Stream Learning for Multilingual Knowledge Transfer

https://selma-project.eu/

D7.1 Quality Assurance and Risk Assessment Plan

Work Package	7
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Version History

Version	Date	Description
0.1	29/04/2021	Initial Table of Contents (ToC)
0.2	19/05/2021	Risk assessment plan added
0.3	27/05/2021	Chapter 3 added
0.4	03/06/2021	Chapter 4 added
0.5	08/06/2021	Introduction, conclusions, summary added
0.6	10/06/2021	Draft sent for QA
0.7	24/06/2021	Quality Assessment by LIA
1.0	30/06/2021	Final version for submission

Executive Summary

This deliverable provides the required documentation and guidelines for the partners of the project about the general project organization, information management, reporting and quality assessment procedures as well as risk management. Its goal is to clarify the project management organization and processes to ensure high quality implementation.

The document details all practical aspects of the management of the project, as the management structure, allocation of responsibilities, collaboration and communication tools, quality assurance processes, risk monitoring and mitigation, project reporting, and organization of various types of project meetings.

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1. Introduction

The Quality Assurance and Risk Assessment Plan is the document describing the quality assurance procedures of the project. It serves as a reference document for the consortium in order to run the project smoothly and ensure that the project achievements meet high quality standards.

This document specifies the activities that have been or will be implemented, including their sequence to ensure that the project results and its deliverables are of best quality. It also identifies the responsible partners to make sure that the required actions are carried out properly, also taking into account the resources available. A comprehensive list of potential risks and measures to counter them are also documented. This is crucial for the successful running and, eventually, completion of the project and its specific objectives without major deviations.

D7.1 is structured as follows:

- In Section 2 we describe the project management structure based on what has been agreed upon in the Description of the Action and the Grant Agreement. All consortium bodies and their roles and responsibilities. Additionally, the decision-making procedures are outlined.

- Section 3 provides an overview of the communication and knowledge management tools that have been implemented to ensure a trouble-free collaboration among the project partners.

- In Section 4 we present the Quality Assurance Plan that includes the standardized process how to prepare and review deliverables. It also describes the project monitoring reports.

- The Risk Assessment Plan in Section 5 lists in total 14 potential risks to the project success, which work packages are affected, how likely they will occur and what procedures the consortium intends to undertake to minimize these risks.

- The final chapter 6 briefly provides conclusions drawn.

2. Project Management

In this section we describe the main structural elements and procedures for the management of the project, which are largely based on two documents:

a) the SELMA Grant Agreement and

b) the Consortium Agreement.

Modifications, refinements and extensions have been included where needed.

2.1 Management Structure

The SELMA consortium consists of five core project partners, each leading at least one work package. We have therefore set up a simple management structure and procedures which are both drawn from experience of successful research project management in the past and the importance of involving industry stakeholders in the innovation management plan of the project.

The management responsibilities are borne by three individuals, constituting the project's Steering Board, and one decision-making body that includes all consortium members, the General Assembly. This management structure, complemented by an external user and advisory board, is shown in the figure below.

Specifically, the overall project and administrative management is led by the **Project Coordinator** (Kay Macquarrie, DW); the project coordinator is supported in terms of research monitoring and management by the project's **Research Manager** (Afonso Mendes, PRIB), and in terms of innovation management by the **Innovation Manager** (Guntis Barzdins, IMCS). These three managers together constitute the project's **Steering Board**. The Steering Board altogether is supported by the **General Assembly** of the project, where all consortium members are represented. The Project Coordinator, or the Research Manager and the Innovation Manager where appropriate, call board meetings and set out the agenda, ensure minutes are taken, clearly register every decision taken -including actions for partners- and following the meeting ensure that decisions are followed through and actions performed by their deadlines.
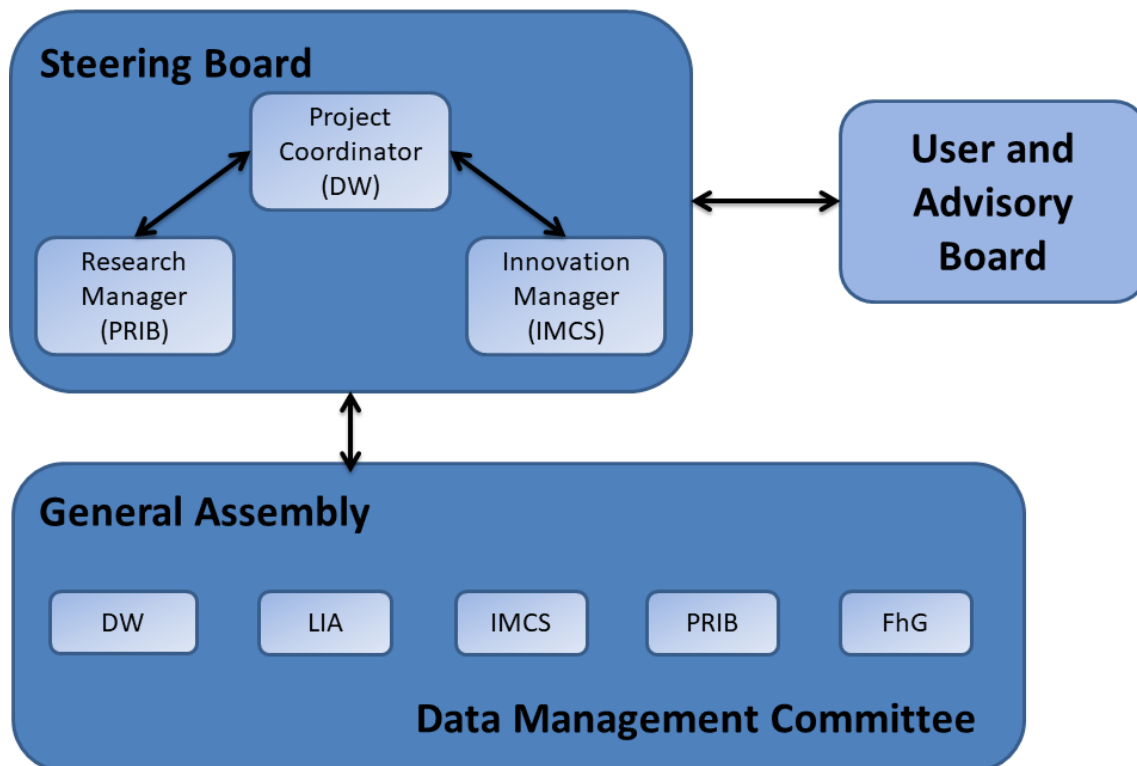
Klassifikationsstufe: Intern

Figure 1 Management Structure

The boards and groups have different responsibilities in terms of the project work:

The **Steering Board** is a flexible three-member board that reviews all activities undertaken within the project, to ensure that they are of high quality, in sync and in accordance with the overall project needs. The Steering Board's recommendations in relation to the general directions of the innovation, technology adaptation and integration activities are adopted by agreement of all three of its members and are subsequently communicated to the General Assembly. The Steering Board also oversees quality, data and knowledge management activities within the project, and ethics and risk management (in accordance with the ethics guidelines, and the risk management and mitigation procedures described in table X, respectively. Disagreements within the Steering Board that cannot be resolved by discussion within the board and strategic project decisions that go beyond the responsibilities of this board are taken to the General Assembly.

The **General Assembly**, also led by the Project Coordinator Kay Macquarrie (DW) and supported by a local project administration team, is made up of all consortium partners. It is the highest decision-making body in the project. It oversees and guides the administrative tasks of the project: reporting periods for deliverables, financial reporting and project reporting; checking work is performed in line with the work plan and according to budget; organizing project meetings and reviews; coordinating project changes and communication with the EU. Particularly, deviations in planned work will be raised and discussed within this board as well as corrective actions with respect to work plan or budget. The General Assembly also reviews and resolves any disagreements or disputes between partners that were not possible to resolve in a smaller circle.

The **Data Management Committee** comprises a representative from each partner. It meets as required, at least once per year. Meetings are held face-to-face or virtually. The Data Management Committee produces the initial data management plan for SELMA (D6.1), following the H2020 guidelines for data management. It periodically reviews and updates the data management plan (D6.3; D6.5) and it assesses, supports, and encourages the notion of reproducible research across SELMA.

In addition to the project boards made up of SELMA partners, an external **User and Advisory Board** is currently being set up. It is made up of representatives from research organizations, European media companies and technology providers that do not belong to the SELMA consortium. A list of the organizations that have already expressed interest to use the solutions to be developed in SELMA and which are considered to form the User and Advisory Board can be found in the Description of the Action. By the end of June 2021, eleven persons committed themselves to be member of the User Board. In total, a number of around 20 users is envisaged. During the first User Board meeting, three to five people will be chosen to form the Advisory Board.

The User and Advisory Board serves as an advisor to the Innovation Manager and the project's Steering Board. The members of the User and Advisory Board will be invited to project-organized workshops, in which they will review the project's activities and outcomes, identify the strong and weak points with respect to the objectives of the project (with emphasis on the innovation objectives), and provide recommendations. Furthermore, the members of the User

and Advisory Board help us maximize our industry outreach, serving as links between the consortium and external key industry players.

On the SELMA website we have published an announcement that interested persons can become members of the User Group.
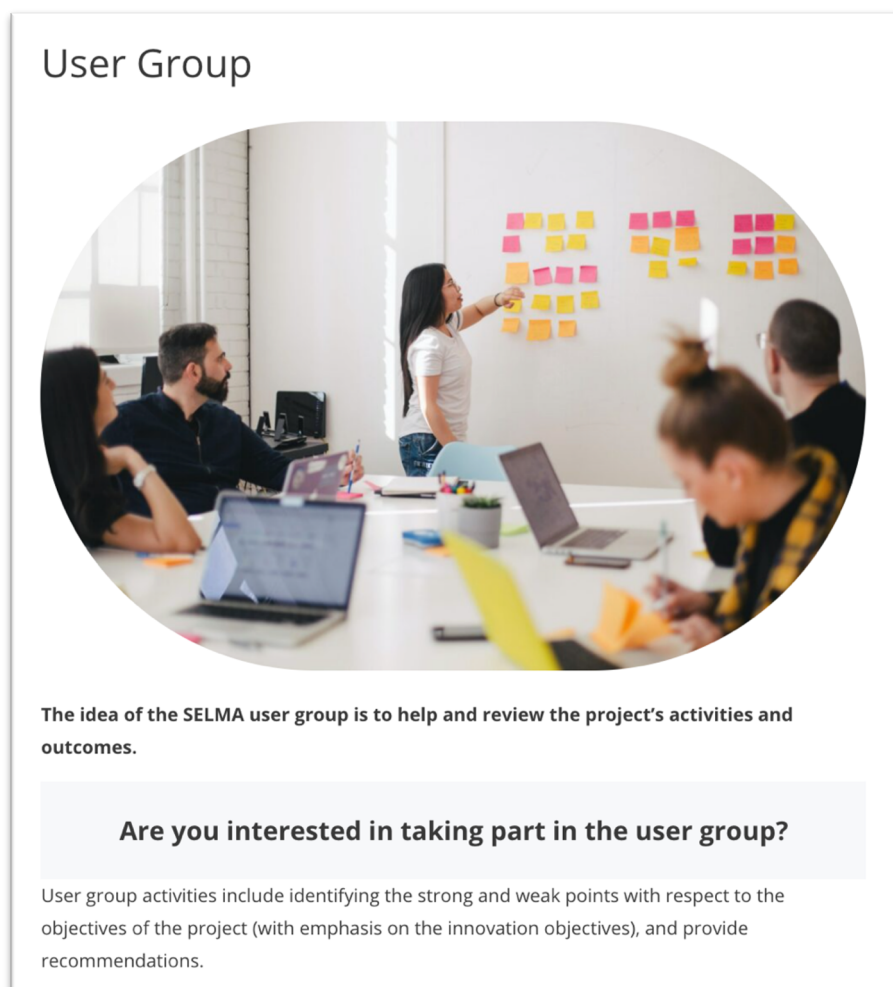

Figure 2 Screenshot SELMA website user group announcement

2.2 (Virtual) Meetings

To support effective internal communication in the consortium and ensure that project-level issues are addressed as efficiently and quickly as possible, face-to-face meetings as well as phone conferences are held on a regular basis:

- General project meetings (F2F or virtual consortium meetings): the whole consortium meets twice a year at one partner's premises to review progress and identify issues that need to be considered. It is compulsory for every partner to be represented at those meetings. The General Assembly meeting is held on the first day of the project meeting, to handle administrative issues and actions, and vote on any issues raised by the Steering Board or any project partner. Other group and work package meeting sessions are also held, if required. In addition, the different work package groups arrange for meetings for their work package, as required. Due to COVID-19 restrictions, the consortium meetings can also be held online.

- General project video conference: all partners join a biweekly video conference to discuss project-relevant issues.

- Work package video conference: each work package organizes video conferences, either on a regular basis or only when needed.

- Steering Board video conference: the steering board has a monthly conference call, to review the project progress and agree on actions.

The collaborative work of the different boards is facilitated by a project-wide communication and collaboration infrastructure (see Chapter 3).

Any project partner may also call for an extraordinary meeting at any time outside the usual schedule. In such a case, a general project meeting representing all partners, most likely by conference call, will be convened as soon as it is possible for all members to ensure a quorum. In addition to the internal project meetings, meetings with the members of the User and Advisory Board will be held at least once a year, either in connection to a general project meeting, or independently possibly attached to a broader industrial event.

The proposed structure ensures that industry stakeholders are able to drive the issues that are raised and discussed in the project, in line with their requirements and needs. The research partners discuss how to address the identified requirements and needs. The issues that would require substantial changes to the existing project work as planned in the Description of Action are passed to the General Assembly and not decided immediately only by the research partners. This ensures that a project partner, whose work depends on the results of other consortium

members, can raise the issue to the whole consortium and acquire the necessary majority. Changes in the research work planning to meet industry requirements are jointly driven by the research and industry stakeholders, even - if necessary - against the will of individual partners. Finally, the most significant decisions to the project as a whole, such as budget or consortium shifts, which naturally have an impact on all activities in the project, are made by the General Assembly in accordance with the provisions of the Consortium Agreement and will then be communicated to the PO for approval.

2.3 Votums

For the General Assembly described in Chapter 2.1 a quorum requires that 2/3 of their members are represented. Decisions are taken by majority vote, with the exception of the Steering Board, where consensus of all three members of it (Project Coordinator, Research Manager, and Innovation Manager) is required. Missing members may be represented by another organization if they inform the coordinator of their representation request in writing at least 24 hours in advance.

3. Communication and Knowledge Management

A set of tools have been provided to all partners, to facilitate communication and knowledge management. In the course of the project, project coordinator DW is responsible for handling and troubleshooting any emerging issues.

3.1 Mailing List

SELMA has established one email mailing list (all@selma-project.eu). It is primarily used to address administrative issues that concern the whole consortium.

3.2 MS Teams

DW has set up a SELMA team on Microsoft Teams.

It is used for video conferences and collaboration on documents such as deliverables.

Each work package has its own channel that is used for all communications (chat or video conference) as well as jointly working on files.
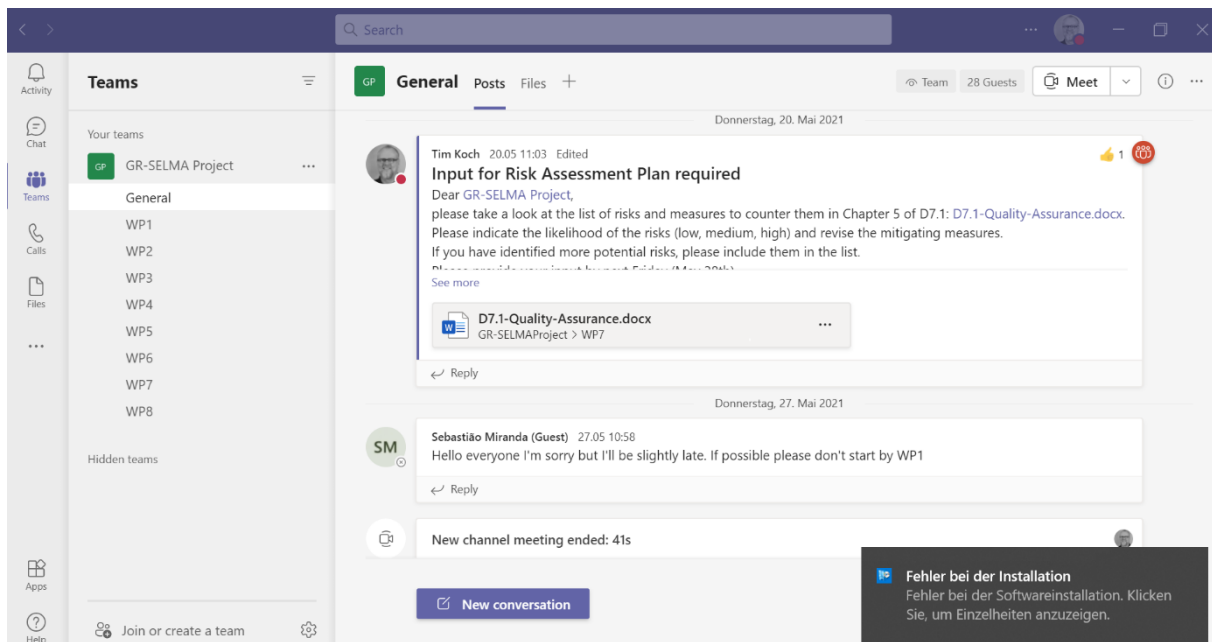

Figure 3 SELMA on MS Teams

3.3 Confluence

DW hast established a SELMA space on Confluence. Confluence serves as the central repository for all documents that are created in the course of the project (deliverables, minutes of meetings, etc.). The access to Confluence to all staff from the project partners is granted on request.
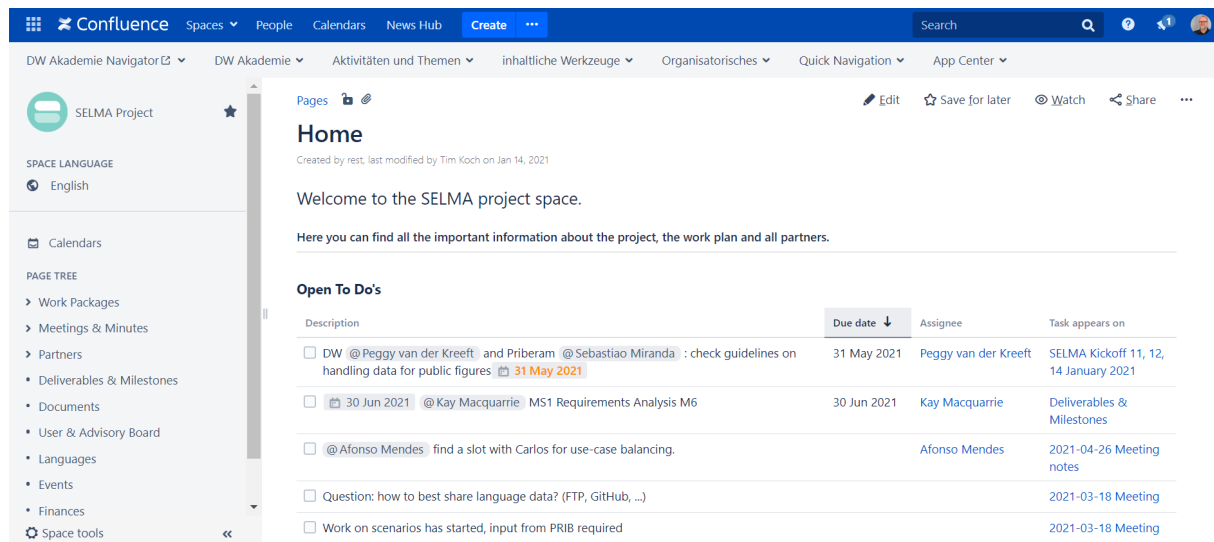

Figure 4 SELMA's Confluence site

3.4 GitHub

GitHub is a code hosting platform which provides an environment for private and public software collaboration. SELMA uses the platform (https://github.com/SELMA-project) to

make it easy to collaborate and develop applications. Eventually, parts of code and software components will be made available to the wider public.
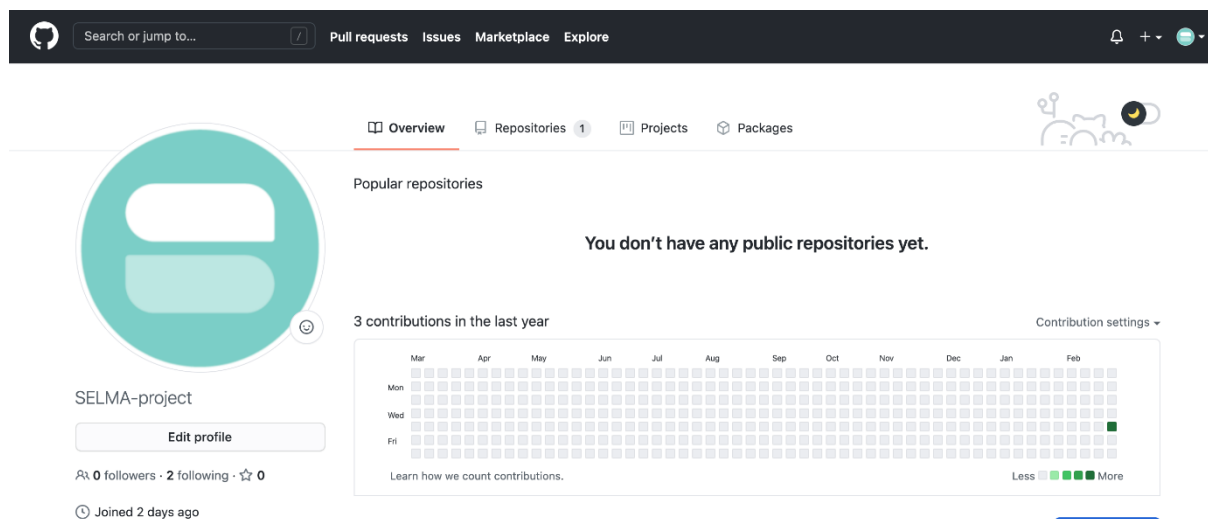

Figure 5 SELMA's GitHub presence

3.5 Docker

Docker is a platform and development tool which SELMA uses to make it easier to create and run applications (https://hub.docker.com/orgs/selmaproject). It is organized in containers, which allow developers to package up an application and deploy it.
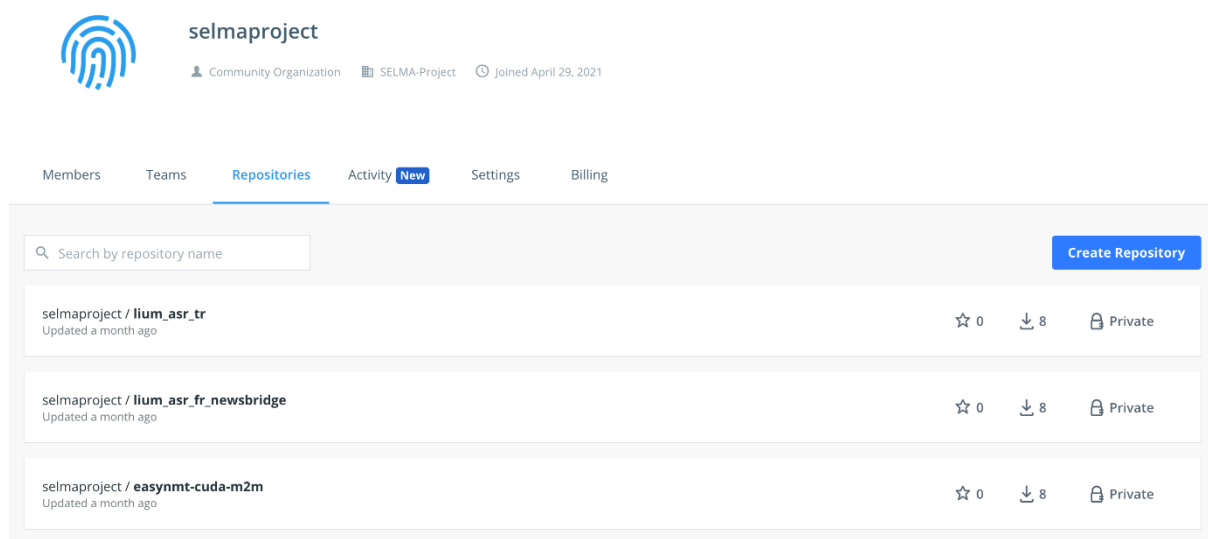

Figure 6 SELMA on Docker

4. Quality Assurance Plan

The Quality Assurance Plan ensures that all activities of the SELMA project are carried out in a defined order and within the scheduled deadlines, maintaining the agreed quality standards. In order to achieve this, constant reporting and monitoring of all activities is essential.

4.1 Deliverables timeplan

The preparation of deliverables follows a specific process, implemented to ensure that the quality standards are met.

Table 1 Deliverable submission timeplan

6 weeks prior to deadline	3 weeks prior to deadline	2 weeks prior to deadline	1 week prior to deadline	Last days prior to deadline
ToC to be circulated by lead beneficiary; Request for input	First draft ready for QA	Reviewer(s) send feedback	Lead beneficiary implements suggestions	Lead beneficiary sends final version to coordinator; Coordinator submits deliverable

Software deliverables must be accompanied by a report including a short description and software documentation such as UI, APIs, user guide, explanatory video, and the like.

For the reviewers of the deliverables, the reviewing procedure consists of two steps:

- Editing the deliverable file with track changes enabled, suggesting changes and inserting comments,
- Filling in the Quality Assurance Review Form (cf. Annex).

4.2   Project monitoring

According to the Grant Agreement (Art. 20) the consortium must submit the following periodic reports within 60 days after the end of each reporting period:

1. A periodic report covering the first 18 months of the project (January 2021-June 2022):
2. A final report covering the second 18 months of the project (July 2022-December 2023).

The **periodic report** is made up of two parts:

- a '**periodic technical report**' containing: (i) an explanation of the work carried out by the beneficiaries; (ii) an overview of the progress towards the objectives of the action, including milestones and deliverables identified in Annex 1 of the Grant Agreement; (iii) a summary for publication by the EC; (iv) the answers to the 'questionnaire', covering issues related to the action implementation and the economic and societal impact, notably in the context of the Horizon 2020 key performance indicators and the Horizon 2020 monitoring requirements.
- a '**periodic financial report**' containing: (i) an 'individual financial statement' from each beneficiary and from each linked third party, for the reporting period concerned; (ii) an explanation of the use of resources and the information on subcontracting and in-kind contributions provided by third parties from each beneficiary and from each linked third party, for the reporting period concerned; a 'periodic summary financial statement', created automatically by the electronic exchange system, consolidating the individual financial statements for the reporting period concerned and including — except for the last reporting period — the request for interim payment.

The **final report** includes:

- a '**final technical report**' with a summary for publication containing: (i) an overview of the results and their exploitation and dissemination; (ii) the conclusions on the action, and (iii) the socio-economic impact of the action;
- a '**final financial report**' containing: (i) a 'final summary financial statement', created automatically by the electronic exchange system, consolidating the individual

financial statements for all reporting periods and including the request for payment of the balance and (ii) a 'certificate on the financial statements' (drawn up in accordance with Annex 5 of the Grant Agreement) for each beneficiary and for each linked third party, if it requests a total contribution of EUR 325 000 or more, as reimbursement of actual costs and unit costs calculated on the basis of its usual cost accounting practices.

On top of the project monitoring laid down in the Grant Agreement, the project partners will be asked check whether their progress and person months consumption is in line with the initial plan. These checks will occur after PMs 6, 12, 24 and 30 so that any issue can be detected and dealt with before the end of the official reporting period.

5. Risk Assessment Plan

The risk management plan has been produced on the basis of existing risk management practices and experience from previous research projects. It aims at risk identification, analysis and mitigation strategies for the project.

A list of potential risks has been presented, along with their corresponding risk-mitigation measures in the Description of the Action (Part A, page 27f).

Risk management includes the following activities:

1. To continuously assess what could possibly go wrong and pose a threat to the success of the project
2. To determine which significant risks the consortium have to deal with
3. To define mitigation procedures to counter these risks

Table 2 List of potential risks

#	Description of risk	WP(s)	Like-lihood	Proposed risk-mitigation measure(s)
1	Partner withdrawal	7	Low	The well-established partners have track record of reliability in previous projects. The consortium will re-assign the work left to the partners that best match the requested competencies. A list is kept of alternative partners covering academic and commercial organizations.
2	Insufficient research progress	2, 3	Medium	Balance research between high-risk and original directions, with lower-risk and popular directions. The progress is

				evaluated regularly. Each research block (WP2, 3) has already existing basic components which will be used as backup if required. Should the progress in one component be below expectation, the overall system will use the basic component.
3	Partner underperforming	7	Low	Project coordinator meets with underperforming partner to remind them of their obligations and devise a plan to get activity back on track. If the partner does not show immediate signs of success, then seek advice of project officer. In the short term divide the work among other partners, and in the long term, replace partner.
4	Underestimation of the required effort	7	Low/ medium	Periodic monitoring of progress vs. spent resources. Yearly updates of the work plan and priorities to reach the key goals.
5	Deliverables not delivered on time	All WPs	Medium	A time plan for the timely submission of deliverables has been established during the kick-off meeting (cf. Chapter 4.1) Plan in place to deliver in timescale, program management best practice. Reallocate small amounts of human resources taking into account the task requirements and participants

				capabilities. Modify the work plan (assuming work was undertaken properly).
6	Platform development runs late	4	Low	Focus on one of the initial use cases so as to achieve one on time; reallocate more resource to integration.
7	Computing resources insufficient for scalability tests	4	Low	Use online services. Extend the platform with cloud nodes from Amazon services.
8	Quality of the end result is not acceptable to users (after ASR, MT, summarization)	2, 3	Low/ medium	Compare to SOTA external components, add or improve components to enhance output. Improve post-editing options.
9	Transfer Learning not sufficient for low-resource languages	2, 3	Medium	Compensate with weakly-supervised approaches for improving results on low resource languages
10	Training data inadequate or insufficient	2, 3	Low	Regularly assess to the workflow of preparation of data dumps and implement improvements.
11	Visualization and User Interface not compatible with user partners' operational workflow	1, 4, 5	Low	Involve users for setting user requirements and UI. Periodically monitor and adjust the evaluation and feedback process during rapid prototyping.

12	Platform performance too slow for production	1, 4, 5	Medium	Install and run customized services locally on powerful servers. Run external services remotely. Enable limited services. Disable services not required. Extend deployment with cloud nodes from Amazon.
13	No physical attendance of external users at SELMA User Days allowed due to COVID-19 restrictions	5	Medium	User Days scheduled for September 2022 and November 2023 – hopefully by then herd immunity has been achieved. If not, the user days will be organized as virtual events.
14	New developments may require significant changes with respect to the project objectives	2,3	Low	The project partners continuously monitor market developments and ongoing competitive innovation. In case of important developments, the consortium will make strategic decisions regarding the project orientation.

6. Conclusions

The SELMA consortium consists of five partners with considerable experience in running research and development projects. On top, the partners have a long track of projects in which they have been collaborated and where they proved to be reliable partners that provide high quality results.

Thus, the management structure is rather 'light', i.e., the small number of partners is manageable with a few, well-defined bodies to ensure the smooth running and completion of the project.

All required actions to guarantee the timely delivery of project results are described in this deliverable that serves as the central quality assurance document for the entire consortium.

7.Annex: QA Review Form

SELMA

Quality Assurance Review Form

Deliverable number: [DX.Y]

Date of review delivery: [DD/MM/YYYY]

Reviewers: [Name (Company)]

Overall Peer Review Result:

The deliverable is:
- ☐ **Fully accepted**
- ☐ **Accepted with reservation**
- ☐ **Rejected unless modified as suggested**
- ☐ **Fully rejected**

Suggested Actions:

1. **Content/Structure**. The following changes should be implemented (if any, apart from those noted within the document):

2. **Language/Quality of writing**. Necessary improvements (if any, apart from those noted within the document):

3. **Formatting/presentation**. Necessary improvements (if any, apart from those noted within the document):