responsibilities:

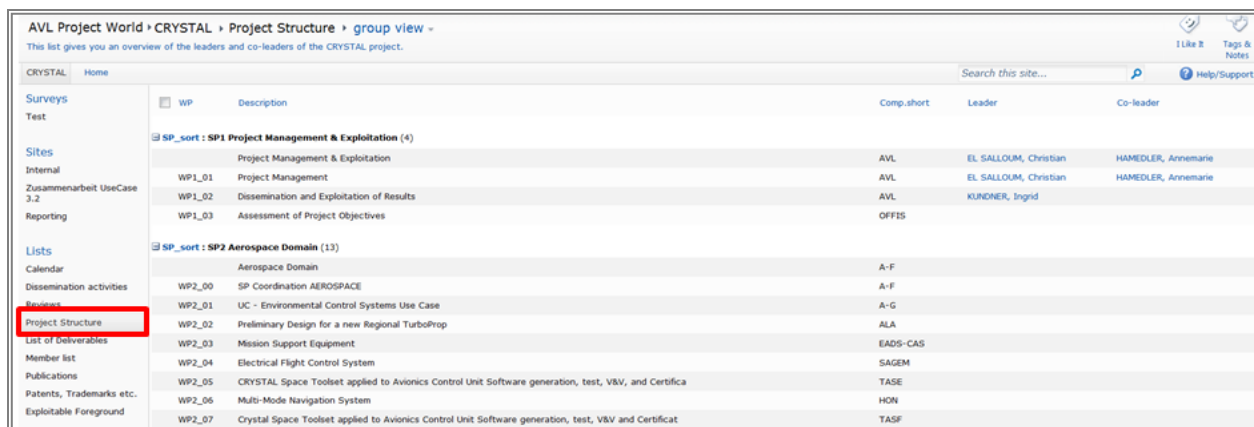
- Ensuring completion of sub project activities and deliverables on time, within budget and with high quality
- Coordinating activities within the sub project
- Meeting the operational, functional, documentation and data, planning and financial requirements for deliverables according to the contract and EC requirements
- Approving all formal work package deliverables (relying on the review process described in Section 6, and the reports of the WP leaders as described in Section 5)
- Managing risk within the sub project
- Formal and informal reporting on sub project progress, quality and risk status to the Technical Coordinator

Each work package leader has the following responsibilities:

- Ensuring completion of work package activities and deliverables on time, within budget and with high quality
- Coordinating activities within the work package
- Meeting the operational, functional, documentation and data, planning and financial requirements for deliverables according to the contract and EC requirements
- Approving all formal work package deliverables (relying on the review process described in Section 6)
- Managing risk within the work package
- Formal and informal reporting on work package progress, quality and risk status to the sub project leader

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The [Project Structure](#) shows all persons responsible for the SPs and WPs. Each partner who has a WP lead should nominate an overall responsible (leader) and a substitute (co-leader) for each work package.



CRYSTAL	Home	Search this site...	Like It	Tags & Notes	Help/Support
Surveys	WP	Description	Comp. short	Leader	Co-leader
Test					
Sites					
Internal					
Zusammenarbeit UseCase 3.2					
Reporting					
Lists					
Calendar					
Dissemination activities					
Reviews					
Project Structure					
List of Deliverables					
Member list					
Publications					
Patents, Trademarks etc.					
Exploitable Foreground					

Figure 1-3: Persons responsible for subprojects and work packages

2.4 Technical Board (TB)

The Technical Board (TB) constitutes the operative coordination team of the project. It is responsible for technical synchronization across the individual sub projects. The TB is composed of the SP leaders and co-leaders (Engineering Domain Leaders, IOS Bricks Leader (overall representative for WP6.3 – WP6.13), IOS Platform Builder Leader, IOS Standardization Leader), the Dissemination & Exploitation Leaders and the Technical Coordinator. It will meet at least every two month (WebEx or face-to-face). Main tasks are the coordination of the different SP activities and the interaction between the SPs. This includes the identification and prioritization of shared objectives between Sub-Projects and derived technical requirements. The TB will discuss and agree on technology bricks (meta-models, methods, and tools..., as defined in the Technical Annex of the CRYSTAL GA) and propose solutions to the Steering Board. The TB coordinates the observation, evaluation and establishment of standards.

Role	Name
<u>Project Management</u> Technical Coordinator Administrative Project Manager Dissemination & Exploitation leader	Christian El Salloum Annemarie Hamedler Ingrid Kundner
<u>Aerospace</u> Industrial domain leader Technical representative	Odile Laurent Uwe Kühne
<u>Automotive</u> Industrial domain leader Technical representative	Bert Kehrens Oscar Ljungkrantz
<u>Rail</u>	

Industrial domain leader Technical representative	Luigi Velardi Peter Tummeltshammer
<u>Health Care</u> Industrial domain leader Technical representative	Rob Ekkel Rob Albers
<u>R&T Activities</u> R&T leader IOS Standardization leader IOS Platform builder leader	Andreas Keis / Parham Vasaiely Andreas Keis / Rainer Ersch Ivo Viglietti / Anna Todino

Table 1-1: Technical Board Members

2.5 Steering Board (SB)

The Steering Board is the strategic body within the consortium and has the following responsibilities:

- Monitoring of the project progress, work plans, project schedule and deliverables
- Assuring cooperation and integration between the sub projects as defined in the work plan
- Performing risk analysis and preparing contingency plans
- Conducting periodic progress meetings at least on a 6 monthly basis via face-to-face or WebEx
- Prepare strategic decisions which need to be taken in the General Assembly.

Partner	Eligible voters (representative / substitute)
1 AVL (project Coordinator)	Michael Paulweber / Horst Pfluegl
2 Airbus	Odile Laurent
3 Alenia	Bruno Tranchero / Ivo Viglietti
4 Ansaldo STS SPA	Antonio Ruggieri / Luigi Velardi
5 CRF	Alberto Melzi / Roberto Finizio
6 Daimler AG	Rüdiger Diefenbach / Daniel Hopp
7 EADS	Uwe Kühne / Andreas Keis
8 OFFIS e.V.	Werner Damm / Bernhard Josko
9 PHILIPS	Ronald Begeer / Rob Ekkel
10 SAGEM	Jean-Claude Derrien / Marc Malot
11 Siemens	Matthias Frische / Rainer Schmid
12 THALES	Laila Gide
13 Volvo Technology AB	Daniel Karlsson / Oscar Ljungkrantz

14 IBM	Gray Bachelor / Arjen van de Wetering
15 PTC	Peter Mair / Markus Hensel

Table 1-2: Steering Board Members

2.6 Project Responsibility Matrix

The following matrix is detailing the degree of involvement in the execution of project tasks and contractual obligations. The respective responsibilities are attributed on the level of the relevant body or role.

Responsibility Matrix										
Roles & Boards	Technical Coordinator (C. El Salloum)	Administrative Project Manager (A. Hamedler)	Dissemination Lead	SP Leader	WP Leader	WP partner	Technical Board	Steering Board	General Assembly	Each project partner
Tasks										
Project Work										
Coordination of subproject				R						
Preparation of SP project progress reports				R	C					
Distribution/allocation of work within work package					R	R				
Coordination of work package					R					
Carry out WP work						R				
Controlling WP work / achievement of WP milestones					R					
Preparation of WP project progress reports					R	C				
Review of internal project progress reports	R			R						
Monitor compliance of project partners with contract obligations	R	R		R	R					
Monitor technical activities	R			R	R		R			
Notification of delay in project performance				R	R	R				
Timely completion of project deliverables					R	C				
Collection of project deliverables		R			C					
Quality control of project deliverables	R	R		C	R					
Adjustment of project deliverables					R	C				

Submission of project deliverables to ARTEMIS JU		R								
Decision on change/exchange of work packages							C	C	R	
Project Administration										
Intermediary for communication with ARTEMIS JU	R	R								
Collection of data for periodic technical report		R								
Provide data for periodic technical report				R	R	R				R
Submission of periodic technical report		R								
Preparation of financial statement										R
Submission of financial statement to National Funding Agencies										R
Provision of contact details of responsible project staff										R
Information of change in contact details										R
Information of change in legal name, address, legal representatives										R
Maintenance of contact details		R								C
Maintenance document repository		R								
Provision of any data requested by Coordinator on behalf of JU/ARTEMISIA										R
Preparation of SB, TB and GA meetings	R	R								
Transmission of SB, TB and GA minutes	R	R								
Project PR & Dissemination										
Set up & maintenance of project homepage			R							
Preparation of press releases	C		R	C	C			C		C
Decision on press releases								R		
Notification of intended paper publication										R
Circulation of intended paper publication		R								
Highlight JU financial support in any project related publicity (publications, seminars, press release) and display the Joint Undertaking's logo & the European Emblem (see Section 7.1)										R

Table 1-3: Responsibility Matrix

Legend

RResponsible

CContribution

2.7 Escalation procedures

Escalation procedures will follow the structure of the proposed overall CRYSTAL organization:

- **Partner level:** if the issue cannot be resolved on the partner level, the involved partners inform the WP leader
- **Work package level:** if the issue cannot be resolved on WP level, the WP leader informs the SP leader

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- **Sub Project level:** if the issue cannot be resolved on SP level, the SP leader informs the Technical Coordinator
- **Technical Board (TB) level:** the problem or risk is first reported to the Technical Coordinator who will set up a TB meeting
- **Steering Board (SB) level:** the problem or risk is first reported to the Technical Coordinator who will set up a SB meeting
- **General Assembly (GA) level:** if a topic cannot be resolved within the SB, a GA meeting will be set up to decide the issue.

Every level will try to mitigate risks and solve problems without further escalation considering the implementation plan, the consortium agreement, and the ARTEMIS JU contract together with respective national public authorities' requirements. Serious problems must be reported to the next level, however, even if a solution at the lower level can be found. Risks and problems concerning more than one partner or the entire project will be resolved at Technical Board level and the Steering Board level. The Technical Board and the Steering Board will report any problems concerning the entire project such as serious delays, financial matters, contract matters, or necessary changes of partners to the General Assembly.

3 Document Management

The exchange of documents in the project is supported by the CRYSTAL SharePoint which also provides versioning for documents.

3.1 Folder Structure

Figure 1-4 depicts the root folder of the document repository.



Figure 1-4: Folder structure for document management

3.2 Templates

Please always use the provided [Templates](#) for the following types of documents:

- Deliverables
- Minutes of meetings
- PowerPoint presentations

3.3 Naming Conventions

Please respect the following general naming conventions for all project documents (presentations, meeting minutes, deliverables, reports...):

- **TITLE**: Short description of the document, please use 7-bit ASCII characters (a..z, 0..9, _, -) only (DO NOT use special characters, e.g. “:”)
- **VERSION**: vX-Y ... use position X for a major release, and position Y for a minor release (e.g. v0-1, v0-2, v1-0, v1-1, v2-0 ...)
- **DATE**: date of creation (format: yyyy-mm-dd)
- **FILEEXTENSION**: according to the type of the file (docx, pdf, ...)

3.3.1 Presentations

- **DATE_CRYSTAL_TITLE_VERSION.FILEEXTENSION**
e.g. 2013-06-24_CRYSTAL_SP2_v1.0-Overview.pdf

3.3.2 Meeting Minutes

- **DATE_CRYSTAL_MoM_TITLE_VERSION.FILEEXTENSION**
e.g. 2013-06-24_CRYSTAL_MoM_ConsortiumAgreement_v1.0.pdf

3.3.3 Deliverables

These naming conventions are relevant for the deliverable creation and deliverable review process (see Section 6). The submission of deliverables to the ARTEMIS JU is exclusively handled by the Coordinator.

- **CRYSTAL_D_WPNUMBER_SPNUMBER_VERSION.FILEEXTENSION**
e.g. CRYSTAL_D_101_011_v1-5.doc
e.g. CRYSTAL_D_101_011_v2-0.pdf

Please use the deliverable number as specified in the TA. See also [List of Deliverables](#) on SharePoint.

3.3.4 Documents for external reporting

These naming conventions are only relevant for external reporting (i.e., Periodic Reports), since the internal reporting process (i.e., Quarterly Reports) is completely handled via SharePoint lists (see Section 5).

- Cost Statement: **PARTNERNUMBER_COMPANYSHORT_Costs_Period_MX.xlsx**
e.g. 01_AVL_Costs_Period_M09.xlsx
- WP report: **WPY_Z_Report_Period_MX.docx**
e.g. WP2_04_Report_Period_M20.docx
- SP report: **SPY_Z_Report_Period_MX.docx**
e.g. SP6_10_Report_Period_M36.docx

4 Communication

Communication in the project will be performed by the following means:

- Physical meetings
- Electronic meetings (Telephone, Skype, WebEx)
- Email

Any oral communication that is relevant to the project shall be documented in minutes of meetings. Minutes are mandatory for WP, SP, SB, TB, GA and review meetings and have to be uploaded to the CRYSTAL SharePoint in the dedicated [folder for meeting minutes](#). Please use the [template](#) and respect the naming conventions in 3.3.2. If there are any essential supporting documents (e.g. presentations), please create a subfolder, where you store the supporting documents together with the minutes.

4.1 Important Contacts and Mailing Lists

This section contains contact points that you might frequently require during the execution of the project.

As a general rule, the subject of all emails exchanged in the project should begin with “CRYSTAL” in order to enable the efficient use of filters in email clients!

4.1.1 Communication with the Project Officer

The Coordinator (AVL) is responsible for the communication with the ARTEMIS JU Project Officer. Hence, AVL is the only contact point between the CRYSTAL project partners and the ARTEMIS Joint Undertaking (JU)!

4.1.2 Strategic and technical issues on project level

For all technical and strategic issues on project level, please contact the Technical Coordinator (Christian.ELSalloum@avl.com), and put CRYSTAL@avl.com in CC.

4.1.3 Administrative issues

For all administrative issues (e.g. management processes for internal and external reporting, processes for the review of deliverables, the CRYSTAL SharePoint, Mailing List ...) please contact the Administrative Project Manager (Annemarie.Hamedler@avl.com), and put CRYSTAL@avl.com in CC.

4.1.4 Issues related to dissemination

For all issues related to dissemination, please contact the Dissemination Leader (ingrid.Kundner@avl.com), and put CRYSTAL@avl.com in CC.

4.1.5 Subproject Leaders and Work Package Leaders

The actual contact details of the SP and WP leaders can be found in the SharePoint platform (please see Section 2.3)

4.1.6 Mailing lists

Dedicated mailing lists have been set up to facilitate communication among the project partners. Subscription to these mailing lists will be handled by the Administrative Project Manager (Annemarie.Hamedler@avl.com).

4.1.6.1 Steering Board and Technical Board

- CRYSTAL-SB@avl.com
~~With this list you reach all the members of the Steering Board.~~
- CRYSTAL-TB@avl.com
~~With this list you reach all members of the Technical Board.~~

These mailing lists are still not operational! In the meantime you can use the excel file described in Section 4.1.6.2 to filter the participants for the SB and TB.

4.1.6.2 Subprojects and Work packages

Mailing lists for all subprojects and work packages are collected in the file [CRYSTAL Contacts Mailing List.xlsx](#). Dedicated filter have been set-up to facilitate selecting the members of individual WPs or SPs.

4.2 Tracking of meetings and other events

4.2.1 CRYSTAL SharePoint Calendar

The CRYSTAL [SharePoint Calendar](#) is managed exclusively by the Coordinator, and is only used for major events like the kick-off meeting, TB and SB meetings, review meetings, ...

4.2.2 Workshops, WP and SP meetings

We kindly ask the organizers of other than the above mentioned events (e.g., workshops, WP meetings, SP meetings, ...) to send out the corresponding invitations via a scheduler like Outlook or Lotus. Please put CRYSTAL@avl.com in CC to give the Coordinator an overview of these meetings and the possibility to take part.

4.3 Relationship to other projects

Since the Grant Agreement foresees the obligation to liaise with the research community and beyond, it is essential to define the relationship to other projects, policy makers, A responsible interface will be appointed, who will report about activities in the respective initiative that might be of concern for the development within the CRYSTAL project.

RELATIONSHIP TO OTHER PROJECTS and INITIATIVES		
Programs/ Projects/ Standardization Bodies	Comments	Responsible Interface
ARTEMISIA	https://www.artemisia-association.org/	Ingrid Kundner
CESAR	http://www.cesarproject.eu/	Christian El Salloum
ProSTEP iViP	http://www.prostep.org/	Christian El Salloum
ASAM	http://www.asam.net/	Christian El Salloum
Eclipse Foundation	http://www.eclipse.org/org/foundation/	Christian El Salloum
openETCS	http://openetcs.org/	Christian El Salloum
MBAT	http://www.mbat.org/	
EICOSE	http://www.eicose.eu/	
iFEST	http://www.artemis-ifest.eu/	

Table 1-4: Relationship to other projects and initiatives

5 Reporting Processes

CRYSTAL employs dedicated processes for internal and external reporting.

The internal reports are not submitted to the ARTEMIS JU but constitute a significant part of the CRYSTAL quality assurance process. In order to keep the overhead for the internal reporting low, we collect all the data exclusively via SharePoint, and do not request any cost statements.

The external reports have to be submitted to the ARTEMIS JU and are mandatory. For these reports we have to collect cost statements from all partners. Furthermore, for the external reports we use also MS Word templates in addition to the SharePoint forms in order to enable the efficient inclusion of pictures and diagrams.

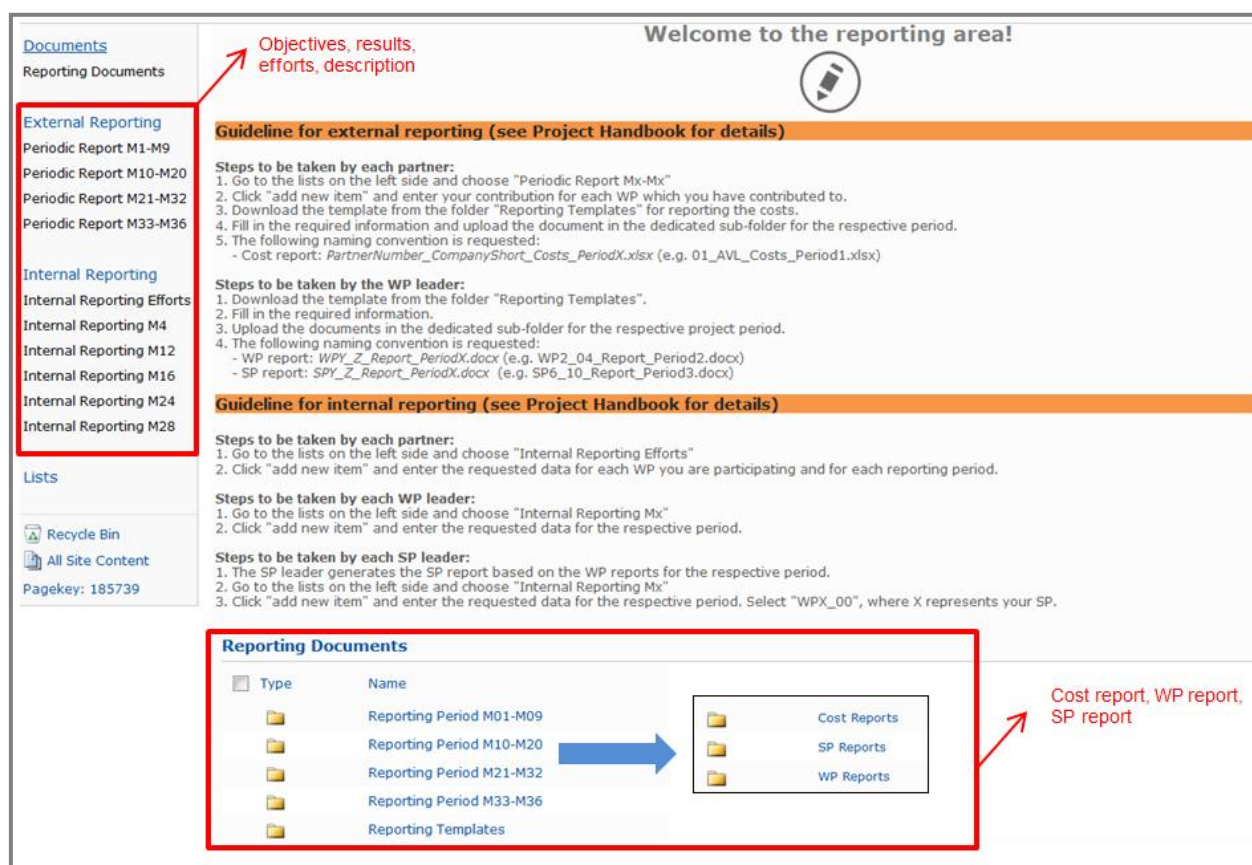


Figure 1-5: Reporting area

5.1 Internal Reporting

Internal reports will be generated every four month, unless coinciding with a periodic report, at following milestones: M4, M12, M16, M24, and M28. The internal reports are a significant part of the CRYSTAL quality assurance process.



5.1.1 Steps to be taken by each partner

The actual and planned efforts per WP per partner will be collected in a central list for all internal reporting periods. **Cost Statements are not required for internal reporting!**

1. Go to the ["Reporting" page](#) and choose "Internal Reporting Efforts" in the lists on the left side.
2. For each WP where you are participating:
 - a. Click "add new item"
 - b. Enter the requested data (please check that you have selected the correct reporting period)
 - c. Click "Save"

5.1.2 Steps to be taken by each WP leader

The reporting on WP level summarizes the work package activities and the progress. Doing so will ensure that the objectives and milestones of the CRYSTAL project are properly met.

The following data will be tracked for each WP in a central list on the CRYSTAL SharePoint:

- Overall Status (Crisis, in difficulties, according to plan)
 - WP Objectives for the period
 - Progress toward the objectives
 - Performed activities
 - Status of WP schedule
 - Status of deliverables (in %)
 - Corrective actions
1. Go to the ["Reporting" page](#) and choose "Internal Reporting Mx" in the lists on the left side.
 2. For each WP where you are the **WP leader**:
 - a. Click "add new item"
 - b. Enter the requested data (please check that you have selected the correct reporting period)
 - c. Click "Save"

5.1.3 Steps to be taken by each SP leader

SP leaders generate SP reports based on WP reports. This data is also tracked via SharePoint and constitutes a summary of the WP reports of the SP. The SP report includes the same elements as the WP reports.

To enter the internal SP reports, please use the same list as for the internal WP reports (see Section 5.1.2), and select "WPX_00" in the WP field, where X represents your SP (e.g., WP2_00).

5.2 External Reporting

The Coordinator has to submit a periodic progress report at M9, M20, M32 and M36 to the JU. The reports are due within 60 days after the end of each reporting period as defined in the JU Grant Agreement. The Coordinator will inform the SP leaders, WP leaders and project partners of any required input for these periodic reports and collect these inputs for the actual reporting period. The

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collection of input will be supported by the CRYSTAL SharePoint platform, but will also rely on MS Word templates in order to enable to inclusion of pictures and diagrams.

5.2.1 Steps to be taken by each partner

Each partner has to provide (i) its individual contribution and efforts for each **work package**, and (ii) its cost statement on **project level**. This is accomplished through the following steps:

1. Go to the ["Reporting" page](#) and choose "Periodic Report Mx-Mx" in the lists on the left side.
2. Enter your contribution for each work package which you have contributed to.
 - i. Click "add new item" and a mask will open.
 - ii. Enter the data as requested (see Figure 1-6 below). Note: you have to provide your data for the fields "Progress towards objectives" and "Results" on **task level**. Provide one sub-section for each task which you have contributed to.
 - iii. You can save your data at any time, even if the form has not been completely filled yet.
3. For reporting the costs, download the Excel-Template from the folder ["Reporting Templates"](#). Fill in all required fields and upload it in the dedicated [Reporting Documents](#) (see Figure 1-8). Please respect the naming conventions stated in Section 3.3.4. Note: For your convenience, you can also find the eligible costs for the entire project duration as stated in the Technical Annex and the reported costs for all previous reporting periods in the cost template.

When all the steps mentioned above have been completed, please set the status "Data complete?" to "completed" at the end of the mask and click "Save" again (see Figure 1-6). Please make sure that the publication list, patent list, exploitable foreground list and dissemination list are up to date regarding the actual reporting period and your contribution.

Periodic Reporting M1-M9 - New Item

Edit

Save Cancel Paste Cut Copy Attach File Spelling

Commit Clipboard Actions Spelling

Company Short: 01_AVL

WP: WP1_01

Progress towards objectives

Please provide details on your individual contribution as well as measurable and quantitative indicators of the level of fulfilment of project's tasks and objectives on task level. Please provide one sub-section for each task to which you have contributed!

Results

Highlight clearly significant and tangible results on task level. Please provide one sub-section for each task to which you have contributed!

Reason for deviations (TA)

If applicable, please explain the reasons for deviations from the Technical Annex and their impact on other tasks as well as on available resources and planning.

Efforts planned (PM)

Please indicate the number of person months that have been planned for this WP.

Efforts actual (PM)

Please indicate the number of person months that have been actually spent.

Use of resources (PM)

A statement on the use of resources, in particular highlighting and explaining deviations between actual and planned person-months.

Corrective Actions

If applicable, propose corrective actions.

Data complete?

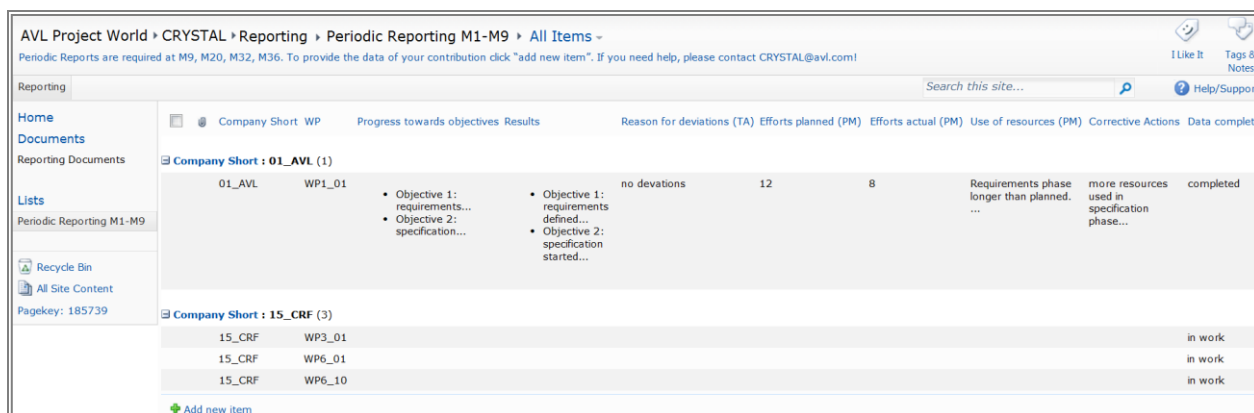
☒ in work
☐ completed

By setting this field to "Completed" you confirm that all data relevant for this reporting period in the publication list, patent list, exploitable foreground list, dissemination list is up to date and the final cost report has been uploaded.

Save Cancel

Figure 1-6: Periodic Reporting form

In order to get a better overview of your entries, the list is sorted by company and work package. You can use highlighting and bullets to give your description a better look.



Company Short	WP	Progress towards objectives	Results	Reason for deviations (TA)	Efforts planned (PM)	Efforts actual (PM)	Use of resources (PM)	Corrective Actions	Data complete
01_AVL	WP1_01	<ul style="list-style-type: none"> Objective 1: requirements... Objective 2: specification... 	<ul style="list-style-type: none"> Objective 1: requirements defined... Objective 2: specification started... 	no deviations	12	8	Requirements phase longer than planned. ...	more resources used in specification phase...	completed
Company Short : 15_CRF (3)									
15_CRF	WP3_01								in work
15_CRF	WP6_01								in work
15_CRF	WP6_10								in work

Figure 1-7: Example list entry

5.2.2 Steps to be taken by each WP Leader

The WP leaders prepare the WP summaries based on the data which all partners have entered in the CRYSTAL SharePoint. To generate the WP summary, the WP leader should consider the following data in the CRYSTAL SharePoint as an input:

- Individual contribution of the partners for the respective WP
- Dissemination list
- Exploitable foreground list
- Effort reports

The WP reports will be generated in a Word template. Therefore, the following steps need to be taken by each WP Leader:

1. Download the WP summary template from the folder ["Reporting Templates"](#) and fill in the required information.
2. Upload the document for each WP to the following sub-folder Project Period / WP of the ["Reporting Documents"](#). Please respect the naming conventions stated in Section 3.3.4.

5.2.3 Steps to be taken by each SP Leader

The SP Leaders prepare a short SP summary based on WP reports. For this purpose they will be directly contacted by the Administrative Project Manager via e-mail.

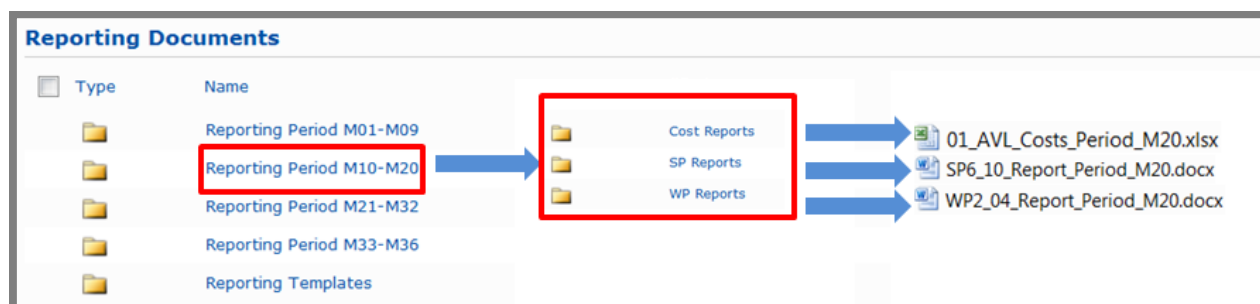


Figure 1-8: Reporting documents

5.2.4 Steps to be taken by the Coordinator

- The Coordinator prepares the periodic progress report according to the ARTEMIS document “Guidance Notes on Project Reporting” (ARTEMIS-ED-20-09), by using the partner descriptions and the SP and WP summaries as input.
- A final check will be done by all parties before submitting the report to the JU.

6 Deliverable Review Process

The review process for deliverables is a major part of the CRYSTAL quality assurance process. CRYSTAL employs a two stage review process for each deliverable as depicted in Figure 1-9. In the first stage the deliverable is reviewed by at least one assigned reviewer within the WP, and in the second stage, the deliverable is reviewed by at least two assigned reviewers outside the WP (SP6 deliverables should be reviewed by at least one reviewer of SP2–SP5.).

Feedback from the assigned reviewers is mandatory, while all the other project members are also free to provide feedback.

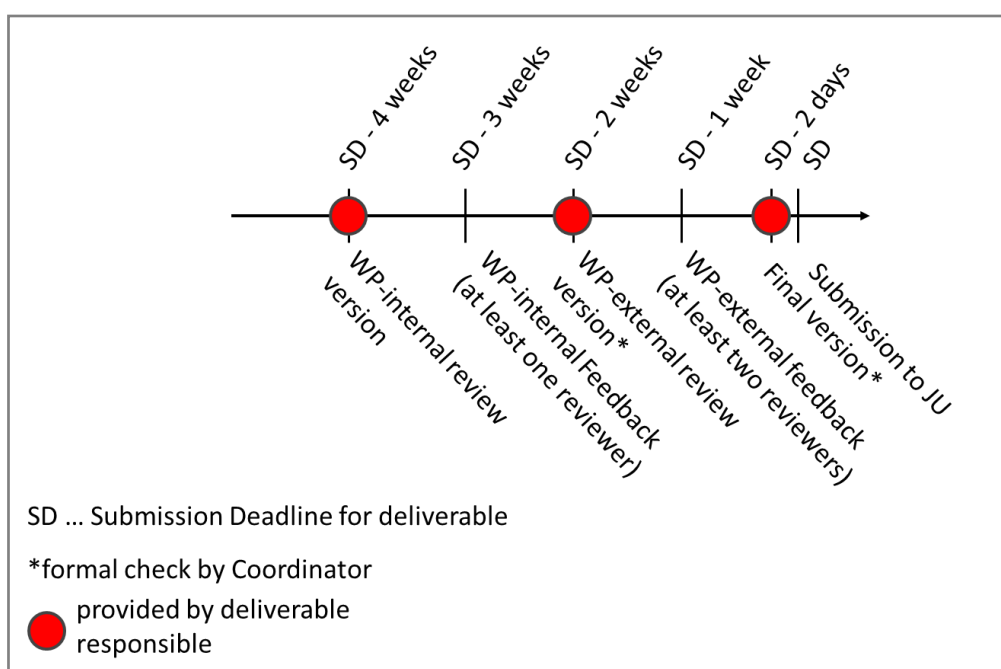


Figure 1-9: Review process timeline

6.1 List of Deliverables

The [List of Deliverables](#) provides you with an overview of all deliverables in the project including information such as nature, dissemination level, status (*open*, *submitted to JU* or *accepted by JU*), delivery date and lead. This list will be updated exclusively by the Coordinator.

AVL Project World > CRYSTAL > List of Deliverables > All Items »

This list gives you an overview of all deliverables in the project with due date, nature, lead and more.

CRYSTAL Home

Search this site...

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	Title	WP	Name	Nature	Delivery Date	Milestone	Status	Dissemination Level	Lead
Surveys	D101.011	WP1_1	Periodic Progress Report	R	1/31/2014	9	open	CO	AVL
Test	D101.012	WP1_1	Periodic Progress Report	R	12/31/2014	20	open	CO	AVL
Sites	D101.013	WP1_1	Periodic Progress Report	R	12/31/2015	32	open	CO	AVL
Internal	D101.014	WP1_1	Periodic Progress Report	R	4/30/2016	36	open	CO	AVL
Zusammenarbeit UseCase 3.2	D101.020	WP1_1	Quality Plan	R	7/31/2013	3	open	CO	AVL
Reporting	D101.030	WP1_1	Project Handbook	R	7/31/2013	3	open	CO	AVL
Lists	D102.010	WP1_2	Dissemination Plan V1	R	7/31/2013	3	open	PP	AVL
Calendar	D102.020	WP1_2	Public Website including Dissemination Material	R	8/31/2013	4	open	PU	AVL
Dissemination	D102.030	WP1_2	Report and Planning of Dissemination Activities V1	R	1/31/2014	9	open	PP	AVL
Reviews	D102.040	WP1_2	Exploitation Plan V1	R	1/31/2014	9	open	CO	AVL
Project Structure	D102.050	WP1_2	CRYSTAL Global Glossary	R	12/31/2014	20	open	PU	POLITO
List of Deliverables	D102.060	WP1_2	CRYSTAL Sustainability Model V1	R	12/31/2014	20	open	PP	AVL
Member list	D102.070	WP1_2	Exploitation Plan V2	R	12/31/2014	20	open	CO	AVL
Publications	D102.080	WP1_2	Report and Planning of Dissemination Activities V2	R	12/31/2014	20	open	PP	AVL
Patents, Trademarks etc.	D102.090	WP1_2	CRYSTAL Sustainability Model V2	R	12/31/2015	32	open	PP	AVL
Exploitable Foreground	D102.100	WP1_2	Report on Dissemination Activities V3	R	4/30/2016	36	open	PP	AVL

Figure 1-10: List of persons responsible for deliverables

CO	Confidential, only for members of the consortium (including the JU).
PU	Public
PP	Restricted to other program participants (including the JU).
RE	Restricted to a group specified by the consortium (including the JU).

Table 1-5: Dissemination Level of Deliverables

D	Demonstrator
R	Report
P	Prototype
O	Other

Table 1-6: Nature of Deliverables

6.2 Duties of the WP leader

The duties of the WP leader with respect to deliverables are:

- Coordinate the assignment of the deliverable responsables and reviewers
- Coordinate the creation of deliverables on work package level
- Ensure completion of deliverables on time, within budget and with high quality
- Monitor the progress of deliverables
- Report any anticipated or actual delay of a deliverable to the SP leader

6.3 Duties of the Deliverable Responsible

Each deliverable is assigned to a Deliverable Responsible who is appointed by the partner who has the deliverable lead.

The duties of the Deliverable Responsible are:

- Plan and schedule the deliverable creation such that the review versions and the final version can be provided in time
- Coordinate the members contributing to the deliverable, collect their inputs and assure consistency
- Integrate all contributions and provide the first review version
- Integrate the feedback of the first review round (WP internal review) and provide the second review version
- Integrate the feedback from the second review round (WP external review) and provide the final version

6.3.1 Step-by-step instructions

- Each deliverable responsible has to appoint **one** WP internal reviewer and **two** WP external reviewers based on their technical background. The person responsible for a deliverable invites the potential reviewers by email and enters the reviewers in the CRYSTAL SharePoint after having received their commitment.
 1. Select "Reviews"
 2. For each deliverable in your WP:
 - i. Select the respective deliverable
 - ii. Click "Edit" and enter the reviewers in the dropdown list and click "Save".
- **4 weeks** before submission to JU: Provide the WP internal review version:
 1. Select "reviews"
 2. For each deliverable in your WP:
 - i. Select the respective deliverable
 - ii. Click "Edit"
 - iii. Attach the file (please use the template, and respect the naming convention in Section 3.3.3)
 - iv. Set status to "**WP internal review**" and click "Save"
 3. **Notify the reviewers by email, that the deliverable is ready for review!**
- **2 weeks** before submission to JU: Provide the WP external review version:
 1. Select "reviews"
 2. For each deliverable in your WP:
 - i. Select the respective deliverable
 - ii. Click "Edit"
 - iii. Attach the file (please use the template, and respect the naming convention in Section 3.3.3)
 - iv. Set status to "**WP external review**" and click "Save"
 3. **Notify the reviewers by email, that the deliverable is ready for review!**
- **2 days** before submission to JU: Provide the final version:
 1. Select "reviews"
 2. For each deliverable in your WP:

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- i. Select the respective deliverable
- ii. Click “Edit”
- iii. Attach the file (please use the template, and respect the naming convention in Section 3.3.3)
- iv. Set status to “**final version**” and click “Save”.

6.4 Duties of the Reviewers

After having been notified by the Deliverable Responsible that the deliverable is ready for review, the Reviewer should provide its feedback directly to the Deliverable Responsible within **7 days**.

6.5 Duties of the Coordinator

The Coordinator performs a final formal check of the final document, generates a PDF file, and submits the deliverable to the ARTEMIS JU. In addition, the Coordinator maintains and monitors the list of deliverables (see Section 6.1).

7 Rules for dissemination and exploitation

In order to make a project and its results visible, it is necessary to communicate (disseminate) and use (exploit) the results during and after the project execution. The following chapter provides basic information on how to deal with these aspects on project agreement and reporting level.

7.1 General Dissemination

All partners are invited to perform dissemination activities. For this purpose, the project management together with the dissemination team provides general presentations and posters that can be used for ad-hoc presentations of the project. There are two essential elements:

1. All dissemination material needs to include the following acknowledgement: "The research leading to these results has received funding from the European Union's Seventh Framework Program (FP7/2007-2013) for CRYSTAL – Critical System Engineering Acceleration Joint Undertaking under grant agreement № 332830 and from specific national programs and/or funding authorities." Please check your national funding contracts, if there are further regulations that need to be followed.
2. Continuously report your dissemination activity on the CRYSTAL SharePoint. This will help us a lot to generate the reports on that topic. Simply go to the list "Dissemination" on the CRYSTAL SharePoint <https://projects.avl.com/11/0154/Lists/Dissemination/AllItems.aspx> and create a new entry via "Add new item". Please describe your dissemination activity as precise as possible.

7.2 Publications

Publications are dealt with in the CRYSTAL Project Consortium Agreement. According to this, the following process has been defined:

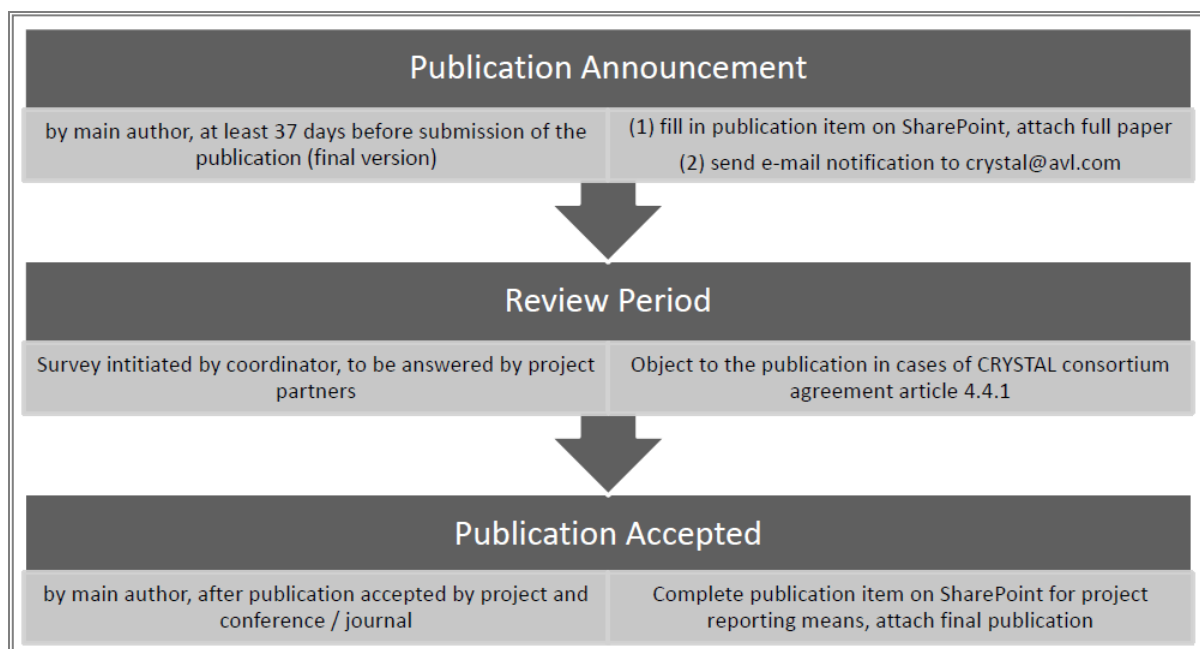


Figure 1-11: Publication process

7.2.1 Publication Announcement

It is the duty of the main author to:

1. Fill in the publication item on the CRYSTAL SharePoint which is accessible via <https://projects.avl.com/11/0154/Lists/Publications/AllItems.aspx> as precise as possible at the time. It is necessary to do that 37 days before the submission of the publication (final version!)
2. Simultaneously, send an email to CRYSTAL@avl.com stating that there is a new publication subject to review.

7.2.2 Review Period

Based on the Publication Announcement the Coordinator will launch a review among the CRYSTAL consortium to give every partner the possibility to object to the publication based on the CRYSTAL Consortium Agreement. In case of an objection, the Coordinator will inform the main author who will then have to discuss adaptations of the publication with the objecting person.

7.2.3 Publication Accepted

Once the publication has been accepted, the main author needs to finalize the publication item on the CRYSTAL SharePoint and attach the final version of the publication. This is essential for the purpose of project reporting as such lists need to be provided to ARTEMIS JU in the intermediate and final reports.

7.3 Reporting of Exploitation

Every partner needs to report (1) exploitable foreground and (2) any IP protection measures pursued such as patents or trademarks. This is also done via lists on the CRYSTAL SharePoint:

- For exploitable foreground go to:
<https://projects.avl.com/11/0154/Lists/Foreground/AllItems.aspx>
- For patents/trademarks etc. go to:
<https://projects.avl.com/11/0154/Lists/Patents%20Trademarks%20etc/AllItems.aspx>

These two lists need to be maintained continuously to show (1) the impact of CRYSTAL, (2) ensure proper handling of the rules stated in the consortium agreement and (3) feed the lists needed for the project reporting.

8 Risk Management

During proposal phase the risk management has already been started by establishing a risk-contingency-plan (see Part B, p. 379, Section 3.1.5 Significant risks and associated contingency plan of the Technical Annex). To assure the achievement of project objectives and make the CRYSTAL project a success it is necessary to constantly monitor and reassess defined and potentially emerging (new) risks and adapt the risk plan and evaluate the effectiveness of measures taken to reduce risks. Thus, the WP and SP Leaders, the Technical Board and the Steering Board will dynamically identify potential risks and describe them by using the risk analysis form. Any identified risk will immediately be reported to the Technical Coordinator.

Risk Analysis						
<i>SP/WP/ Task Number</i>	<i>Risk- description</i>	<i>Impact</i>	<i>Proba- bility</i>	<i>Delay</i>	<i>Avoiding action</i>	<i>Risk owner</i>
<i>Project total</i>						

Table 1-7: Risk Analysis Form

Legend:

Impact: To be classified within the range: low – medium – high
Probability: To be indicated as percentage
Delay: Effect on project schedule; to be classified in weeks
Risk owner: Responsible person for managing the risk