



# 5 services of Drones for increased airports and waterways safety and security

## D8.3 - Dissemination and Communication Plan V1

### Document Summary Information

<b>Grant Agreement No</b>	861635	<b>Acronym</b>	5D-AeroSafe
<b>Full Title</b>	5 services of Drones for increased airports and waterways safety and security		
<b>Start Date</b>	01/06/2020	<b>Duration</b>	36 months
<b>Project URL</b>	www.5d-aerosafe.eu		
<b>Deliverable</b>	D8.3 - Dissemination and Communication Plan V1		
<b>Work Package</b>	WP8 - Dissemination and Communication Activities, & Advisory Board Management		
<b>Contractual due date</b>	30/11/2020	<b>Actual submission date</b>	30/11/2020
<b>Nature</b>	Report (R)	<b>Dissemination Level</b>	Public (PU)
<b>Lead Beneficiary</b>	ITWL		
<b>Responsible Author</b>	Anna Nikodym-Bilska		
<b>Contributions from</b>	HMU, FERROVIAL		

### Revision history (including peer reviewing & quality control)

Version	Issue Date	Stage	Changes	Contributor(s)	Comments
1	16/11/2020	0.1	Draft of chapters.	Anna Nikodym-Bilska	Each chapter has been drafted.
2	30/11/2020	0.9	All chapters finished	Anna Nikodym-Bilska	All chapters elaborated.
3	30/11/2020	1.0	Reviewed by the PC	Philippe Chrobocinski	Review before the submission



This project has received funding from the European Union's Horizon 2020 innovation programme under the Grant Agreement No 861635.

## Project Summary

**Call identifier:** MG-2-8-2019 - Innovative applications of drones for ensuring safety in transport

**Type of funding scheme:** Research and Innovation Action

**Work programme topic:** MG-2-8-2019 - Innovative applications of drones for ensuring safety in transport

**Grant Agreement n.** 861635

**Coordinating person:** Philippe Chrobocinski, Airbus Defence and Space (ADS)

**Duration in months:** 36

**Estimated project costs:** € 3 799 911,25

**Requested grant:** € 3 497 475

Participant No.	Participant Organisation Name	Short	Type	Country
1(coord.)	Airbus Defence & Space	ADS	IND	FR
2	Future Intelligence Ltd.	FINT	SME	EL
3	Ecole Nationale de l'Aviation Civile	ENAC	RTO	FR
4	Air Force Institute of Technology	ITWL	RTO	PL
5	Vicomtech	VICOM	RTO	ES
6	Hellenic Mediterranean University	HMU	ACAD	EL
7	Ferrovial Corporacion SA	FERRO	USER	ES
8	Greek Water Airports	GWA	SME/USER	EL
9	AirMap Deutschland GmbH	AIRMAP	SME	DE
10	Eurocontrol	EUROC	USER	BE

## Executive Summary

The major focus of the plan is to ensure that the project activities and outcomes are widely spread among the appropriate target communities, at appropriate times, via appropriate methods, as well as to identify potential contributors to the development, evaluation, uptake and exploitation of project outcomes, encouraging their participation on a systematic and regular basis. Before we delve into detail about our proposed actions, we first provide a clear distinction between what is “dissemination” and what is considered “communication”.

This work includes the coordination of all actions and initiatives undertaken by the partners in order to maximise the visibility of 5D-AeroSafe, targeting relevant stakeholders and actors involved.

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## Glossary of terms and abbreviations used

Abbreviation / Term	Description
AB	Advisory Board
BMS	Business Management System
D#.#	Deliverable number #.# (D1.1 deliverable 1 of work package 1)
DOA	Description of Action
EC	European Commission
EU	European Commission
GA	Grant Agreement
IPR	Intellectual Property Rights
KPIs	Key Performance Indicators
M#	#th month of the project (M1=June 2020)
PMB	Project Management Board
PC	Project Coordinator
R&D	Research and Development
REA	Research Executive Agency
RTO	Research and Technological Organisation
SoA	State of Art

# 1 Introduction

## 1.1 Purpose of the Document

The European Commission's research and innovation services have defined a strategy for effective dissemination and exploitation of project results.

According to the European Commission, communication is defined as “taking strategic and targeted measures for promoting the action itself and its results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange”<sup>12</sup>, and the aim is to “reach out to society as a whole and in particular to some specific audiences, and demonstrate how EU funding contributes to tackling societal challenges”.

Whereas dissemination is defined as “the public disclosure of the results by any appropriate means, including by scientific publications in any medium”, and its scope is to “transfer knowledge and results to the those that can best make use of it”, and “maximise the impact of research, enabling the value of results to be potentially wider than the original focus”.

The key elements of the plan will form the basis for the corresponding Communication and Dissemination Plan D8.3 and Exploitation Plan (D7.1. first release M9 and final release M34), and will be periodically updated throughout the course of the project.

The Dissemination and Communication Plan V1 is a deliverable of the 5D-AeroSafe project, which sets out dissemination and communication strategy and means that are used to promote the projects objectives and outcomes. This deliverable is an updated and extended version of the strategy and plan stated in the DoA considering the developments performed since the proposal was submitted.

### Critical risks for implementation

Overlaps/synergies in dissemination and communication activities. The WP leader will coordinate, monitor and ensure regular internal reporting on dissemination activities in order to prevent duplications.

Protection of data and privacy (together with WP 1. The WP2-7 leaders will develop solutions to handle the potential misuse of research results and the confidentiality of project data.

The other risk is COVID-19 influence on external events organization, such as trade fairs, conferences, etc. Since the beginning of the project, some conferences changed the form of the organization as well as dates. The pandemic may also influence future event participation planned for 2021 affects the schedule of the Dissemination and Communication plan.

### Expected results

- Creation of a stakeholder database, accessing the website for deliverables and newsfeeds.
- Improved communication within the research community.
- Enhanced effective flows of information during the project.
- Advanced collaboration of networks on a Europe-wide scale.

## 1.2 Scope of this Document

This deliverable describes the plan for dissemination that will guide the implementation of the project results during part of the project life time and the plan for communication that describes the development of the 5D-AeroSafe dissemination and communication strategy.

The purpose is to facilitate and support each of the impacts aimed at in the work plan and to define initially the objectives to be achieved, identify target audiences with key messages about 5D-AeroSafe, identify the

main channels to be used that will ‘inform, engage, create awareness and promote information about the Action and achieve a high level of impact for the project and its results.

### 1.3 Audience

The document is intended for project consortium members and stakeholders who are involved and should be involved in the dissemination and communication activities.

### 1.4 Structure of the document

The Plan outlines key moments during different phases of 5D-AeroSafe project, (such as deliverables, events, publications) when it should be communicated, results broadcasted or project results disseminated.

The Plan consists of 6 main components:

1. The 4 point basis of the Dissemination and Communication Strategy
2. Addressing the 5D-AeroSafe Description of Action
3. Dissemination outcomes, activities and breakthroughs
4. Dissemination and Communication Key Performance Indicators (KPIs)
5. Project vision & brand core
6. Initial work plan

### 1.5 Relationship of this document with other deliverables and tasks

From the project structure perspective for the Dissemination and Communication actions is responsible WP8. The WP8 is composed of 3 tasks:

Task 8.1 Dissemination & Communication Plan and Activities

Task 8.2 Events Organisation

Task 8.3 Advisory Board Management

In all three tasks WP8 deals with targeted multi-actor communication by the tailored actions, cumulated many times during events organized for different audience including Advisory Board members.

The WP8 (dissemination and communication activities) follows all the R&D and demonstration activities in WP2-WP7 and will be informed of any data produced in those WPs for the best analysis and exploitation of project results, being this for dissemination or for innovation management and IPR purposes.

## 2 Dissemination and Communication Plan's 4 point strategy

What are the project results? When do they come to fruition? Who needs to know? What form is it delivered?

### 4 point strategy

The dissemination and communication activities are intrinsically linked to the exploitation of the project results, as exploitation is understood to refer to measures related to the utilisation and impact of outcomes during the project and after its conclusion. How? The efficient publicity and the wide exposure of the project activities and its results to targeted stakeholders and the media, will facilitate the use of these results beyond the project's lifetime and thus, increases the project's impact. The project Dissemination & Communication Plan bases on a 4-point strategy detailed below, which describes why, what, to whom and how to communicate and disseminate.

**Point 1: WHY?** The high visibility of the project and the promotion of active interaction with key stakeholders (cf. Step 3 WHOM) are elements of accountability that will enable both hardware and software industry to understand why it is worth investing money in order to support this Research & Innovation Action. In other words, it is highly important to deliver the highest possible impact to stakeholders outside the project partnership and ensure that: (i) project outputs can be fully exploited and be used in the most effective manner, i.e. the scaling-up of the demonstrated solutions is facilitated; (ii) knowledge gained through the project, and more generally the information generated by the project, can be made available to all interested parties; (iii) elements of excellence of the project can be reused and replicated in other projects, becoming a reference point triggering further developments in the field and beyond; (iv) project reaches decision-makers to contribute improving future policies; (v) benefits that project outcomes will bring to society (services, employment, economy) are well evident.

**Point 2: WHAT?** The following project information will be communicated to the relevant audience: (i) project vision (objectives, strategic relevance) and key facts: messages will follow an evolution from the start of the project to the aftermath and therefore, they will be reviewed periodically in the course of the project; (ii) project news (achievements and results): partners will for example recapture how the project improves reliable airport inspections with the used of drones, based on its proof-of-concept. Personalised experiences will illustrate the impact of the project and will give a human dimension that can catalyse enduser's acceptance; (iii) events promotion and events results (i.e. workshops, pilots, etc.).

**Point 3: WHOM?** Defining contributors: 5D-AeroSafe prepares the Dissemination and Communication Plan, and keeps track of it throughout the project duration. However, all partners from the consortium use their industrial partnerships, standardisation activities and long-standing experience in EU funded projects, to contribute in the dissemination and communication activities. The Consortium is formed by a well-balanced group of industrial companies, SMEs, research and academic institutes, and airport operators, thus able to reach a diversified audience.

**Point 4: HOW:** The approach that 5D-AeroSafe will follow with respect to the dissemination and communication strategy will entail multiple channels and different measures that will ensure that different audiences are reached. Specifically, the industrial/commercial partners in the consortium will approach the relevant stakeholders (avionic companies, aircraft constructors, UAS manufacturers, ATM/UTM providers, airport operators, ANPs, etc), the research and academic partners will disseminate the project outcomes and results to relevant research communities and authorities (EASA, Eurocontrol, etc), and the end user organisations will target their own professional bodies within their direct network and reach. The participation of the UAB from these relevant stakeholder bodies will also ensure that they will be privy to the project outcomes and results.

### 3 Addressing the 5D-AeroSafe Description of Action

5D-AeroSafe Dissemination and Communication will target research community and relevant end-users' stakeholders (airport and water airport operators), authorities (Civil Aviation Authorities), policy makers, industry and the general public to ensure that the project activities and outcomes are widely spread among the appropriate target communities, at appropriate times, via appropriate methods, as well as to identify potential contributors to the development, evaluation, uptake and exploitation of project outcomes, encouraging their participation on a systematic and regular basis.

Key Stakeholders: the identification of the key stakeholders is crucial in order to create targeted dissemination and communication campaigns, thus maximising the impact of these activities. The consortium has carefully evaluated to proposed solution and has concluded that the relevant stakeholders are the following:

- Airport (and Water Airport) Operation Providers (AOPs).
- Air Navigation Service Providers (ANSPs)
- Civil Aviation Authorities (CAAs)
- Emergency Services (law enforcement agencies, fire services)
- UAS Providers
- CNS Providers
- Eurocontrol
- National Think tanks for the UAS integration in the Airspace/UAS applications (ADS are part of the French Committee)
- Relevant Scientific Community

Target	Objective and Key Message	Channels
AOPs	5D-AeroSafe can increase the effectiveness of airport inspection operations, and reduce their overall costs.	Through project partners FERROVIAL and GWA.
ANSPs	More efficient airport inspection procedures moreo ptimised airspace usage, whilst maintaining the required safety standards.	Project partners will be responsible for communicating with local ANSPs
CAAs	The incorporation of UAS in the airport operations for inspection purposes can be safe provided that mutual awareness is secured through UTM-ATM collaboration.	Hellenic Civil Aviation Authority Member of the UAB.
Emergency Services	Information captured during airport inspections can be used by the airport on-site emergency services agencies and personnel.	Civil Protection Office of Municipality of Rhodes, member of the UAB.
RPAS/CNS Providers	Reduce cost of operation and maintenance, gather system performance data to enable predictive maintenance and reduce systems down time.	ADS and ITWL will dissemination through their network. FERROVIAL/AGS Ltd will communicate with their CNS provider.
Eurocontrol	Participation in the evolution of the legal framework for the operation of drones in the airspace.	ADS are part of the French ad-hoc think tank on the topic. Project partner.

Relevant Scientific Community	Flight inspection of CNS systems with RPAS will enable thorough understanding of buildings and complex obstacles (such as wind turbines) impact.	Scientific publications in conferences and journals.
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*Table 1: Dissemination and Communication Plan (including channels)*

The consortium has made sure that participants from the above group of stakeholders either participate as full project partners, or as part of the Users Advisory Board (UAB) of the project.

The User Advisory Board has 6 members from different affiliations, such as FERROVIAL, Greek Water Airports, EDA, NAPMA, DLR and representatives of other projects connected to 5D-AeroSafe area (U-Space).

## 4 Dissemination and Communication outcomes, activities and breakthroughs

### 4.1 Activities in general

Activities includes the development of the project website, media campaign (social medias accounts, press releases), leaflets, posters, newsletters, scientific workshops, technical and scientific publications (self-archiving -“green” open access).

### 4.2 Outcomes

- The project website, containing general information material about the project, will be maintained. The website will be also used to facilitate access to the project results, and will contain a password-protected area including non-public documentation which will be accessed by key parties, that the consortium wish to engage.
- Promotion material such as flyers, brochures and newsletters, public demos or presentations tailored to different audiences will be prepared. The project will also create official accounts and relevant groups on the aforementioned Web 2.0 services (as mentioned above), and YouTube videos.

#### List of outcomes

- Dissemination and Communication Plan
- Project website
- Social media accounts (Twitter, LinkedIn, YouTube channel)
- 1 project fact sheet
- 1 general project presentation (adapted to relevant audiences)
- 3 project brochures
- 6 project newsletters
- 4 workshops
- 4 YouTube videos
- Press releases/media campaigns

### 4.3 Breakthroughs

#### 5D-AeroSafe Website

The project website has been prepared and made available on the Internet on September 2020 ([www.5d-aerosafe.eu](http://www.5d-aerosafe.eu)).

The website is composed on 5 sections, which presents NEWS, ABOUT, PARTNERS, RESOURCES, CONTACT.

It is possible to redirect to social media accounts from the project website (Twitter, LinkedIn and YouTube channel).

Examples of the website content:



### 5D-FACTS & FIGURES

*Project's title: 5D-Aero Safe*  
*Program: Horizon 2020, EU Programme for Research & Innovation*  
*Duration: 36 months (01.06.2020 – 31.05.2023)*  
*Consortium: 10 partners from 7 EU member States MS*  
*Total Funding: € 3 799 911,25*  
*EC Requested Funding: € 3 497 475*

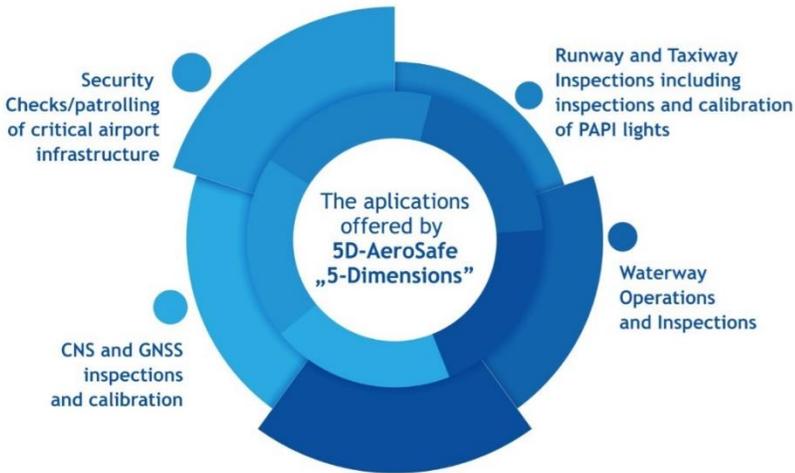


NEWS ABOUT PARTNERS

RESOURCES CONTACT







**The applications offered by 5D-AeroSafe „5-Dimensions”**

### 5 DIMENSIONS OF 5D-AeroSafe

Five dimensions equals five effects – applications offered by 5D-AeroSafe project:

- CNS and GNSS inspections and calibration;
- Security Checks/patrolling of critical airport infrastructure;
- Runway and Taxiway Inspections (including inspections and calibration of PAPI lights);
- Aircraft Inspections;
- Waterway Operations and Inspections.

Through appropriately configured RPAS carrying specific payloads, such as miniaturized CNS transceivers and cameras with embedded video analytics algorithms, 5D-AeroSpace will provide to Air Traffic Management the much-needed missing mutual situation awareness rendering the safe integration of UAS in non-segregated air spaces a reality.

NEWS ABOUT PARTNERS

RESOURCES CONTACT







Management the much-needed missing mutual situation awareness, rendering the safe integration of UAS in non-segregated air spaces a reality.

## STAY UP TO DATE!

If you are interested in receiving updates on 5D-AeroSafe, please use the form and subscribe to our newsletter.

SUBSCRIBE

**What was implemented:**

As many of our project results are technical and a high percentage are confidential, we used news to inform and engage the wider public and communities of interest about the project and 1st workshop participation.

**Next steps:**

- Public deliverables upload onto the website
- Update project timeline
- Update what’s new about 5D-AeroSafe to reflect the 1st workshop and next planned workshops
- Navigation on the website landing page to be improved with links

## 5D-AeroSafe Social Media

Social media are used for the communication to different audiences on a daily basis.

### Twitter account

The screenshot displays the Twitter profile for 5D-AeroSafe. The profile header includes the name '5D-AeroSafe', the handle '@5D\_Aero\_Safe', and a bio: '5D-AeroSafe is aimed to develop a solution for the safe and efficient integration of UAS in airport and waterway daily operations. contact: info@5d-AeroSafe.eu'. It also shows the location 'European Union', a website link 'https://t.co/YDsmHOJgC0', and the date 'Joined September 2020'. Below the header, a tweet is visible, dated 2 hours ago, with the text: 'Great news! We are pleased to announce that the 5D-Aero Safe project consortium is starting to inform. Feel free to contact us directly: info@5d-AeroSafe.eu and read more on 5d-AeroSafe.eu More information soon!'. The tweet includes a video thumbnail with the text '5D-Aero Safe 5D-AeroSafe project conducted under Horizon 2020 Framework Programme - Innovative applications of ... youtube.com'.

### YouTube channel

5d-aerosafe

# 5DAEROSAFE

5D-AeroSafe  
1 subskrypcja

SUBSKRYBUJESZ

GLÓWNA WIDEO PLAYLISTY KANAŁY DYSKUSJA INFORMACJE

Przesłane filmy

5D-Aero Safe  
9 wyświetleń · 1 dzień temu

5D-AeroSafe project conducted under Horizon 2020 Framework Programme - Innovative applications of drones for ensuring safety in transport. The main scope of 5D-AeroSafe project is to develop a so...

## Linked In Group

linkedin.com/groups/12469581/

AGS BL Instytut Techniczny... Wix.com Facebook WhatsApp PREVENTIVE BAZA... Strefa Pracuj.pl #Coronavirus - Eme... BIOMED-LUBLIN #spam-czyli-królest...

in Szukaj publikacji w tej grupie

Główna Moja sieć Oferty pracy Wiadomości Powiadomienia Ja Praca

Michal Wasiewicz  
Właściciel  
Utworzył(a) grupę wrz 2020

Publikacje w toku 0  
Poprosz o dołączenie 0

Zarządzaj grupą  
Edytuj grupę

Grupy  
Wydarzenia +  
Obserwowane hasztagi  
Odkryj więcej

5D-AEROSAFE  
„5 services of Drones for increased airports and waterways safety and security”

5D-AeroSafe  
Grupa jawna

Przygotuj swoją grupę na sukces!

2 sugestie

Udostępnij tę publikację w swojej sieci  
Rozpowszcznij informacje i powiedz innym o Twojej grupie na LinkedIn lub poza

Udostępnij grupę

1 członek

Zaproś kontakty

Zobacz wszystkich

O tej grupie

Aim of this group is to facilitate communication and information flow to all those interested in the 5D-AeroSafe project.

5D-AeroSafe project conducted under Horizon 2020 Framework Programme - ...

Zobacz wszystkie

Administrator grupy

Michal Wasiewicz  
Ty Właściciel  
Senior Business Development Specialist & PR Manager w Air Force Institute of Technology

Publikacja powiodła się. Wyświetl  
1min 1 z 4

Zaczynij rozmowę w tej grupie

Wszystkie Rekomendowane

Wiadomości

https://www.linkedin.com/groups/12469581/manage/membership/members/

## What was implemented:

We used Twitter, YouTube and LinkedIn groups to become visible to relevant groups by posting a little news and often; following, liking or tagging groups or individuals related to UAS in airports use, U-Space and U-Space services. Our intention was to signpost audiences to our website and share conversations on knowledge emerging from 5D-AeroSafe. Using of social media is also a channel to connect to a professional

network of practitioners, researchers and technology experts in the U-Space services developed by the 5D-AeroSafe project.

### Next steps:

- Continue with the activity on presented platforms
- Improve by aligning the project vision with projec and world events
- Provide bite size information about the project to link summaries of workshops, demos and deliverables.

### 5D-AeroSafe Project Leaflet

The project leaflet has been prepared and made available in the PDF file and on the project website ([www.5d-aerosafe.eu](http://www.5d-aerosafe.eu)) to be download on September 2020.

#### 5D-Consortium

The 5D-AeroSafe associates partners from 7 EU member states. Partners represent highest innovation capabilities ensuring fulfillment of the project objectives.

##### Project incorporates:

3 SME partners, that will contribute significant 'know-how' for the provision of UTM systems, expertise in development of transceivers, and water airport operations.

4 Academic and Research partners, offering their skills in UAV integration and testing, visual analytics and AI algorithms, as well as information and communication technologies.

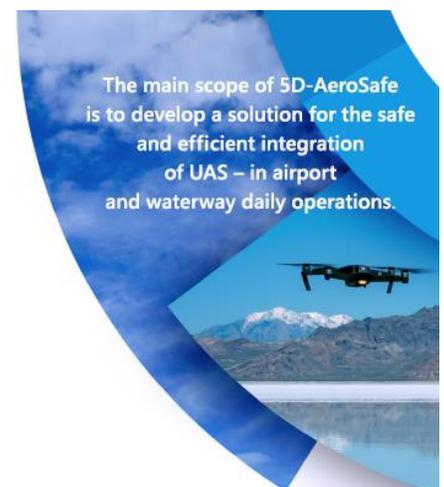
2 large industrial players offering their expertise in RPAS systems, systems integration and airport/transport infrastructure management.

3 End User partners will offer their valuable expertise in guidance the project to offer a solution close finally the needs of the user.



#### Partners

-  Airbus Defence and Space – (Coordinator)
-  Future Intelligence Ltd.
-  Ecole Nationale de l'Aviation Civile
-  Air Force Institute of Technology
-  Vicomtech
-  Hellenic Mediterranean University
-  Ferrovial Corporacion SA
-  Greek Water Airports
-  Eurocontrol
-  AirMap Deutschland GmbH



## 5DAEROSAFE

5 services of Drones for increased airports and waterways safety and security

[www.5d-AeroSafe.eu](http://www.5d-AeroSafe.eu)  
info@5D-AeroSafe

Follow us on:  
 @5D\_Aero\_Safe  
 5D-AeroSafe



The 5D-AEROSAFE project has received funding from Horizon 2020, the European Union's Programme for Research and innovation under grant agreement No. 861635.

## 5D-Background

Air Transport is the safest, most convenient and efficient way of transportation with currently millions of people travelling daily around the world. In the coming period the European sky is expected to become even denser with respect to flying objects, creating stress on air traffic management, while the need for quicker and more timely air transport services will multiply. This will demand an increased capacity of available resources (technical, regulatory, human etc.), in order to fulfill these new challenges, while maintaining safety and security of the involved stakeholders as a first priority. The impact of these challenges is evident specifically on airspace congestion and flight delays, whereby studies reveal that since the late 2000s, these have become an increasingly serious problem spreading across Europe. Airspace congestion and flight delays not only disturb airline and airport operations, resulting in considerable inconveniences to passengers, but also pose significant safety concerns and cause financial.



## 5D-Facts & Figures

Program: Horizon 2020, EU Programme for Research & Innovation

Duration: 36 months (01.06.2020 – 31.05.2023)

Consortium: 10 partners from 7 EU member States MS

Total Funding: € 3 799 911,25

EC Requested Funding: € 3 497 475

## Project motivation

### The problem:

Airspace congestion and flight delays

- Disturb airline and airport operations
- Considerable inconvenience to passengers
- Pose significant safety concerns
- Cause financial losses to airlines, airports and aviation authorities

### The demand:

- Maintaining safety and security of the involved stakeholders as a first priority
- More efficient airtransport services and available resources

### The solution:

- Provide services for the safety and security of air traffic and airport management

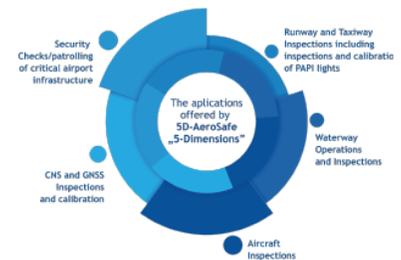


## 5 Dimensions of 5D-AeroSafe

Five dimensions equals five effects - applications offered by 5D-AeroSafe project:

- CNS and GNSS inspections and calibration
- Security Checks/patrolling of critical airport infrastructure
- Runway and Taxiway Inspections (including inspections and calibration of PAPI lights)
- Aircraft Inspections
- Waterway Operations and Inspections

Through appropriately configured RPAS carrying specific payloads, such as miniaturized CNS transceivers and cameras with embedded video analytics algorithms, 5D-AeroSpace will provide to Air Traffic Management the much-needed missing mutual situation awareness, rendering the safe integration of UAV in non-segregated air spaces a reality.



## What was implemented:

The leaflet has been prepared as a basic media kit to use it in digital for, as well as printed version for the direct promotion on trade-fairs, conferences and other events (when available after pandemia of COVID-19)

## Next steps:

Wide implementation of the leaflet on different digital media before the M12 of the project.

## 5D-AeroSafe Presentation

The project general presentation has been prepared and made available in the PDF file and on the project website ([www.5d-aerosafe.eu](http://www.5d-aerosafe.eu)) to be download on September 2020.



This project has received funding from the European Union's Horizon 2020 Innovation programme under the Grant Agreement No 861635.



# 5D-AEROSAFE PROJECT



## Presentation Content

- ⊙ 5D-AeroSafe Facts & Figures
- ⊙ 5D-AeroSafe Challenges
- ⊙ 5D-AeroSafe Outcomes
- ⊙ 5D-AeroSafe Objectives
- ⊙ 5D-AeroSafe Implementation





## 5D-AeroSafe Facts & Figures

**5D-AeroSafe** - „5 services of Drones for increased airports and waterways safety and security”

**MG-2-8-2019** - Innovative applications of drones for ensuring safety in transport

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**Timeframe:** 01.06.2020 - 31.05.2023

**Consortium:** 10 partners from 6 MS (3 RTO, 1 UNI, 3 SMEs and 3 END-USERS)

30.09.2020

3



## 5D-AeroSafe Consortium

-  Airbus Defence and Space (Coordinator)
-  Future Intelligence Ltd.
-  Ecole Nationale de l'Aviation Civile
-  Air Force Institute of Technology
-  Vicomtech
-  Hellenic Mediterranean University
-  Ferrovial Corporacion SA
-  Greek Water Airports
-  AirMap Deutschland GmbH
-  Eurocontrol



29.09.2020

4

## Project motivation



### The problem:

Airspace congestion and flight delays

- Disturb airline and airport operations.
- Considerable inconvenience to passengers.
- Pose significant safety concerns.
- Cause financial losses to airlines, airports and aviation authorities.

### The demand:

- Maintaining safety and security of the involved stakeholders as a first priority.
- More efficient airtransport services and available resources.

### The solution:

- Provide services for the safety and security of air traffic and airport management.

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## Project scope

The main scope of 5D-AeroSafe is to develop a **solution for the safe and efficient integration of UAS in airport and waterway daily operations**, that will:

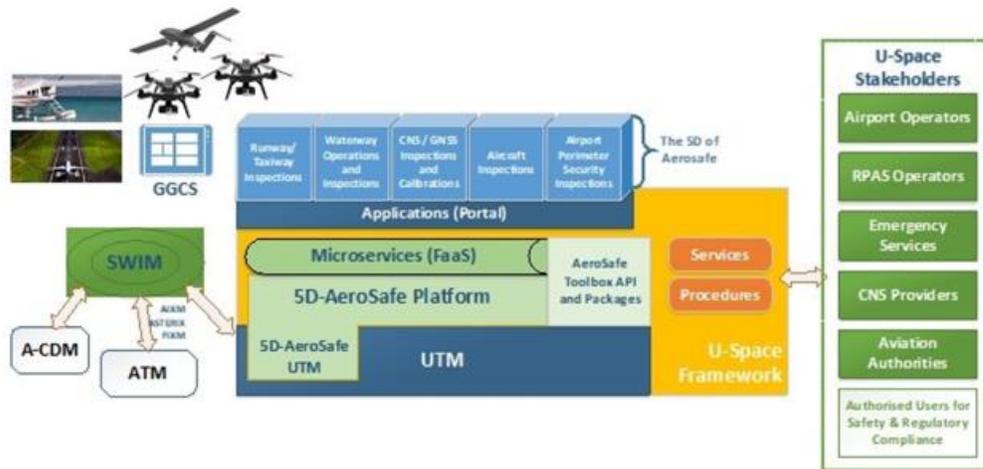
- **Conduct Flight Inspections**, i.e. inspections and calibrations on CNS (Communication, Navigation and Surveillance) systems and landing visual aids,
- **Safeguard airport restricted areas**,
- **Inspect runways and taxiways** (and water runways) to detect Foreign Object debris or any other threat to aircraft movement on the ground (and water surface).

This concept will allow the smooth operation and integration of UAS in Aerodrome ATM (Air Traffic Management) systems via the co-operation with UTM (Unmanned Aircraft System Traffic Management) Systems, enhancing mutual situation awareness.

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## Main concept of the 5D-AeroSafe



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## Project challenges

5D-AeroSafe will study and implement UAS-based solutions to enhance the airport operations in the domain of:

- **Sensors calibration:** the project will develop a sensor that will be embedded on a UAV (to replace the calibration with piloted aircraft - more expensive due to aircraft and pilots)
- **Platform safety:** the UAVs equipped with cameras will inspect the runways and taxiways (resp. waterways) to detect anomalies (FODs or defects) that could raise problems to the aircraft movements (to replace inspections by teams in car, longer and more expensive)
- **Platform security:** similarly, the system will search for abnormal behaviors of persons or vehicles in the perimeter of the airport and in the vicinity

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## Ultimate result



### Platform built as part of the established UTM

Conforming to the applicable regulations, and the services and procedures described in the U-Space framework as well requirements of the involved shareholders, 5D-AeroSafe, based on the development of appropriate functions, will provide an application portal as well as a toolbox with APIs and packages ready to supply the “5-Dimensions” of 5D-AeroSafe.

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## Project results

The UAVs will operate in an area where potential conflicts are numerous, so the 5D-AeroSafe system needs to take care about the safe integration with ATM and ground movements:

- A Generic Ground Control Station (GGCS) manages all the UAV missions through an integration of the respective specific Ground Control Stations. The missions received from the tower are allocated to the UAVs with a preliminary mission preparation that will be completed at GCS level. In the other way round, the data received from the UAVs are exploited at GCS and GGCS level to send the mission report to the tower.
- The 5D-AeroSafe platform will manage the UAV missions (UTM).
- Seamless UTM/ATM coordination for non-segregated airspace.

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## Technical challenges

- Development of a calibration sensor that can be integrated in the project UAVs.
- Adaptation of UAVs to fulfill the project missions.
- Development of a GGCS able to manage the project missions.
- Development of a UTM platform for airport operations.
- Integration of UTM and ATM through the connection with the airport legacy systems.

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## CONOPS

To provide the uses cases and scenario definitions for the pilots, forming the concept of operations of the system (CONOPS)

- To determine the list of requirements and associated KPIs for the 5DAeroSafe solution from the users' perspective.
- To investigate adherence to the relevant regulatory frameworks (ICAO Annex 10, ICAO Doc 8071, NPA 2017- 05) and its application to the resulting system and to examine potential ethical/legal aspects for implementing the UTMS at airports.

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# Project schedule

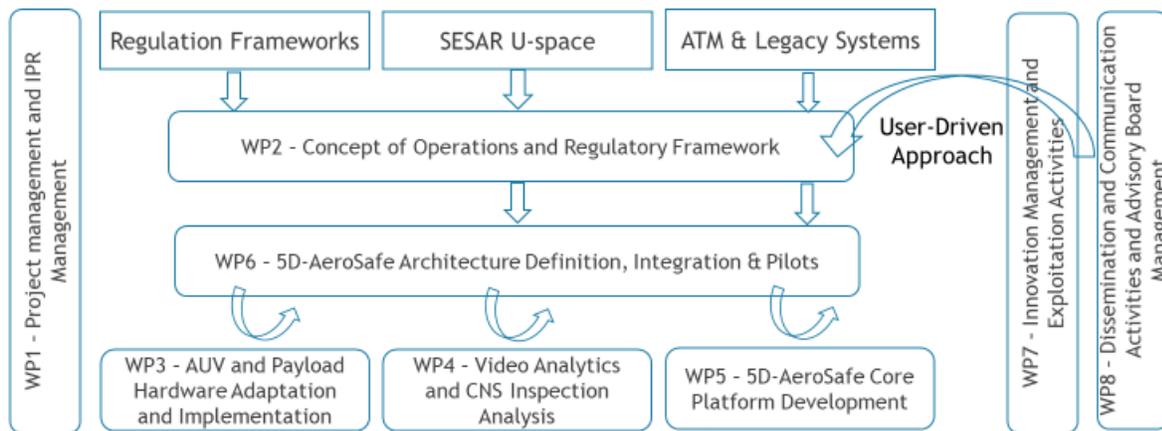
Phase	WP	Est. Due Date
<b>Phase 0 -Planning, Management</b>	WP1- Project Management and IPR Management	31 May 2023
<b>Phase 1- Requirements, Regulations, Concept of Operations:</b>	WP2- Concept of Operations and Regulatory Framework	28 Feb 2021
	WP3 -UAV and Payload Hardware Adaptation and Implementation	30 Nov 2022
<b>Phase 2- Development and Testing</b>	WP4- Video Analytics and CNS inspection Analysis	28 Feb 2022
	WP5- Core 5D-AeroSafe Platform Development	28 Feb 2023
	WP6- 5D-AeroSafe Architecture Definition, Integration and Pilots	31 May 2023
<b>Phase 3- Demonstration and Validation</b>	WP7- Innovation Management and Exploitation Activities	31 May 2023
<b>Phase 4- Dissemination and Communication Activities, Innovation Management and Exploitation Activities</b>	WP8- Dissemination and Communication Activities, and User Advisory Board Management	30 Apr 2023

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# 5D-AeroSafe Work Plan Structure



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Contact: [info@5d-aerosafe.eu](mailto:info@5d-aerosafe.eu)



#### **What was implemented:**

The presentation has been prepared as a basic promotional material as well as a basic information about the projects used on different occasions plain or with additional slides correlated to the topic and agenda of the meeting.

#### **Next steps:**

Update the presentation with slides about the 1<sup>st</sup> workshop meeting and its results.

#### *Templates*

In order to coordinate the various dissemination and communication efforts common reporting sheet and presentation template have been prepared.

The report and presentation templates have been prepared for the use of consortium members. This is a part of unified promotional materials, what ensures dissemination and communication with the same quality and according to the brand guidelines.

#### **What was implemented:**

Templated are used for presentation preparation by all partners on different occasions, both internal and external meetings and communication to EC and general public, in case of public deliverables.

#### **Other outcomes:**

- 3 project brochures - to be implemented after each year of the project duration
- 6 project newsletters - to be implemented each 6 months of the project duration

- 4 workshops - 1<sup>st</sup> workshop was organised in on-line form, next 3 workshops are to be organized according to the project schedule.
- 4 YouTube videos - to be implemented after each workshop
- Press releases/media campaigns - 2 campaigns implemented

**What was implemented:**

2 campaigns has been started, one of them has the objective to engage Advisory Board members for participation in the project and project's workshops and was achieved as we engaged 7 Advisory Board members and most of them participated in the 1<sup>st</sup> workshop. Second campaign is focused on information about the project in appropriate periodicals - 2 articles have been prepared and published in 5 months of the project.

1<sup>st</sup> workshop was organised in on-line form.

**Next steps:**

Preparation of the outcomes declared according to the project schedule.

## 5 Dissemination and Communication Key Performance Indicators (KPIs)

This section describes communication KPIs, purpose and the strategy for arriving at targets set in the 5D-AeroSafe.

Different modes of communication were used to communicate and disseminate the project. In the first 5 months the emphasis was on communication. The next year will focus on both communication and dissemination. This section presents activities implemented to date, the impact in terms of KPIs, lessons learned and next steps.

Finally, public promotion material will be used, specifically:

The project website, containing general information material about the project, has been maintained. The website is also used to facilitate access to the project results, and will contain a password protected area including non-public documentation which will be accessed by key parties, that the consortium wish to engage.

**KPIs:** the website contains 5 sections, and using Google Analytics we aim at 150 monthly visits from 20 countries, and from a multitude of devices (made possible with its responsive design).

Promotion material such as flyers, brochures and newsletters, public demos or presentations tailored to different audiences will be prepared. The project will also create official accounts and relevant groups on the aforementioned Web 2.0 services (as mentioned above), and YouTube videos.

**KPIs:** 1 project fact sheet; 3 project brochures; 6 project newsletters; 1 general project presentation (adapted to relevant audiences); 4 YouTube videos.

Through the promotion of project outcomes, in WP8 will support the development of a set of drone-based services to increase the safety and security of airport and waterway, while reducing operational costs through the offering of five services.

The technical deliverables containing the project's technical results are confidential therefore results are disseminated through 5D-AeroSafe outreach events, research, clustering activities with other H2020 projects, products, services and research. The following section shows areas where results emerge from and their relationship with communication such as key messages, method of delivery, timing and audience.

With respect to the 5D-AeroSafe project benefiting from these interactions made possible via the dissemination and communication strategy, stakeholder insights will be incorporated into the activities of 5D-AeroSafe via our interactive dissemination means, as follows:

1. Direct interaction: which entails face-to-face meetings and interactions with key and relevant stakeholders, via:

- Stakeholder community meetings during the user requirements gathering phase (M2) and pilots' sites (WP6, at M10, M21, M24 and M34), which will be organised by the management of the Advisory Board.

**KPI:** 5 events organised

- Exhibitions, workshops, conferences and EU/Eurocontrol/ICAO/ANSPs organised events.

**KPI:** ≤5 each year

- Clustering activities with other EU/SESAR projects, which will be contacted early on in the project (under WP2), and possible joint workshops can be organised.

**KPI:** ≤5 each year

This mean will afford the project interaction with target groups offering a high level of information and involvement. The interaction will be the most efficient means for community building and has the highest impact.

2. Indirect interaction: through social media platforms, which the partner will use to increase effective dissemination results. Specifically:

- LinkedIn group which will provide regularly updated information and news on the project activities.

**KPIs:** We expect 150 followers in the first year of the project, and this will increase to 700 by the end of the project.

- Twitter handle which follow relevant Twitter accounts and offer tweets related to project outcomes and other relevant happenings.

**KPIs:** We expect 100 followers initially, increasing up to 200% annually as the information and tweets will be engaging for interested Twitter users. We will make our twitter feed more engaging by creating polls, using cross-feeds, include media, to name but a few. We expect to make 10 tweets per month.

- YouTube channel which will publish videos of the project pilots and public, as well as key interviews with persons/stakeholders of interest (including consortium partners).

**KPIs:** We expect at least three videos to be created, one per each pilot of the project, and possibly during workshops where the members of the Users Advisory Board are engaged (where permission is given).

The best way to reach the identified target groups is at trade fairs and events, and scientific publications are encouraged, with candidate journals and conferences also listed in Table 2. The partners in the project will disseminate the results in relevant scientific conferences, workshops and journals, targeting the research areas that are relevant to the domain at hand.

## 6 Project vision and brand core

### *What does the world that 5D-AeroSafe wants to see look like?*

The project will develop a set of drone-based services to increase the safety and security of airport and waterway, while reducing operational costs through the offering of five services, namely: CNS/GNSS equipment inspection and calibration, security checks in the airport perimeter and approaches, runways and taxiways inspections, aircraft inspections, waterways operation and inspections. The challenge is to integrate the flight of drones in restricted areas where they will co-exist with numerous commercial flights without increasing risks.

To effectively disseminate and communicate results of this vision the consortium has prepared the 5D-AeroSafe Brand Guidelines document. The presentation covers all aspects of communication project's results as a brand. The document has been spread among the all partners, and the consortium is obliged to follow presented rules.

The “Communicating Our Brand” document



This project has received funding from the European Union's Horizon 2020 Innovation programme under the Grant Agreement No 861635.



## Communicating Our Brand

Anna Nikodym-Bilska  
Monika Burek  
ITWL



GREEK  
WATER AIRPORTS



ferrovial



AIRBUS  
DEFENCE & SPACE



EUROCONTROL

vicomtech  
MEMBER OF SASQUE RESEARCH  
& TECHNOLOGY ALLIANCE



AIRMAP

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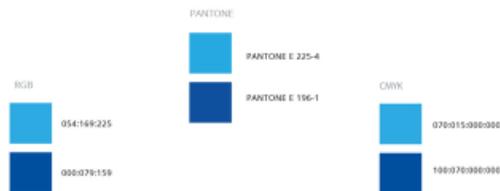


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- 4. 5D-AeroSafe „dot” bar and bullets.....11



## The 5D-AeroSafe standard logo mark



### The Logo Mark

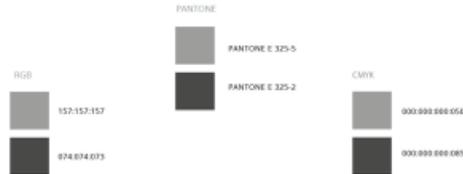
The standard logo mark is the preferred option for all communications originating from the project.

The mark visually represents the collaborative nature of the project with many different areas (represented by the strong individual colours) coming together (the linking of the ovals) to work on solutions as a whole.





# The 5D-AeroSafe achromatic logo mark



## The Logo Mark (Greyscale)

Recognising that a colourful logo is not appropriate for every usage requirement, these monochromatic variations are available for use in circumstances where the colour version may be rendered illegible or clashes with surrounding colours

The same usage rules apply to these logo variations as they do to the primary logo mark.



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# The 5D-AeroSafe achromatic logo mark



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# The 5D-AeroSafe white logo mark



## The Logo Mark (Pure White)

For dark image backgrounds where the main logo does not stand out enough, or colour might be a distraction, the pure white mark should be used.

It should only be used on image backgrounds that give it contrast and never used on flat dark colour backgrounds.

The same usage rules apply to these logo variations as they do to the primary logo mark.

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# Using the logo mark



### Clearance Area

The clearance area around the logo should always be a proportional minimum size equal to the "O" from the name. The clearance area should be measured from the outermost tips of the full logo shape on all sides.

### No Distortion of Shape

The logo mark must always be constrained proportionately and must never be stretched wider or taller.

### No Substitution of Colours

No colour substitution or variation of colour is permitted beyond the appropriate prescribed use of the greyscale logo variations included in this guide.



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## Image use



### Image styling

All images being used should be styled as per the examples on the right and not used in their original format unless associated with a news story or an external party.

Styling involves adding a slightly more gritty and surreal feel to images. This is to reflect the project concentrating on preparing for potential events as opposed to current or past ones. The reduction of colours also allows the logo to stand out and not become lost.

### Types of images

Image selection is very important to ensure a consistent message from the brand. Images of situations in airports and with should be used in all 5D-AeroSafe materials. Unrelated imagery should be avoided. All images should be styled as shown at this slide.

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## Typography

**Trebuchet MS**  
5D-AeroSafe

5 services of Drones for increased airports  
and waterways safety and security

**Banschrift Light**  
5D-AeroSafe

5 services of Drones for increased airports  
and waterways safety and security

**Segoe UI**  
5D-AeroSafe

5 services of Drones for increased airports  
and waterways safety and security

### Typography

The choice of fonts for 5D-AeroSafe specifically aim to highlight both the professional/technical expertise behind the project. To that end Trebuchet MS has been chosen as the header font with banschrift Light as the secondary font. Font for Internet usage is Segoe UI. All these fonts are in the MS Office pocket and are a copyright of Microsoft.

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# 5D-AeroSafe „dot bar and bullets”

## „Dot bar and bullets”

Additional graphics have been prepared for special use in official presentations and deliverables.

The bar



Bullets for presentation use



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## Mandatory text inclusions on dissemination and communication activities

All 5D-AeroSafe dissemination and communication activities shall include the statement: “This project has received funding from the European Union’s Horizon 2020 research and innovation program under grant agreement No 861635”.

Infrastructure, equipment and major results shall include the statement: “This [infrastructure] [equipment] [type of result] is part of a project that has received funding from the European Union’s Horizon 2020 research and innovation program under grant agreement No 861635”.

## 7 Initial work plan

Partner	Name and type of event	Type of activity	Location	Scope of the event	Target audience	Date of activity
ITWL	MSPO 2020/trade fair	Direct promotion (leaflets, presentation)	PL	International	Research/scientific community/ general public	09/2020
ITWL	AKLOT/periodic	Publication	PL	National	Research/scientific community	10/2020
HMU	1st End User Workshop	Workshop	GR	International	End-users	
ITWL	EASN-Technology Innovation Services (EASN-TIS)/newsletter	Publication	BE	International	Research/scientific community	12/2020
All	SESAR Innovation Days	Presentation	BE	International	End-users	12/2020
ITWL	Newsletter 1	Newsletter	N/A	International	End-users/general public	12/2020
All	GATI Global Aviation Technology and Innovation Summit	Presentation				2021
ITWL	Newsletter 2	Newsletter	N/A	International	End-users/general public	05/2021
ADS	ADS Aviation Data Symposium & AI Lab	Presentation	FR	International	End-users/general public/ Research/scientific community	2021
HMU/FE RRO	2nd workshop - Pilot 1 (Toulouse)	Demo	FR	International	End-users	03/2021
ITWL	Video offer the workshop	Video	PL	International	End-users/general public	04/2021
All	FAI International drones conference and expo	Presentation	Switzerland	International	End-users/general public/ Research/scientific community	2021
ITWL	MSPO 2021/trade fair	Presentation, promotion	PL	International	End-users/general public	09/2021
ITWL	DroneTech WorldMeeting 2021 Workshop/seminar	Presentation	PL	International	Research/scientific community	10/2021
ITWL	Newsletter 3	Newsletter	N/A	International	End-users/general public	12/2021
HMU/FE RRO	2nd workshop - Pilot 2 (Rhodes)	Demo	GR	International	End-users	02/2022

ITWL	Video of the workshop	Video	PL	International	End-users/general public	03/2022
All	IFIS International Flight Inspection Symposium	Presentation	USA	International	Research/scientific community	2022
All	CSAA Chinese Society of Aeronautics and Astronautics & Beihang University	Publication	CN	International	Research/scientific community	2022
HMU/FE RRO	3rd workshop - Pilot 3 (Southampton)	Demo	UK	International	End-users	05/2022
ITWL	Newsletter 4	Newsletter	N/A	International	End-users/general public	05/2022
ITWL	Video of the workshop	Video	PL	International	End-users/general public	06/2022
All	IFAC International Federation of Automatic Control	Presentation	AT	International	Research/scientific community	2022
All	IJTST International Journal of Transportation Science and Technology	Publication	CN	International	Research/scientific community	2022
ITWL	MSPO 2022/trade fair	Presentation, promotion	PL	International	End-users/general public	09/2022
ITWL	DroneTech WorldMeeting 2022 Workshop/seminar	Presentation	PL	International	Research/scientific community	10/2022
ITWL	Newsletter 5	Newsletter	N/A	International	End-users/general public	12/2022
HMU/FE RRO	4th workshop - Pilot 4 (Aberdeen)	Demo	UK	International	End-users	03/2023
ITWL	Video of the workshop	Video	PL	International	End-users/general public	04/2023
ITWL	Newsletter 6	Newsletter	N/A	International	End-users/general public	05/2023
All	ADP Airport Drone Protection World Summit	Presentation	FR	International	End-users/general public / Research/scientific community	2023
All	AIS Airport, IT and Security	Presentation	UAE	International	End-users/general public / Research/scientific community	2023
All	CJA Chinese Journal of	Publication	CN	International	Research/scientific community	2023

	Aeronautics					
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*Table 2: List of planned Dissemination and Communication activities*

Planned in the overview events in 2020, because of COVID-19 has been moved to 2021 or later, cancelled or delayed and organized on-line. It caused limited participation in such events in 2020.

However, we stick to the planned events participation in next years and until the end of COVID-19 pandemia we will plan events participation for 3 next months.

From the other hand, more events occurred to be organized, because of easy to attend form (on-line) in the near future. Therefore, the consortium will plan also ad hoc participation in 2021.

#### Dissemination and Communication Procedures

The consortium partners are in unanimous agreement that if partners intend to use data or information from the 5D-AeroSafe project, prior notice of a minimum of 10 working days before the intention to publish will be given. Objections shall be made to the project coordinator and author of the proposed article within a minimum of 5 working days.

The key dissemination and communication objectives and general activities are listed below. We will capitalize on events, publications and activities by ensuring the partners who are involved in them communicate the relevant aspects of the project. The repository of communication and dissemination activities is kept in a list and updated each month.

## 8 References

The following documents define the contractual requirements that all project partners are required to comply with:

References used in the development of this plan are:

- Grant Agreement 861635-Research and Innovation Action\_(which includes DOA, Grant Preparation Forms and annexes). This our contract with the European Commission which defines what has to be done, how and the relevant efforts.
- D8.2 Promotional materials
- Internet sources - in scope of initial work plan

Each of the above documents was established at the start of the project, and copies were supplied to each partner. Each document could potentially be updated independently of the others during the course of the project following a prescribed process. In the event of any such update, the latest formal issued version shall apply.

In the event of a conflict between this document and any of the contractual documents referenced above, the contractual document(s) shall take precedence.

## 9 List of Tables

Table 1: Dissemination and Communication Plan (including channels)

Table 2: List of planned Dissemination and Communication activities