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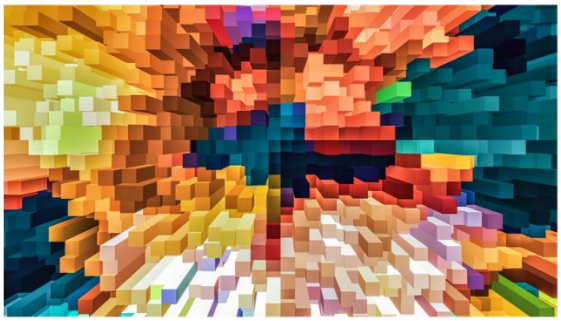
ARCHITECT ECA 2030



Trustable architectures with acceptable residual risk for the electric, connected and automated cars

Deliverable	Management and Quality Assurance Handbook (MQAH)		
Deliverable File	***D8.1***		
Project	***ArchitectECA2030***	**Grant Agreement Number**	877539
Lead Beneficiary	IFAG	**Dissemination Level**	Confidential, only for members of the consortium (including the Commission Services)
Involved SCs		**Related Task/s**	**Task 8.3: Project, quality and change management – continuous risk assessment – reporting** **Task 8.5: Management of technical work in the work-packages**
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Status	Final	**Version**	1.0
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Document history			
V	**Date**	**Author**	**Description**
0.1	01.12.2020	Dr. Cristina De Luca	This document describes the project start-up, initiation of the work and establishment of communication. It also contains set up of Quality Assurance Board and process of deliverables internal review.
0.2		Zina Milašienė, Teraglobus	WebPage and Social Media Chapters.
0.3		Zina Milašienė, TERA Pavel Vaclavek, BUT	Review
1.0	08.01.2021	Cristina De Luca	Final and reviewed Version

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ECSEL JU

Table of contents

1 Executive Summary

The "Management and Quality Assurance Handbook" (MQAH) aims supporting the ***ArchtectECA2030*** project partners through the project's different activities and it complements the contents of the Consortium Agreement (PCA) and the Grant Agreement (GA). It serves as a reference to identify roles and responsibilities during the ***ArchtectECA2030*** project duration. Furthermore, the handbook identifies the procedures related to the project's execution, communication and dissemination, describes the wide management processes, rules and tools to be applied throughout the ArchitectECA2030 project. Based on the experience resulting from numerous other large European Commission funded projects like EMC2, 3Ccar or AutoDrive… the document covers the following aspects:

(a) The detailed definition and description of the roles of the management- and decision making- bodies

(b) The detailed definition and description of the roles of the individual Work package leaders and Supply Chain leaders

(c) The management and reporting rules, including the organization of meetings

(d) The project's reporting process

(e) The risk mitigation strategies

(f) The Deliverables and Milestones review process

(g) Communication and dissemination guidelines

(h) Open Access to scientific publications

(i) The project management tools, including the communication tools, the documentation management tools (i.e. web based shared document repository), the reporting tools and the rules for using them.

The framework consisting of the legal framework and the managerial part (MQAH) will form the basis for managing ArchitectECA2030.

Key Words

Project management, project processes, external reporting, dissemination, publishing guidelines, communication, tools, risk management.

2 Non publishable information

The deliverable is classified as "CONFIDENTIAL (CO)", therefore no publishable information is available.

3 Introduction & Scope

3.1 Purpose and target group

ArchitectECA2030 is a complex project requiring adequate project management and quality structures. The ***ArchitectECA2030*** project is based on a **"Project Grant Agreement" (PGA**), signed by the ECSEL JU on behalf of the European Commission and the Coordinating Organization (Infineon Technologies AG, Germany). All partners/beneficiaries signed the accession form, which is attached to the Annex of the Grant Agreement. In addition to the PGA, a **"Project Consortium Agreement" (PCA)** was signed between the coordinating organization (Infineon Technologies AG, Germany) and each beneficiary. The PCA covers aspects required to manage the consortium and implement the project. Finally, eligible beneficiaries signed a "National Grant Agreement" (NGA) that defines the agreements between the national funding authority and the partner, with respect to national regulations for funding.

This legal framework is complemented by a "Management and Quality Assurance Handbook" (MQAH) for the ***ArchitectECA2030*** project, in written form Deliverable 8.1. The MQAH describes the project wide management processes, rules and tools to be applied throughout the ***ArchitectECA2030*** project. This document target group is the ***ArchitectECA2030*** Consortium in charge of the activities and the contracts' fulfilment.

3.2 Contributions of partners

TABLE 1 CONTRIBUTION PER PARTNER

Chapter	Partner	Contribution
All Chapters	IFAG	Written all chapters
Chapter 9 – 12	TERA	Publishable guidelines, webpage, data storage support, social media,..
	BUT	Pavel Vaclavek - Review

4 GA – Art. 41 Division of Beneficiaries' roles and responsibilities

We underline again some of the articles of the GA that the Consortium has signed and that serves as reference for the content of this Deliverable. This legal framework is complemented by "Management and Quality Assurance Handbook" (MQAH) for the ***ArchitectECA2030*** project.

4.1 41.1 Roles and responsibility towards the JU (PGA)

The beneficiaries have full responsibility for implementing the action and complying with the Project Grant Agreement (PGA). The beneficiaries are jointly and severally liable for the technical implementation of the action as described in Annex 1. **If a beneficiary fails to implement its part of the action, the other beneficiaries become responsible for implementing this part** (without being entitled to any additional JU funding for doing so), unless the JU expressly relieves them of this obligation.

The financial responsibility of each beneficiary is governed by Article 44 (PGA).

4.2 41.2 Internal division of roles and responsibilities (PGA)

The internal roles and responsibilities of the beneficiaries are divided as follows:

(a) Each beneficiary must:

i. keep information stored in the Participant Portal Beneficiary Register (via the electronic exchange system) up to date (see Article 17, PGA);
ii. inform the coordinator immediately of any events or circumstances likely to affect significantly or delay the implementation of the action (see Article 17);
iii. submit to the coordinator in good time:
   - individual financial statements for itself and its linked third parties and, if required,
   - certificates on the financial statements (see Article 20);
   - the data needed to draw up the technical reports (see Article 20);
   - ethics committee opinions and notifications or authorizations for activities raising ethical issues (see Article 34);
   - any other documents or information required by the JU under the Agreement, unless the Agreement requires the beneficiary to submit this information directly to the JU.

(b) The coordinator must:

i. monitor that the action is implemented properly (see Article 7);
ii. act as the intermediary for all communications between the beneficiaries and the JU (in particular, providing the JU with the information described in Article 17), unless the Agreement specifies otherwise;
iii. request and review any documents or information required by the JU and verify their completeness and correctness before passing them on to the JU;
iv. submit the deliverables and reports to the JU (see Articles 19 and 20);
v. ensure that all payments are made to the other beneficiaries without unjustified delay (see Article 21);
vi. inform the JU of the amounts paid to each beneficiary, when required under the Agreement (see Articles 44 and 50) or requested by the JU.

The coordinator may not delegate or subcontract the above-mentioned tasks to any other beneficiary or third party (including linked third parties).

4.3 41.3 Internal arrangements between beneficiaries — Consortium agreement (PGA)

The beneficiaries must have internal arrangements regarding their operation and co-ordination to ensure that the action is implemented properly. These internal arrangements must be set out in a written 'consortium agreement' between the beneficiaries, which may cover:

- internal organization of the consortium;
- management of access to the electronic exchange system;
- distribution of JU funding;
- additional rules on rights and obligations related to background and results (including whether access rights remain or not, if a beneficiary is in breach of its obligations) (see Section 3 of Chapter 4);
- settlement of internal disputes;
- liability, indemnification and confidentiality arrangements between the beneficiaries.

The consortium agreement (PCA) must not contain any provision contrary to the PGA.

5 ArchitectECA2030 Project and Quality Management

5.1 Management structure

The ***ArchitectECA2030*** project management structure diagram containing all bodies and parties relevant for ECSEL JU projects' management (Figure 1). The structure illustrates the main roles and responsibilities, communication priority levels and rules. The management process includes procedures for proper and efficient decision making, risk analysis and conflicts' resolutions. This should contribute eliminating potential dead locks or inefficiency.

In addition, the management underlines the importance of **constantly analysing potential risks** and mitigating the eventual effects and impacts that may occur during the project's duration. Risks and remedial actions are defined and tracked.

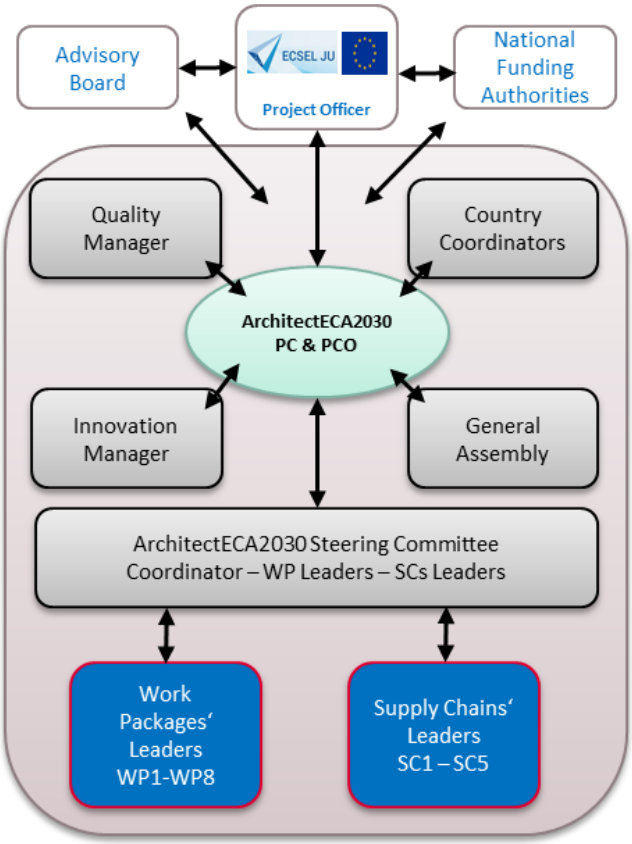


FIGURE 1 ARCHITECTECA2030 PROJECT MANAGEMENT STRUCTURE DIAGRAM

To support the effective and efficient collaboration between the partners in a focused manner, the ***ArchitectECA2030*** project is structured as a matrix (Figure 2). The first matrix axes, the Work Packages, represent the research and development of technologies and expertise in general and are also responsible for the management of the project resources. The second axis, the Supply Chains, are using those technologies and represent the different R&D approaches to reach the stated goals of ***ArchitectECA2030***. All demonstrators produced by the project are integrated into the Supply Chains (SCs). This facilitates a clear separation between the research and development work carried out in the Work Packages (WPS) on one side, and the actual implementation, testing and benchmarking performed on the demonstrators on the other side. Each supply chain is focused on specific demonstrators and defines the interfaces between the work packages that are

necessary for their realization. Each of the 5 supply chains will deliver demonstrators by integrating the achievements of the dedicated work packages (see Part B, GA).

SCs	OWNER
SC1 Failure modes, fault detection and residual risk in acquisition and perception systems.	VIF
SC2 Failure modes, fault detection and residual risk in actuator and propulsion systems	AVL
SC3 Failure modes, fault detection and residual risk for safety in connectivity systems	SINTEF
SC4 Failure modes, fault detection and residual risk for safety and security privacy on overall system	VIF
SC5 Global alignment and contribution to standards	AVL

WPs	OWNER
WP1	VW
WP2	VIF
WP3	IFAG
WP4	TUG
WP5	SINTEF
WP6	AVL
WP7	TERA
WP8	IFAG

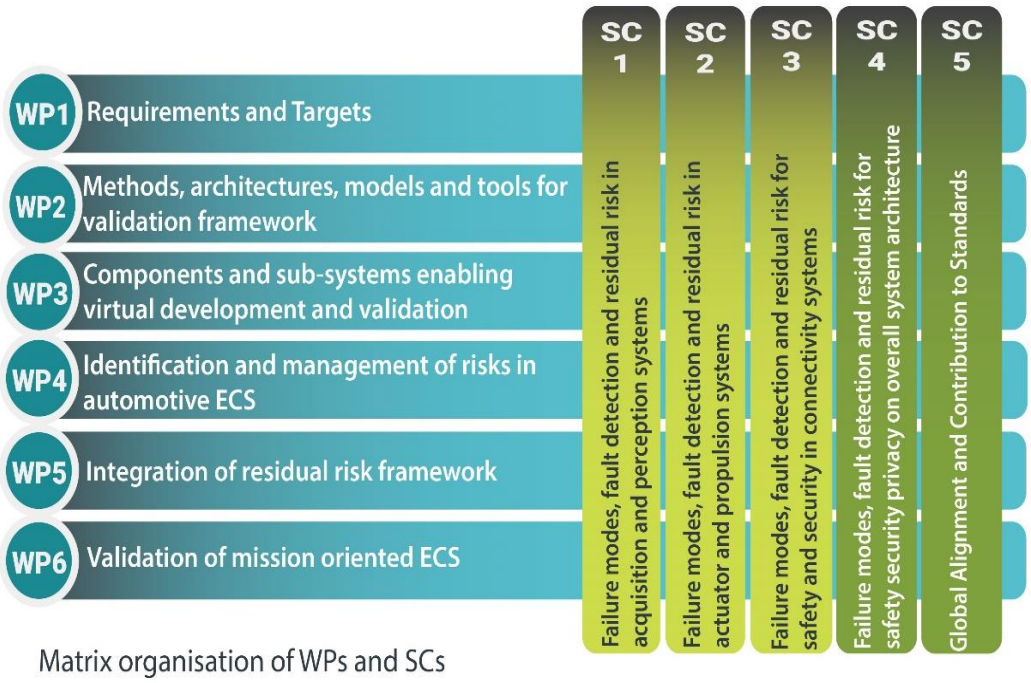


FIGURE 2 ARCHITECTECA2030 PROJECT MANAGEMENT STRUCTURE DIAGRAM

The ***ArchitectECA2030*** project management has identified the following objectives:

- **Coordination of the scientific and technical activities** of the project at consortium level.
- **Communication:** Provide efficient communication towards the European Commission (responsibility of the Coordinator), the national funding authorities (responsibility of the country coordinator and the Partners/Beneficiaries) and throughout the consortium in order to guarantee a smooth and efficient conduct of the project.
- **Schedule:** Observe the schedule of the project in order to make deliveries on time and coordinate interdependencies in time (i.e. critical path observation).
- **Reporting:** Provide efficient and clear reporting towards the European Commission (EC) and the national funding authorities (i.e. at reviews) including timely financial reporting and administrative coordination.
- **Decision making & delegation of activities:** Provide efficient, fast and clear delegation of activities and decisions avoiding potential problems being neglected and conflict escalation.
- **Innovation management:** Provide timely information of results to open public, potential customers and the community of potential users. This is the specific duty of a dedicated Innovation Manager (IM) directly supporting the Coordinator.
- **Quality management:** Control and assure quality of results and deliverables as well as of information provided at reviews and dissemination and exploitation events. This is the special duty of a Quality Manager directly supporting the Coordinator.
- **IPR matters:** The project management will also take specific care on all Intellectual Property Right (IPR) issues in order to protect IPR wherever possible and supporting resolution of potential conflicts that may arise throughout the project.

The objectives are also promoted in the PCA.

The overall MQAH and management of the project can be considered as a closed loop control, where a continuous project management performs actions to drive the project activities towards the desired objectives and impacts, while the project monitoring acts as a feedback channel, ensuring that deviations of the results from the intended objectives are detected in time, so the project management can perform corrective actions, if required. Main basis of the control process are the legal and contractual documents (in particular the DoA, Part A and Part B) that define both the required outputs (demonstrators, research results deliverables, reports etc.) and the conditions and resources of the work.

5.1.1 External Advisory Board

Essentially, ***ArchitectECA2030*** will substantially contribute to the introduction of highly automated/autonomous CPS (ACPS) into the market. One main obstacle here is that it is necessary to establish societal accepted procedures, how to decide, when an ACPS is safe enough to be used in public environments. There are a lot of activities by different stakeholders as well as already active or planned research projects, which each contribute different details to this achievement. Work between these activities and projects, is not much coordinated.

Therefore, ***ArchitectECA2030*** will setup an External Advisory Board (EAB) **consisting of European, American and Asian experts** in the area of **validation and certification of ACPS**, in order to ensure knowledge exchange, alignment of activities, and in order to prevent wasting of efforts in this huge undertaking, which cannot be reached by one project or one (group of) organization(s) alone.

Potential Members for the EAB will be contacted at the beginning of the project, following a stakeholder identification process and the development of a stakeholder identification plan in SC5/WP7. We will use the extensive networks of project partners both on national level as well as in Europe, Asia and US, (i.e. SafeTRANS member's network and cooperation partners – e.g. European competence networks, Pôle de Compétitivités, ARTEMIS Centers of Innovation Excellence, ECSEL LIASEs and projects spawning from them, etc. – and consortia of other projects in which ***ArchitectECA2030*** partners are involved. We will also approach members of the Advsiory Boards of existing or planned projects (the latter of course only provided they pass the review and receive funding) that are working in areas similar to ***ArchitectECA2030*** – like for example the German national projects Step-Up!CPS (funded by BMBF), planned follow-up projects to the German national PEGASUS projects, or the proposed HERMES-SRS and TRUST2ALL projects (submitted in ECSEL Call 2019) , in which SafeTRANS either is a member of such Advisory Boards or coordinates these Boards.

Members of the EAB are invited to contribute to the developments of ***ArchitectECA2030*****,** by consulting on project progress, sharing information about other relevant projects and activities, consulting on further directions and review project results, as well as help on identifying potentials for standardization activities. They are also the first addressees for exploitation and standardization activities. Members of the EAB may also be invited to meetings of the decision bodies of ***ArchitectECA2030*** as well as to public and project internal events like General Assembly, workshops, etc.

Members of the EAB will need to sign an NDA wrt. confidential information they might get from the project. Their consulting effort and opinions will be highly appreciated by the consortium, although they of course will not have any formal authority to decide about projects internal affairs.

*Sub-Section 6.6 "An External Advisory Board ("**EAB**") will be appointed and steered by the Steering Committee. The EAB shall assist and facilitate the decisions made by the General Assembly. The Coordinator is authorized to, and shall, execute on behalf of all Parties, with each member of the EAB a non-disclosure agreement, on the basis of the template non-disclosure agreement as attached hereto as Attachment 6, which terms shall be not less stringent than those stipulated in this PCA, no later than 30 calendar days after their nomination or before any Confidential Information will be exchanged, whichever date is earlier. The Coordinator shall write the minutes of the EAB meetings and prepare the implementation of the EAB's suggestions. The EAB members shall be allowed to participate in General Assembly meetings upon invitation but have no voting rights. " PCA ArchitectECA2030*

5.2 Management Bodies in ArchitectECA2030

The ArchitectECA2030 management will consist of the following bodies to ensure an efficient and smooth project conduct:

- **Project Coordinator (PC)**
- **Project Coordination Office (PCO)**
- **ArchitectECA2030 General Assembly (GA)**
- **ArchitectECA2030 Steering Committee (STC)**
- **ArchitectECA2030 Quality Manager (QAM)**
- **ArchitectECA2030 Innovation Manager (IM)**
- **ArchitectECA2030 Country Coordinators (CC)**
- **Work Package Leaders (WPL)**

- **Supply Chain Leaders (SCL)**

All the activities of the different management bodies are included and described in ***Section 6: Governance structure*** of the PCA and in the Part B of the GA.

5.2.1 Project Coordinator (PC)

The ***Coordinator*** **(PC)** is the legal entity acting as the intermediary for efficient and correct communication between the parties and the funding authority and shall, in addition to its responsibilities as a party, perform all tasks assigned to it as described in the Grant Agreement and in this PCA.

The tasks of the *Coordinator* comprise:

- To manage the PGA and execute the project according to the PGA rules.
- Present and represent the project in ECSEL JU project review procedures.
- To maintain the interface with the ECSEL JU Program Office.
- To chair the General Assembly and the Steering Committee (STC).
- To plan, call-in, organize and conduct the general assembly- and the STC- meetings and care for minutes and their distribution to the Partners/Beneficiaries.
- To ensure global project coordination with the aim to meet the project schedule and objectives.
- Monitor compliance of the beneficiaries with their obligations as described in the PGA and in the PCA.
- Monitor the technical progress and quality.
- To organize the day-by-day management of the project as whole. The *Coordinator (PC)* will be assisted in fulfilling the obligations by the Project Coordination Office (PCO). Dedicated managers for quality assurance (QAM), innovation management (IM) and country coordination (CC) will provide consultancy services and support to the PC.
- Handling all administrative task related to project.
- Assess risks related to the project and elaborate risk mitigation plans and enforce their execution.
- The *Coordinator* will be supported by the General Assembly. The General Assembly will be the decision-making board representing the consortium assisting and contributing to the decision making.
- The *Coordinator* will be supported by the Steering Committee (STC). The STC will be the executing board supporting the PC in executing the decisions made by the General Assembly.
- To collect and to timely submit financial and technical reports and other deliverables to the ECSEL JU.
- To maintain regular contact with the partner organizations.
- To promote and maintain scientific links between partners within and between work packages and supply chains, in order to ensure high quality project deliverables.
- Coordinate project promotion activities, bare responsibility for the project home-page. Dissemination and exploitation activities.
- Manage the transfer of information between the partners, work packages and supply chains.
- Manage Intellectual Property Right (IPR) issues.
- Project Coordination Office (PCO)

The Project Coordination Office (PCO) is installed in support of the Coordinator and has no decision rights. It acts similar to a secretary office as an administrative and assisting body to the PC. Members of the PCO will write, distribute archive minutes of the meetings, will deliver and archive deliverable documents, collect figures for the reviews and conduct day to day administrative work delegated by the Coordinator and under

his control. The PCO will also act as a "relay station" for smooth communication and will distribute information among the partners on request taking load from the Coordinator. The PCO will assist the PC in all homepage-, dissemination- and exploitation activities.

"6.4.2 In particular, the Coordinator shall

- *monitor compliance by the Parties with their obligations;*
- *keep the address list of the Parties and other contact persons updated and available;*
- *collect, review to verify consistency and submit reports, other deliverables (including financial statements and related certifications) and specific requested documents to the Funding Authority;*
- *administer and prepare the minutes and provide these to the chair of the General Assembly and the Steering Committee (in respect of providing the chair of the General Assembly and the Steering Committee, solely if nothing is decided otherwise in accordance with Sections 6.3.1.1 and/or 6.3.2.1 of this PCA, respectively), and follow-up the decisions of the General Assembly and the Steering Committee;*
- *transmit documents and information connected with the Action to any other Parties concerned;*
- *administer the financial contribution of the Funding Authority and fulfilling the financial tasks described in Section 7.2 of this PCA;*
- *verify whether the Parties identified in the GA comply with the requirements to be a Party to the GA in accordance with the GA;*
- *provide, upon request, the Parties with official copies or originals of documents which are in the sole possession of the Coordinator when such copies or originals are necessary for the Parties to present claims;*
- *maintain details of approvals given in relation to material that is subject to Controlled Licence Terms; and*
- *maintain and on request circulate both during and for four years (after the period of the Action set out in Article 3 of the Grant Agreement) a brief annual synopsis of Exploitations as envisaged by Article 28.1 of the Grant Agreement as disclosed by the Parties to the Coordinator when requested by the Coordinator to the Parties.*

If one or more of the Parties is late in submission of any Action deliverable, the Coordinator may nevertheless submit the other Parties' Action deliverables and all other documents required by the GA to the Funding Authority in time.

6.4.3 The Coordinator shall not be entitled to act or to make legally binding declarations on behalf of any other Party or of the Consortium. " PCA ArchitectECA2030

6.4.4 The Coordinator shall have no other functions unless otherwise agreed upon by the General Assembly.

6.4.5 If the Coordinator fails in its coordination tasks, the General Assembly may propose a new Coordinator to the Funding Authority." PCA ArchitectECA2030

5.2.2 Work Package Leaders (WPL)

The WPLs are responsible for smooth execution of the tasks assigned in their work package (WP). They closely work together with the beneficiaries in the project and are the lowest management level to make technical decisions if possible. They report to the PC within the STC meetings and are members of the STC. They monitor the progress of the WP and chair, plan, organize and execute WP meetings, enforce timely provision of deliverables and organize the review of the deliverable documents in time and in cooperation with the QAM. They hand over completed and ready to deliver documents to the PCO for delivery. They maintain the document repository for their share of work. They keep in contact with the SCLs in order to guarantee proper execution of the developments planned in their WP.

6.5 Work Package Leaders

"The work package leaders shall monitor and control the correct and timely implementation of the tasks within their work package, including the completion of the respective milestones and deliverables. The work package leaders coordinate the activities of all Parties involved in the respective work package, participating stakeholders and potential Third Parties. The work package leaders will monitor the use of the assigned resources, the schedule and the quality of the Action deliverables and report them to the Steering Committee." PCA ArchitectECA2030

5.2.3 Supply Chain Leader (SCL)

The SCL is responsible for the overall result of the work described in the supply chain assigned. The SCL needs to monitor the work in the different WPs w.r.t. the supply chain result planned. The SCL must closely work together with the WPLs conducting design work on behalf of the supply chain and shall ensure that the result retrieved matches the overall targeted result of the supply chain. The SCLs are complementing the WPLs and are also members of the Steering Committee.

5.2.4 Task Leader (TL)

Work packages will be organized by tasks. Each task will have a task leader responsible for managing the day to day work within the task. He is responsible to communicate all necessary information within the task and to other TL wherever necessary. In case of conflicts or problems he cannot solve on his own or within the task, the TL is responsible for escalating the topic to the WPL and or SCL related.

5.2.5 Steering Committee Members (SCM)

Chair: the PC

Periodic Meetings: every quarter, if possible by web-conference, one face to face meeting per year close to a GA preferably at the venue place of the GA in close timely vicinity in order to save travel cost and time. The PC can also call in extraordinary STC meetings whenever necessary.

Quorum: more than 2/3 of the members of the STC or more than 2/3 of the specially invited, needed attendees, whatever applies.

Decisions: 2/3 majority

The Steering Committee is the executing body of the project making operational decisions. It consists of the Coordinator chairing the STC meetings and the work package leaders as well as the supply chain leaders. It will make sure that decisions taken at GA level are executed in the project working entities (WPs and SCs). It will also make operational and technical decisions wherever required. In case a decision at this level cannot be made, the problem is raised to the GA for resolution/decision. The PC can decide whether all members are called into a STC meeting or just a subgroup. However, all members of the STC must be informed and can decide on their own if they want to attend or not. Every member at-tending will keep his voting right whether specially invited or not when such member is physically present (face to face: in situ; at web conferences: dialed in). The GA will be in charge of preparing the program of project activities, make preparations for higher level decisions to be taken and make recommendations to the GA wherever necessary and under moderation of the Coordinator. **The GA will ensure that the decisions are properly implemented. The STC will also review the risks and their mitigation activities** and will inform the Coordinator of any problem potentially arising in the execution of the project or in the achievement of obligations.

“6.3.2.1 Steering Committee Members

The Steering Committee shall consist of representatives of the Coordinator and of the Parties as agreed under Section 6.2.1 of this PCA (hereinafter referred to as “Steering Committee Members”).

The composition of the Steering Committee shall consist of WP and SC leaders.” PCA ArchitectECA2030

“6.3.2.2 Minutes of meetings

Minutes of Steering Committee meetings shall be sent by the Coordinator to the General Assembly Members for information.” PCA ArchitectECA2030

5.2.6 General Assembly (GA)

Chair: the PC

Periodic Meetings: bi-annually, once by web-conference and once by face to face meeting at the venue and in close timely vicinity to the yearly review meeting (in order to save travel cost & time).

Quorum for decision making: more than 2/3 of the members of the GA present at the meeting

Decisions: 2/3 majority

The GA is the highest instance for decision making and conciliation body of the project. The GA consists of one senior representative per Partner/Beneficiary plus the Coordinator chairing the GA meetings. It designates the forum open to all Partners/Beneficiaries where all project related issues will be discussed such as strategic questions on technical or scientific level, problem and conflict resolution, and all project related matters that require decision not taken at lower level. The PC will bring to the GA problems re-ported to him in the Steering Committee meeting if they could not be solved at the STC level or below for decision and resolution by all project Partners/Beneficiaries. The PC may install voting sessions also via internet means in case of urgent decisions to be taken upon request by the GA. The PC can also call-in extraordinary GA meetings if necessary.

“6.3.1 General Assembly

In addition to the rules described in Section 6.2 above, the following rules apply:

6.3.1.1 General Assembly Members

The General Assembly shall consist of one representative from each Party (“General Assembly Members”). Each Party represented in the General Assembly shall have one vote.

Each General Assembly Member is authorised to deliberate and decide on all matters listed in Section 6.3.1.2. of this PCA.

The Coordinator shall chair all meetings of the General Assembly, unless decided otherwise in a meeting of the General Assembly.” PCA ArchitectECA2030

5.2.7 Quality Manager (QAM)

The QAM will be assigned at project kick-of and will be responsible for all quality assurance activities such as document review cycles prior to delivery, technical implementation quality at hardware and soft-ware design

activities and for quality at conference contributions and dissemination and/or exploitation activities. The PCO will assist the PC as consultant for this special field.

The QAM needs to investigate and consequently ensure that related quality standards (i.e. ISO 9100) **are applied. The QAM shall also generate the "Project and Quality Assurance Handbook".**

Quality Management Procedures

The QAM is responsible for all quality assurance aspects. The QAM will define the procedures and rules to be followed within the "Management and Quality Assurance Handbook" upon agreements made within the STC. The QAM will carefully align the processes according to the needs of the ***ArchitectECA2030*** project. This includes selection of appropriate tools such as requirements process tools, etc.

Deliverable submission:

The QAM is also responsible for checking the quality of deliverables. The following will be respected and enforced by the QAM:

a) WPL/SCL designate deliverable responsible for the deliverables within their work share until 2 months after project kick-off.

b) WPL/SCL produces deliverable Table of Contents to QAM, STC and PCO two months before the due date

c) STC members suggest changes to WPL/SCL. The WPL/SCL produces deliverable draft to QAM and PCO one month before the due date

d) WPL/SCL name internal deliverable reviewers (minimum 2) and monitor review process supported by the QAM

e) Reviewers provide review comments to WPL/SCL and deliverable responsible two weeks before the due date

f) Deliverable responsible modifies deliverable based on comments

g) WPL/SCL provides final deliverable to QAM 5 Working days before the due date

h) QAM provides final deliverable 3 working days before the due date to the CO, STC and PCO

i) CO releases deliverable and PCO submits final deliverable to ECSEL JU

5.2.8 Innovation Manager (IM)

The IM will be assigned at project kick-of and will be responsible for all innovation related tasks. The innovation manager will support the PC in the technical and strategic orientation of the project. He will be acting quasi as a spokesman to the outside world w.r.t. innovation aspects. The IM needs to keep up with all developments made within the project and shall at any time keep sufficiently detailed overview on all innovations made in the project. The IM function will also require detailed market understanding in all the domains addressed in order to support the project team in creating ideas to improve existing products by using developments and innovations made in the project. The IM shall be able, in agreement with the innovation providing partners, to promote such innovation at road shows, exhibitions, trade shows, conferences and all dissemination and exploitation events whenever such task is assigned by a Partner or the PC. The IM will also support the CO in deciding on which conferences, trade shows or exhibitions the project shall participate, and which papers can best be turned in at which conference. Thus, the IM will also be in charge of an overall coordinator of

dissemination and exploitation matters wherever needed. The IM will be in charge of the project web site and the collaborative web space (for internal use only, the storage space for deliverables and developments).

Procedures for Innovation Management

The IM is responsible for respecting the following tasks:

a) Keep track of all developments made within the project

b) Analyse the improvement with respect to the state of the art at the beginning of the project

c) Investigate potential of innovations made to file for patent

d) Investigate innovation results w.r.t. being used for conference papers and publications

e) Support project wide publications, dissemination and exploitation and dissemination

f) Install and maintain the project web site

g) Install and maintain the project collaborative web space

h) Liaise with other projects that are related in planned achievements or made developments where cooperation is promising.

The IM is the responsibility to set up appropriate procedures to efficiently cover the tasks listed above.

5.2.9 Country Coordinators (CC)

The ***ArchitectECA2030*** project is co-funded by the ECSEL JU, national funding authorities of the Partner's/Beneficiaries countries and by funds of the Partners/Beneficiaries. Thus numerous different requirements and rules will apply. At kick-off one CC per country represented in the project was assigned, usually the CC already active during the proposal generation period. The CCs will liaison with the Partners/Beneficiaries and the national funding authorities in charge and provide support in project related questions w.r.t. national funding organizations as an intermediary between the PC, the national funding authorities and the Partners/Beneficiaries wherever such issue relate to the entire project. In particular, this will apply whenever Partners/Beneficiaries leave the project early or enter the project during the conduct period of the project. The CC directly supports the PC and the PCO in their endeavor to ensure a smooth project execution.

5.2.10 Meetings – Tele. Conferences Table Summary

Suggested Meeting frequency are reported and summarized below.

Meeting Type	*Participants*	*Frequency*
Periodic Meetings Steering Committee	The composition of the Steering Committee shall consist of WP and SC leaders, Coordinator, QM, IM, CC.	Quarterly. If possible by web-conference, one face to face meeting per year close to a GA preferably at the venue place of the GA in close timely vicinity in order to save travel cost and time.
Periodic Meetings General Assembly	The General Assembly shall consist of one representative from each Party ("General	Semiannual. Once by web-conference and once by face to face meeting at

	Assembly Members"). Each Party represented in the General Assembly shall have one vote.	the venue and in close timely vicinity to the yearly review meeting (in order to save travel cost & time).
Periodic Tele Conferences – Project tracking	CO, WPL, SCL,QM, IM	First semester: be-weekly Second semester: Monthly For the rest of the project **bimonthly** Coordinator can also call for an extraordinary tel. conf. whenever necessary.
SCs Tracking	SC Leaders and related Partners/ Tasks Leaders WP Leaders	Min. Monthly
WPs Tracking	WP Leaders, TASKs Leaders	As requested by the Deliverables and Milestones timeline. As requested by the Semester and yearly meeting and review.

5.3 Management Procedures for Decision Making and Delegation

Projects of the size of ***ArchitectECA2030*** require clear regulations for reporting, decision making rules and professional delegation methods and procedures. This concerns technical and administrative matters.

5.3.1 Reporting

Reporting will follow the hierarchy upwards from lowest levels up to the highest levels. The manager at a specific level will decide whether involvement of the next level is needed or not.

Hierarchy in WP structure (from lower to higher levels):

- Persons conducting task work report to the TL
- Task leader reports to the WPL
- WPL reports to STC and Coordinator
- The *Coordinator* informs/involves the General Assembly

The ***hierarchy in the SC structure is principally the same*** except there are no tasks in SCs and thus there is one level less in reporting. Thus, the persons working on a work part of the SC will report to the SC Leaders who reports to the STC/ *Coordinator*.

5.3.2 Decision Making and Procedures

Decision making will be done on the following four levels:

a) **Level 5:** At WP or SC level decision will be taken by the person working at a specific task, potentially discussing this at the same level with colleagues inside or outside the own organization in case this does not result in a satisfactory solution or needs escalation, the person will in-form/involve the next management/decision making level.

b) **Level 4:** The next decision making level is the Task level managed by the Task Leader (TL). The TL will endeavor to resolve the conflict/problem in cooperation with the persons involved within the task. In case this is not successful, the TL will involve the next management/decision making level.

c) **Level 3:** The next decision making level is the WPL/SCL to be informed for support in finding a resolution of the problem. The WPL/SCL may also involve other WP/SC in finding a solution. In case this does not lead to a satisfactory solution or needs escalation, the WPL/SCL will in-form/involve the next management level.

d) **Level 2:** The next decision making level is to inform the *Coordinator* and potentially bring it up for resolution in the STC. The *Coordinator* may decide to either solve it by his consultancy and by involving the STC. In case the *Coordinator* decides to involve the STC, the *Coordinator* may call in a STC meeting either per telephone or as a face to face meeting. For this purpose, the CO may invite non STC persons related to the problem to participate in the STC meeting in order to solve the problem efficiently. In case this does not work out the *Coordinator* and the STC can escalate it to the highest level for decision making.

e) **Level 1:** the highest decision making level is the *Coordinator* bringing the issue up in the General Assembly and call in a General Assembly meeting either conducted via face to face meeting or via telephone conference/Web meeting.

Decision making procedures foresee the following:

a) Prior to seeking decisions, the manager in charge needs to clearly define the problem/issue including options/alternatives available in written form (generally within the agenda of decision meeting).

b) The manager in charge invites the involved Parties to a meeting (telephone- or Web- based or face to face).

c) The options/alternatives are discussed among the participants who can also suggest other options. In case a decision can be made, the decision needs to be documented in the minutes of meeting which will be distributed to the participants and minimum the next management level. Generally all minutes will be saved at the project collaborative web-space (ArchitectECA2030 - Dateien - ArchitectECA2030 (oth-aw.de) and shall be visible to all participants with exception of the *Coordinator* deciding differently.

d) In case no decision could be made the issue is escalated to the next management level and documented in the same way.

5.3.3 Decisions only be taken by the General Assembly

"6.3.1.2. Decisions

*Decisions in the **General Assembly** shall be taken by a **majority of two-thirds (2/3)** of the votes cast, except for accession of a new party where unanimous vote is required.*

The following decisions can only be taken by the General Assembly:

- *decide upon any proposal made by the Steering Committee for the allocation of the Action's budget in accordance with the GA, and review and propose budget reallocations to the Parties;*
- *proposals to the Parties for the review and/or amendment of the terms of the GA;*
- *decide upon material changes to the Action Plan;*
- *decide upon proposals from the Steering Committee for the plan for use and the Dissemination of Results;*

- *proposal to the Parties for modifications or withdrawals to Attachment 1;*
- *addition to Attachment 3 (List of third parties for simplified transfer according to Section 8.3.2 of this CA);*
- *proposals to the Parties for the accession of a new Party to the Consortium and approval of the settlement on the conditions of the accession of such a new Party;*
- *proposals to the Parties for the withdrawal of a Party from the Consortium and the approval of the settlement on the conditions of the withdrawal;*
- *identification of a substantial breach by a Party of its obligations under this PCA or the GA;*
- *declaration, remedies and termination of a Defaulting Party;*
- *proposals to the Funding Authority for a change of the Coordinator if made a Defaulting Party;*
- *proposals to the Funding Authority for suspension or termination of all or part of the Action; and*
- *the appointment – if necessary – of any vacancy to the Steering Committess"*

PCA ArchitectECA2030

5.3.4 Delegation

Delegation will follow the levels down the hierarchy in the opposite way the decision making process is organized. The principle is that high level decisions will be made in the General Assembly chaired by the *Coordinator*. The decisions will be brought up in the STC for execution. The WPL/SCL are members of the STC and will delegate work appropriate to the decision to the task level. The Task Leaders (TLs) will communicate the decision accordingly to the task team for implementation.

5.4 Risk Management Procedure

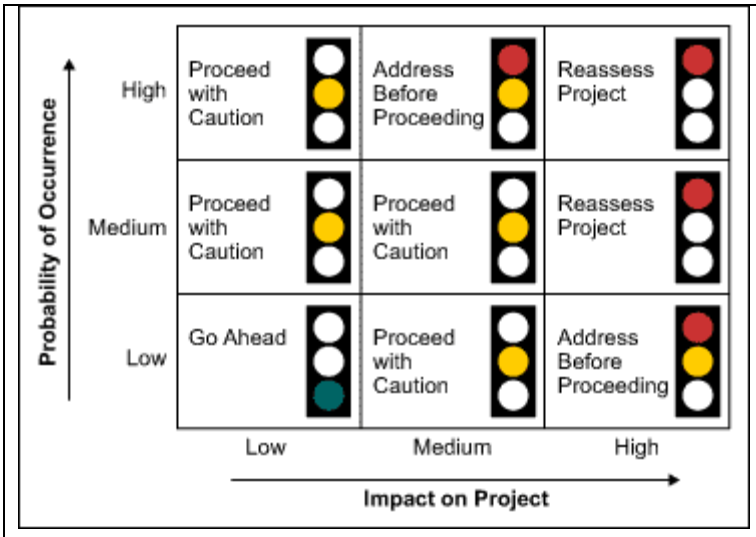
The risk management is an on-going process to monitor, identify and manage threats that might affect the project's results. The ***ArchitectECA2030*** risk's assessment is part of the Grant Agreement in form of Table. Those risks are constantly analyzed in relation to the impact to the project. The Consortium will organized an Excel Table similar to those called FMEA (Failure Mode and Effects Analysis). In this way each risk receives an impact and probability value, the multiplication of the two defines the risk index. Mitigation measures can be developed as soon as a new risk will be identified as threat.

Project RISK Matrix, STEPS:

1) Identify the project risks and potential causes
2) Rate (P) Probability and (I) Impact
3) Team members prioritize potential risks by calculating the product of the probability of occurrence and the impact on the project. They can create a traffic light scale to indicate which risks warrant mitigation actions and at what priority (Figure below). The matrix will not be symmetrical because high-impact risks are considered more critical than risks with a high probability of occurring.
4) The team designs a plan for each risk in the yellow and red zones, including actions required to mitigate the risk, who is accountable and a due date.
5) Team members should always double check whether the actions are truly actionable and will really help to mitigate the impact or the probability of occurrence of the risk. In the best case, actions fully eliminate the risk. Second best are actions that reduce the probability of occurrence, while the third-

best option is to define counter measures that work as a fall-back plan (i.e., if the team cannot prevent a risk from happening, they should still know what to do if it occurs).

6) Continuously Update and Review Project-RISK Matrix. Assessing risk is not a one-off activity. As the project moves forward, the team continuously updates the project FMEA and checks off the completion status of mitigation actions.



Risk categorization matrix

(P) Probability	(I) Impact	(PxI) Potential Risks
1 = low probability of occurrence, low impact on the project		1-2
2 = medium probability of occurrence, medium impact on the project		3-4
3 = high probability of occurrence, high impact on the project		6-9

Probability rates of occurrence and impact

The risks are evaluated and reported in the yearly reports and semester interim reports.

A responsible person will be assigned the role of continuously monitoring the risk and develop a risk mitigation strategy. It is of high importance to implement a risk management tracking especially when internal goals and external circumstances (e.g. COVID-19,..) change very rapidly.

6 Project's Reporting Progress and Payments Requests (Art. 20 G.A.)

The Coordinator has to submit to the JU deliverables and milestones as well as 3 mid-term reports and 3 periodic progress reports. The reporting periods are as follows:

- **Reporting period 1: from month 1 to month 12**
- **Reporting period 2: from month 13 to month 24**
- **Reporting period 3: from month 25 to month 36.**

Steps for reporting:

Project partners:
Each project partner has to provide its individual contribution and efforts for each reporting period per work package and tasks and its cost statement on project level.

Work Package Leader and Task Leaders:
The work package and task leaders have to prepare the reports on the work package/ tasks based on the contributions and data provided by the respective project partners.

Supply Chain Leaders
Each SC Leader has to provide the summary of the SC progress and the results towards the demonstrators' progress.

Coordinator:
The coordinator prepares the periodic progress reports as well as the final report according to the templates provided by ECSEL JU, based on the inputs of the partners and WP-Task/SC-leaders. A final check will be done by all partners before submitting the reports to the JU.

The financial Report
Mid-term check of the PMs. ECAS – SYGMA financial statements are needed for the yearly reports RP1, RP2 and RP3.

6.1 Reporting Calendar, (changes are possible in case of amendments)

This reporting overview shows the deadlines of the mid-term and periodic reports. Deliverables and milestones have to be prepared and submitted as defined in Annex 1 to the Grant Agreement. To ensure timely submission of the mid-term and periodic reports the partners should respect the following deadlines:

Kind of report	Period covered	Finalized & submitted by project coordinator
Mid-term Report 1	July 2020 – December 2020 (m01 – m06)	31 January 2021 (m06 +1)
Periodic Report 1	July 2020 – June 2021 (m01 – m12)	31 August 2021 (m12 + 2)
Grace Period: June 2021 (m14)		
Mid-term Report 2	July 2021 – December 2021 (m13 – m18)	31 January 2022 (m18 +1)
Periodic Report 2	July 2021 – June 2022 (m13 – m24)	31 August 2022 (m12 + 2)
Grace Period: June 2022 (m26)		
Mid-term Report 3	July 2022 – December 2022 (m25 – m30)	31 January 2023 (m30 +1)
Periodic Report 3	July 2022 – June 2023 (m25 – m36)	31 August 2023 (m36 + 2))
Grace Period: June 2021 (m38)		
Final Report	July 2020 – June 2023 (m01 – m36)	31 August 2023 (M36)
Grace Period: June 2023 (m38)		

6.2 Deliverables and Milestones (Art. 19 Submission of Deliverables G.A.)

Deliverables and milestones have to be prepared by the responsible project partner as defined in Annex 1 to the Grant Agreement, in accordance with the timing and conditions set out in it. The completed deliverables and milestones are sent to the Coordinator (or defined supporting person) who is responsible for the submission.

Deliverables and milestones are exclusively uploaded by the Coordinator.

6.3 Mid-Term Reports

The mid-term reports have to be submitted for m06, m18, and m30. In these reports the technical project progress is described. Although no financial reporting to ECSEL JU via the Participant Portal is necessary, the project partners should report PMs data to the coordinator for a better project tracking (template is provided by the coordinator).

All consortium partners who have performed tasks in the specific reporting period will be asked to report their work progress. WP/Task Leaders and SC Leaders are in charge of the short summary of the related parts. Therefore, a template will be provided and the following reporting process has to be followed (Figure 3):

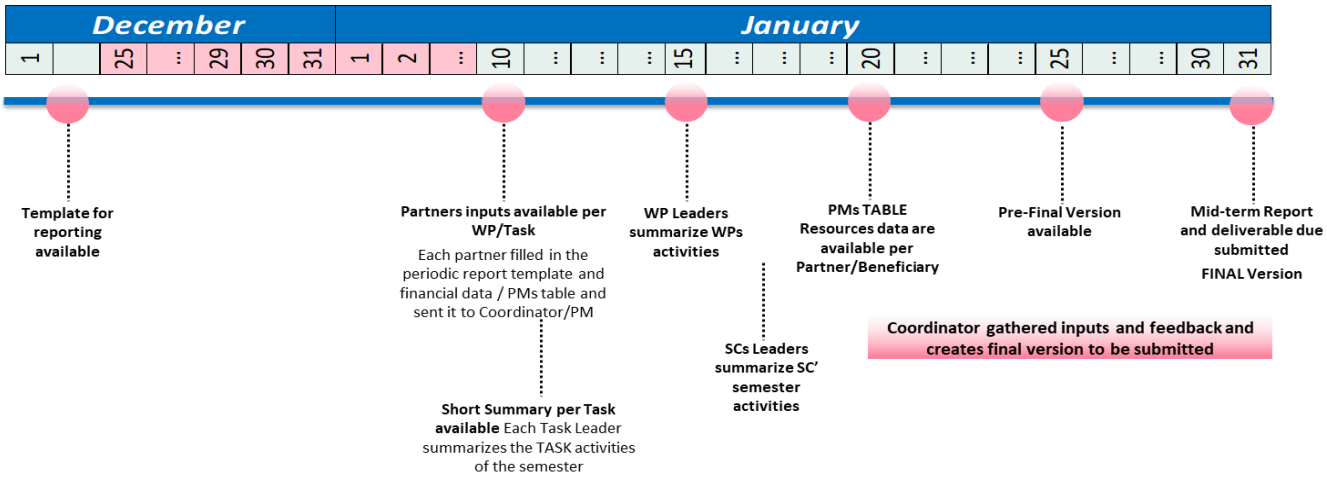


FIGURE 3MID-TERM REPORTING PROCESS

6.4 Final Report

Additionally to the m36 report a final report has to be submitted to ECSEL JU. The final report must include:

- **Final technical report**: overview of results, exploitation and dissemination, the conclusion on the action and the socio-economic impact of the project.
- **Final Financial report**: Further information please find in Article 20.4 of the Grant Agreement.

The Coordinator will inform the WP leader, task leader, UC leader and project partners of any required input for these periodic reports and collect these inputs for the actual reporting period. The collection of input will be supported by the ***ArchitectECA2030***Cloud, but will also rely on MS Word and excel templates.

6.5 Payment & Reporting

There Reporting RP1, RP2 and RP2 + FINAL Reporting are strongly related to the Project's payments as documented in the PCA ***ArchitectECA2030***.

"7.2.3 The Parties agree that distribution of payments by the Coordinator is governed by the following rules:

7.2.3.1 The Coordinator is entitled to withhold any payments due to a Defaulting Party when this is suggested by or agreed with the Funding Authority, or to a beneficiary that has not yet signed this PCA

7.2.3.2 Payment procedures

a) Pre-financing: All Parties receive thirty-five percent (35%) of their own Maximum Grant Amount as Pre-financing.

b) 1st interim payment: The Coordinator uses the Accepted EU contribution in ***the first reporting*** *period (RP1) as a reference for calculating the 1st interim payment to each Party for two and a half (2.5) years. The 1st interim payment = 2.5 * Accepted EU contribution in RP1 minus the amount paid with the pre-financing. With the 1st interim payment none of the Parties will receive more than 67% of its allocated share of the total maximum grant.*

c) 2nd interim payment: The Coordinator uses the average Accepted EU contribution in the first and ***second reporting periods*** *(RP1 & RP2) as a reference for calculating the payment of the 2nd interim payment to each Party for three (3) years. The 2nd interim payment = 3 * average of the accepted EU contribution in RP1 & RP2 minus the total funding amount already paid. With the 2nd interim payment none of the Parties will receive more than 85% of its allocated share of the total maximum amount of grant.*

d) ***Final payment:*** *The Coordinator will distribute the final payment in instalments. The first instalment includes the remaining amount of the funding, which will be distributed once the Coordinator receives the final payment from the Funding Authority. The following instalments include the recovered excess payments from the Parties, which will be distributed when the respective Parties have returned it to the Coordinator.*

In the event that the expected costs of a partner are higher than the pre-financing already received, that partner may request an additional payment from the Coordinator in the 9th month of the relevant reporting period. Proof of the costs incurred must be provided to the Coordinator. However, the additional payment cannot be higher than the EU contribution retained by the Coordinator and the Party will not receive more than 85% of the total Maximum Grant Amount"

6.6 Financial Reporting

The financial statement has to be provided in structured forms in the grant management system (under Financial Statement drafting).

FIGURE 4 EXAMPLE OF FINANCIAL PERODIC REPORTING LAYOUT IN ECAS SYGMA

Individual financial statements: **have to be filled in and submitted by each beneficiary and linked third party** to the Commission, as part of the periodic report. They will be combined automatically by the system into a consolidated financial statement.

WARNING! If one beneficiary fails to do so, the costs will be considered 'zero' for the respective reporting period (though you can declare them in the next reporting period).

NOTE! Please note that in reporting, actual costs must be reported and not budgeted ones.

A template for the individual financial statement is provided in Annex 4 of the Grant Agreement, including all the details for eligible costs, EU contribution etc. and a sample financial statement in the periodic report template.

Further explanations of the use of resources & financial statements can be found in the Participant Portal H2020 Online Manual:

Grants > Grant management > Reports & payment requests > Periodic reports

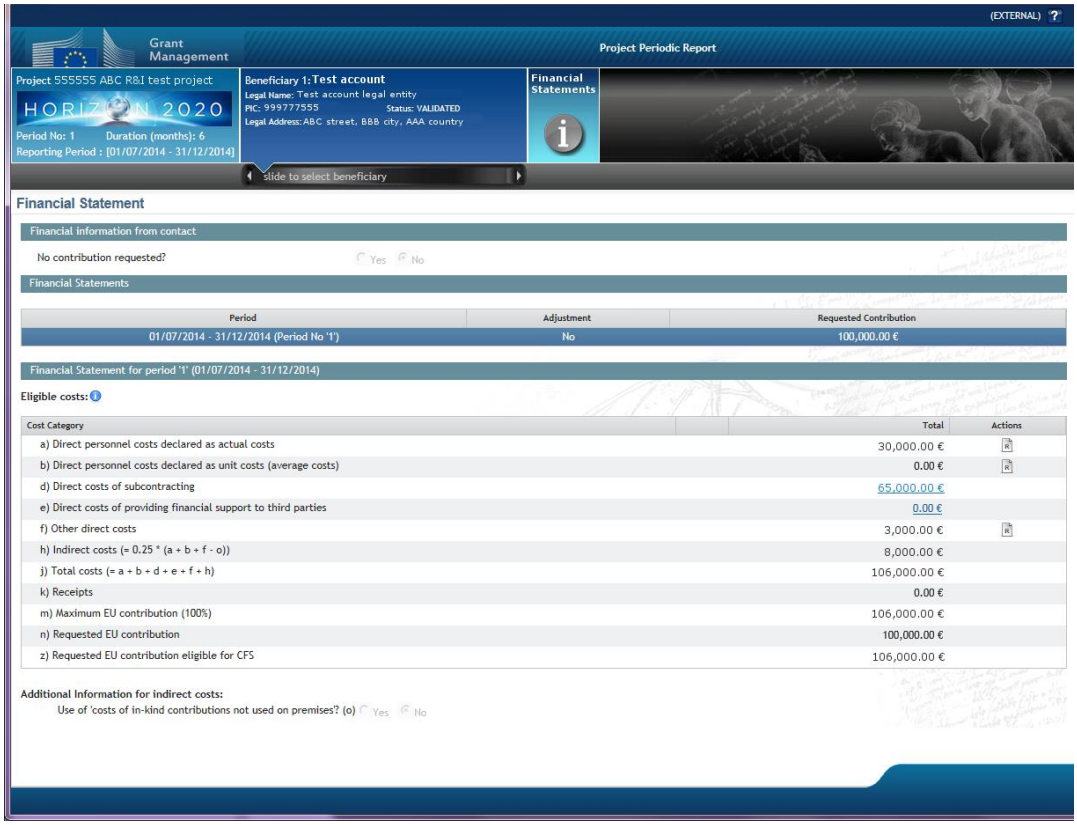


FIGURE 5 EXAMPLE INDIVIDUAL FINANCIAL STATEMENT

7 Deliverables and Milestones Review Process

The review process for deliverables and milestones is an important part of the projects quality assurance process. ***ArchitectECA2030*** has a two stage review process for each deliverable and milestone. 30 calendar days before the due date of the deliverable or milestone a reminder will be sent out by the coordinator and the responsible work package leader to the deliverable responsible. The deliverable or milestone should be

ready for review ~15 - 20 calender days before the submission date. In the first stage the deliverable or milestone is reviewed by at least one project internal reviewer, possibly not involved in the generation of the deliverable or milestone. In the second stage, the deliverable or milestone is approved by the work package leader. The work package leader forwards the deliverable or milestone to the coordinator, who performed the formal evaluation and submits the deliverable or check the milestone.

The Deliverable and Milestone list offers an overview of all deliverables and milestones in the project including the leading partner, due date, dissemination level and status. The deliverables' list is provided in the ECAS/SYGMA and can be downloaded in Excel Table Form.

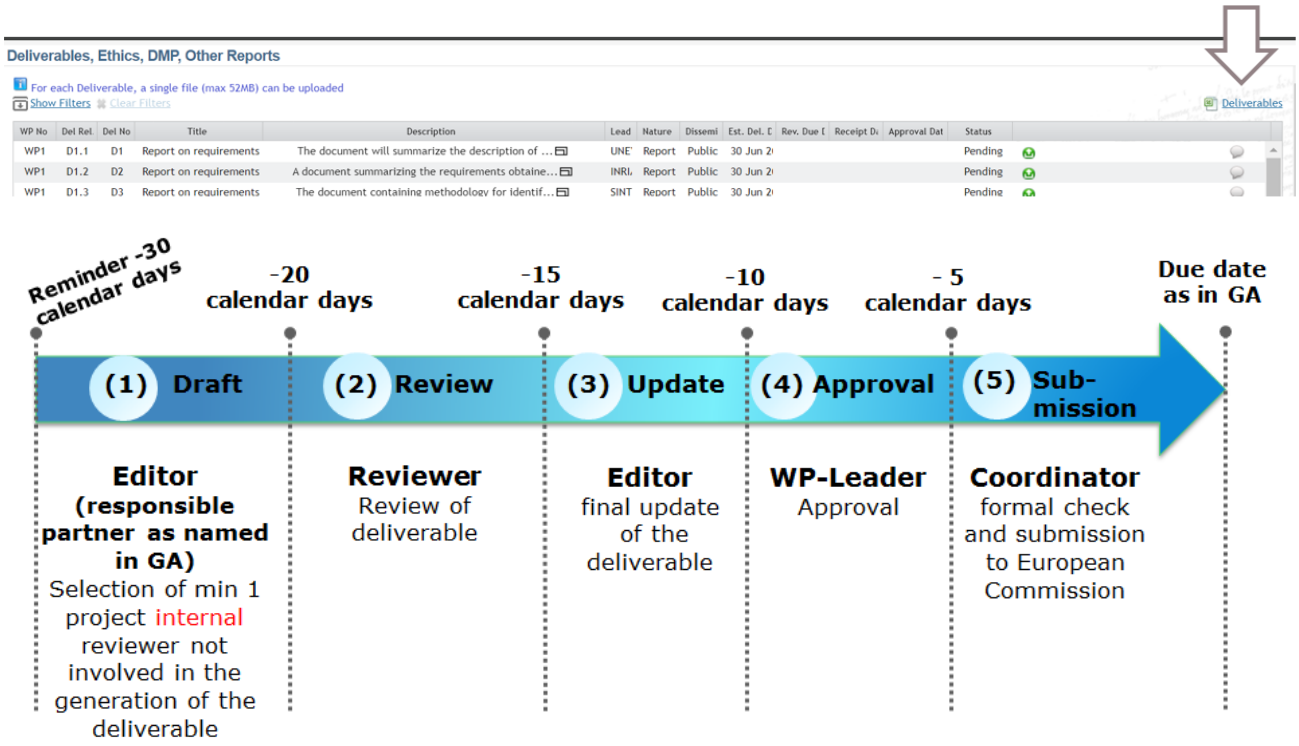


FIGURE 6 REVIEW PROCESS

7.1 Del. & Mil. Templates

For the Deliverables and Milestones are provided standardized templates available on the ArchitectECA2030 *<Cloud 05_Templates - Dateien - ArchitectECA2030>.*

7.2 References and General Guide to Formatting a Bibliography

For a book:

Author (last name first). Title of the book. City: Publisher, Date of publication.

EXAMPLE:

Dahl, Roald. The BFG. New York: Farrar, Straus and Giroux, 1982.

For an encyclopedia:

Encyclopedia Title, Edition Date. Volume Number, "Article Title," page numbers.

EXAMPLE:

The Encyclopedia Britannica, 1997. Volume 7, "Gorillas," pp. 50-51.

For a magazine:
Author (last name first), "Article Title." Name of magazine. Volume number, (Date): page numbers.

EXAMPLE:

Jordan, Jennifer, "Filming at the Top of the World." Museum of Science Magazine. Volume 47, No. 1, (Winter 1998): p. 11.

For a newspaper:
Author (last name first), "Article Title." Name of newspaper, city, state of publication. (date): edition if available, section, page number(s).

EXAMPLE:

Powers, Ann, "New Tune for the Material Girl." The New York Times, New York, NY. (3/1/98): Atlantic Region, Section 2, p. 34.

For a person:
Full name (last name first). Occupation. Date of interview.

EXAMPLE:

Smeckleburg, Sweets. Bus driver. April 1, 1996.

For a film:
Title, Director, Distributor, Year.

EXAMPLE:

Braveheart, Dir. Mel Gibson, Icon Productions, 1995

CD-ROM:
Disc title: Version, Date. "Article title," pages if given. Publisher.

EXAMPLE:

Compton's Multimedia Encyclopedia: Macintosh version, 1995. "Civil rights movement," p.3. Compton's Newsmedia.

Magazine article:
Author (last name first). "Article title." Name of magazine (type of medium). Volume number, (Date): page numbers. If available: publisher of medium, version, date of issue.

EXAMPLE:

Rollins, Fred. "Snowboard Madness." Sports Stuff (CD-ROM). Number 15, (February 1997): pp. 15-19. SIRS, Mac version, Winter 1997.

Newspaper article:

Author (last name first). "Article title." Name of newspaper (Type of medium), city and state of publication. (Date): If available: Edition, section and page number(s). If available: publisher of medium, version, date of issue.

EXAMPLE:

Stevenson, Rhoda. "Nerve Sells." Community News (CD-ROM), Nassau, NY. (Feb 1996): pp. A4-5. SIRS, Mac. version, Spring 1996.

Online Resources

Internet:

Author of message, (Date). Subject of message. Electronic conference or bulletin board (Online). Available e-mail: LISTSERV@ e-mail address

EXAMPLE:

Ellen Block, (September 15, 1995). New Winners. Teen Booklist (Online). Helen Smith@wellington.com

World Wide Web:

URL (Uniform Resource Locator or WWW address). author (or item's name, if mentioned), date.

EXAMPLE: (Boston Globe's www address)

http://www.boston.com. Today's News, August 1, 1996.

8 Communication and Dissemination

8.1 Key Concepts

The communication activities aim to give visibility to the project and its results to a broad public including scientific and industrial community, potential end-users, policy authorities and if possible general public. The following definitions of the key terms used in this document originate from the European Commission's Participant Portal:

http://ec.europa.eu/research/participants/portal/desktop/en/support/reference_terms.html) :

Communication: "Communication on projects is a strategically planned process, which starts at the outset of the action and continues throughout its entire lifetime, aimed at promoting the action and its results. It requires strategic and targeted measures for communicating about (i) the action and (ii) its results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange."

The dissemination activities focuses on shearing the project results. The dissemination includes conference papers, publications at different levels, webinars or workshops aiming at transferring knowledge to specialist audiences.

Dissemination means the public disclosure of the Results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium.

Apart from the common dissemination channels, the dissemination activities will use the European platform consisting of different funding organizations and various national and European, and the US research clusters. In general, the dissemination plan includes three groups of activities, described hereafter.

Promotion activities

To ensure comprehensive and appropriately targeted dissemination and exploitation activities, the project will utilize a variety of communications channels. In order to improve the project visibility, a common and easily recognizable project identity will be created. Therefore, dissemination measures will start by establishing an attractive and recognizable project brand: a logo, dissemination material templates and shared imagery.

An interactive and frequently updated website will be used as the primary dissemination channel to the public. It is part of this task to ensure that the scientific and technical project presentation on the web site is up to date and attractive. Project news will also be announced through a dedicated Twitter account. In order to raise the recognition outside the project, it will be necessary to actively seek out relevant link exchanges with the web sites of the project partners and other related European projects, portals, companies, and organizations.

The partners will introduce the main results of the project in the form of presentations in front of European and international audiences. This point includes taking advantage of relevant conferences and workshops (namely external to the project and different from those available for the project as they are already organized or chaired by partners) using press releases and, where possible, interviews. For that purpose, leaflets, posters, flyers and brochures will be designed to be distributed at events. Amongst other activities, it is planned to organize workshops focused on automotive audiences (e.g. suppliers and public bodies).

Research and technological presentation activities

Scientific results will be disseminated in form of papers, posters and presentations at national and international conferences as well as in publications of journal papers. All partners are encouraged to attend relevant and targeted national and international events in order to disseminate the project objectives, evolution and conclusions. In this task, journal papers and conference contributions will be written mainly by the academic and research partners. An initial list of potentially interesting conferences and journals for paper-publishing will be created. University partners will transfer the knowledge derived from this project to their teaching and training activities and therefore directly to the coming generation of engineers. Associations (SafeTRANS [1]) will transfer knowledge and – where appropriate – technology within their extensive European network. In order to protect original work and publish the results to the public at the same time, it is of course necessary to file according patent applications covering the models, methodologies, system designs, formulations, electronic circuits and any other appropriate domains.

Open Access

In order to enable open access to peer reviewed scientific publications generated within the project a specific communication plan will be setup during the first 6 months of the project. This plan will include guidelines where and how the scientific publications will be made accessible in order to have a consistent procedure throughout the project. The activities regarding open access will be summarized in the final report.

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*[1] **SafeTRANS** is a German not-for-profit competence cluster, comprising member organizations from industry and academia active in the development of electronic components and systems in the transportation domain (cars, planes, trains, ships and their infrastructure). SafeTRANS serves as a communication and knowledge exchange platform for pre-competitive research and development activities. SafeTRANS furthers activities like round tables and theme-oriented working groups, roadmap development, and project incubation, as well as supporting sustainability measures for project results, and providing the link to similar clusters in Europe, to European funding programs and to national public authorities. SafeTRANS' members are OEMs, suppliers, tool vendors, and system operators as well as research institutes and universities.*

8.2 Confidentiality

10.1 All information in whatever form or mode of communication, which is disclosed by a Party (the "Disclosing Party") to any other Party (the "Recipient") in connection with the Action during its implementation and which has been explicitly marked as "confidential" or "secret" at the time of disclosure, or when disclosed orally has been identified as confidential at the time of disclosure and has been confirmed and designated in writing ***within 30 calendar days*** *from oral disclosure at the latest as Confidential Information by the Disclosing Party, is "Confidential Information". PCA ArchitectECA2030*

8.3 Twinning Activities between Europe and U.S. Partners and Projects

This ***ArchitectECA2030*** project addresses the development of the research and innovation potential of the partners through a number of specific soft measures involving mentoring, networking, communication and other thematic activities. The specific challenge is to address networking gaps and deficiencies between the partners' research institutions in the US and the EU as well as on the academic side (e.g., via consortia of US/Germany co-founded basis research activities, like the PIRE funding scheme, in which SAFE is involved).

The research-intensive institutions tend to collaborate increasingly in geographically localized closed groups, producing a crowding-out effect. The aim of this task it to stimulate scientific excellence and innovation capacity in the project area as well as the scientific quality of the partners involved. Benefits will also accrue from the increased mobility of qualified scientists (inwards and outwards) in terms of access to new research avenues, creativity and the development of new approaches. Specifically, we are planning the following measures:

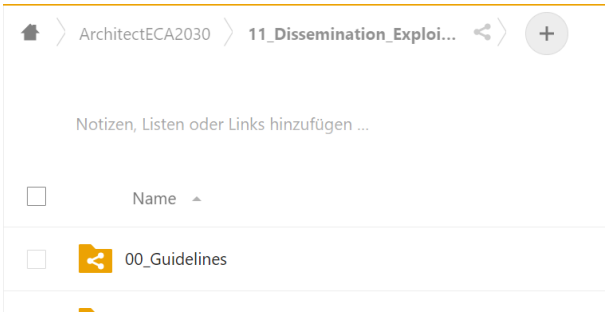
- short term staff exchanges,
- expert visits,
- on-site and virtual training,
- thematic workshops,
- conference attendance.

8.4 External Stakeholder Strategy and Alignment

The Project Consortium will engage 3rd parties to foster global alignment.

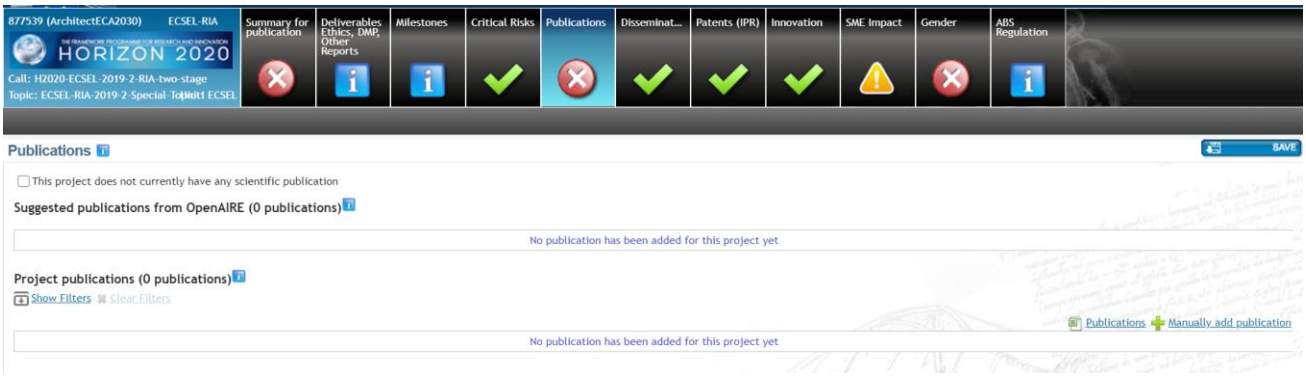
8.5 Dissemination and communication guidelines

To ensure that ***ArchitectECA2030*** consortium partners are familiar with, and follow the correct procedures when disseminating and communicating information about the project, common guidelines were prepared and uploaded on the cloud.



All partners are invited to perform dissemination activities. For this purpose, presentation and poster templates are provided on the ***ArchitectECA2030*** Cloud. According to the Grant Agreement, all dissemination material needs to acknowledge and display the JU logo and the EU emblem (Article 29.4) and include a disclaimer excluding JU responsibility (Article 29.5) and the National Authority . Therefore, please consider the following important elements of dissemination.

All the dissemination activities are tracked and each partner is responsible to report them into the ECAS/SYGMA File "PUBLICATIONS". Do not forget the OPEN ACCESS guidelines.



8.6 Acknowledgement of funding and disclaimer

"29.5 Disclaimer excluding JU responsibility

Any dissemination of results must indicate that it reflects only the author's view and that the JU is not responsible for any use that may be made of the information it contains." Grant Agreement ArchtiectECA2030

29.4 Information on JU Funding and Support from JU Members – Obligations and Right to use the JU LOGO and the EU Emblem

Unless the JU requests or agrees to otherwise or unless it is impossible any dissemination of results (in any form, including electronic) must:

a) Display the JU logo and

b) Display the EU emblem and

c) Include the following text:

Acknowledgement of funding

"The work/A part of the work has been performed in the project ArchitectECA2030 under grant agreement No 877539. The project is co-funded by grants from Germany, Netherlands, Czech Republic, Austria, Norway, France and - Electronic Component Systems for European Leadership Joint Undertaking (ECSEL JU)"

or

"The project has received funding from the ECSEL Joint Undertaking (JU) under grant agreement N°877539. The JU receives support from the European Union' s Horizon 2020 research and innovation programme and from – Germany, Austria, Norway, Netherlands, Czech Republic, France national funding authorities."

In addition, acknowledgement for national funding support must be included. Please check your national funding contracts and align with your national authorities that appropriate wording on national level is included.

When displayed together with another logo, the JU logo and the EU emblem must have appropriate prominence. For the purposes of this obligations and this Article, the beneficiaries may use the JU logo and the EU emblem without first obtaining approval from the JU and the Commission. This does not however give them the right to exclusive use. ….

Attention must be posed in case of beneficiary breaches any of the obligations under the G.A. 29.5 Article because the grant may be reduced (see Article 43 G.A.).

d) National or regional funding authorities must be acknowledged, and their logos included where possible.
e) All dissemination material should use the official project logo and the ***ArchitectECA2030*** website.

9 Publishing guidelines

9.1 Dissemination of own Results (Project Consortium Agreement)

"8.4.2.1

During the project and for a period of 2 year after the end of it, the dissemination of own Results by one or several Parties including but not restricted to publications and presentations, shall be governed by the procedure of ***Article 29.1 of the Grant Agreement*** *subject to the following provisions.*

Prior notice of any planned publication shall be given to the other Parties at ***least 35 calendar*** *days before the publication. Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Coordinator and to the Party or Parties proposing the dissemination within* ***25 calendar days*** *after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.*

8.4.2.2

An objection is justified if

(a) the protection of the objecting Party's Results or Background would be adversely affected

(b) the objecting Party's legitimate interests in relation to the Results or Background would be significantly harmed.

The objection has to include a precise request for necessary modifications.

8.4.2.3

If an objection has been raised the involved Parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting Party shall not unreasonably continue the opposition if appropriate measures are taken following the discussion.

8.5

The objecting Party can request a publication delay of not more than 90 calendar days from the time it raises such an objection. After 90 calendar days the publication is permitted provided that Background, unpublished Results or Confidential Information of the objecting Party has been removed from the Publication as indicated by the objecting Party.

8.5.1 Dissemination of another Party's unpublished Results or Background

A Party shall not include in any dissemination activity another Party's Results or Background without obtaining the owning Party's prior written approval, unless they are already published.

8.5.2 Cooperation obligations

The Parties undertake to cooperate to allow the timely submission, examination, publication and defence of any dissertation or thesis for a degree that includes their Results or Background subject to the confidentiality and publication provisions agreed in this Consortium Agreement.

8.5.3 Use of names, logos or trademarks

Nothing in this Consortium Agreement shall be construed as conferring rights to use in advertising, publicity or otherwise the name of the Parties or any of their logos or trademarks without their prior written approval."
PCA

9.2 Publication Announcement

It is the duty of the main author/s to:

1) Fill in the publication item into the Excel file located at 11_Dissemination_Exploitation - Dateien - ArchitectECA2030 (oth-aw.de) as precise as possible at the time. Download the Excel file, rename including partner name + main author name, provide the inputs and upload file into the same folder. It is necessary to do that at least 35 days before the publication.
2) Upload the submission proposal, paper, journal, book, Thesis or whatever dissemination (also on Webpages or articles)… into the same folder. It is necessary to do that **at least 35 days** before the publication.
3) Prior notice of any planned publication shall be given to the other Parties at least 35 calendar days before the publication (email to zina@teraglobus.lt or members@architect-eca2030.eu)

4) Any objection to the planned publication shall be made in accordance with the GA in writing to the Coordinator and to the Party or Parties proposing the dissemination **within 25 calendar days** after receipt of the notice.
5) Consortium partners must follow the review and approval process described in the subsequent process illustration:

9.3 Reviewing with ArchitectECA2030

Based on the Publication Announcement the Dissemination Leader / Coordinator will inform the Consortium giving the possibility to object to the publication. In case of an objection, the main author/s will have to discuss adaptations of the publication with the objecting party. *"Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Coordinator and to the Party or Parties proposing the dissemination within **25 calendar days** after receipt of the notice."*

9.4 Accepted publications

Once the publication has been accepted, the main author needs to finalize the publication item in the Excel file on the ***ArchitectECA2030*** and upload the final file's version of the publication. This is essential for the purpose of project reporting as such lists need to be provided to ECSEL JU in the intermediate and final reports.

10 Open access to scientific publications

Lastly, the Dissemination and Communication Guidelines describe the principles of Open Access Publishing. Under Horizon2020, each beneficiary must ensure open access to all peer-reviewed scientific publications relating to its results, and ***ArchitectECA2030*** consortium partners are all expected and informed to follow these rules. Each partner must - at the very least - ensure that their publications can be read online, downloaded and printed. Partners should make every effort to have additional rights such as the right to copy, distribute, search, link, crawl, and mine increase the utility of the accessible publication. More information is also available at: Open access & Data management – SEDIA Guide Open access & Data management – SEDIA Guide

[https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm ; 11 November 2020].

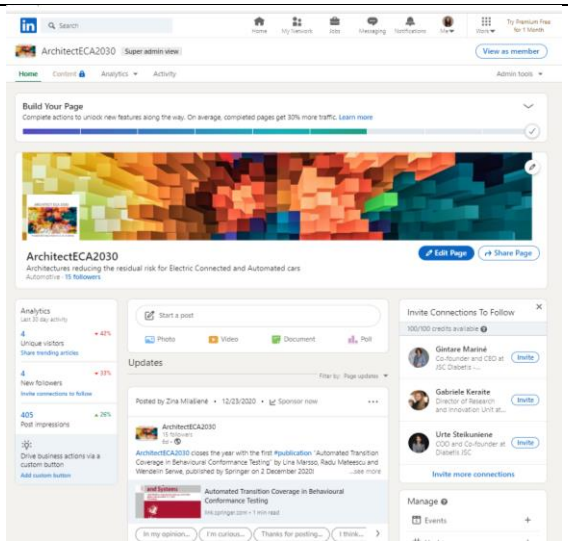
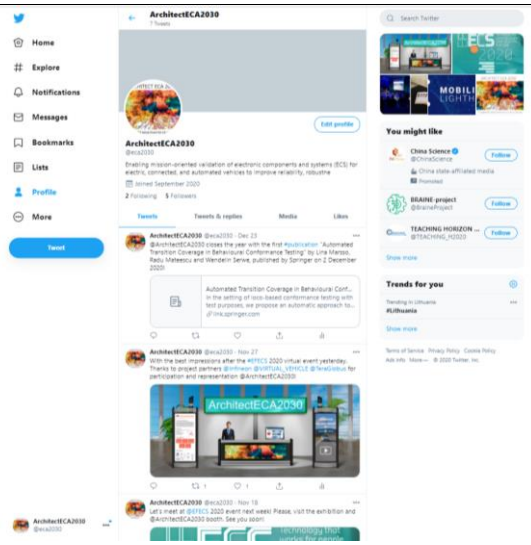
Some additional information and guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020 can be found at:

- https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/open-access_en.htm [11 November 2020]
- https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf [11 November 2020]
- https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/FactSheet_Open_Access.pdf [11 November 2020]

11 Social Media Posting Guidelines

After information about acknowledgement of funding, the ***ArchitectECA2030*** dissemination and communication guidelines describe where partners can find the dissemination materials (such as presentations, templates, posters). This is followed by social media posting guidelines, described below:

The ***ArchitectECA2030*** consortium uses Twitter, Facebook, and LinkedIn as social media contact.

	
LinkedIn	Twitter

11.1 Social media and website – Posting schedule

	Twitter/Linkedin	Website
ON THE DAY OF REGISTRATION TO EVENT	HEADLINE, EVENT DETAILS, LINK	
2 DAYS PRIOR TO EVENT	HEADLINE, EVENT DETAILS, LINK	
DURING EVENT	PHOTOS, LIVE DETAILS	
2 DAYS AFTER EVENT		SUMMARY OF EVENT, RESULTS, PHOTOS
PUBLIC PROJECT RESULTS	HEADLINE, DETAILS, PARTNER INFORMATION	HEADLINE, DETAILS, PARTNER INFORMATION
PROJECT NEWSLETTER	HEADLINE, NEWSLETTER	HEADLINE, NEWSLETTER

FIGURE 7 SOCIAL MEDIA AND WEBSITE – POSTING SCHEDULE

11.2 Tone and general notes that our consortium takes into account when posting in social media:

- **Never post pictures or text containing confidential information from consortium's internal meetings;**
- Use appropriate, inoffensive language (to ensure we get responses and stimulate debate);
- Be receptive to our readers' arguments – if we don't agree, we can defend our position without being rude;
- Gain/maintain credibility by sharing worthwhile, relevant content and show respect for other cultures and ideas, online as well as offline;
- We must be aware that libel and defamation laws apply;
- If the partners, researchers, team members or other relevant organizations already have a strong, well established social media presence, we encourage them to communicate information about our project;
- Use handles and hashtags, such as @ECSELJU, @EU_H2020, #H2020, #ECSELJU and in our tweets to maximize visibility and be recognized as part of the ECSEL JU and H2020 community;
- Twitter is becoming increasingly visual – we post pictures or data visualizations to spark interest;
- Share images and tag other Twitter accounts (up to 10), to build a relationship with your audience and make them aware (the account tagged receives a notification) of content that might interest them, in the hope that they might want to retweet it.

Handle @

Unique user name used to identify our project's account. It always starts with the @ symbol, followed by a name to identify the account: **@architechtECA2030 or @eca2030**

Why do we use handles?

- ❖ To mention partner organizations, funding organizations, and related projects;
- ❖ To send a direct reply to someone, by starting our message with their handle;
- ❖ To link to someone else's account (known as a 'mention') by using their handle in our post.

Hashtag #

Using a hashtag makes the keyword or phrase in the post searchable. It is like a label that clusters and links similar content, the same way keywords do when scientific papers are published.
Added in front of any word or phrase in a post, this makes it easier for users to locate our specific content. Examples: #Innovation, #futuretechnologies, #industry, #H2020, #ECSELJU.

Why do we use hashtags?

- To increase outreach – enabling us to join bigger, topic-specific conversations;
- To capitalize on existing trends;
- To consolidate and group content – helping those who took part in an event search for related coverage using the event's hashtag;
- To encourage interaction.

12 Software Support for Data Storage and Documents' Management

It is important to enable a smooth operation, safe data exchange and effective management of data among the ArchitectECA2030 members. To reach these goals, the Coordinator has organized a cloud platform for the data-exchange, where the confidential sharing of files is possible within Consortium's partners and for Review meetings also with PO and assigned reviewers.

The uses cloud software is the so-called "Nextcloud" (see Figure below: Screenshot of the ArchitectECA2030 data share Nextcloud), installed on a server and hosted from the OTH-AW.

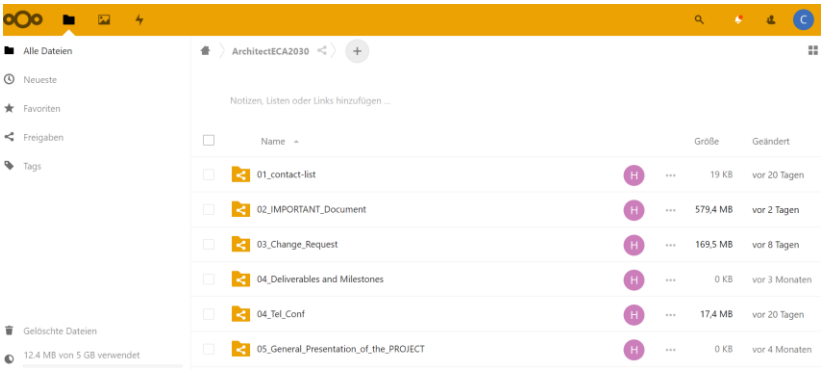


FIGURE 8 ARCHITECTECA2030 CLOUD FÜR DATA SHEARING

12.1 Cloud Access

The Nextcloud-server software supports fully the WebDAV protocol, so users can connect to the server and synchronize there working data. This is possible with every standard browser like, Firefox, Internet Explorer, Opera or Chrome, through the link:

https://autoc3rt-cloud.automotive.oth-aw.de/apps/files/?dir=/ArchitectECA2030&fileid=784

so no additional software is needed to install for the users. It is also possible to access by client applications, which are available for all common Windows, Mac and Linux and furthermore by mobile apps for iOS and Android. It is not necessary to install the apps, but they facilitate the working with files, so they are automatically synchronized properly after saving. The client can be configured to store the data on any local directory.

The files are shared within the Consortium but it is also possible to create personal data, which is not shared. The file size is partly limited to 512 MB, but can be extended to bigger files if necessary. There are no restrictions for the upload/download speed of the connected users

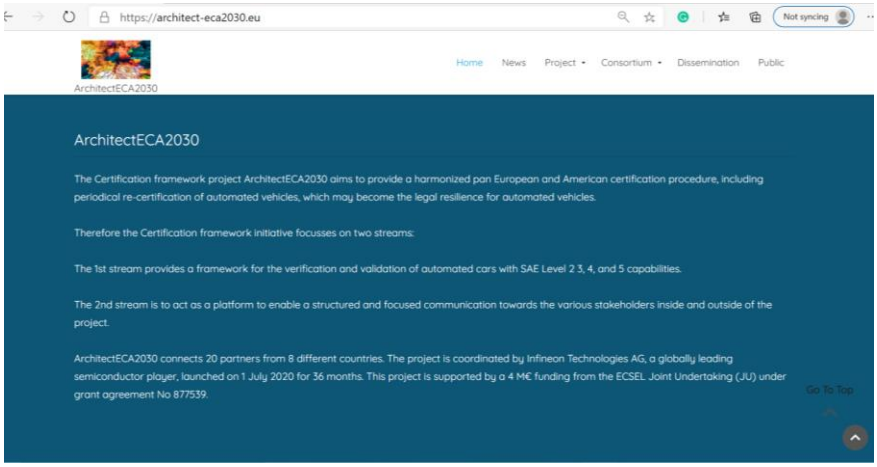
Within the Nextcloud a version control allows to access to older versions of the files. The Nextcloud software is updated frequently to keep the system up-do-date. **A daily backup is made from all data**, which are physically separated from the server. The server is located in Germany at the OTH-AW. The access to the files is only allowed through the https-protocol [HTTPS]. After the login to the Nextcloud all communication is protected through an SSL encrypted access, verified by a CA-certificate.

12.2 WEBSITE

A website representing ArchitectECA2030 project is essential and can be found on: https://architect-eca2030.eu/ ArchitectECA2030 (architect-eca2030.eu) The ArchitectECA2030 website is a useful tool to provide information about results and news.

The website is setup within a flowing process and is periodically updated with new input. The EC and ECSEL JU are properly acknowledged.

Changes of the Layout are possible to improve the WebPage in the future. This is to consider the most important public-facing asset serving as main communication of the results and know how produced by the CONSORTIUM.



13 Conclusion

This deliverable “D8.1, Management and Quality Assurance Handbook” (MQAH) defines the wide management processes, rules and tools to be applied throughout the ***ArchitectECA2030*** Project. It complements the legal and contractual documents, i.e. the Project Grant Agreement, the National Grant Agreements (NGA) and the Project Consortium Agreement (PCA) by means of the practical project management and quality assurance.

The objective of the document is to inform the ***ArchitectECA2030*** Partners/Beneficiaries concerning the project organization and to provide guidance to day-to-day actions. In particular, it is relevant for the administrative bodies.

The MQAH is a ‘living document’, so it is intended to adapt and update this document during the project duration, if needed.

14 List of figures

15 Acronyms

ECA	Electric, Connected and Automated
ECS	Electronic Components and Systems
HW	Hardware
SW	Software
MonDev	Monitoring Device
ASIL	Automotive Safety Integrity Level
AECA	Architect Electric, connected and automated
HAD	Highly Automated Driving
IPR	Intellectual Property Right
CPS	Cyber Physical System
ACPS	Autonome Cyber-Physical Systems
ACPS	Automotive Cyber-Physical Systems (ACPS)
EAB	External Advisory Board
ACPS	automated/autonomous CPS
NC	National Coordination
CT	Core Team
DMS	Document Management System
EC	European Commission
IMT	Innovation Management Team
MQAH	Management and Quality Assurance
NGA	National Grant Agreement
PCA	Project Consortium Agreement
PCO	Project Coordination Office
PM	Project Management
QA	Quality Assurance
SC	Supply Chain
WP	Work Package

16 Internal Review

Reviewer 1: Zina (TERA)	Reviewer 2: Pavel (BUT)

1. Is the deliverable in accordance with:

		Answer	*Comments*	*Type**	*Answer*	*Comments*	*Type**
(i)	the description of work?	Yes		M/m/a	Yes		M/m/a
(ii)	the international state of the Art?	not relevant		M/m/a	not relevant		M/m/a

2. Is the quality of the deliverable in a status that:

		Answer	*Comments*	*Type**	*Answer*	*Comments*	*Type**
	allows to send it to ECSEL JU?	yes		M/m/a	yes		M/m/a
(ii)	needs improvement of the writing by the authors of the deliverable?	no		M/m/a	yes	Comments sent to Koordinator and implemented in this version	M/m/a
(iii)	needs further work by the partners responsible for the deliverable?	no		M/m/a	no		M/m/a
(iv)	Needs to fulfill the following suggestions?	no		M/m/a	no		M/m/a

* Type of comments: M = major comment; m = minor comment; a = advise

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