



Autonomous Vehicles to Evolve to a New Urban Experience

D1.2 Initial Quality Assessment Plan, Risk Assessment and Contingency Plans

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Acronyms

BMM	Business Modelling Manager
DC	Demonstration Coordinator
EAB	External Advisory Board
EC	European Commission
EM	Exploitation Manager
LA	Leading Author
MEM	Monitoring and Evaluation Manager
PC	Project Coordinator
PEB	Project Executive Board
PGA	Project General Assembly
QRM	Quality and Risk Manager
QRMB	Quality and Risk Management Board
RN	Risk Number
SA	Scientific Advisor
SMB	Site Management Board
TM	Technical Manager
WP	Work Package
WPL	Work Package Leader

Executive Summary

The following deliverable – D1.2 Initial Quality Assessment Plan, Risk Assessment and Contingency Plans – contains quality and risk guidelines for the AVENUE project. Therefore, the overall management responsibilities within AVENUE and the responsibilities regarding quality and risk management are defined. Subsequently, measures and procedures with several related templates for the quality assurance are described including preparation of documents, production of deliverables, dissemination, quality audits, corrective and preventive actions as well as communication. Finally, the process of risk management composed of five steps is explained and identified risks with respective contingency plans are presented.



1 Introduction

The target of the AVENUE project is to demonstrate and pilot the adaptability and efficiency of the deployment of small and medium autonomous vehicles (AVs) in Lyon, Luxembourg, Geneva, Copenhagen and 2-3 replicator cities as of the 3d year of the project. The AVENUE vision for future public transport in urban and suburban areas is that autonomous vehicles will ensure safe, rapid, economic, sustainable¹ and personalized transport of passengers, while minimizing vehicle changes. The goal is to provide door to door autonomous transport allowing commuters to benefit from autonomous vehicles.

At the end of the AVENUE project – 4-year period - the mission is to have demonstrated that autonomous vehicles will become the future solution for public transport. The AVENUE project will demonstrate the economic, environmental and social potential of autonomous vehicles - for both companies and public commuters - while assessing vehicle road behaviour safety.

The present document has been generated within the scope of task *T1.3 Quality and Risk Management*, which is part of Work Package *WP1 Project Management*.

The goal of this document is to provide helpful quality and risk management guidelines for all members of the AVENUE consortium, which provide the basis for producing high quality outcomes and for reducing the threat of risks. Therefore, several procedures and measures are described for the assurance of quality and for the management of risks. Hence, this plan contributes to a governed project execution and as a result to an overall successful project.

The document is composed of three main chapters. In the first part – *Management Responsibilities* – the overall management structure with its different players will be explained. Furthermore, the role and responsibilities of a quality and risk management board will be described. The second main chapter – *Quality Management* – contains all procedures for quality assurance, such as for the preparation of documents or dissemination. Finally, in chapter four *Risk Management* the implementation of a risk management process will be explained in detail based on its different steps.

All members of the AVENUE consortium are encouraged to comply with the following procedures and rules presented. Consequently, this guideline is mandatory during the whole project duration for all project participants.

¹ Within urban transportation sustainable most often refers to electric vehicles.



2 Management Responsibilities

2.1 Overall Management Structure

The overall management structure of the AVENUE project is planned and organized to ensure the fulfilment of the defined targets and objectives. Figure 1 represents an overview of the organizational structure within AVENUE.

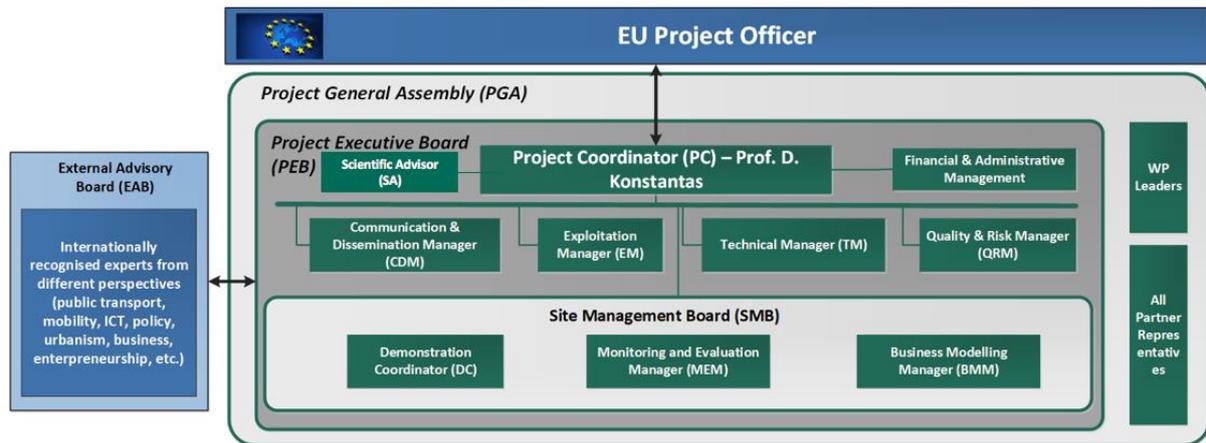


Figure 1: Organizational Structure AVENUE

(Source: Innovation and Networks Executive Agency et al. 2018, p. 56 (Innovation Action - part B))

The subsequent sections name the filling of the individual consortium bodies and describe their respective responsibilities in accordance with the structure in the Grant Agreement (Innovation Action)².

2.1.1 Project Executive Board (PEB)

- The Project Coordinator (PC) is Prof. Dimitri Konstantas, responsible for the overall project management and the interactions with the European Commission (EC).
- The Scientific Advisor (SA) is Danielle Attias.
- The role of the Communication and Dissemination Manager (CDM) will be taken on by Université de Genève responsible for project level Communication and Dissemination activities (each partner is responsible at least for its own local communication).
- The Exploitation Manager (EM), represented by Mrs. Stine Gultaman, is responsible for the maximization of the project's impact by focusing on business and market aspects.
- The Technical Manager (TM) is Mr. Pierre Chewhan, who takes care of all technical and operational matters.

² Innovation and Networks Executive Agency et al. 2018, pp. 56–58 (Innovation Action - part B)

- Prof. Guy Fournier serves as the Quality and Risk Manager (QRM), responsible for the quality assurance within AVENUE and for the implementation of risk management.

2.1.2 Site Management Board (SMB)

- The Demonstration Coordinator (DC) is Mr. Marc Chatelain, who takes care of the organization and management of the demonstration activities in the cities.
- The Monitoring and Evaluation Manager (MEM) is Prof. Guy Fournier.
- The Business Modelling Manager (BMM) Mrs. Pernille Amstrup Lytzen, is responsible for the development of individual and innovative business models for the different AVENUE solutions.

2.1.3 Work Package Leaders (WPL)

The WPLs are responsible for the management and organization of their WP as defined in the Grant Agreement. The main focus is on the steering and control of the tasks within the WP. The WPLs take the responsibility for the correct implementation of all tasks. In case of any deviations or problems, direct reporting to the PC is required.

2.1.4 Partner Representatives

All partner representatives have the responsibility to fulfil their tasks as defined in the Grant Agreement and as agreed with the respective WPLs.

2.1.5 External Advisory Board (EAB)

The EAB consists of external stakeholders who will advise the Project General Assembly (PGA) with their expertise in the field of fully automated road transport. The EAB provides a highly valuable external input to the activities and results generated within AVENUE, and hence contributes to the successful implementation of the project.

The EAB will be extended with further experts and consists so far of five members:

- Prof. Huei Peng – University of Michigan
- Mr. Arthur van der Wees – Arthur's Legal B.V.
- Mr. Bruce Warner – ABB
- Mr. Vincent Abadie – Groupe PSA - Peugeot - Citroën - DS
- Ms Lærke Flader – Danish Energy Association/Danish EV Alliance

2.2 Quality and Risk Management Board

For the purpose of effective management of quality and risk within AVENUE a quality and risk management board (QRMB) will be set up. The QRMB will be managed by the QRM, who will distribute all necessary information and tasks to the board members. Furthermore, the QRM will organize Skype meetings, when required, and also face-to-face meetings in urgent situations.

The composition of the board is variable based on the tasks and problems to be solved (see Figure 2). Therefore, there are three possible constellations. The basis board will always be composed of the QRM and the PC, who will manage all matters around quality and risk. In the second composition there is one additional WPL as part of the board, for example when risks or deliverables in the respective Work Package (WP) need to be reviewed. The third constellation includes all WPLs, which is necessary for the discussion of quality and risk issues concerning the whole project.

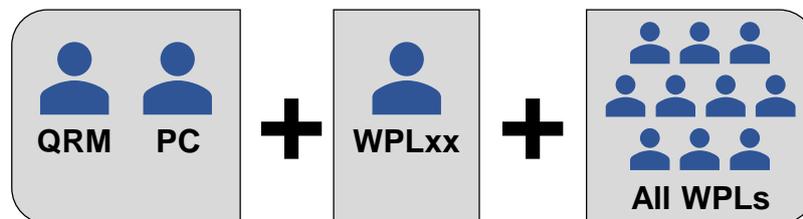


Figure 2: Constellation of the Quality and Risk Management Board

The tasks of the QRMB include:

- the assurance of the correct implementation of the quality and risk guidelines in all WPs,
- the allocation of deliverable reviews and controls,
- the conduction of quality audits,
- the management of corrective and preventive actions,
- the monitoring of risks with their corresponding countermeasures and if necessary the remedy of occurring risks,
- and finally, when necessary, the adjustment or introduction of quality and risk procedures.

3 Quality Management

3.1 Purpose and Goal

Quality Management represents a vital activity in the management of projects. The introduction of suitable procedures ensures high quality project results and outcomes, which meet the expectations of the customer and all other stakeholders³. Therefore, it makes an important contribution to the overall success of the AVENUE project. In the following measures will be presented to ensure the quality of the project. This includes guidelines for the *preparation of documents, deliverables and disseminations* as well as guidelines for *quality audits and corrective and preventive actions*.

3.2 Quality Management Roles

All members of the AVENUE consortium have the responsibility to produce high quality outcomes. Therefore, the quality guidelines and procedures apply to all AVENUE participants and hence must be followed by everyone.

The QRM together with the QRMB will ensure and check that the quality measures are performed correctly. Furthermore, the QRM is the central contact person for any questions or issues related to quality within the AVENUE project.

3.3 Preparation of Documents

During the project duration several types of documents and files will be prepared. In order to make the preparation easier and to ensure a high quality of the documents, the following guidelines must be applied.

3.3.1 Templates

Several templates can be found in the annex and in the project repository (H2020_AVENUE → Templates). This will include: Deliverable Template, Deliverable Review Form, Internal Audit Report, Corrective/Preventive Action Request, Risk Record Template. If required further templates can be prepared and provided in the project repository.

Members of the AVENUE consortium are encouraged to check if suitable templates are available before starting the preparation of files. Additionally, the style sheets of the templates (e.g. heading level X, etc.) should be used.

³ Bea et al. 2008, p. 45



3.3.2 Naming

In order to ensure easy and fast identification, documents and files will be labelled according to a consistent approach.

The following structure should be used for all types of documents that will be circulated internally: YYYYMMDD_TYPE_TITLE_VERSION_WP_PARTNER_STATUS

- YYYYMMDD: Date of the last editing
- TITLE: Informative title
- WORKPACKAGE: Respective work package
- PARTNER: Acronym of the responsible partner
- STATUS: > Draft: work in progress
> Final: ready for submission, publication etc.
- VERSION: Vi.ii → i - for major changes; ii – for slight changes

E.g.: 20180728_D1.2 Initial Quality and Risk Assessment Plan_WP1_HSPF_Draft_V1.0

The following structure should be used for all documents that are finalized or/and will be made public: PROJECT_TITLE

E.g.: AVENUE_D1.2 Initial Quality and Risk Assessment Plan

3.3.3 Software and File Formats

In general, the use of the Microsoft Office Suite is recommended for the preparation of project files. Moreover, it is vital that the following file formats are used in order to ensure that everyone can open and edit the files.

- Documents: Microsoft Word – File format: .docx
- Presentations: Microsoft PowerPoint – File format: .pptx
- Spread sheets: Microsoft Excel – File format: .xlsx

All files for dissemination or publication must be saved as a PDF.

The use of another software is only allowed if all of the following guidelines are fulfilled:

- Other file editors agree the use of the respective software.
- Other file editors have access to the respective software.
- The final version of the file must be made available as a PDF, so that everyone can open the file.



3.3.4 Storage

The project repository serves as a central storage for all project related files. Therefore, a clear folder structure has been generated, which ensures the right allocation of all files. In case a suitable folder cannot be found, the setup of a new folder is possible, but should be done in consultation with the project repository manager (Mr. Maher Ben Moussa).

All members of the AVENUE consortium are encouraged to store their files in the project repository in order to avoid loss of data and to make files available for other members (e.g. for reviews).

3.3.5 Language

All files and documents have to be written in English. More specifically, they should be prepared in British English to avoid any confusion when checking the spelling. Therefore, the language in the Microsoft Office suites should be set to *English (UK)*.

Nevertheless, questionnaires, and documents serving to collect evaluations and information from passengers and users of the AVENUE services, will be written or translated and adapted to the local language of the users, so that they can be clearly understood (this is very important especially for the consent forms). An English translation can be done, if needed.

3.4 Production of Deliverables

All results and outcomes of AVENUE will be presented in the form of deliverables. Therefore, the preparation and submission of deliverables is a key responsibility within the project. This task will be conducted according to clear rules and a structured process to ensure a high content-related and a high formal quality of all deliverables.

3.4.1 General Information

- An overview of all deliverables is included in Annex I.
- A leading author (LA) must be determined by the WPL for each deliverable. The LA is responsible for the management of the entire production process.
- The LA prepares the first draft with contribution from several partners of the WP. Hence, the LA needs to identify the contents of the deliverable and allocate the responsibilities to the contributing partners.
- Please refer to *3.3 Preparation of Documents* for the production of the deliverable, as all guidelines (template, naming etc.) in this chapter must be applied.
- Please use the project repository for sharing deliverables and avoid sending them via Email.



3.4.2 Production Process and Scheduling

The production of deliverables is composed of seven steps (see Figure 3), which will be described in detail below.

1. The LA and the contributing partners prepare the first draft.
2. The LA provides the first draft in the project repository in its respective folder (Path: *H2020_AVENUE* → *Deliverables* → *WPxx* → *Dx.x*) and informs the reviewers via Email.
3. The assigned partners conduct the first review with use of the review template (see Annex III). The reviewers focus both on the content and formalities. The reviewers provide the review template and the reviewed draft in the project repository.
4. Based on the comments and results of the review the LA prepares a second draft, places it in the project repository and again informs again the reviewers.
5. The assigned partners conduct a second review to check whether their comments and corrections have been implemented with respect to content and formalities. The reviewers place the review template and the reviewed draft in the project repository.
6. Based on the results of the review the LA prepares the final version, places it in the project repository and informs the PC.
7. The PC conducts a final review, informs the LA whether further improvements are necessary or not and finally submits the deliverable to the EC.

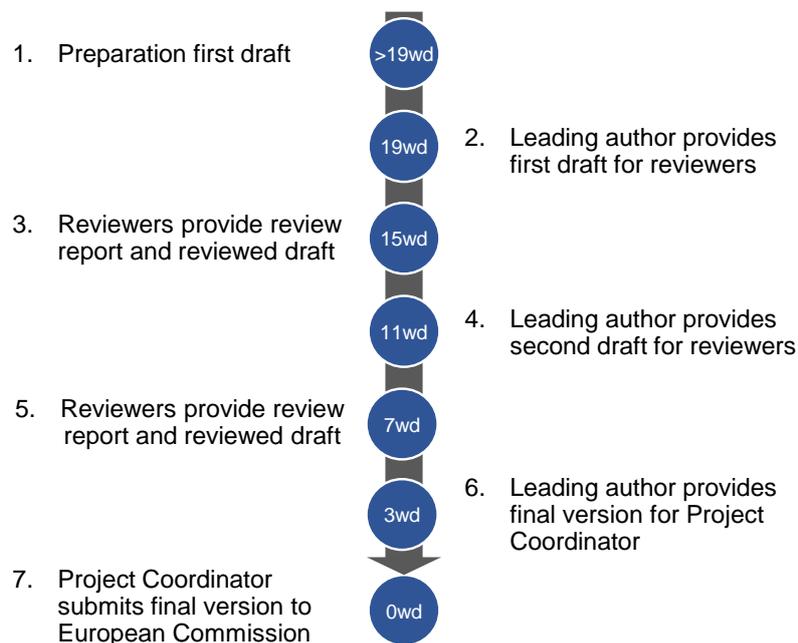


Figure 3: Deliverables Production Process

Numbers are included in the circles of Figure 3, which display the day when a step must be taken. Those days only include working days (wd) from Monday to Friday. It is recommended that this scheduling is followed, but it is not mandatory. In any case, the LA is responsible for the appropriate production of the deliverable with respect to quality and time.

The preparation of the first draft should be fulfilled four weeks before the submission to the



EC. Hence, depending on the effort for the production of a deliverable an early start is required (Step 1). Then Step 2 to Step 7 have to be completed until the respective working day. Figure 4 represents a possible timetable according to the recommended scheduling.

September 2018						
Mo	Tu	We	Th	Fr	Sa	Su
27	28	29	30	31	1	2
Step 1						
3	4	5	6	7	8	9
Step 2	Step 3					
19wd	18wd	17wd	16wd	15wd		
10	11	12	13	14	15	16
Step 4				Step 5		
14wd	13wd	12wd	11wd	10wd		
17	18	19	20	21	22	23
Step 5			Step 6			
9wd	8wd	7wd	6wd	5wd		
24	25	26	27	28	29	30
Step 6		Step 7				
4wd	3wd	2wd	1wd	0wd		

Figure 4: Example Scheduling for Deliverables Production

3.4.3 Status Tracking of Deliverables

A helpful tool is included in the project repository (see Figure 5) for the management of a deliverable’s status. The status of each deliverable will be tracked with this tool, which can be found under the menu item *Deck*. Each deliverable is represented in the *Deck* in the form of a card, and this card can be moved between different statuses. For more detailed information please refer to *D1.1 Project Handbook for Administrative and Financial Management and Reporting*. Moreover, the status of each deliverable will be discussed in a monthly Skype meeting that will be organized and led by Mr. Maher Ben Moussa (supporting the PC).

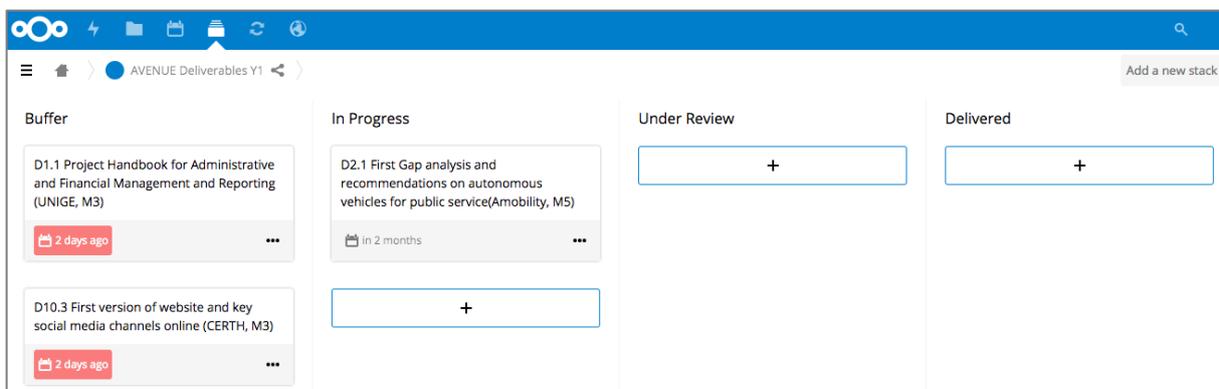
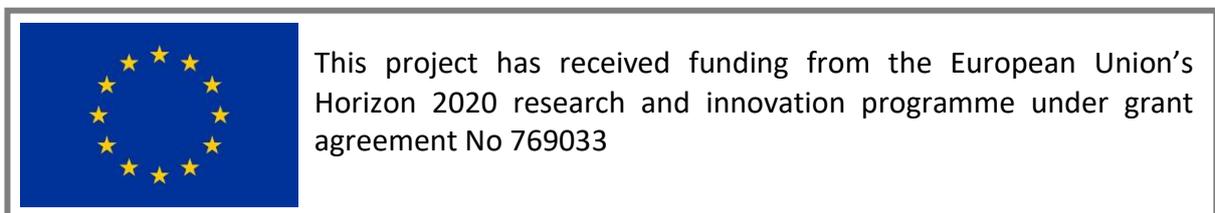


Figure 5: Deck - Status Tracking of Deliverables

3.5 Dissemination

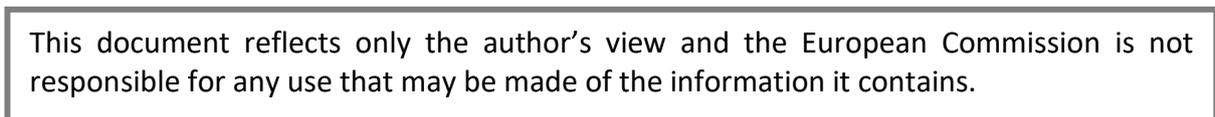
Any type of dissemination like the external communication with third parties on project matters needs to be approved when it contains internal and unpublished information (e.g. in the form of project results or work of a consortium member) about the AVENUE project. This is necessary to make sure that internal, confidential information will not become public. In addition, it ensures that all disseminations and published information are of appropriate quality. Approval should be obtained from the PC, the QRM and all concerned parties of the AVENUE consortium.

The dissemination of any project results or information needs to fulfil the regulations of the EC. For that reason, dissemination in any form (document, presentation, etc.) must contain an indication that the project is funded by the EU. For this reason, the following emblem and



sentence must be included:⁴

Furthermore, dissemination must contain a disclaimer excluding the EC. Consequently, the



following sentence must be included:⁵

Please refer to the deliverable *D1.4 Initial Privacy protection & Data Management Plan* for specified guidelines and procedures for dissemination.

⁴ Innovation and Networks Executive Agency et al. 2018, pp. 56–57

⁵ Innovation and Networks Executive Agency et al. 2018, p. 49



3.6 Internal Quality Audits

In special circumstances, such as an occurring problem of major relevance, an internal quality audit can be performed at the respective partners' place. Its purpose is twofold: first, analyse the cause, for example by checking if all guidelines have been applied; second, identify measures for solving the issue and further potentials for improvement.

The audit object can be a process, an activity, a deliverable or something else depending where the problem occurs.

The audit will be conducted by the PC and the QRM with support from the respective WPL. The QRM will organize and manage the execution of the complete audit. The PC and the QRM will note all findings, the potentials for improvement and the further procedure with the issue in an audit report, which will be distributed to all relevant partners. A template for the audit report is included in Annex IV.

3.7 Corrective and Preventive Actions

In case of inappropriate performance of an AVENUE partner, other participants can raise their concerns and propose corrective and/or preventive (if required) actions to solve the nonconformance. The goal of corrective actions is to rectify the problem, whereby preventive actions try to avoid problems before they occur.

A form in Annex V is provided for the notification of a recognized issue with a partner. The problem should be described in detail and corrective/preventive actions should be proposed. Then the form will be handed over to the QRM, who will notify the consortium member and the respective WPL. Thereupon, the concerns and proposed actions will be discussed with all parties involved and concrete corrective and/or preventive actions for solving the issue will be agreed.

3.8 Communication and Collaboration

Communication and collaboration represent important activities for the assurance of high quality and the successful execution of the project. Guidelines for communication and collaboration within AVENUE are not part of this document. Please refer to deliverable *D1.1 Project Handbook for Administrative and Financial Management and Reporting* for detailed information.

4 Risk Management

4.1 Purpose and Goal

Risk management is about the act or practice of dealing with risks.⁶ As risks affect every project including the AVENUE project, it is vital to introduce and perform risk management activities. Through the performance of proper risk management the probability of occurrence and/or the impact of an unfortunate event can be reduced.⁷ Hence it is an important management activity to ensure successful project outcomes as well as an overall successful project execution. The risk management within AVENUE will be executed in a structured process composed of five phases, which will be presented in the following sections.

4.2 Necessity and Relevance for AVENUE

Risk management within AVENUE plays a major role as the project deals with a technology, which entails high risks. Fully autonomous driving vehicles are still in development and therefore risks cannot be 100% excluded. The technology attracts a lot of attention worldwide and is often critically viewed. Especially in the case of accidents with autonomous driving vehicles, it is most likely that media around the world report about it and the technology could come in for criticism.⁸

Furthermore, occurring risks with respect to the technology (e.g. accidents with harm to passengers) can have a huge negative impact on the whole project and hence endanger the project's success.

4.3 Risk Management Roles

The QRMB is responsible for the overall risk management. Therefore, the QRM will organize and structure the execution of the risk management process. The WPLs are responsible for the implementation and the correct conduct of the risk management in their respective WP. In any case, this task requires support of all members of the AVENUE consortium. In particular, the identification, analysis and response planning of the risks will be conducted by all involved parties. The monitoring and control will be taken over by a responsible person, who will be identified for every risk. The communication of the risks will be carried out under the instructions of the QRM. The PC will also be involved for high risks in order to support the development of appropriate measures and actions.

⁶ Kerzner 2013, p. 876

⁷ Project Management Institute 2013, p. 309

⁸ Bill Vlasic, Neal E. Boudette 2016



4.4 Risk Management Process

The following Risk Management Process refers to the approach of the Project Management Institute⁹. It is an iterative process composed of four phases plus the phase of *Communication* (see Figure 6). The process will be performed continually during the whole project duration and starts with phase 1 *Identification*.

For the execution of phase 1 to 3 an Excel-file (*Risk Submission* template) can be found in the project repository: *H2020_AVENUE* → *Templates*. The completed Excel-Sheet must be handed over to the QRM, who will consolidate all the results in a central risk register.

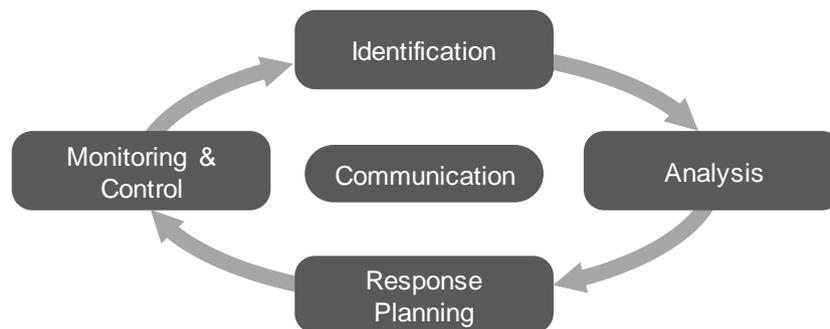


Figure 6: Risk Management Process

In **Error! Reference source not found.** a list with all identified risks and countermeasures is included.

4.4.1 Identification

The target of the first step is to identify and document all risks, which might harm the project. This step is crucial, as only identified risks can be treated. Therefore, it is the responsibility of all members of the AVENUE consortium to identify risks. During this, task members should not just focus on risks within their WP, but also have a look at other WPs and areas.

Several methods can be applied for the identification of risks. The *Documentation Review* contains the idea to analyse project related documents, which might include indications for risks. For the *Checklist Analysis* lists with risks from past projects will be consulted and controlled whether they contain relevant risks for the current project. Finally, the creativity technique *Brainstorming* could be applied during project meetings for the identification of risks.¹⁰

⁹ Project Management Institute 2013, pp. 309–353

¹⁰ Project Management Institute 2013, pp. 324–325

4.4.2 Analysis

The second step is a qualitative analysis of the identified risks. The impact and the probability of occurrence must be determined for each risk.

The scale for the impact is from 1 (very low) to 5 (very high) and for the probability of occurrence from 1 (very unlikely) to 5 (very likely). Afterwards a risk number (RN) will be calculated of the impact multiplied by the probability of occurrence. According to the RN the risks will be ranked and classified as *low*, *medium* or *high* risks. The following matrix must be used for the categorization of the risks.

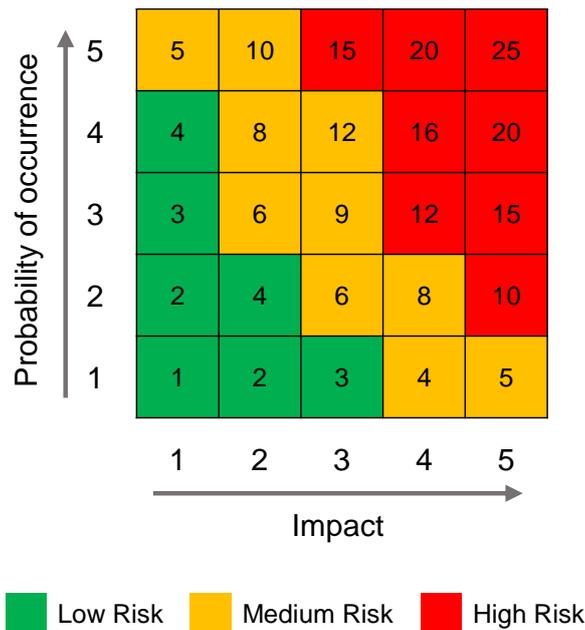


Figure 7: Risk Analysis Matrix
(Source: According to Project Management Institute 2013, p. 331)

4.4.3 Response Planning

Four different strategies to deal with risks can be applied. Those should be used in the following sequence:

- *Avoid* Put measures in place to eliminate the cause of a risk or reduce the probability of occurrence to zero.
- *Mitigate* Put measures in place to reduce the impact and the probability of occurrence of a risk.
- *Transfer* Externalize a risk to third parties (e.g. insurance).
- *Accept* Accept a risk and react when it occurs.

The treatment of the risks will be based on the classification of a risk as high, medium or low (see Figure 7). The respective procedures will be explained in the following:

- *High risk*
All risks which are classified as high risks must be described in detail and listed in the risk register. A person must be determined who is responsible for the risk. This should be the respective WPL. Moreover, measures how to deal with the risk must be described in detail including which strategy (*avoid, mitigate, transfer, accept*) will be applied. This should always be done in consultation with the QRM and PC. Also, actions must be described which will be carried out in case the risk occurs. An immediate meeting of the QRMB will be organized for an occurring high risk including the responsible person (WPL), the QRM and the PC.
- *Medium risk*
All risks which are classified as medium risks must be described in detail and listed in the risk register. A person must be determined who is responsible for the risk. This should be the respective WPL or a WP member. Moreover, measures how to deal with the risk must be described in detail including which strategy (*avoid, mitigate, transfer, accept*) will be applied. Actions which will be carried out in case the risk occurs need not but can be prepared. If the risk occurs the responsible person must take suitable actions in consultation with the QRMB.
- *Low Risk*
All risks which are classified as low risks must be described in detail and listed in the risk register. A person must be determined who is responsible for the risk. This should be the person who identified the risk. Measures need not but can be put in place. If the risk occurs the responsible person must take suitable actions.

4.4.4 Monitoring and Control

This phase includes the implementation of the defined measures for the risks and their continuous control by the respective responsible person. Furthermore, the probability of occurrence and the impact must be assessed again in defined periods, especially for the high and medium risks.

4.4.5 Communication

It is important to communicate the existing risks continuously during the whole project duration. Communication raises awareness for the issue of risk management and leads as a result to the reduction of risks. Therefore, the risk topic must be discussed in a meeting, which will take place every 6 months and will be organized by the QRM. Moreover, the QRM will distribute a risk report on a regular basis. In case of ambiguities or questions the QRM can be contacted and asked for advice.



4.5 List of Identified Risks¹¹

ID	Description of risk	Category	Prob. of occur.	Impact	Priority	Countermeasures
1	Disputes over ownership of IPR amongst consortium partners.	Organizational	2	3	medium	Avoid: Standard IPR and access rights clauses will be included in the consortium agreement, which will be signed before work starts to avoid future disputes. Moreover, the consortium has already discussed these aspects internally during the proposal preparation phase to avoid problems.
2	A critical scenario (or several) is described by WP6 and measures are not taken to mitigate the risks for users in the study.	Organizational	3	3	medium	Mitigate: Strong involvement of the coordination in order to apply the due measures.
3	A critical scenario is overlooked both by WP6 and operators, which may result in severe incident / accident.	Organizational	2	3	medium	Avoid: A critical scenario is overlooked both by WP6 and operators, which may result in severe incident / accident. Make available all critical scenario proposals to collaborators in case further input can be considered into the scenarios. Strong involvement of coordination to remind operators that WP6 can't be held responsible for the safety of their own site, and therefore, might not identify/model each and every threat.
4	Key staff illness/leave the team during the project duration.	Organizational	3	3	medium	Mitigate: All partners have experienced staff that may replace and take over the work assigned to the leaving member, either temporarily or permanently. We share all documents in the same place, write accurate minutes after each meeting and mark all e-mails with AVENUE making them easy to find and send to new project members.
5	Partner leaves Consortium.	Organizational	2	4	medium	Mitigate: AVENUE consortium addresses those issues by having the key expertise areas covered by more than one partner, thus ensuring that the project will not suffer until replacement is found or until the partner returns.

¹¹ The list represents the result of all consortium members involved in the risk management.



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6	Absence of change management system or process.	Organizational	2	2	low	Avoid: Implement change management to respond to emerging problems or new insights. However, change management should only be used when it is really needed. Subsequent changes are expensive and may involve new risks for other parts of the project that need to be re-clarified.
7	Open decisions can delay the course of the project unless clear deadlines and decision-making rules are defined.	Organizational	3	3	medium	Avoid: Define responsibilities and powers early and publicize them.
8	Manufacturer of autonomous vehicles ceases operations.	Organizational	2	4	medium	Mitigate: Given that an initial number of vehicles have been already purchased and committed to the project, the pilots could run on a reduced number of vehicles. Other manufacturers could ultimately fill in the role if needed or provide the required maintenance depending on the stage the project is into (i.e. vehicles still missing to be deployed, pilots fully operational, etc.).
9	Unavailability of requested shuttle design safety analysis.	Organizational	4	4	high	Avoid: Implication of NAVYA safety specialist in the project, identified. Query intermediate milestones to determine a lack of time as quickly as possible.
10	Unavailability of standard shuttle behaviour models to evaluate risk coming from unpredicted situations or deviated human behaviours.	Organizational	4	4	high	Avoid: Implication of NAVYA simulation specialists in the project. Query intermediate milestones to determine a lack of time as quickly as possible.
11	The results and/or methods of the scientific assessments within WP8 are challenged or impeached by stakeholders and/or academic peers which leads to reputation losses.	Organizational	3	4	high	Avoid: Document all research methods and results transparently; ensure that all research activities within WP8 follow the state of the art of the respective research methods and are executed neutrally and in an unbiased manner; apply internal and external review of methods and results.
12	Insufficient feedback collected for evaluation studies during the demonstration phase.	Project Environment	3	3	medium	Avoid: Throughout the project a continuous evaluation process is established, which will iteratively refine itself to accommodate deficiencies detected during the demonstration phase.

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13	Unable to create public awareness, user acceptance and external interest. Non-sufficient and/or immature development of business commercialisation strategies. Also, no interest among cities in becoming members of the AVENUE.	Project Environment	3	3	medium	Mitigate: There are dedicated tasks concerning dissemination (e.g. publications, work-shop, press releases and newsletters), exploitation and execution planning. Effort will be made into defining the target domains and markets through cost benefits and effectiveness analysis. Involvement of stakeholders through broad project planning in several countries in business, science and society. Before initiating activities to have city-members, a minimum of five “replication cities” will be consulted in order to identify, how to become attractive for network membership – and cooperation will be established with existing networks to obtain synergies effects. WP2 assessment and requirements analysis will greatly reduce the chance that uninteresting services for the general public will be picked.
14	Different in-out of vehicle services are needed in the different sites due to different legislation, different users and different strategies amongst the operators - making it difficult to build something that makes sense across the different sites.	Project Environment	3	3	medium	Mitigate: We agree on the evaluation criteria for the services - and perhaps even percent weight of each criteria - making sure that we end up selecting and developing the most relevant services.
15	No social acceptance, because autonomous driving endangers working places.	Project Environment	3	1	low	Accept: Regular exchange of information with employees and social partners.
16	Unable to obtain operating authorizations: A federal, district or municipal office refuses to authorize a specific route or to allow the vehicle access. Causes: The vehicles do not satisfy safety or technological conditions, which are defined by these offices.	Project Environment	2	3	medium	Avoid: In this case, "replication cities" that have expressed interest could replace the original intended location.
17	Weather risks such e.g. snowfall or icy roads. The distance sensors could be covered in snow. The vehicle has to know what to do. For example, to adapt the speed to the road conditions.	Project Environment	5	3	high	Mitigate: Possible introduction of a central system that notifies the vehicles of the weather conditions and adjusts the speed.
18	It might be complicated to harmonize interests between all public transport providers.	Project Environment	2	2	low	Mitigate: WP2 and coordinated meetings with public transport companies (TPG, SLA, Keolis, Amobility) will ensure picking the appropriate subset of all available services that are of interest for all the actors involved.



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19	Site demonstrators' location areas change due to unexpected administrative, legal, resource reallocation or technical limitations issues.	Project Environment	2	4	medium	Avoid: Preparation and planning of site demonstrators' execution location areas are already defined before the start of the project. Also, several demonstrator regions will be identified and evaluated as fall-back scenarios.
20	Barriers in legislation, changes in regulations, application of standardisation and maintenance of policies can delay or prevent the implementation into the demonstrators.	Project Environment	3	3	medium	Avoid: The WP2 and WP3 ensure the cooperation with relevant authorities from the start of the project and guarantee early adoption of legislations, regulations, standardisation and policies. Adapt the operation of the services, in collaboration with the public authorities, according to their requirements, so that the required authorizations can be granted.
21	Country-specific legislation might prevent some of the envisioned services (i.e. GDPR, special requirements/rules for data collection, etc.).	Project Environment	2	3	medium	Avoid: Data should be treated according to legislation and properly anonymized so collecting and using it poses no problem from a legal point of view.
22	Country completely bans the operation of autonomous vehicles.	Project Environment	2	4	medium	Avoid: Dedicated tasks to cooperate with local authorities in each country. In the unlikely event of this particular situation materializing, "replication cities" that have expressed interest could replace the original non-viable pilot.
23	Cross-countries and cross development environments can result in hard integration and bad quality of achievements.	Project Environment	3	3	medium	Mitigate: The project starting point TRL7 ensures a high maturity. However, integration and deployment will require considerable efforts. The project has established a strong PGA to monitor in real time any potential deviation, and if necessary all smart actions are perfectly scalable – allowing as last resource a downgrade on the expectations per task.
24	One or more of the site demonstrators has problems with authorisation and/or setup of the planned trials. Consequently, the project will not be able to perform the planned demonstrations and evaluations at the selected site.	Project Environment	2	3	medium	Mitigate: Clarify requirements of the authorisation process early and identify regional bodies to be involved. Decide very early the urban deployment area and the corresponding infrastructure to be used very early. Identify other demonstrator regions where a continuous operation trial can be performed (fall-back scenario).
25	What do we do if, due to fear, few passengers or no one takes the bus shuttle?	Project Environment	3	4	high	Mitigate: Inform the users about the convenience of the transport system and the safety measures taken. Advertise with the (positive) tests in other cities.
26	Resistance, protest or even obstruction of stakeholders like employees of the public transport system.	Project Environment	3	3	medium	Mitigate: Inform the employees that they will be integrated into the new system and get e.g. an adapted training course.



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27	Uncertainty and fear of citizens against autonomous driving due to several already happened accidents with autonomous vehicles, for example in the US.	Project Environment	2	3	medium	Mitigate: Produce a sense of security through many years of testing without worse incidents. Transparency also helps to win the trust of the citizens.
28	Unsatisfactory user requirements collection that can influence the system specification and appropriate development models.	Project Environment	2	3	medium	Mitigate: AVENUE intends to use only approved user requirements collection and analysis techniques for efficient collection and documentation. In addition, an agile development methodology will be used during development and integration stages of the AVENUE services to ensure the involvement of the end-users throughout the full lifetime of the project.
29	End users (drivers, cities, fleet operators) find systems too time consuming.	Project Environment	3	2	medium	Mitigate: Where possible, totally automate functionality so that fleet operators' action is not needed.
30	The acceptance is too low due to low speed (similar to Bad Birnbach Project in Bad Birnbach in Germany).	Project Environment	4	4	high	Mitigate: Explain the necessity of safety and improve the technology to rise the speed and the acceptance.
31	Conflicts and misunderstandings in the project due to different professional backgrounds and countries.	Project Management	3	3	medium	Mitigate: Adaptation to the value systems and norms of each culture for the benefit of ALL. Respect and interest are key elements for a successful relationship: accept differences, be open minded, avoid harmful speech, be patient, aim at understanding, demonstrate, reliability.
32	Bad or absence of communication affected persons are not informed.	Project Management	2	2	low	Avoid: Every two weeks a standard meeting between the involved parties to clarify progress, emerging issues and open questions.
33	If the delimitation for the SoA work is not made very clear, we risk having a very broad analysis, making it difficult to agree on our key focus area now and later on.	Project Management	2	3	medium	Avoid: WP2 group will discuss a delimitation and also agree on this with the PM + potentially the rest of the consortium.
34	The quantity of potential safety threats is too important to be able to thoroughly model all critical scenarios and propose mitigation measures, given the resources available in WP6.	Project Management	3	3	medium	Mitigate: Strong involvement of coordination to remind operators that WP6 can't be held responsible for the safety of their own site, and therefore, might not identify/model each and every threat.
35	Overestimation of the safety-related goals in the project. Potentially, contradiction between what is being advertised/promised and the feasible final results.	Project Management	4	4	high	Mitigate: Caution in official statements/publications. To this end, strong involvement of all partners and due consideration of all the contributions.

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36	Failure to meet initial requirements. This could lead to the delays in the delivery and limited functionality on pilot sites installations.	Project Management	3	3	medium	Avoid: The consortium employs an iterative development and integration approach to ensure clear comprehensive and formal documentation of the user requirements. The use of modern tools for specification, design, development and integration specification and progress traceability will ensure the compliance with the initial requirements.
37	Consortium has no harmony.	Project Management	2	3	medium	Mitigate: The PC will continuously be in contact with all partners. This guarantees that any team problems are identified and solved before they escalate.
38	Poor quality of deliverables and delay in meeting the deadlines.	Project Management	2	3	medium	Mitigate: The TM will provide templates and guidelines documented in a project management handbook for all significant items. Proper internal peer review procedures will be in place, to ensure quality of the deliverables and their preparation in a timely manner. Regular technical meetings will be held to ensure that activities are streamlined and that lessons learnt are shared.
39	Insufficiently defined or too large project scope.	Project Management	3	3	medium	Mitigate: Time planning with milestones to compare the actual project progress with the planned one. In the event of a time difference, the project manager or WP supervisor should clarify the reasons and, if necessary, initiate countermeasures. Past experience should be included and any risk times added.
40	Inaccurate selection of transport, in- and out-vehicle services due to prioritisation strategy, feasibility analysis and unforeseen dependencies.	Technical	2	4	medium	Avoid: A full work package (WP2) is dedicated to the correct assessment and in-depth analysis of the automated transport ecosystem, ranging from end-user requirements analysis up to regulatory constraints. In addition, another work package (WP8) ensures that the collected and evaluated feedback is soundly integrated into the refinements of the services deployed in the demonstrators.
41	In-vehicle / Out-of-vehicle data unavailable and therefore impediment to thoroughly model critical scenarios and propose mitigation measures.	Technical	3	3	medium	Avoid: Early interaction between WP6 leader (CEESAR) and NAVYA and operators for all four demonstrators.

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42	Delayed or failed updates and integration into the running demonstrators due to last-minute equipment failures or lack of interest of end-users.	Technical	2	3	medium	Mitigate: The long-term demonstrator deployments foreseen in this project will provide us with a sufficient time frame to address the problematics. WP6 in turn will provide additional evaluation on safety critical performance of the vehicles and integrated services. The key is to create awareness and stimulate involvement of as many external parties as possible.
43	Technological feasibility might prevent some of the envisioned services.	Technical	3	3	medium	Avoid: WP2 and coordinated meetings with public transport companies (TPG, SLA, Keolis, Amobility), Navya and Bestmile will ensure that services picked will be of interest and technically feasible.
44	Integration and interoperability problems with the APIs and existing platforms of the different transport providers.	Technical	3	3	medium	Avoid: A task of WP4 is fully dedicated to deal with integration of the different services with the APIs and existing platforms of public transport companies.
45	Vehicles used in the pilot breaks down for other reasons and cannot continue.	Technical	3	2	medium	Mitigate: Identify early during the project back-up vehicles or service alternatives in case no vehicles are available.
46	Technical problems create an interruption in the operational phase.	Technical	3	3	medium	Avoid: Find a solution during the implementation phase on how to handle this. Design for stability: put extra effort into the local adaptation phase and use extensive document and code reviews. Prepare a small-scale trial of the functionalities to verify functionalities prior to start of the operation.
47	Vehicles are not integrated properly into the AVENUE platform and behave unaccountably	Technical	3	3	medium	Avoid: Ensure that vehicles use the agreed protocol to communicate their telemetry data and receive missions from the AVENUE platform.
48	Integration with third party systems becomes too complex and time consuming.	Technical	2	3	medium	Mitigate: Ensure that all integration efforts and specifications are clear and available from the beginning of the task. The AVENUE platform should also try its best to use standardized protocols for interfacing with 3rd party systems (e.g. GTFS).
49	Cyber attack	Technical	2	4	medium	Mitigate: Develop a technical strategy to prevent cyber-attacks.
50	The project is based on an innovative technology. However, this technology is still in the development phase. The risk of occurrence of technical problems during implementation is therefore higher than for daily projects.	Technical	3	2	medium	Accept: Progressive ramp-up: A certain scope of action should be considered due to the fact that the performance of the vehicle is not optimally used from the beginning.

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51	Non-implementable design: The design is unworkable, extremely expensive, or will not meet the requirements.	Technical	3	3	medium	Avoid: Early prototype testing to identify problems early and make changes.
52	Safety components such as e. g. sensors fail, which can lead to accidents. For instance, this can be caused by bad weather.	Technical	2	5	high	Avoid: Use multiple identical sensors to verify results and continue to ensure full functionality in the event of sensor failure.
53	Accident which occurs during the driving or testing of the autonomous vehicle.	Technical	2	3	medium	Avoid: Staff who accompany the vehicles should be properly trained. Disturbance factors along the travelled routes should be removed as far as possible.
54	Incorrect communication between the autonomous vehicles and then incorrect driving could lead to congestion and further pollute the environment.	Technical	2	4	medium	Avoid: Control of communication between the autonomous vehicles and the driving style in the central of the transport company.

5 Conclusion

Summarized, two vital activities in the management of projects have been described, namely quality assurance and risk management. Therefore, procedures and respective tools for the execution of quality and risk management within AVENUE have been explained. Moreover, the roles and responsibilities of the consortium members with regard to those procedures have been defined.

This guideline represents the initial version of the quality and risk management plan. As new experience will be gained during the duration of the entire project, it will be necessary to update and revise this document. Those changes will then be considered in a final version of the quality and risk management plan.

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Annex I – List of Deliverables¹² with Reviewers

No.	Title	Lead Beneficiary	Nature	Dissemination Level	Date of Delivery		Reviewer
D1.1	Project Handbook for Administrative and Financial Management and Reporting	UNIGE	Report	Public	M3	2018-07-31	HSPF
D1.2	Initial Quality Assessment Plan, Risk Assessment and Contingency Plans	HS PF	Report	Confidential	M6	2018-10-31	SAG
D1.3	Final Quality Assessment Plan, Risk Assessment and Contingency Plans	HS PF	Report	Confidential	M48	2022-04-30	BestMile
D1.4	Initial Privacy protection & Data Management Plan	CERTH	Report	Public	M6	2018-10-31	NAVYA
D1.5	Final Privacy protection & Data Management Plan	CERTH	Report	Public	M48	2022-04-30	MobileThinking
D2.1	First Gap analysis and recommendations on autonomous vehicles for public service	Amobility	Report	Public	M5	2018-09-30	UniGe
D2.2	Second Gap analysis and recommendations on autonomous vehicles for public service	Amobility	Report	Public	M17	2019-09-30	CentraleSupélec
D2.3	Final Gap analysis and recommendations on autonomous vehicles for public service	Amobility	Report	Public	M35	2021-03-31	Keolis Lyon
D2.4	First Passenger needs analysis and specifications	SAG	Report	Public	M5	2018-09-30	UniGe
D2.5	Second Passenger needs analysis and specifications	SAG	Report	Public	M17	2019-09-30	BestMile
D2.6	Final Passenger needs analysis and specifications	SAG	Report	Public	M35	2021-03-31	VIF
D2.7	First Stakeholder analysis and AVENUE strategies	HS PF	Report	Public	M5	2018-09-30	UniGe
D2.8	Second Stakeholder analysis and AVENUE strategies	HS PF	Report	Public	M17	2019-09-30	MobileThinking
D2.9	Final Stakeholder analysis and AVENUE strategies	HS PF	Report	Public	M35	2021-03-31	SAG
D2.10	First Report on regulatory requirements and compliance plan	CentraleSupélec	Report	Public	M5	2018-09-30	UniGe
D2.11	Second Report on regulatory requirements and compliance plan	CentraleSupélec	Report	Public	M17	2019-09-30	SAG
D2.12	Final Report on regulatory requirements and compliance plan	CentraleSupélec	Report	Public	M35	2021-03-31	HS PF

¹² Innovation and Networks Executive Agency et al. 2018, pp. 6–13 (Innovation Action - part A)

D2.13	First Definition of AVENUE services	BestMile	Report	Public	M6	2018-10-31	CERTH
D2.14	Second Definition of AVENUE services	BestMile	Report	Public	M18	2019-10-31	UniGe
D2.15	Final Definition of AVENUE services	BestMile	Report	Public	M36	2021-04-30	HS PF
D2.16	First Trials use cases specification and evaluation plan	BestMile	Report	Public	M6	2018-10-31	HS PF
D2.17	Second Trials use cases specification and evaluation plan	BestMile	Report	Public	M18	2019-10-31	CERTH
D2.18	Final Trials use cases specification and evaluation plan	BestMile	Report	Public	M36	2021-04-30	EtatGe
D3.1	First Cooperation with relevant initiatives and projects report	UNIGE	Report	Public	M18	2019-10-31	Keolis Lyon
D3.2	Second Cooperation with relevant initiatives and projects report	UNIGE	Report	Public	M36	2021-04-30	TPG
D3.3	Final Cooperation with relevant initiatives and projects report	UNIGE	Report	Public	M48	2022-04-30	SLA
D3.4	First Community for urban transport automation report	Keolis Lyon	Report	Public	M18	2019-10-31	NAVYA
D3.5	Second Community for urban transport automation report	Keolis Lyon	Report	Public	M36	2021-04-30	BestMile
D3.6	Final Community for urban transport automation report	Keolis Lyon	Report	Public	M48	2022-04-30	EtatGe
D3.7	Initial Standardisation and concentration actions report	BestMile	Report	Public	M18	2019-10-31	Amobility
D3.8	Final Standardisation and concentration actions report	BestMile	Report	Public	M48	2022-04-30	Keolis Lyon
D3.9	Initial Twinning with International pilots report	NAVYA	Report	Public	M24	2020-04-30	TPG
D3.10	Final Twinning with International pilots report	NAVYA	Report	Public	M48	2022-04-30	SLA
D4.1	First Iteration Transport services	TPG	Demonstrator	Public	M10	2019-02-28	NAVYA
D4.2	Second Iteration Transport services	TPG	Demonstrator	Public	M25	2020-05-31	CEESAR
D4.3	Final Iteration Transport services	TPG	Demonstrator	Public	M40	2021-08-31	AVL
D4.4	First Iteration In-vehicle services	Amobility	Demonstrator	Public	M10	2019-02-28	AVL
D4.5	Second Iteration In-vehicle services	Amobility	Demonstrator	Public	M25	2020-05-31	CEESAR
D4.6	Final Iteration In-vehicle services	Amobility	Demonstrator	Public	M40	2021-08-31	VIF

D4.7	First Iteration Out-of-vehicle services	MobileThinking	Demonstrator	Public	M11	2019-03-31	Amobility
D4.8	Second Iteration Out-of-vehicle services	MobileThinking	Demonstrator	Public	M26	2020-06-30	VIF
D4.9	Final Iteration Out-of-vehicle services	MobileThinking	Demonstrator	Public	M40	2021-08-31	NAVYA
D4.10	Integration to the existing public transport services' platforms	BestMile	Demonstrator	Public	M40	2021-08-31	SAG
D5.1	Transport management policies	Keolis Lyon	Report	Public	M30	2020-10-31	BestMile
D5.2	First Iteration Core service platform, mobility operating models and data management	BestMile	Demonstrator	Confidential	M24	2020-04-30	VIF
D5.3	Core service platform, mobility operating models and data management	BestMile	Demonstrator	Confidential	M40	2021-08-31	MobileThinking
D5.4	First Iteration Vehicle-to-Platform interfaces and protocols	NAVYA	Other	Confidential	M18	2019-10-31	AVL
D5.5	Vehicle-to-Platform interfaces and protocols	NAVYA	Other	Public	M40	2021-08-31	Amobility
D5.6	Transport service optimization approach and results	BestMile	Report	Public	M40	2021-08-31	AVL
D6.1	First Iteration Controlled environment vehicle safety evaluation report	AVL	Report	Public	M18	2019-10-31	BestMile
D6.2	Controlled environment vehicle safety evaluation report	AVL	Report	Public	M38	2021-06-30	CERTH
D6.3	First Iteration Methodology for safety evaluation	CEESAR	Report	Public	M30	2020-10-31	CERTH
D6.4	Methodology for safety evaluation	CEESAR	Report	Public	M44	2021-12-31	VIF
D6.5	Fist Iteration Cybersecurity and privacy control action plan and recommended technologies	UNIGE	Report	Confidential	M15	2019-07-31	CEESAR
D6.6	Second Iteration Cybersecurity and privacy control action plan and recommended technologies	UNIGE	Report	Confidential	M30	2020-10-31	BestMile
D6.7	Cybersecurity and privacy control action plan and recommended technologies	UNIGE	Report	Confidential	M44	2021-12-31	NAVYA
D7.1	First Iteration Geneva Large Scale Pilot Use Case Demonstration report	TPG	Report	Public	M16	2019-08-31	CentraleSupélec
D7.2	Second Iteration Geneva Large Scale Pilot Use Case Demonstration report	TPG	Report	Public	M34	2021-02-28	SLA
D7.3	Geneva Large Scale Pilot Use Case Demonstration report	TPG	Report	Public	M46	2022-02-28	Keolis Lyon

D7.4	First Iteration Lyon Large Scale Pilot Use Case Demonstration report	Keolis Lyon	Report	Public	M16	2019-08-31	SLA
D7.5	Second Iteration Lyon Large Scale Pilot Use Case Demonstration report	Keolis Lyon	Report	Public	M34	2021-02-28	CentraleSupélec
D7.6	Lyon Large Scale Pilot Use Case Demonstration report	Keolis Lyon	Report	Public	M46	2022-02-28	Amobility
D7.7	First Iteration Copenhagen Large Scale Pilot Use Case Demonstration report	Amobililty	Report	Public	M16	2019-08-31	Keolis Lyon
D7.8	Second Iteration Copenhagen Large Scale Pilot Use Case Demonstration report	Amobililty	Report	Public	M34	2021-02-28	TPG
D7.9	Copenhagen Large Scale Pilot Use Case Demonstration report	Amobililty	Report	Public	M46	2022-02-28	CentraleSupélec
D7.10	First Iteration Luxembourg Large Scale Pilot Use Case Demonstration report	SLA	Report	Public	M16	2019-08-31	Amobility
D7.11	Second Iteration Luxembourg Large Scale Pilot Use Case Demonstration report	SLA	Report	Public	M34	2021-02-28	MobileThinking
D7.12	Luxembourg Large Scale Pilot Use Case Demonstration report	SLA	Report	Public	M46	2022-02-28	TPG
D7.13	Demonstration activities for replication cities report	NAVYA	Report	Confidential	M46	2022-02-28	Keolis Lyon
D7.14	Report on evaluation and assessment of AVENUE solution	CentraleSupélec	Report	Public	M48	2022-04-30	SLA
D7.15	Dissemination of pilot data collection	UNIGE	ORDP: Open Research Data Pilot	Public	M48	2022-04-30	Amobility
D8.1	First Iteration Environmental impact	HS PF	Report	Public	M16	2019-08-31	CERTH
D8.2	Second Iteration Environmental impact	HS PF	Report	Public	M34	2021-02-28	SAG
D8.3	First Iteration Economic impact	CentraleSupélec	Report	Public	M16	2019-08-31	TPG
D8.4	Second Iteration Economic impact	CentraleSupélec	Report	Public	M34	2021-02-28	UniGe
D8.5	Environmental impact	HS PF	Report	Public	M44	2021-12-31	CEESAR
D8.6	Economic impact	CentraleSupélec	Report	Public	M44	2021-12-31	MobileThinking
D8.7	Second Iteration Social impact	HS PF	Report	Public	M34	2021-02-28	CERTH
D8.8	First Iteration Social impact	HS PF	Report	Public	M16	2019-08-31	AVL
D8.9	Social impact	HS PF	Report	Public	M44	2021-12-31	TPG
D8.10	Second Iteration Sustainability assessment	HS PF	Report	Public	M48	2022-04-30	CentraleSupélec

D8.11	First Iteration Sustainability assessment	HS PF	Report	Public	M18	2019-10-31	SLA
D8.12	Sustainability assessment	HS PF	Report	Public	M48	2022-04-30	UniGe
D9.1	Report on recommendations for public authorities	EtatGe-DETA	Report	Public	M44	2021-12-31	SAG
D9.2	Roadmap for the integration of the automated vehicles into existing transport infrastructure	Amobililty	Report	Public	M44	2021-12-31	HS PF
D9.3	Roadmap for cost-attractiveness	HS PF	Report	Public	M44	2021-12-31	CEESAR
D9.4	Report on smart city infrastructure for application on AVENUE demonstrations	CERTH	Report	Public	M44	2021-12-31	CentraleSupélec
D9.5	AVENUE beyond business plan	Amobililty	Report	Public	M44	2021-12-31	HS PF
D10.1	First version Communication and dissemination plan	UNIGE	Report	Public	M6	2018-10-31	MobileThinking
D10.2	Final Communication and dissemination plan	UNIGE	Report	Public	M24	2020-04-30	AVL
D10.3	First version of website and key social media channels online	CERTH	Websites, patents filling, etc.	Public	M3	2018-07-31	VIF
D10.4	First Iteration Dissemination activities report	Amobililty	Report	Public	M18	2019-10-31	CERTH
D10.5	Second Iteration Dissemination activities report	Amobililty	Report	Public	M36	2021-04-30	NAVYA
D10.6	Final Dissemination activities report	Amobililty	Report	Public	M48	2022-04-30	AVL
D10.7	First Version Communication and dissemination tools and materials	UNIGE	Websites, patents filling, etc.	Public	M6	2018-10-31	BestMile
D10.8	Final Version Communication and dissemination tools and materials	UNIGE	Websites, patents filling etc.	Public	M46	2022-02-28	CEESAR
D11.1	H - Requirement No. 1	UNIGE	Ethics	Confidential	M3	2018-07-31	CentraleSupélec
D11.2	POPD - Requirement No. 2	UNIGE	Ethics	Confidential	M3	2018-07-31	HS PF
D11.3	NEC - Requirement No. 4	UNIGE	Ethics	Confidential	M6	2018-10-31	CEESAR
D11.4	M - Requirement No. 5	UNIGE	Ethics	Confidential	M3	2018-07-31	MobileThinking

Annex II – Deliverable Template



Autonomous Vehicles to Evolve to a New Urban Experience

[DX.Y] [Title of the document]

Authors: [Authors/editors - Team Member Name]

Leading Partner: [Partner Name]

Deliverable Due Date : Month [X]

Status: [On going, Draft, Under Review, Accepted]

Dissemination Level: [Public, Confidential, Restricted, ...]



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Disclaimer

This document reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

Document History

Version	Date	Author	Description of change

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Acronyms

Executive Summary



1 Introduction

Lorem ipsum...

2 Chapter

Lorem ipsum...

2.1 Section

Lorem ipsum...

2.1.1 Subsection

Lorem ipsum...

3 Conclusion

Lorem ipsum...

Bibliography and References



Annex III – Deliverable Review Form

Deliverable	
Review Date	
Reviewer	

General Impression

Suggestions for Improvement
Checklist

Section	Criteria	Yes	No	Comment
Content	The content corresponds with description of the deliverable as stated in the Grant Agreement.	<input type="checkbox"/>	<input type="checkbox"/>	
	Great deviations from the description in the Grant Agreement are duly justified.	<input type="checkbox"/>	<input type="checkbox"/>	
	The deliverable is structured as specified in the provided template (Abstract, Introduction, Main Part, Conclusion).	<input type="checkbox"/>	<input type="checkbox"/>	
	The Abstract is short and precise.	<input type="checkbox"/>	<input type="checkbox"/>	
	The Introduction states goal and scope of the deliverable.	<input type="checkbox"/>	<input type="checkbox"/>	
	The Main Part is described in detail, for instance with help of figures, diagrams or tables.	<input type="checkbox"/>	<input type="checkbox"/>	
	The Conclusion shortly reviews the content and gives an outlook of the future procedure.	<input type="checkbox"/>	<input type="checkbox"/>	
Formalities	The provided template has been used.	<input type="checkbox"/>	<input type="checkbox"/>	
	Page number are correct, and table of contents, figures and lists are complete.	<input type="checkbox"/>	<input type="checkbox"/>	
	Concise and comprehensible formulation of the text	<input type="checkbox"/>	<input type="checkbox"/>	
	Appropriate spelling and grammar	<input type="checkbox"/>	<input type="checkbox"/>	
	All items in the deliverable are formatted consistently and with respect to the provided template.	<input type="checkbox"/>	<input type="checkbox"/>	

Annex IV – Internal Audit Report

Report No.		Audited Partner	
Audit Date			
Audit Team		Audited Object	

Problem/Issue

Cause

Corrective Measures

Further Procedure

Annex V –

Corrective/Preventive Action Request

Request No.		Concerned Work	
Request Date		package	
Requester		Concerned Partner	

No.	Problem	Proposed Corrective/Preventive Action