DELIVERABLE

D8.1 – Project management handbook

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Keywords:	Project management, documents management, internal communication, reporting, PCC, HLAB, decision making procedures, peer review, quality management, key contacts, IPR management, meetings,
Abstract (few lines):	This deliverable summarises the main procedures and tools that will be used in the project execution to monitor the proper implementation, partners' communication and contributions, resources consumption, quality management and reporting to EC as well as internal reporting.

DISCLAIMER

ACKNOWLEDGEMENT

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Definitions, Acronyms and Abbreviations

Acronym	Title
AENEAS	AENEAS industry association of Electronic Components & Systems t
AMGA	Annotated Model Grant Agreement
ARTEMIS	ARTEMIS Industry Association of Embedded Intelligent Systems within Europe
CA	Consortium Agreement
C4D	Comp4Drones
CFS	Certificates on Financial Statements
DoA	Description of Action
EC	European Commission
EPoSS	The European Technology Platform on Smart Systems Integration
ESEL-JU	Electronic Components and Systems for European leadership Joint Undertaking
ETR	Express Toll Route
EU	European Union
GA	Grant Agreement
HLAB	High Level Advisory Board
IC	Impact Coordinator
ITS	Intelligent Transport Systems
KPI	Key Performance Indicator
PC	Project Coordinator
PCC	Project Coordination Committee
PCC+	Extended Project Coordination Committee
PGA	Project General Assembly
PO	Project Officer
TC	Technical Coordinator
UCL	Use-Case Leader
WP	Work Package
WPL	Work Package Leaders

Executive Summary

This Handbook is written in the framework of WP1 – Project Management (Task 8.1 Project Management) of C4D project under Grant Agreement No. 826610

Its intention is to provide useful information to all partners about the procedures of the project, its governance structure, main roles, key project contacts, decision making and working procedures, IPR management, deliverables peer-review quality management process and communication and reporting procedures and about general issues of the ECSEL Programme. The initial version of this Handbook is delivered on November 2019 (M2) but it will be updated throughout the duration of the project, if needed.

Any procedure decided after February 2017 will be included in this Project Handbook and sent as another version of this report.

The terms and provisions of the EU Grant Agreement (and its annexes) and the C4D Consortium Agreement will prevail in the event of any inconsistency with recommendation and guidelines defined in the present Project Handbook.

Partners are advised to read carefully and follow all ECSEL documentation.

For any comments on this Handbook, please contact the Project Coordinator:

- Mr. Rodrigo Castiñeira (INDRA)
- E-mail: rcastineira@indra.es

1 Introduction

This Handbook is written in the framework of WP8 – Overall Management (Task 8.1 Project management) of Comp4Drones (C4D) project under Grant Agreement No. 826610.

This project handbook is a collection of instructions and decisions regarding project management and administration of the C4D project. This is a living document that will be updated as new information becomes available and new decisions are made. Its intention is to provide useful information to all partners about the procedures that will be followed during the project execution for communication and reporting purposes.

It acts as a reference source for all Consortium members, covering many of the day-to-day activities and providing links to further information where required. Secondly, it aims to standardise various elements of the project e.g. project reports, deliverables, file naming conventions etc. through the use of agreed procedures and templates where relevant. The initial version of this Handbook is delivered on November 2019 (M2) but it will be updated throughout the duration of the project, if needed. This initial version has included the project quality manual expected in the D8.2 deliverable (formal delivery expected by M4) since the first important deliverables are due in the third month and having quality guidelines in place contribute to ensure the quality of all the deliverables.

Any update or improvement on procedures decided after the release of this document will be included in this Project Handbook and sent as another version of this document to all partners.

The terms and provisions of the EU Grant Agreement (and its annexes) and the C4D Consortium Agreement will prevail in the event of any inconsistency with recommendations and guidelines defined in the present Project Handbook.

It must be noticed that the Handbook does not express the opinion of European Commission and does not, in any case, replace the European Commission documentation. This Handbook express only the authors' views: The Community is not liable for any use that may be made of the information contained therein. Partners are advised to read carefully and follow all H2020 AMGA and other relevant documents annexed to this handbook.

2 Project Governance

This section describes the project governing bodies that have in charge all the project management activities and the procedures/recommendations aiming to the correct implementation of the management activities concerned with WP8 (Overall management), WP2 (Specifications and Methodology), WP3-WP6 (Technology implementation), WP1 (Use-cases) and WP7 (Impact) of the C4D project.

Section 3 "Important contacts" includes the contact details for the leader/proxy assuming each one of the previous roles.

2.1 Consortium management structures

The project management will consist of the following structures and control functions, whose interaction is shown in the figure below:

- Project Coordinator (PC);
- Technical Coordinator (TC);
- Impact coordinator (IC);
- Project Coordination Committee (PCC);
- Extended Project Coordination Committee (+PCC)
- Project General Assembly (PGA);
- Work-Package (WPL) and use-case leaders;
- High Level Advisory Board (HLAB).
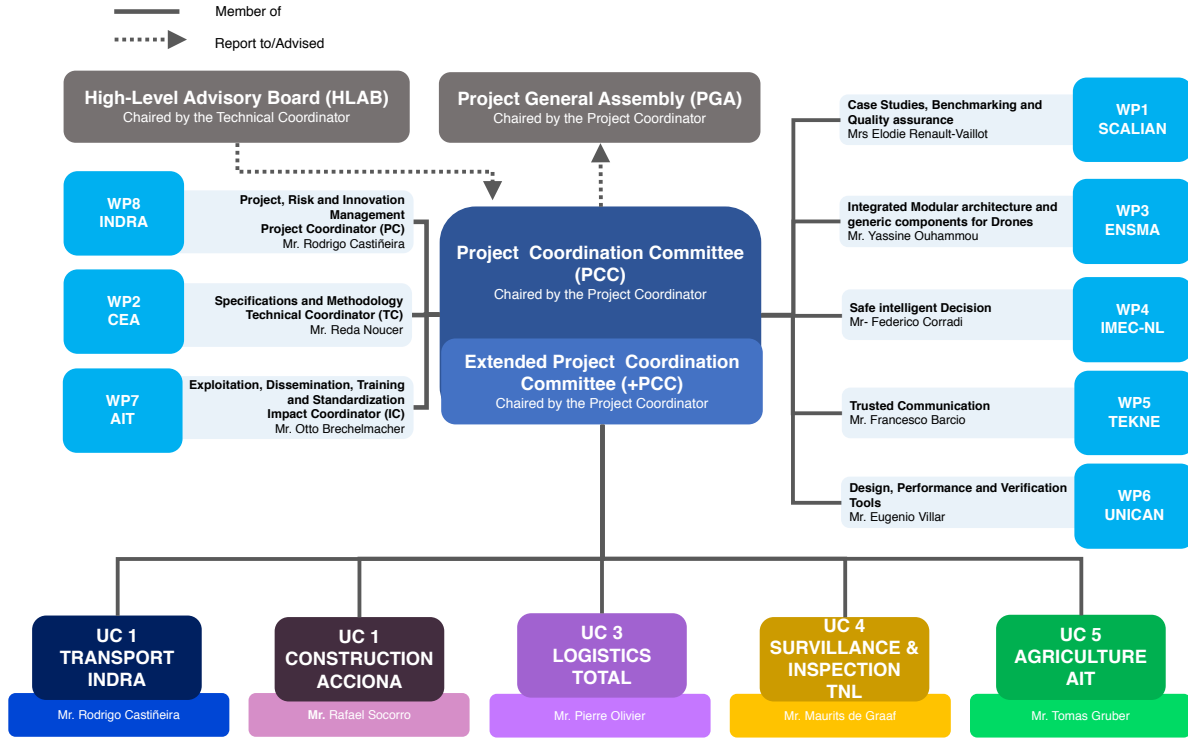
Figure 1: Project Management Structure

2.2 Roles and responsibilities of project bodies

2.2.1 Project coordinator (PC)

	Rodrigo Castiñeira (INDRA) rcastineira@indra.es	

The PC, as leader of WP8 (Project Management), will have the overall responsibility for the running of the project, ensuring delivery to time, cost, and required quality, the overall coordination of the project's technical and scientific progress. The main interfaces of the PC are:

i. EC (Project Officer);
ii. Technical Coordinator (TC) and Impact Coordinator (IC), as well as WP Leaders;
iii. the PGA and PCC.

The PC will be supported by the Administrative and Financial Manager (Manuel Lopez Villena from INDRA) who will be responsible for the administration of the internal Consortium structure and the financial administration of the project, including ensuring the proper completion and consolidation of the cost claims for partners. The Administrative and Financial Manager will act as a support to the PGA and will attend its meetings when required.

In particular, the Coordinator shall be responsible for the following tasks:

- Monitoring compliance by the Parties with their obligations.
- Keeping the address list of Members and other contact persons updated and available.
- Collecting, reviewing to verify consistency and submitting reports, other deliverables (including financial statements and related certifications) and specific requested documents to the Funding Authority.
- Transmitting documents and information connected with the Project to any other Parties concerned.
- Administering the financial contribution of the Funding Authority and fulfilling the financial tasks (described in Section 6.6.C of the Consortium Agreement).
- Providing, upon request, the Parties with official copies or originals of documents that are in the sole possession of the Coordinator when such copies or originals are necessary for the Parties to present claims.

Rodrigo will be supported by the internal coordination team at INDRA which is composed of the following people and roles:
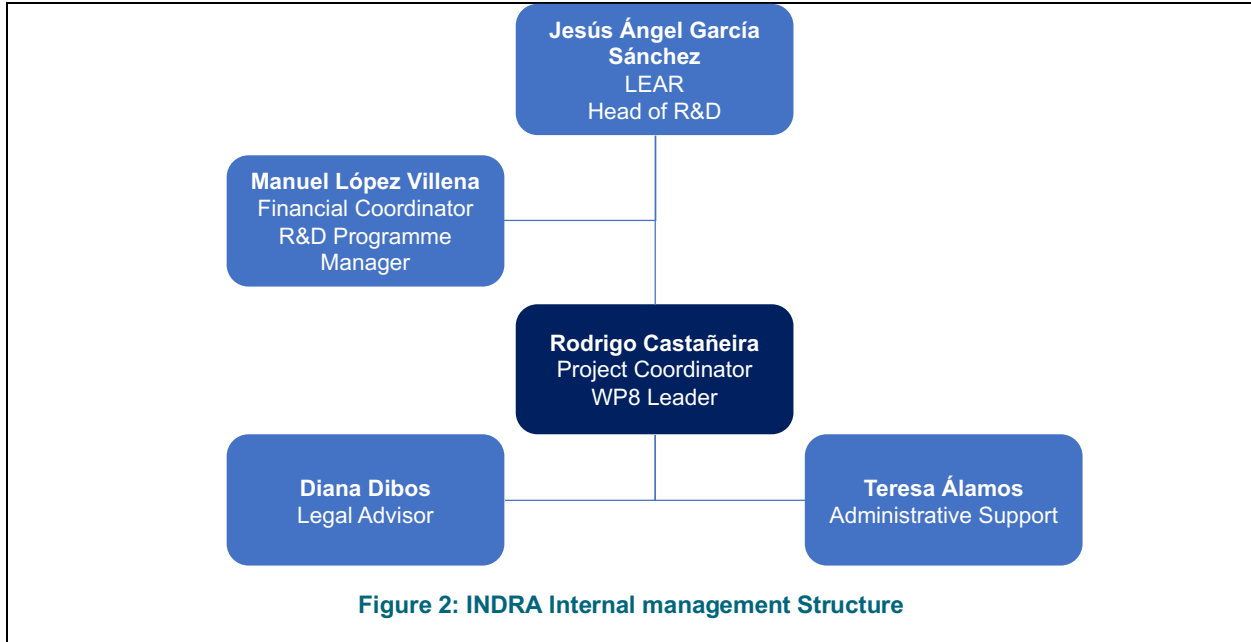
Figure 2: INDRA Internal management Structure

2.2.2 Technical Coordinator (TC)

Reda Nouacer (CEA)
reda.nouacer@cea.fr

The TC, as leader of WP2 (Specifications and Methodology) will have the responsibility of the overall coordination of the project's technical progress. The main tasks of the TC will be to facilitate the coordination and alignment among pilots, and ensure the continuous alignment of commonly understood and agreed project results with the projects vision and the overall technical objectives. The TC will jointly work with the PC, supported by WPL and by Specific Use-Case Leaders, in order to assure the delivery of high quality and timely technical results. Same tasks and responsibilities as for PC but applied to technical progress.

2.2.3 Impact Coordinator (IC)

Impact Coordinator (IC)		
	Otto Brechelmacher (IAT) Otto.Brechelmacher@ait.ac.at	
The IC, as leader of WP7 (Exploitation, Dissemination, Training and Standardization IAT), will be responsible for monitoring the achieved during the project as well as for taking actions to bring the impact to the highest levels possible. The IC will be in continuous communication in particular with the industry partners & Use Case Leaders of C4D to understand, facilitate and coordinate exploitation and dissemination actions, as well as to report them to the PCC. Same tasks and responsibilities as for PC but applied to impact progress.		

2.2.4 Project coordination committee (PCC) and Extended Project Coordination Committee (PCC+)
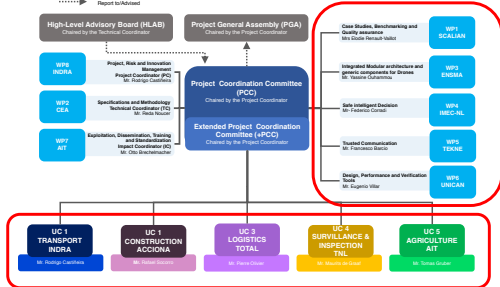
Project Coordination Committee (PCC and PCC+)		
	Composed by PC, TC, IC all WLP, and UCL (only in the PCC+) chaired by the PC	
The PCC will manage the programme and decide about the high-level management and technical issues. Its coordination tasks will guide the work and assume an effective communication between all partners. The PCC will meet physically at least once each three months for the first year, then will meet each 4-6 months. Additionally, bi-weekly conference calls of the PCC will be held to ensure timely project management and control.		

When required the PCC will be extended joining the Use-Case Leaders in the PCC+, to make technical decisions related to Use Cases. The PC is the one who decides in which regular conference calls of physical meetings the PCC+ will join the basic PCC.

Main PCC/PCC+ tasks are:
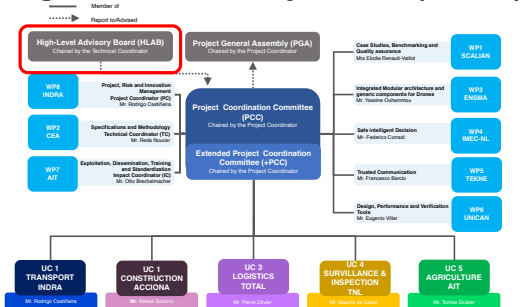
- The Project Coordination Committee shall prepare the meetings, propose decisions and prepare the agenda of the Project General Assembly.
- The Project Coordination Committee shall seek a consensus among the Parties.
- The Project Coordination Committee shall be responsible for the proper
- execution and implementation of the decisions of the Project General
- Assembly.
- The Project Coordination Committee shall monitor the effective and efficient
- implementation of the Project.
- In addition, the Project Coordination Committee shall collect information at least every six (6) months on the progress of the Project, examine that information to assess the compliance of the Project with the Consortium Plan and, if necessary, propose modifications of the Consortium Plan to the Project General Assembly.
- The Project Coordination Committee shall:
  - o agree on the Members of the HLAB, upon a proposal by the Coordinator.
  - o support the Coordinator in preparing meetings with the Funding
  - o Authority and in preparing related data and deliverables.
  - o It shall approve all official deliverables
  - o prepare the content and timing of press releases and joint publications by the consortium or proposed by the Funding Authority in respect of the procedures of the Grant Agreement Article 29.
- In the case of abolished tasks as a result of a decision of the Project General Assembly, the Project Coordination Committee shall advise the Project General Assembly on ways to rearrange tasks and budgets of the Parties concerned. Such rearrangement shall take into consideration the legitimate commitments taken prior to the decisions, which cannot be cancelled.

2.2.5 WP (domain) leaders and Use-Case leaders

Work Package (WPL) and Use-Case Leaders (UCL)	
	WPL and UCL

Work Package Leaders are responsible for managing their WP as a self-contained entity and integrating their work with the results of other WPs. Their responsibilities include coordinating, monitoring and assessing the progress of the WP to ensure that output performance, costs and timelines are met.

Use Case Leaders are responsible for the coordination of each specific use cases and partners collaborating within the use case in WP1. The Use Case Leader is also responsible for the circulation of progress and risk information to the PCC.

Both WPL and UCL will:

- Coordinate the technical activities of the partners involved in the use case or WP and check intermediate work progress;
- Organize, when necessary, meetings with the participation of involved partners;
- Keep the PC informed on the status of activities and suggest any corrective action to be taken;
- Report to the PCC on the status of activities and suggest any corrective action to be taken;
- Contribute and closely align with the TC to ensure synergy and learning effects among use cases and use case domains.

2.2.6 High level advisory board (HLAB)

High-level Advisory Board (HLAB)	
	Will be composed of external high-level representatives; chaired by TC.

The HLAB will be one key instrument to strategically engage with decision makers and the wider stakeholder community. The HLAB will actively engage HLAB members and key partners of the C4D consortium, thereby providing HLAB members with early insights into HLAB results and findings, whilst providing C4D members with external views and recommendations. The HLAB will engage in the following ways:

1) challenge C4D work against new developments and advances in the state-of-the-art;
2) ensure that C4D stays in the highest level of scientific and technical quality, thereby ensuring expected impact;
3) provide scientific, technical and domain expertise on C4D results and methodology;
4) share common priorities and establish future cooperation opportunities of mutual benefit;
5) disseminate and multiply project results by informing the various networks of HLAB members, thereby fostering active engagement of external organizations in Drones Technology demonstrations.

The High-level Advisory Board (HLAB) members will cover a relevant cross-section of stakeholders from transport, construction, logistics, inspection, and agricultural sectors, together with leaders in Drone technology, as well as representatives of key European Technology Platforms. As opinion-leaders in their respective fields the members of the HLAB will provide a valuable referral point at critical milestones along the C4D project development. In addition, HLAB members will serve as major multipliers in their target communities and organizations to spread the word and encourage adoption of C4D technology.

To-date, HLAB members are:

• Patricia Argerey Vivar (Consejería de Economia e Industria, Xunta de Galicia, Spain)

3 Key Project contacts

In the following tables, the main project contacts points for each work package and main tasks are identified. This table will be updated throughout the project in order to ensure that the key project contacts are identified by all partners.

3.1 WP1: Case Studies, Specifications, Benchmarking and Justification File

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP1	**Case Studies, Specifications, Benchmarking and Justification File**	**SCALIAN**	**Raphael Lallement**	Raphael.LALLEMENT@scalian.com	**Elodie Renault-Vaillot**	elodie.renault-vaillot@scalian.com
T1.1	Case Study Coordination	SCALIAN	Raphael Lallement	Raphael.LALLEMENT@scalian.com	Elodie Renault-Vaillot	elodie.renault-vaillot@scalian.com
T1.2	Case Study and Benchmark Specification	SCALIAN	Raphael Lallement	Raphael.LALLEMENT@scalian.com	Elodie Renault-Vaillot	elodie.renault-vaillot@scalian.com
T1.3	Case Study Implementation	ACCIONA	Rafael Claret Socorro	rafaelclaret.socorro.hernandez@acciona.com	Nayra uranga	nayra.uranga.loredo.EXT@acciona.com
T1.4	Case Study Justification File	ALTRAN	Bruno Sanson	bruno.sanson@altran.com	Guillaume Thalmann	guillaume.thalmann@altran.com

3.2 WP2: Specifications and Methodology

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP2	**Case Studies, Specifications, Benchmarking and Justification File**	**CEA**	**Reda Nouacer**	reda.nouacer@cea.fr	**Huescar Espinoza**	Huascar.ESPINOZA@cea.fr
T2.1	Framework specification	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr
T2.2	Methodology and workflow	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr
T2.3	Regulatory compliance and standard	ALTRAN	Bruno Sanson	bruno.sanson@altran.com	Guillaume Thalmann	guillaume.thalmann@altran.com

3.3 WP3: Integrated Modular architecture and generic components for Drones

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP3	**Integrated Modular architecture and generic components for Drones**	**ENSMA**	**Yassine Ouhammou**	yassine.ouhammou@ensma.fr	**Emmanuel GROLLEAU**	grolleau@ensma.fr
T3.1	Reference Architecture Specification	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr
T3.2	Modular Architecture for drones	ENSMA	Yassine Ouhammou	yassine.ouhammou@ensma.fr	Emmanuel GROLLEAU	grolleau@ensma.fr
T3.3	Generic components for drones	ENAC	Yannick Jestin	yannick.jestin@enac.fr	Georges Mykoniatis	georges.mykoniatis@enac.fr

3.4 WP4: Enabling drones to take safe autonomous decisions

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP4	**Enabling drones to take safe autonomous decisions**	**IMEC-NL**	**Federico Corradi**	Federico.Corradi@imec.nl	**Siebren Schaafsma**	Siebren.Schaafsma@imec.nl
T4.1	Sensory systems and data aggregation	BUT	Pavel Zemcik	zemcik@fit.vutbr.cz	Peter Chudy	chudyp@fit.vutbr.cz
T4.2	Algorithms for sensory fusion, intelligent trajectory planning, and autonomous navigation	UNIVAQ	Stefano Digennaro	stefano.digennaro@univaq.it	Luigi Pomante	luigi.pomante@univaq.it
T4.3	Support for intelligent decision	IMEC-NL	Federico Corradi	Federico.Corradi@imec.nl	Siebren Schaafsma	Siebren.Schaafsma@imec.nl
T4.4	Runtime safety, alarms systems	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr

3.5 WP5: Trusted Communication

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP5	**Trusted Communication**	**TEKNE**	**Francesco Barcio**	f.barcio@tekne.it	**Carlo Tieri**	c.tieri@tekne.it
T5.1	Lightweight Communication Framework	ANYWI	Morten Larsen	morten.larsen@anywi.com	Henk Uittenbogaard	henk.uittenbogaard@anywi.com
T5.2	Robust Multi-Radio Communications	TEKNE	Francesco Barcio	f.barcio@tekne.it	Carlo Tieri	c.tieri@tekne.it
T5.3	Security Management	IKERLAN	Marc Barcelo	mbarcelo@ikerlan.es	Leire Rubio	lrubio@ikerlan.es
T5.4	Reactive Security	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr

3.6 WP6: Design, Performance and Verification Tools

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP6	**Design, Performance and Verification Tools**	**UNICAN**	**Eugenio Villar**	evillar@teisa.unican.es	**Hector Posadas**	hector.posadas@unican.es
T6.1	Drone system modeling and code generation tools	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr
T6.2	Drone system validation and verification tools	BUT	Pavel Zemcik	zemcik@fit.vutbr.cz	Peter Chudy	chudyp@fit.vutbr.cz
T6.3	Drone system analysis and optimization tools	SHERPA	Philippe FIANI	p.fiani@sherpa-eng.com	Sébastien SEROT	s.serot@sherpa-eng.com

3.7 WP7: Exploitation, Training, Dissemination and Standardisation

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP7	**Exploitation, Training, Dissemination and Standardisation**	**AIT**	**Otto Brechelmacher**	Otto.Brechelmacher@ait.ac.at	**Thomas Gruber**	thomas.Gruber@ait.ac.at
T7.1	Exploitation and IPR	INDRA	Rodrigo Castinera	rcastineira@indra.es	Adrian Irala	airala@indra.es
T7.2	Dissemination and Communication	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr
T7.3	Training activities	IMCS	Uģis Grīnbergs	ugis@adsl.lv	Māris Alberts	alberts@latnet.lv
T7.4	Drone Ecosystem Observatory	ENAC	Yannick Jestin	yannick.jestin@enac.fr	Georges Mykoniatis	georges.mykoniatis@enac.fr
T7.5	Contributions to Standards and Open	AIT	Otto Brechelmacher	Otto.Brechelmacher@ait.ac.at	Thomas Gruber	thomas.Gruber@ait.ac.at
T7.6	Building and Coordination of Community	CEA	Reda Nouacer	reda.nouacer@cea.fr	Huescar Espinoza	Huascar.ESPINOZA@cea.fr

3.8 WP8: Project Management

WP Task	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
WP8	**Project Management**	**INDRA**	**Rodrigo Castinera**	rcastineira@indra.es	**Manuel Lopez Villena**	mlvillena@indra.es
T8.1	Project Management	INDRA	Rodrigo Castinera	rcastineira@indra.es	Teresa Alamos	talamos@indra.es
T8.2	Project, Risk and Innovation Management	INDRA	Rodrigo Castinera	rcastineira@indra.es	Teresa Alamos	talamos@indra.es

3.9 Use-Case Leaders

UC	Name	Lead Benef	Lead Person	Key Contact	Proxy / Backup	Key Contact
UC1	Transport	INDRA	Adrian Irala	airala@indra.es	Rodrigo Castinera	rcastineira@indra.es
UC2	Construction	ACCIONA	Rafael Claret Socorro	rafaelclaret.socorro.hernandez@acciona.com	Nayra uranga	nayra.uranga.loredo.EXT@acciona.com
UC3	Logistics	TOTAL	Bruno Pagliccia	bruno.pagliccia@total.com	Bertrand Duquet	bertrand.duquet@total.com
UC4	Surveillance & Inspection	TNL	Maurits Degraaf	maurits.degraaf@nl.thalesgroup.com	Alex van der Linden	alex.vanderlinden@nl.thalesgroup.com
UC5	Agriculture	AIT	Thomas Gruber	thomas.Gruber@ait.ac.at	Otto Brechelmacher	Otto.Brechelmacher@ait.ac.at

4 Decision making procedures

Regarding the decision-making process, the organisational structure of the Consortium is comprised of the following Consortium Bodies:

- General Assembly as the ultimate decision-making body of the consortium.
- Project Coordination Committee as the supervisory body for the execution of the Project which shall report to and be accountable to the General Assembly. The PCC will be composed of three coordinators with distinct, complementary competencies and responsibilities, as well as all Use-Case Leaders of C4D in the PCC+. As shown in Figure 1 each of these roles also acts as WP leader of the respective project work packages to ensure strong vision and resources to ensure the responsibilities can be delivered.
- Project Coordinator. The Coordinator is the legal entity acting as the intermediary between the Parties and the Funding Authority. The Coordinator shall, in addition to its responsibilities as a Party, perform the tasks assigned to it as described in the Grant Agreement and Consortium Agreement. The Project Coordinator (PC) will undertake the management of the project, which will comprise chairing the Project General Assembly (PGA) and the Project Coordination Committee (PCC). The PGA will be responsible for the strategic decisions, while the PCC will be in change for the overall project management.
- The High Level External Advisory Board assists the Project Coordination Committee and the Coordinator.

The project's management structure and supporting procedures have been designed to specifically deal with the strategic and operational management requirements of an ambitious and large-scale innovation project that covers 5 use-cases and involves 50 partners.

The management structure has a strong focus on objectives and milestones, risk and innovation management and finally impact assessment. All project management activities will be implemented in WP8 (Project Management), ensuring that the project properly follows its iterative approach and that the work is completed within the terms of the contract with the European Commission. This will include ensuring that:

i. Appropriate agreements and management framework are in place between the partners;

ii.   All the projects activities are properly coordinated with appropriate levels of legal, contractual, ethical, quality, innovation, financial and administrative management of the consortium;

iii.   Proper operational project management is provided throughout the project and the project's work is completed to the expected timescales, resource usage and quality levels;

iv.   Appropriate reporting to the ECSEL Office and European Commission is undertaken.

The following sections summarise the most relevant aspects of the decision-making procedures in C4D. For further details please see the C4D Consortium Agreement, which is available at Basecamp.

4.1.1   Voting rules and quorum

Each Consortium Body shall not deliberate and decide validly unless the simple majority of its Members are present or represented (quorum). If the quorum is not reached, the chairperson of the Consortium Body shall convene another ordinary meeting within seven (7) calendar days. If in this meeting the quorum is not reached once more, the chairperson shall convene an extraordinary meeting which shall be entitled to decide even if less than the quorum of Members is present or represented.

Each Member of a Consortium Body present or represented in the meeting shall have one vote.

A Party which the Project General Assembly has declared Defaulting Party may not vote.

Decisions shall be taken by the simple majority of the votes cast, except for accession of a new party where, unanimous vote is required. In the event of a tie in the voting process, the Chairman of the concerned Consortium Body shall have the casting vote.

For the avoidance of doubt, decisions of any Consortium Body may not unilaterally impose additional obligations on a particular Party which is beyond the obligations agreed by such Party under the Consortium Agreement and under the Grant Agreement if such Party does not agree to accept.

4.1.2   Veto rights

A Member which can show that its own work, time for performance, costs, liabilities, intellectual Property Rights or other legitimate interests would be severely affected by a

decision of a Consortium Body may exercise a veto with respect to the corresponding decision or relevant part of the decision.

When the decision is foreseen on the original agenda, a Member may veto such a decision during the meeting only.

When a decision has been taken on a new item added to the agenda before or during the meeting, a Member may veto such decision during the meeting and within twenty-one (21) calendar days after the draft minutes of the meeting are sent. A Party that is not a Member of a particular Consortium Body may veto a decision within the same number of calendar days after the draft minutes of the meeting are sent.

When a decision has been taken without a meeting a Member may veto such decisión within twenty-one (21) calendar days after written notification by the chairperson of the outcome of the vote.

In case of exercise of veto, the Members of the related Consortium Body shall make every effort to resolve the matter which occasioned the veto to the general satisfaction of all its Members.

A Party may neither veto decisions relating to its identification to be in breach of its obligations nor to its identification as a Defaulting Party. The Defaulting Party may not veto decisions relating to its participation and termination in the consortium or the consequences of them.

A Party requesting to leave the consortium may not veto decisions relating thereto.

4.1.3 General Assembly decisions
The following decisions shall be taken by the General Assembly:

i. Content, finances and Intellectual Property Rights.
ii. Proposals for changes to Annexes 1 and 2 of the Grant Agreement to be agreed by the Funding Authority.
iii. Changes to the Consortium Plan.
iv. Modifications to Attachment 1 (Background Included).
v. Additions to Attachment 3 (List of third parties for simplified transfer of Results) and to Attachment 4 (Identified Affiliated Entities).
vi. Evolution of the consortium.
vii. Entry of a new Party to the consortium and approval of the settlement on the conditions of the accession of such a new Party.

viii. Withdrawal of a Party from the consortium and the approval of the settlement on the conditions of the withdrawal.

ix. Identification of a breach by a Party of its obligations under this Consortium Agreement or the Grant Agreement.

x. Declaration of a Party to be a Defaulting Party.

xi. Remedies to be performed by a Defaulting Party.

xii. Termination of a Defaulting Party's participation in the consortium and measures relating thereto.

xiii. Proposal to the Funding Authority for a change of the Coordinator.

xiv. Proposal to the Funding Authority for suspension of all or part of the Project.

xv. (Proposal to the Funding Authority for termination of the Project and the Consortium Agreement.

xvi. (Appointments. On the basis of the Grant Agreement, the appointment if necessary Project Coordination Committee Members.

4.1.4 Escalation process for technical issue resolution

As a general principle, decisions are made at all levels and in all areas of the project's activities. For important decisions arising within the project, i.e., decision that affects more than one partner, a consensus should be achieved.

The first step where to handle such consensus management is at the WP-level. If it cannot be found at this level, the work package leader must escalate the conflict to the PC for resolution. If the PC cannot find a solution satisfactory to all partners, the issue will be escalated to the level of the Project General Assembly for a final decision, eventually though a vote. Each member (Consortium Partner) will have a single vote, and the disputed matter will be resolved with simple majority. In case of ties, the PC will have an additional vote. In case of a procedural question related to the ECSEL, the PC may, at his own will, raise the question to the Project Officer.

5 Working Procedures

5.1 Meetings

5.1.1 Convening meetings

The chairperson of a Consortium Body shall convene meetings of that Consortium Body.

	Ordinary meeting	Extraordinary meeting
Project General Assembly	At least twice the first year of the Project and thereafter at least once a year	At any time upon written request of the Project Coordination Committee or 1/3 of the Members of the Project General Assembly
Project Coordination Committee	At least quarterly for the first year and then each 4-6 months. Additionally, bi-weekly conference calls.	At any time upon written request of any Member of the Project Coordination Committee.

5.1.2 Notice of a meeting

The chairperson of a Consortium Body shall give notice in writing of a meeting to each Member of that Consortium Body as soon as possible and no later than the minimum number of days preceding the meeting as indicated below.

	Ordinary meeting	Extraordinary meeting
General Assembly	45 calendar days	15 calendar days
Project Coordination Committee	14 calendar days	7 calendar days

5.1.3 Sending the agenda

The chairperson of a Consortium Body shall prepare and send each Member of that Consortium Body a written (original) agenda no later than the minimum number of days preceding the meeting as indicated below.

General Assembly	21 calendar days, 10 calendar days for an extraordinary meeting
Project Coordination Committee	6 calendar days

5.1.4 Adding agenda items

Any agenda item requiring a decision by the Members of a Consortium Body must be identified as such on the agenda.

Any Member of a Consortium Body may add an item to the original agenda by written notification to all of the other Members of that Consortium Body up to the minimum number of days preceding the meeting as indicated below.

General Assembly	14 calendar days, 7 calendar days for an extraordinary meeting
Project Coordination Committee	2 calendar days

During a meeting the Members of a Consortium Body present or represented can unanimously agree to add a new item to the original agenda

Meetings of each Consortium Body may also be held by teleconference or other telecommunication means.

5.1.5 Decisions in meetings

Decisions will only be binding once the relevant part of the Minutes has been accepted. Any decision may also be taken without a meeting if the Coordinator circulates to all Members of the Consortium Body a written document, which is then agreed by the defined majority of all Members of the Consortium Body. Such document shall include the deadline for responses.

The decisions will be binding after the chairperson sends to all Members of the Consortium Body and to the Coordinator a written notification of this acceptance.

5.2 Internal reporting

Survey Monkey and Google Forms/sheets will be the tools used to perform the internal reporting.

Reporting will be completed as a fully online process that might be complemented by ad-hoc requirements to specific partners depending on the information provided.

Three level of reporting will be considered:

- Technical reporting – Monthly.
- Impact & Resources progress reporting – Quarterly.
- Financial reporting – Every six months.

Level 1	Level 2	Level 3
Technical reporting	**Impact & Resources reporting**	**Financial reporting**
- **Who?** WP and UC leaders. - **Date?** From day 1 to day 5 of the following month. - **How?** Online survey. - **What?** Technical advances of UC (KPIs) and WP	- **Who?** All partners. - **Date?** From day 1 to day 5 of the following month. - **How?** Online survey - **What?** Estimation of resources consumption (effort and direct costs) and contributions to impact	- **Who?** All partners. - **Date?** From day 1 to day 5 of the following month. - **How?** Online survey - **What?** PM Progress/Update, Consumed Costs & Technical Summary Report
Every month	**Each 3 months**	**Each 6 months**

Figure 3 Internal Reporting Control Process

The resulting reporting calendar would be as follows:

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Technical Reporting	T																													
Impact & Resources Reporting			IR			IR			IR			IR			IR			IR			IR			IR			IR			IR
Financial Reporting						F						F						F						F						F

Figure 4: Reporting Dates

Each of the reporting procedures are explained in more detail below.

5.2.1 Technical reporting – Monthly

The objective of this reporting is to make periodic monthly updates on the technical work progress, i.e. mainly pilots' progress against the KPIs defined by each use-case in D1.1.

This report must be done by the use-case leaders after gathering inputs and in coordination with partners involved in their respective use-cases.

The report shall include responses to the following aspects:

- Overall status / progress towards milestones.
- Progress setting-up Use-Cases infrastructures
- Update on data availability (of expected size, speed, complexity, …)
- Update on Specific us-case procedures, indicators and metrics for performance monitoring.

- Impact of use-cases in events and other exploitation activities.
- Actions being performed at this moment and expected date to finish each action.
- Next Steps and date foreseen.
- Actions already completed.
- Update on risk table.

The report shall be monthly completed online (from day 1 to day 5 of the following month) following the link that will be provided by the coordinator.

5.2.2 Impact & Resources reporting (Resources consumption and contributions to impact) quarterly

The objective of this reporting is to make periodic quarterly updates on the amount of resources (ESTIMATION of personnel and other direct costs) consumed by each partner in order to monitor the degree of resources consumption. This report will also cover partners' contributions to WP7, i.e. to project impact.

The report shall include responses to the following aspects:

- Estimation of personnel effort (in person-months) consumed for every WP.
- Estimation on other direct costs consumed.
- Estimation on subcontracting costs consumed.
- Impact assessment, evaluate all partners' contributions with respect to indicators defined in D7.6 (Participation in events, publications and press releases, social media activity, video or other relevant content produced, meetings or other contacts with external stakeholders, data assets mobilised, collaboration with other projects, etc.)

The report shall be completed every quarter (from day 1 to day 5 of the following month after the reporting quarter, i.e. M4, M7, M10, etc.) by all partners (and linked third parties) following the link that will be provided by the coordinator.

5.2.3 Final reporting (Financial reporting) every 6 months

The objective of this reporting is to make periodic (Every 6 months) updates on the EXACT amount of resources (personnel and other direct costs) consumed by each partner in order to monitor the degree of resources consumption.

The report shall include responses to the following aspects:

- Estimation of personnel effort (in person-months) consumed for every WP.
- Estimation on other direct costs consumed.
- Estimation on subcontracting costs consumed.

It will also include a technical Summary Report on the progress and results achieved by each WP during the period.

The report shall be completed every quarter (from day 1 to day 15 of the following month after the reporting period, i.e. M7, M13, M19, etc.) by all partners (and linked third parties) following the link that will be provided by the coordinator.

6 Reporting to the ECSEL-JU

The project has three formal reporting periods of 10,12- and 14-months duration, as follows:

1) 1st Periodic report: 1st October 2019 – 31st July 2020

2) 2nd Periodic report: 1st August 2020 – 31st July 2021

3) Final report: 1st August 2021 – 30th September 2022
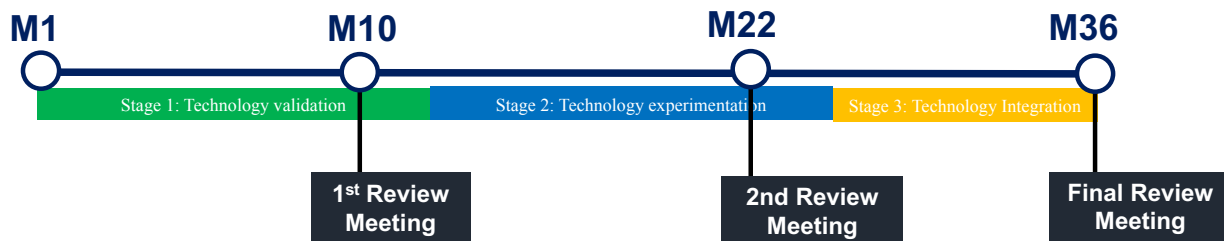
Figure 5: Review Meetings

The PC will provide the necessary templates and further indications in due time to prepare documents and information to be submitted for each one of the reporting periods. As an introduction to the informant needed for each one the following sections briefly list the information requested by the EC.

6.1 The periodic report

The periodic report must include the following:

a) 'periodic technical report' containing:

   (i) an explanation of the work carried out by the beneficiaries;

   (ii) an overview of the progress towards the objectives of the action, including milestones and deliverables identified in Annex 1.

This report must include explanations justifying the differences between work expected to be carried out in accordance with Annex 1 and that actually carried out.

The report must detail the exploitation and dissemination of the results and — if required in Annex 1 — an updated 'plan for the exploitation and dissemination of the results.

The report must indicate the communication activities performed during the period;

(iii) a summary for publication by the Commission;

(iv) the answers to the 'questionnaire', covering issues related to the action implementation and the economic and societal impact, notably in the context of the Horizon 2020 key performance indicators and the Horizon 2020 monitoring requirements;

b) a 'periodic financial report' containing:

(i) an 'individual financial statement' (see GA Annex 4) from each beneficiary and from each linked third party, for the reporting period concerned.

The individual financial statement must detail the eligible costs (actual costs, unit costs and flat-rate costs; see GA Article 6) for each budget category (see Annex 2).
The beneficiaries and linked third parties must declare all eligible costs, even if — for actual costs, unit costs and flat-rate costs — they exceed the amounts indicated in the estimated budget (see GA Annex 2). Amounts which are not declared in the individual financial statement will not be taken into account by the Commission.
If an individual financial statement is not submitted for a reporting period, it may be included in the periodic financial report for the next reporting period. The individual financial statements of the last reporting period must also detail the receipts of the action (see GA Article 5.3.3).
Each beneficiary and each linked third party must certify that:
- the information provided is full, reliable and true;

- the costs declared are eligible (see GA Article 6);

- the costs can be substantiated by adequate records and supporting documentation (see GA Article 18) that will be produced upon

request (see GA Article 17) or in the context of checks, reviews, audits and investigations (see GA Article 22), and

- for the last reporting period: that all the receipts have been declared (see GA Article 5.3.3);

(ii) an explanation of the use of resources and the information on subcontracting (see GA Article 13) and in-kind contributions provided by third parties (see GA Articles 11 and 12) from each beneficiary and from each linked third party, for the reporting period concerned;

(iii) a 'periodic summary financial statement', created automatically by the electronic exchange system, consolidating the individual financial statements for the reporting period concerned and including — except for the last reporting period — the request for interim payment.

6.2 The final report (Request for payment of the balance)

In addition to the periodic report for the last reporting period, the coordinator must submit the final report within 60 days following the end of the last reporting period.

The final report must include the following:

a) a 'final technical report' with a summary for publication containing:

(i) an overview of the results and their exploitation and dissemination;

(ii) the conclusions on the action, and

(iii) the socio-economic impact of the action;

b) a 'final financial report' containing:

(i) a 'final summary financial statement', created automatically by the electronic exchange system, consolidating the individual financial statements for all reporting periods and including the request for payment of the balance and

(ii) a 'certificate on the financial statements' (drawn up in accordance with GA Annex 5) for each beneficiary and for each linked third party, if it requests a total contribution of EUR 325.000 or more, as reimbursement of actual costs

and unit costs calculated on the basis of its usual cost accounting practices (see GA Article 5.2 and Article 6.2, Point A).

6.3 Certificates of Financial Statements - CFS

When a partner has to submit a CFS? If the cumulative **requested EU contribution is EUR 325.000** or more as reimbursement of actual costs and unit costs on the basis of usual cost-accounting practices (i.e. average personnel costs).

Costs based on lump sums, flat rates (e.g. indirect costs) or unit costs (other than those for personnel costs calculated according to the beneficiary's usual cost-accounting practices) are not counted for the EUR 325.000 threshold (and don't need to be covered by the certificate) like the amount paid as pre-financing. Linked third parties must submit a certificate if they themselves (i.e. without taking into account costs claimed by the beneficiary in question) reach the EUR 325.000 threshold.

Within 60 days of the end of the last reporting period, coordinators must submit a final report **including a CFS for each beneficiary and each linked third party that requested the contribution indicated above.**

If a certificate is required, it must cover all costs declared as actual costs or average personnel costs. Incomplete certificates will be returned for correction.

6.4 Funding Distribution

EU funding Payments to Parties are the exclusive tasks of the Coordinator.

In particular, the Coordinator shall:

- notify the Party concerned promptly of the date and composition of the amount transferred to its bank account, giving the relevant references.
- perform diligently its tasks in the proper administration of any funds and in maintaining financial accounts.
- undertake to keep the Funding Authority's financial contribution to the Project separated from its normal business accounts, its own assets and property, except

if the Coordinator is a Public Body or is not entitled to do so due to statutory legislation.

- With reference to Articles 21.2 and 21.3.2 of the Grant Agreement, no Party shall before the end of the Project receive more than its allocated share of the maximum grant amount from which the amounts retained by the Funding Authority for the Guarantee Fund and for the final payment have been deducted.

The payment schedule, which contains the transfer of pre-financing and interim payments to Parties, will be handled according to the following:

- Funding of costs included in the Consortium Plan will be paid to Parties after receipt from the Funding Authority and no later than thirty (30) days provided the relevant Party's bank account numbers have been provided by the Parties and in conformity with the provisions of the Grant Agreement. Costs accepted by the Funding Authority will be paid to the Party concerned.
- The Coordinator is entitled to withhold any payments due to a Party identified by a responsible Consortium Body to be in breach of its obligations under this Consortium Agreement or the Grant Agreement or to a Beneficiary which has not yet signed this Consortium Agreement.
- The Coordinator is entitled to recover any payments already paid to a Defaulting Party. The Coordinator is equally entitled to withhold payments to a Party when this is agreed with the Funding Authority.
- The Coordinator is entitled to withhold any payments due to a Party that is in breach with its due payments and obligations to the JU or any public body or government agency.
- The 1,5% retain by the Coordinator, will be liberated once the Party has given the coordinator written evidence of the payment of the Project fees and has justified over 85% of its budget and this has been approved by the Funding Authority, before the end of the Action.

For the first payment process is mandatory that all the beneficiaries provide the signature of the CA and their bank identification form properly complimented.

Furthermore, all beneficiaries should pay in time the variable C4D ECSEL-JU project fees to properly distribute the funding payments. Beneficiaries that do not belong to ARTEMIS, EPoSS or AENEAS, should sing and send the ARTEMIS-IA Declaration of Acceptance of variable fee of 1.5% of the proportional funding to pay to ARTEMIS-IA, before receiving the first payment.

National funding is coordinated by National Leaders.

7 Project Reviews

The PC will be in regular contact with the ECSEL-JU Project Officer to report on the project's progress in a transparent and practical manner. Such contacts will occur through emails, phone calls and possibly through meetings in Brussels whenever needed. The PC may request the participation of other project partners depending on the subjects to be discussed. In this way the Project Officer will be able to continuously monitor the performance of the Project in accordance with Annex I of the DoA.

The ECSEL-JU will also undertake periodic contractual technical reviews to assess the work carried out by the project. Such reviews may cover scientific, technological and other aspects relating to the proper execution of the project.

Objectives and procedures to be followed for these reviews are described in the next sections.

7.1 Contractual periodic project reviews

Contractual Project Reviews are technical reviews carried out by the ECSEL-JU or the EU to monitor the performance of the project in accordance with Annex I (DoA). The aim of such reviews is to objectively assess the following:

- the degree of fulfilment of the project work-plan for the relevant period and the status of related deliverables;

- the continued relevance of the objectives and breakthrough potential with respect to the original expectations;

- the resources planned and utilised in relation to the achieved progress, in a manner consistent with the principles of economy, efficiency and effectiveness;

- the management procedures and methods of the project;

- the partner's contribution and integration within the project;

- the expected potential impact in economic, competition and social terms, and the project partners plan for the use, dissemination and exploitation of foreground.

The ECSEL-JU will be assisted in technical reviews by independent, external scientific or technological experts. The reviewing team may have access to the locations and

premises where the work, demonstrations and pilots are being carried out, and to any document concerning the work executed by C4D. Any such review shall be carried out on a confidential basis. Each Project partner shall have the right to refuse the participation of a particular external scientific or technological expert on grounds of commercial confidentiality.

The Project partners attending the review should be those involved in the work under review, except if duly justified and provided that the partners present can report on behalf of the missing partners.

The ECSEL-JU shall send a report on the review outcomes to the PC, who may make observations thereon within one month of receiving it. On the basis of the experts' formal recommendations, the EU will thus inform the PC of its decision:

- to accept or reject the deliverables;

- to allow the project to continue without modifications to Annex I (DoA) or with minor modification;

- to consider that the Project can only continue with major modifications;

- to initiate the termination of the GA according to GA provisions;

- to issue a recovery order regarding all or part of the payments made by the EU and to apply any applicable sanction or initiate judiciary procedures.

7.2 Review preparation schedule

The following schedule is recommended for the preparation of Reviews:

- At least three months before the review, the date and location of the review should be fixed with the ECSEL-JU Project Officer and communicated to the Project partners.

- Approximately two months before the Review, the objectives of the Review should be defined, i.e. roles assigned to the participants, detailed agenda and supporting documentation defined, and participants instructed on the preparation of their contribution. The logistics for the Review should also be fixed at that time: meeting rooms and hotel selected.

- Approximately six weeks before the Review, a formal agenda must be sent to the participants including the ECSEL-JU Project Officer and Reviewers. The content

of the Review shall be first agreed by the PCC and then validated with the ECSEL-JU Project Officer. The required logistics for rehearsals and review meetings as well as for any planned demonstration shall be also ensured at that time.

- Approximately four weeks before the Review, all supporting documentation necessary for the Review is made available to the ECSEL-JU Project Officer and Reviewers; rehearsals for the contractual Review should be held and PowerPoint presentations finalised.

- One week before the Review, the final presentations are sent to the ECSEL-JU Project Officer and Reviewers.

- One day before the Review, a rehearsal meeting is held to check presentations/demonstrations.

- The day of the Review, the ECSEL-JU Reviewers will produce, if necessary, recommendations and proposals for action. These actions will be discussed with the present project partners immediately after the review to ensure that recommendations are verified and understood; described as 'critical', 'major' and 'normal'; and allocated to the respective Project partner with the appropriate responsibility.

- After the Review, decisions and actions agreed during the Review meeting must be recorded using the Minutes template and the Actions Lists for each WP; these documents will be available on the Internal Area (Basecamp). It is the responsibility of each WP Leader to maintain each WP Action List. When an action concerns several WPs it should be registered in the action lists of all concerned WPs; when an action requires project level coordination and/or PCC decisions it should be registered in the Action Lists of WP8.

8 Document Management

This section describes the processes to be used for document management and for related exchanges between project partners with the aim of assuring confidentiality, security, traceability, and consistency of information exchanged.

8.1 Document repository

Basecamp will be used as tool for document repository. The link to the document repository at Basecamp is: https://3.basecamp.com/3320520/projects/8260927

Partners' representatives that are still not included as C4D members in basecamp can ask any of your colleagues that are already member in basecamp or to the project coordinator to send you an invitation.

The image below shows which the responsible partner for managing each folder within the document repository is. For WP4-10 the WP leader are responsible. Specific folders for each pilot can be created internally to within each WP folder.
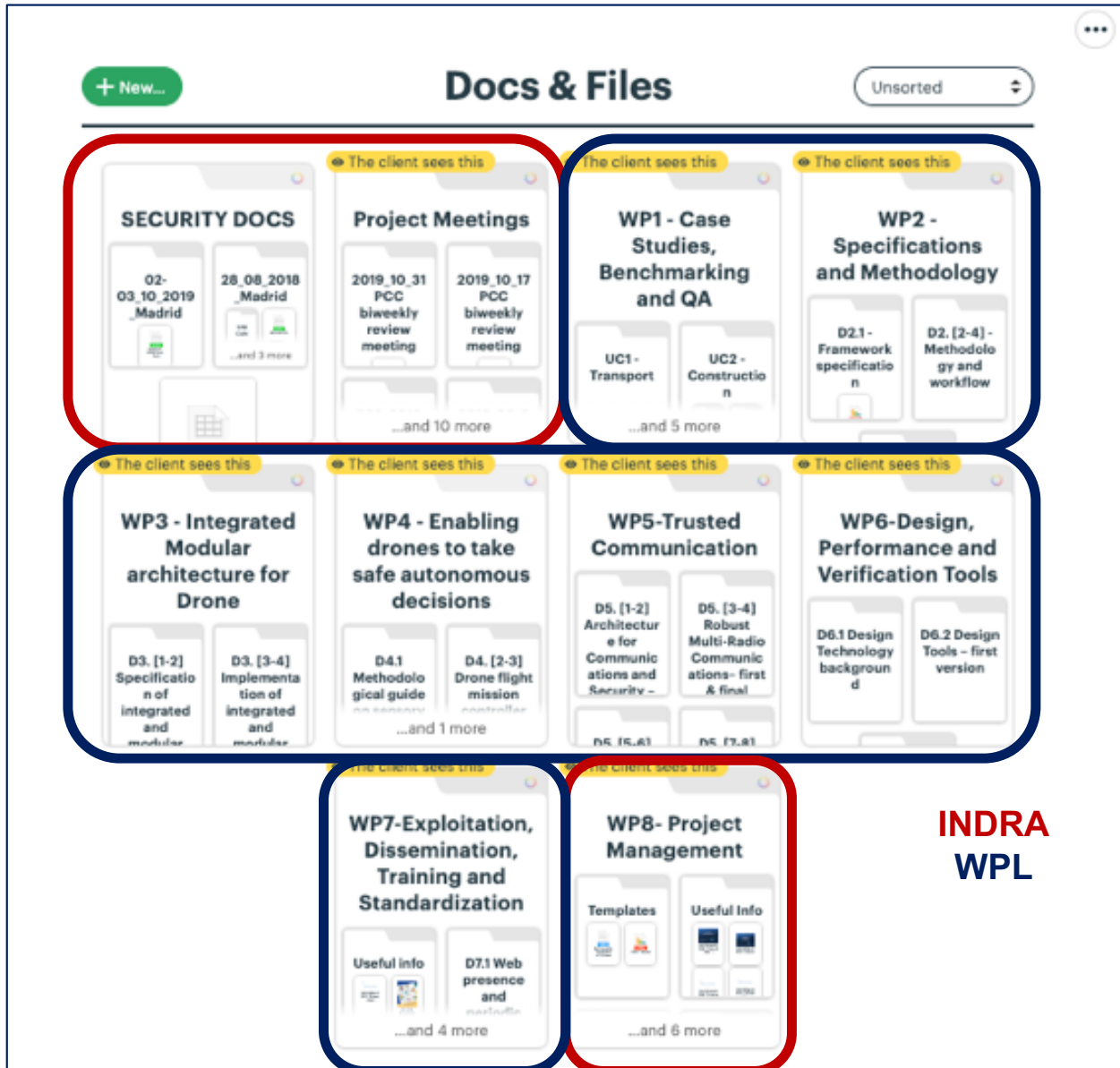
Figure 6:C4D Document Repository – Landing Page

8.2 Documents to be produced in the scope of the project

8.2.1 Deliverables

Formal documents whose delivery, content and responsible partner has been committed in the DoA included in the Grant Agreement. List of deliverables can be checked in the DoA as well as in basecamp here: https://3.basecamp.com/3320520/buckets/8260927/todosets/1166361208

8.2.2 Technical contributions

Documents produced by partners for internal consumption and sharing information with other partners, internal meetings, etc. These documents shall be shared among partners using the specific folders created for each WP in basecamp (*copy and paste the url link to your browser in case that direct link does not work*):

- WP1: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582157714
- WP2: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582158268
- WP3: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582158509
- WP4: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582158901
- WP5: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582159663
- WP6: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582159944
- WP7: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582160484
- WP8: https://3.basecamp.com/3320520/buckets/8260927/vaults/1582161221

8.2.3 Agenda of meetings

It consists in a list of issues to be dealt with during a meeting or conference call at any level in the project (Use-Cases, WP,). It has to be produced and managed by the partner convening the meeting.

8.2.4 Minutes of meetings

It consists in a report on main discussions, agreements, update on ongoing actions status and new actions agreed. It has to be produced and managed by the partner convening the meeting.

8.3 Document Templates

A set of templates is available for download on the Restricted Area of the C4D project in Basecamp to all project partners to facilitate and standardise project communications (internal, contractual and external).

For all official project documents and external presentations, the use of these templates is mandatory. In addition, all project documents produced shall be written in English.

The templates' definition includes the project logo on the cover page and the layout of the cover page as well as of the inner pages, including basic information fields, specific sections to be completed, and MS Word styles to be used.

Templates and other indications on C4D branding are available at:

https://3.basecamp.com/3320520/buckets/8260927/vaults/2133520351

8.4 Document identification policy

It is essential that every document circulated to other partners in the consortium includes a proper version naming and numbering. This will help to avoid the situation where partners are working with old or obsolete versions of documents.

In terms of file names, it is difficult to have a fixed file naming convention which can cover every situation. However, the guidelines below should be followed as much as possible:

- The filename should be descriptive of the contents and should include the project name 'C4D' e.g. "C4D_EDF_INDRA_2017.pptx" for a presentation by INDRA at an EDF conference in 2019.
- Filenames for formal deliverables shall be the deliverable code followed by the deliverable name as included in the deliverables table included in Annex I, e.g "D8.1-Project Management Handbook
- Where a document is specific to a particular date, this date should be included in the filename in the form 'yyyy-mm-dd'. For example, minutes of a WP meeting on 1st October 2017 will be called "C4D-WP4-Minutes-2019-12-01.docx".
- Where a document is a template used to compile info from partners, the partner short name should be included in the filename as suffix e.g. "C4D-Financial-report-CEA" for CEA's contribution to the financial report.
- Where different versions of a document are used, e.g. for deliverables and reports, the version number should be included at the end of the filename. For draft documents, the version number should start at v0.1, and increment in 0.1 steps. Once the document is formally issued, the version should change to v1.0 and then increment in 0.1 steps for minor changes. For a major change, the version will change to v2.0.
- When commenting on a document provided by another partner, the filename should be changed to include the initials of the person or short name of the partner making the changes e.g. "D8.1-Project Management Handbook_RedaN.docx" if

changes to D8.1 have been made by Reda Nouacer or "D1.1-Project Management Handbook_CEA.docx" if changes have been made by CEA.

- When suggesting changes to a document, the use of the track changes feature in Word is recommended to assist the document author/owner.
- Only the originating author or owner of a document should increment the version number i.e. when the author has received and implemented all changes to the first draft version of deliverable D8.1, it becomes "D1.1-Project Management Handbook_v0.2.docx".

8.5 Documents review and quality management procedure

The quality assurance and control measures will ensure that the C4D results will be of a continuous and consistent high level of quality. All deliverables and reports produced by a work package will be reviewed within that work package. Additionally, other two experts of C4D not directly involved in that work package will also perform a peer-review. These reviews focus on the technical content and readability of the documents. The Work Package

Leader has responsibility to ensure the high quality of released reports and deliverables according to the quality plan. Finally, the PCC will review and approve all official, external deliverables; the focus of this review will be on the main message carried by a deliverable. The PC and TC will coordinate the internal document review process, to ensure high quality of deliverables and milestones.
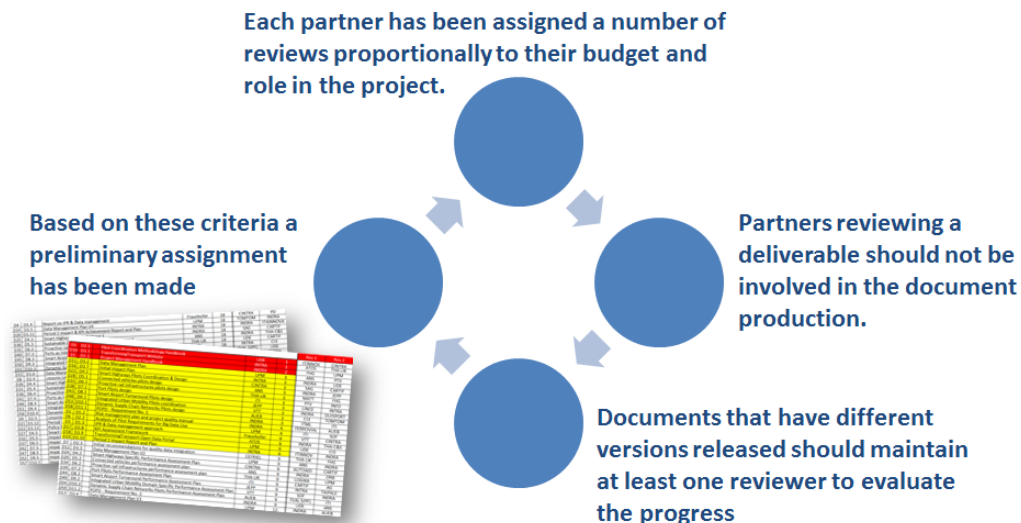
Figure 7: C4D Quality management procedure

The process will basically consist on the following steps:

C4D peer - review process		
When	**Action**	**Responsible**
14 days before official delivery date	Complete draft deliverable ready for revision is sent to reviewers.	Deliverable editor
7 days before official delivery date	Review the documents and send feedback and recommendations to improve it following the review format.	2 reviewers as defined in the C4D peer-review table
7 remaining days until official delivery date	Use this feedback to produce the final version of the document to be submitted to EC.	Deliverable editor

Reviewers will complete the following table in order to send consolidated feedback to the deliverable main editor:

Overall evaluation	1. **Accepted** (direct submission to EC) 2. **Accepted with modifications** (Submission to EC after modifications are made) 3. **Rejected** (It requires re-evaluation after modifications are made before its submission to EC)
Modifications proposed or reasons for rejection (If needed you may also include specific comments over the document to complement this report and facilitate its modification)	**Content:** **Format:** **Other comments:**

Finally, the list of deliverables and corresponding reviewers can be checked in the Section 0 of this document.

9 Communication tools

This section describes the main communication tools that will be used during the project:

- Teleconferences.
- Mailing lists.
- Basecamp.

9.1 Teleconferences

- GA Audio Meeting
  - On request / Discuss general issues.
  - Agenda, Minutes, Any related document -> Basecamp.
  - WebEx:
    - Web Access.
    - Phone Access.

- PCC Audio Meetings:
  - Every fortnight.
  - Agenda, Minutes, Any related document -> Basecamp.
  - WebEx:
    - Web Access.
    - Phone Access.

- WP / Tasks Pilot Meetings
  - To be agreed between project partners
  - Their collaborative audio tool
  - Report these meetings thorough the pilot reporting tool.

Minutes of meetings and teleconferences

The partner convoking the meeting is the responsible for producing and distributing the minutes of the meeting/teleconference. All partners are allowed to propose modifications

and changes to the minutes during one-week time since the distribution of such minutes. After this process the minutes will be considered approved.

9.2 Mailing lists

To facilitate communication between the C4D partners, two mailing lists have been created:

- General: consortium@comp4drones.eu
  Function:
    o Main communication of the PC, TC and IC with the consortium
    o Notify updates, start procedures, request contributions, etc.

  This mailing list is moderated in order to avoid massive spam to partners.

- PCC/PCC+: pcc@comp4drones.eu / pccplus@comp4drones.eu
  Function:
    o Communication among PCC Members
    o Request contributions

  This mailing list is NOT moderated and therefore emails included in this list can send emails to the whole list. Please use it with caution and avoid massive emails unless that it is considered necessary.

WP/Use-Case -specific mailing lists (or in general any '@comp4drones.eu' email) can be created if specifically requested by WP/Use-case leader/Partner.   To date WP4 (wp4@comp4drones.eu), UC4 demonstrator 1 and 2 (uc1demo1@comp4drones.eu; uc1demo2@comp4drones.eu) has been created.

To request the inclusion or removal of any contact from any of the mailing lists please contact the project coordinator.

For any e-mail sent to any of the lists, or consortium members, it is mandatory to tag the issue of mail as follows:

- Always including the [C4D] first
- Then mark if it is a general, pcc, wp or use-case issue e.g [CD4] [WP8]
- Finally explain in the corre the issue of the mail e.e [CD4] [WP8] 1st Payment

9.2.1 Basecamp

Basecamp is the tool that will be used for managing the day-by day project coordination:

- Calendar with most relevant deadlines and responsible partner;
- Document repository: templates, deliverables, etc.
- Schedule: Next meetings and conference calls and other relevant internal or external relevant event.
- Message Board (one-to-one or group communications)
- To-Do's (assignment and management)

Link to project space at Basecamp: https://3.basecamp.com/3320520/projects/8260927

Partners' representatives that are still not included as C4D members in basecamp can ask any of your colleagues that are already member in basecamp or to the project coordinator to send you an invitation.

The following image shows the home page and the six main areas included within the working space:

Figure 8: Basecamp Landing Page

Video tutorials on how to use different features at Basecamp can be found here: https://www.youtube.com/user/37signals/videos

WP leaders and pilot leaders are free to create specific working spaces to deal with their day-by-day activities but the main project working space shall anyhow be kept updated (tasks, to-do's deliverables, other documents, etc.) by all the partners.

10 Keeping Records

10.1 Obligation to keep records and other supporting documentation

The beneficiaries must — for a period of five years after the payment of the balance — keep records and other supporting documentation in order to prove the proper implementation of the action and the costs they declare as eligible.

They must make them available upon request (see GA Article 17) or in the context of checks, reviews, audits or investigations (see GA Article 22).

If there are on-going checks, reviews, audits, investigations, litigation or other pursuits of claims under the Agreement (including the extension of findings; see GA Articles 22), the beneficiaries must keep the records and other supporting documentation until the end of these procedures.

The beneficiaries must keep the original documents. Digital and digitalised documents are considered originals if they are authorised by the applicable national law. The Commission may accept non-original documents if it considers that they offer a comparable level of assurance.

10.1.1 Records and other supporting documentation on the scientific and technical implementation

The beneficiaries must keep records and other supporting documentation on scientific and technical implementation of the action in line with the accepted standards in the respective field.

10.1.2 Records and other documentation to support the costs declared

The beneficiaries must keep the records and documentation supporting the costs declared, in particular the following:

a) for **actual costs**: adequate records and other supporting documentation to prove the costs declared, such as contracts, subcontracts, invoices and accounting records. In addition, the beneficiaries' usual cost accounting practices and internal control procedures must enable direct reconciliation between the amounts

declared, the amounts recorded in their accounts and the amounts stated in the supporting documentation;

b) for **unit costs**: adequate records and other supporting documentation to prove the number of units declared. Beneficiaries do not need to identify the actual eligible costs covered or to keep or provide supporting documentation (such as accounting statements) to prove the amount per unit.

In addition, **for direct personnel costs declared as unit costs calculated in accordance with the beneficiary's usual cost accounting practices**, the beneficiaries must keep adequate records and documentation to prove that the cost accounting practices used comply with the conditions set out in GA Article 6.2, Point A.

The beneficiaries and linked third parties may submit to the Commission, for approval, a certificate (drawn up in accordance with Annex 6) stating that their usual cost accounting practices comply with these conditions ('**certificate on the methodology**'). If the certificate is approved, costs declared in line with this methodology will not be challenged subsequently, unless the beneficiaries have concealed information for the purpose of the approval.

c) for **flat-rate costs**: adequate records and other supporting documentation to prove the eligibility of the costs to which the flat-rate is applied. The beneficiaries do not need to identify the costs covered or provide supporting documentation (such as accounting statements) to prove the amount declared at a flat-rate.

In addition, for **personnel costs** (declared as actual costs or on the basis of unit costs), the beneficiaries must keep **time records** for the number of hours declared. The time records must be in writing and approved by the persons working on the action and their supervisors, at lastly. In the absence of reliable time records of the hours worked on the action, the Commission may accept alternative evidence supporting the number of hours declared, if it considers that it offers an adequate level of assurance.

As an exception, for **persons working exclusively on the action**, there is no need to keep time records, if the beneficiary signs a **declaration** confirming that the persons concerned have worked exclusively on the action.

For costs declared by linked third parties (see GA Article 14), it is the beneficiary that must keep the originals of the financial statements and the certificates on the financial statements of the linked third parties.

10.1.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, costs insufficiently substantiated will be ineligible (see GA Article 6) and will be rejected (see GA Article 42), and the grant may be reduced (see GA Article 43).

Such breaches may also lead to any of the other measures described in GA Chapter 6.

10.2 Audits

The Commission may — during the implementation of the action or afterwards — carry out audits on the proper implementation of the action and compliance with the obligations under the Agreement.
Audits may be started **up to two years after the payment of the balance**. They will be formally notified to the coordinator or beneficiary concerned and will be considered to have started on the date of the formal notification.

If the audit is carried out on a third party (see GA Articles 10 to 16), the beneficiary concerned must inform the third party.

The Commission may carry out audits directly (using its own staff) or indirectly (using external persons or bodies appointed to do so). It will inform the coordinator or beneficiary concerned of the identity of the external persons or bodies. They have the right to object to the appointment on grounds of commercial confidentiality.

The coordinator or beneficiary concerned must provide — within the deadline requested — any information (including complete accounts, individual salary statements or other personal data) to verify compliance with the Agreement. The Commission may request beneficiaries to provide such information to it directly.

For **on-the-spot** audits, the beneficiaries must allow access to their sites and premises, including to external persons or bodies, and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

On the basis of the audit findings, a '**draft audit report**' will be drawn up.

The Commission will formally notify the draft audit report to the coordinator or beneficiary concerned, which has 30 days to formally notify observations ('**contradictory audit procedure**'). This period may be extended by the Commission in justified cases.

The '**final audit report**' will take into account observations by the coordinator or beneficiary concerned. The report will be formally notified to it.

Audits (including audit reports) are in the language of the Agreement.

The Commission may also access the beneficiaries' statutory records for the periodical assessment of unit costs or flat-rate amounts.

11 Communication and dissemination

11.1 Dissemination Material

The dissemination material uploaded on basecamp (logo, general presentations, posters) can be used by partners to perform the dissemination activities that they have planned for the project. This material must be used always as part or in the context of the C4D project. The images and figures in the presentations and posters can't be used for other purposes.

Generally, the content in the D7.[6.8] folder is already approved and ready to be used by partners in the terms above.

11.2 Dissemination of own Results

During the Project and for a period of one (1) year after the end of the Project, the dissemination of its 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 thirty (30) calendar days before the publication, providing a copy of the planned publication.

Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Coordinator, the Technical Coordinator and to the Party or Parties proposing the dissemination within 21 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.

Participation in events, publications and press releases, social media activity, video or other relevant content produced, meetings or other contacts with external stakeholders, data assets mobilised, and collaboration with other projects, etc. shall be communicated to the Impact Coordinator (IC).

All partners who identify o plans to attend an activity or event shall register it on the shared excel file uploaded on basecamp:

https://3.basecamp.com/3320520/buckets/8260927/uploads/2130098428

11.3 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.

11.4 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.

12 Links to relevant documents

C4D WP8 (Project Management) presentation at the project kick off meeting:
https://3.basecamp.com/3320520/buckets/8260927/uploads/2093509323

Complete set of presentations made during the kick off meeting:

https://3.basecamp.com/3320520/buckets/8260927/vaults/1908048507

Project Grant Agreement :

https://3.basecamp.com/3320520/buckets/8260927/vaults/1582176616

Participant Portal:

http://ec.europa.eu/research/participants/portal/desktop/en/home.html

IT Helpdesk:

http://ec.europa.eu/research/participants/api/contact/index.html

ECSEL Reporting & Payments:

https://www.ecsel.eu/sites/default/files/2019-05/2%20Coordinators%20Day%20-%20Reporting%20and%20Payments.pdf

ECSEL - Amendments

 https://www.ecsel.eu/sites/default/files/2019-05/3%20Amendments.pdf

ECSEL – Dissemination & Exploitation

https://www.ecsel.eu/sites/default/files/2019-05/5%20Dissemination%20and%20Exploitation.pdf

ECSEL - communications

https://www.ecsel.eu/sites/default/files/2019-05/4%20Communication.pdf

Participant Portal On-line Manual:

http://ec.europa.eu/research/participants/portal/desktop/en/funding/guide.html#

H2020 Reference documents:

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html

Research Enquiry Service:

http://ec.europa.eu/research/enquiries

13 List of deliverable reviewers (Internal peer-review process)

	Leader	Reviewer organisation 1	Name Reviewer 1	Reviewer Organisation 2	Name Reviewer 2
WP1: Case Studies, Specifications, Benchmarking and Justifica	**SCALIAN**				
D1.1 Specification of an Industrial Use Cases	SCALIAN	IKERLAN	B.Kremer	EDI	Rihards Novickis
D1. [2-3] System Under Test Requirements and Test System R	ACCIONA	IKERLAN	Leyre Rubio	MODIS	Leonardo Vitullo
D1.4 Evaluation Result	ALTRAN	IKERLAN	P. Garrido	EDI	Rihards Novickis
D1.5 Framework Qualification	INDRA	EDI	Rihards Novickis	MODIS	Leonardo Vitullo
WP2: Specifications and Methodology	**CEA**				
D2.1: Framework specification	TOTAL	UNICAN	Hector Posadas	AIT	Thomas Gruber
D2.[2-4]: Methodology and workflow	CEA	UNICAN	Eugenio Villar	DEMCON	Fedor Ester
D2.5: Drones regulations compliance handbook	ALTRAN	IKERLAN	B. Lopez Vadillo	EDI	Rihards Novickis
WP3: Integrated Modular architecture and generic components	**ENSMA**				
D3.[1-2] Specification of integrated and modular architecture fo	CEA	SHERPA	Philippe Fiani	TOTAL	Bertrand Duquet
D3. [3-4] Implementation of integrated and modular architecture	ENSMA	ALTRAN	Guillaume THALMANN	IMEC-NL	Federico Corradi
D3.5 Components Repository	ENAC	TEKNE	Carlo Tieri	ROT	Niccolò Cometto
WP4: Enabling drones to take safe autonomous decisions	**IMEC-NL**				
D4.1 Methodological guide on sensory systems and data aggre	BUT	ENSMA	Henri BAUER	TOTAL	Bertrand Duquet
D4.[2-3] Drone flight mission controller for autonomous navigat	UNIVAQ	UNICAN	Eugenio Villar	TUE	Dip Goswami
D4. [4-5] Software for runtime safety mechanisms, including ge	CEA	IFAT	Dominic Pirker	SM	Jiri Bartak
D4.[6-7] Embedded hardware prototypes for real-time data ana	IMEC-NL	ENSMA	Henri BAUER	ABI	Katiuscia Zedda
D4.8 Software API's for sensory systems and data aggregation	BUT	CATEC	Miguel Ángel Trujillo	ACCIONA	Rafael Socorro
WP5:Trusted Communication	**TEKNE**				
D5. [1-2] Architecture for Communications and Security – first	ANYWI	BUT	Pavel Zemcik	ALM	Andreis Stam
D5. [3-4] Robust Multi-Radio Communications– first & final vers	TEKNE	SIEMENS	Olivier Broca	UNIVAQ	Stefano Di Genaro
D5. [5-6] APIs for Trusted Communication – first & final version	IFAT	UNISS	Luca Pulina	ACORDE	Fernando Herrera
D5. [7-8] Trusted Communication Framework – first & final vers	CEA	UNIMORE	Andrea Marongiu	UWB	Martin Cech
WP6:Design, Performance and Verification Tools	**UNICAN**				
D6.1 Design Technology background	UNICAN	SCALIAN	Elodie Renault	IMEC-NL	Federico Corradi
D6.2 Design Tools	IKERLAN	MODIS	Leonardo Vitullo	IMCS	Artis Gaujens
D6.3 Design Tool Framework	SIEMENS	TEKNE	Carlo Tieri	IFAT	Dominic Pirker
WP7: Exploitation, Training, Dissemination and Standardization	**AIT**				
D7.1 Web presence and periodic update	UNICAN	INDRA	Rodrigo Castañeira	CEA	Réda NOUACER
D7. [2-4] Press kit	INDRA	CEA	Réda NOUACER	IFAT	Dominic Pirker
D7.5 Data Management Plan (DMP)	INDRA	CEA	Réda NOUACER	SCALIAN	Elodie Renault
D7. [6-8] Report on Exploitation, Dissemination and Communica	CEA	INDRA	Rodrigo Castañeira	TOTAL	Bertrand Duquet
D7.9 Training Strategy and Plan	IMCS	INDRA	Rodrigo Castañeira	CEA	Réda NOUACER
D7.10 Training Materials	IMCS	INDRA	Rodrigo Castañeira	CEA	Réda NOUACER
WP8: Project Management	**INDRA**				
D8.1 Project Handbook	INDRA	CEA	Réda NOUACER	TOTAL	Bertrand Duquet
D8.2 Risk Management & Quality plan	INDRA	CEA	Réda NOUACER	SCALIAN	Elodie Renault
Periodic Report 1	INDRA	CEA	Réda NOUACER	TEKNE	Carlo Tieri
Periodic Report 2	INDRA	CEA	Réda NOUACER	TOTAL	Bertrand Duquet
Final Report	INDRA	CEA	Réda NOUACER	SCALIAN	Elodie Renault

14 Project Glossary

Air traffic management (ATM)	Consists primarily of air traffic control (ensuring that aircraft are safely separated in the sky and at airports), air traffic flow management (sending flight plans to a central repository, analysing and computing them) and aeronautical information services (compilation and distribution of aeronautical information needed by airspace users, e.g. on safety).
Command and control (C2) link	Data link between the drone and the remote pilot station, which manages the flight.
DAI/DAS	Data Acquisition Interface, Data Acquisition System
Drone	See UAV
'Detect and avoid' technology	Capability of the drone to remain at safe distance from, and to avoid collisions with other aircraft.
FPGA	Field-programmable gate array: programmable hardware
Geofencing	Software using GPS signals to stop drones flying into certain areas.
GNSS	Global Navigation Satellite System receivers, using the GPS, GLONASS, Galileo or BeiDou system
IMA	Integrated Modular Avionics, a system architecture enabling to run multiple avionic functions on a single device.
LIDAR	Measure distance to a target by illuminating it with pulsed laser light and measuring the reflected pulses with a sensor.
LTE	Long-Term Evolution (LTE) is a standard for high-speed wireless communication for mobile devices and data terminals.
MIMO	Multiple input multiple output: wireless middleware.
Precision agriculture	A farming management concept based on observing, measuring and responding to inter and intra-field variability in crops. The aim is to reduce resource consumption.
QoS	Quality of Service, performance properties of a service (often in networking)
ROS	Robot Operating System. Widely used operating system in robotics and drone domain.
RPAS	Remotely Piloted Aircraft System
Remote pilot	Person who is in control of the flight path of the aircraft.
Segregated airspace	Airspace of specified dimensions assigned for exclusive use to specific users.
SoC	System-on-chip. Multiple circuits on a single, integrated chip (IC), e.g. processor, I/O controllers and memory.
UAS	Unmanned Aircraft System
UAV	Unmanned Aerial Vehicle
USV	Unmanned Surface Vehicle
V2I	Vehicle to Infrastructure