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Project title: DEsigning, Manufacturing and Operating Quantification of Uncertainties to increase Aviation Safety

Type of action: HORIZON Research and Innovation Actions

WP7 "Dissemination, Communication and Exploitation"
T7.1.1 "Dissemination Strategy Development"
WP leader "STAM"

Dissemination, Exploitation and Communication Plan [7.1]

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Lead authors:	**Giulia Barbagelata, Martina De Masi, Ahmed Elkassas**
Contributions:	**All**
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Information Table

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Version	Date	Author/Contributor	Changes
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Executive Summary

Deliverable D7.1 “DEMOQUAS Dissemination, Exploitation and Communication Plan” is a document which summarises the project beneficiaries’ strategy and concrete actions related to the spread of the project results. The Plan follows the evolution of the project from the proposal until the submission of the final project report. A preliminary plan was part of the project proposal itself. The main objective of WP7 is to secure the successful dissemination and exploitation through the implementation and deployment of a dissemination plan and an exploitation plan. This document describes the dissemination plan of the project results towards identified target groups and all the potentially interested parties. The dissemination strategy that is being followed by the project includes: dissemination of focussed information to potential end users, wide dissemination on the internet, publications, presentations at relevant conferences and fairs, and liaisons with related projects.

The objective of this document is therefore to setup an overall communication, dissemination and exploitation strategy, designed to provide a comprehensive framework for the diffusion of the project concept, ideas and results. It provides a clear understanding of the target groups and actions needed to approach them, including the definition of key messages. The design of a well-elaborated plan will support the successful communication with identified stakeholders, informing them on the benefits of the project, using a variety of dissemination methods tailored to the specific needs of the target audiences. Implementing an effective strategy, a fruitful relationship will be established also among the stakeholders, providing added value to the project as well. Furthermore, this document explains the DEMOQUAS awareness raising activities and tools and the way in which they will be employed during the project life, to disseminate project results in a wide and effective way.

The dissemination strategy sets the baseline for the design and the implementation of the dissemination activities but remaining a ‘living document’ which will be constantly enriched during the project development. Specifically, an update is scheduled in M18 (D7.2) of the project.

The DEC Plan:

- provides an overview of the project objectives, activities and outputs
- defines the target groups of the dissemination activities and the key messages to deliver
- schedules the dissemination actions
- identifies the communications channels and their relationship with the target groups
- lists key dissemination events to present DEMOQUAS project
- design an initial exploitation strategy and roadmap.

1. Introduction

Deliverable D7.1 "DEMOQUAS Dissemination, Exploitation and Communication Plan" summarises the project beneficiaries' strategy and concrete actions related to the spread of the project results. The Plan follows the evolution of the project from the proposal until the submission of the final project report. The main objective of WP7 is to execute a comprehensive strategy for dissemination of results to the scientific community, communicate them to the general public and pave the way for an effective exploitation of the results during and after the project's timeframe, while ensuring a balanced and transparent IPR management.

Main actions will be:

- Disseminate project findings, progress, and outcomes to a wide audience and facilitate effective communication within the aviation community and other relevant industrial sectors.
- Create and implement a comprehensive dissemination strategy to share research results, methodologies, and tools developed during the project.
- Plan how project results will be communicated through various channels, including conferences, workshops.
- Generate high-quality materials such as research, presentation slides, videos, infographics, to effectively convey complex UQ concepts to target audiences.
- Organize workshops, seminars, conference sessions, to present project findings.
- Engage with stakeholders and gather feedback to ensure the future adoption and utilization of the developed UQ framework within the aviation industry.
- Maintain an updated project website and social media accounts to share regular updates, news, and relevant content.
- Provide training sessions and resources to help stakeholders understand and effectively implement the UQ-enabled design tools in their workflows.
- Ensure the effective exploitation of project outcomes and manage Intellectual Property Rights (IPR) associated with its outcomes.
- Develop strategies to protect and commercialize the project's intellectual assets while maximizing their societal and economic impact.

1.1 State of the art

Measures to maximize impact will be distinguished into activities aimed at:

i) promoting the action, at awareness raising and communication beyond the project's internal as well as external communities to wider audiences, including the media and the general public,

ii) raising interest among stakeholders and the exploitation-oriented dissemination of the benefits provided by the innovative technology proposed in the project toward potential target end-users/adopters,

iii) protection and exploitation of the project's results.

1.2 Structure of the Deliverable

To cover all the previously introduced topics in a comprehensive way, this deliverable has been organised as follows:

- Section 1 is an introduction to the deliverable and its contents.
- Section 2 gives a brief overview of the DEC strategy
- Section 3 highlights the target groups and stakeholder involvement activities
- Section 4 describes the communication roadmap and branding guidelines
- Section 5 describes the dissemination activities and an initial list of targeted activities
- Section 6 gives an overview of the exploitation strategy and roadmap
- Section 7 presents the conclusions of this document.

1.3 Relation to Other Tasks and Deliverables

D7.1 concerns the Dissemination, Exploitation and Communication Plan that is delivered in M6 of the project. This deliverable deals with the initial parts of the design of the DEC plan for the duration of the next two and a half years of the project, with the idea that it can be adapted in the future to meet the needs that will be there in some time.
It will then be updated with the new submission at M18. It relies on the technical outcomes of all the technical work packages, as DEC activities are connected to all content related WPs of the project and involves for its good application the whole consortium.

2. Overall Communication, Dissemination and Exploitation Strategy

The aim of the deliverable is to consolidate the overall strategy of DEMOQUAS, from day one, to define the goals of DEC activities, to identify the most efficient means to achieve them, and decompose them into a detailed implementation plan. To this end, the DEC plan sets out the objectives, tools, materials, and channels to be exploited to effectively spread DEMOQUAS activities, achievements and tangible results to targeted audiences with a focus also outside EU. The DEMOQUAS DEC also aims to set the pace and several foreseen activities to place the cornerstone for the successful commercialization and market uptake of DEMOQUAS solutions. The dissemination of the proven results of the DEMOQUAS project will be paramount to the overall success of the project. An effective communication strategy was designed for the project, based on a clear understanding of the project topic, and considering the non-technical barriers, related to the conservative nature of the sector. The DEMOQUAS outcomes will be communicated to the next generation of employees through the development of learning resources and organization of training sessions.

Management of arising IP and establishing an appropriate IP strategy, in alignment with the wider commercialization activities aimed at the aviation sector, is a key activity within WP7. Indeed, the project is fully aligned with the intention to capture commercially valuable innovations and secure these for the benefit of the project's partners and their business aims.

The approach to ensure the project achieves a positive exploitation and commercialization outcome, are multi-faceted, and will involve interactions with all key partners who are part of the pilot activities. More specifically, the intention is that initially the focus is on gathering information and data from all partners regarding the exploitation intentions and IP position. The thematic areas have already been established in the GA, and IP discussion will be centred on these, whilst exploring opportunities for additional IP generated during the project. Dissemination activities will be undertaken starting from the beginning of the project targeting all relevant stakeholders (see Chapter 3). Under the leadership of STAM, all partners are expected to proactively contribute to dissemination & stakeholders' engagement. The dissemination and stakeholders' engagement strategy consists of two main phases:

2.1 First phase dissemination activities

Raising interest among stakeholders (M6-30). Create project visibility about the project and its impact in aviation's safety via interation of novel UQ methods in the design process of hydrogen (H_2) and/or sustainable aviation fuel (SAF) -powered propulsion technologies, via interest raising activities making use of common project visual identity, project website and distributing public dissemination material (leaflets etc.). The project and its preliminary results (e.g., from WP7 – particularly pushing the future uptake/review and critical analysis of results) will be launched during the end of the first year of the project, in a relevant event that will be commonly agreed by the consortium. In this phase, **stakeholders will be engaged to provide insights** into the development of DEMOQUAS concept.

2.2 Second phase dissemination activities

Exploitation-oriented dissemination of results and promotion beyond the project (M30-M36). The goal is to stimulate future uptake of the concept and enhance technical activities performing critical analysis towards the project's advancements to more mature paths (i.e., Fast track & Innovation).

2.3 Dissemination activities after the project end

Even after the project termination, there will still be a high possibility to support and promote the project impact to a wider community. All results will be available for consultation and exploitation, and this will be facilitated by appropriate dissemination activities. The DEMOQUAS website will be sustained after the end of the project for at least three years, to provide all interested stakeholders with information on project achievements, findings and details on contact people for more information. Considering the close synergies which exist between the backgrounds of each partner, DEMOQUAS outcomes will be jointly exploited after the project.

2.4 Activities timeline and action plan

The figure below has the sole purpose of showing a visual planning of the key official deadlines for WP7 already planned for the 36 months of the project. It shows the expected dates for deliverable publication, website upload and updates, and project newsletter publication. Concerning the events and publications, the data will be collected at the end of every year and shared in deliverables and periodic reports.

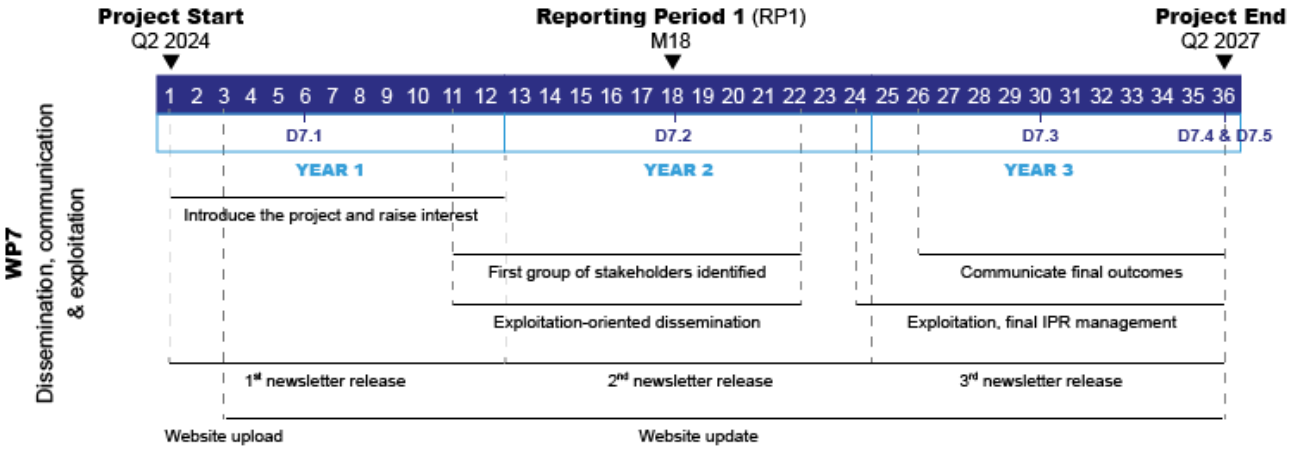

Figure 1. DEMOQUAS timeline

The DEMOQUAS communication strategy is flexible and allows its elements to be adapted in the face of new challenges and opportunities to ensure the project's success.

2.5 Dissemination reporting

The participation of any partner in an event as well as the performance of every dissemination activity related to the DEMOQUAS project has to be approved beforehand by the Project Coordinator and the Dissemination Leader. The Dissemination Leader supports the Project Coordinator and the Consortium

in planning and monitoring the dissemination activities. The objectives for this monitoring and control are to:

- Produce high quality DEMOQUAS publications and presentations;
- Avoid overlaps and possible disclosure of restricted or confidential information;
- Monitor and record the dissemination activities of the project in a sufficient way;
- In general, the following dissemination activities are included:
    - Submission of papers in relevant journals;
    - Submission of presentations in conferences;
    - Articles published in the popular press;
    - Participation in exhibitions via stands and demonstrators;
    - Organisation of project workshops;
    - Organisation of special sessions in conferences;
    - Production of newsletters, factsheets, posters etc.;
    - Sending out of press releases;
    - Public project presentations;
    - Participation in non-project workshops, forums and/or events;
    - Flyers;
    - Videos;
    - Interviews;

For a correct dissemination approach, the procedure that has to be followed is to inform the Coordinator and the dissemination leaders (Giulia Barbagelata and Martina De Masi from STAM) as early as possible about the participation of any partner in any dissemination activity via email.
The following procedure for scientific publications is applied:

- An email regarding the planned publication along with its abstract (or a draft of the publication) is sent to the dissemination leader and the Coordinator 30 days before the submission deadline.
- The final version of the publication is shared with the consortium and is available for inspection by the rest of the partners on WP7 on-line dedicated folder. If within 15 calendar days, no objection is raised by any partner to the Coordinator, then the publication is allowed.
- A partner may object to a planned publication by another partner on serious and justified grounds that have to do with confidentially of data and/or for exclusion of the objecting partner members in the authorship of the publication if their work is included in the publication. The Steering Committee is responsible for resolving any objection raised by any partner.

The above rules will be applied and checked by the coordinator and the dissemination leader to:

- Avoid repetition of publication of the same work.
- Avoid publication of restrictive and/or confidential data.
- Avoid misunderstandings between partners and publication of one's work without proper referencing.
- Secure optimum use of dissemination resources of the project.
- Guarantee proper archiving of all dissemination material.

Participation in dissemination activities/events requiring attendance (e.g., conferences, outreach events, workshops, seminars, etc.) is governed by a clear set of rules that assert that the involved partner has to give prompt notice to the coordinator and the dissemination leader with:

- A clear explanation of the envisaged dissemination activity,
- A description of the relevancy of the proposed event/publication/presentation,

- A summary of the attendance costs explaining the proposed claim for the EC contribution.

A beneficiary must notify the other beneficiaries of their intention to share their results at least 15 days in advance (unless an alternative arrangement has been made), along with sufficient details about the results they will be sharing.
Additionally, each publication shall contain the following clauses:

"*Funded by European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them*."

Also, the logo of the European Union should be included:

In addition, Article 17 of the Grant Agreement provides further details on the dissemination requirements established by the EC.
An important part of conducting and assessing dissemination activities is to report them correctly. DEMOQUAS does this by requesting a "dissemination report" from all partners, whenever a relevant dissemination activity is conducted (presenting the project results at an event or organising a dedicated event for the project).
The intent is to fill in the template immediately after a dissemination event, in order to avoid losing or forgetting any information. An excel file was shared with the consortium to register the dissemination activities and details. Furthermore, all the related materials (pictures, minutes, proceedings, presentations, brochures, etc.) need to be shared with the dissemination leader and the coordinator, in order to promptly make them available on social channels and website.

2.6 Performance indicators

In order to assess whether the DEMOQUAS communication and dissemination strategy is efficient, a number of quality check parameters (Key Performance Indicators – KPIs) have been defined, which allows us to evaluate the impact of the dissemination tools and activities deployed and carried out. Throughout the duration of the project these parameters can be adapted or modified according to the project's evolution.

Table 1. Dissemination KPIs

Category	KPIs	Evaluation/Details
Number of Papers Published	<10 = Poor, 10-15 = Good, >15 = Excellent	A list of relevant publications is provided in the deliverable
Number of Conferences/Event Presentations	<10 = Poor, 10-15 = Good, >15 = Excellent	A list of relevant existing events is provided in the deliverable
Annual Seminars	At least 1 per year on DEMOQUAS	To be organized by AUTH/ICL/TUD with support from STAM and the consortium
PhD Programs	At least 4 specific programs	Programs at AUTH, ICL, TUD with support from STAM and the consortium
EU Hydrogen Week Event	An event to be organized after the second project year	Initial contacts are already in place
Synergies with Sister Projects	Create synergies with other sister projects	Initial contacts will be taken during the first year of the project
Newsletter	At least 1 per year	The possibility to subscribe is already available on the project website

3. Target Groups and Stakeholder engagement

To maximize the project's impact, the team aims to develop comprehensive uncertainty quantification (UQ) guidelines that enhance decision-making and policy formulation for emerging technologies. These guidelines will support virtual certification, ensure safety, and improve risk management. It will provide ongoing feedback to inform policy measures throughout the project, contributing to the design, monitoring, and adjustment of existing policies, as well as shaping new initiatives. We will explore a tangible contribution to the ReFuelEU Aviation initiative, ensuring collaboration between technical work packages (WPs) and WPs 1 and 7. Our focus will not only be on aviation safety and risk mitigation but also on overall environmental safety. This project will further develop the EU's policy-driven planning and assessment framework, prioritizing timely advancements in aviation technologies and contributing to the mid-term Horizon EU impact assessment of aviation research and innovation. Additionally, we will support the European Commission in shaping policies, fostering international coordination, and maximizing benefits for the EU.

The DEMOQUAS project will adopt best practices relevant to achieving its objectives, particularly engaging key stakeholders throughout. A stakeholder-driven innovation model will be applied to:

i) enhance understanding of societal responses to aviation safety and climate change;
ii) co-assess project solutions with feedback collected at the project's outset and conclusion;
iii) ensure the usability and replicability of results.

Stakeholders—industrial leaders, policymakers, academia, civil society, citizens, NGOs, and technology providers— will actively be involved through a robust Stakeholder Engagement strategy that ensures their participation at all project phases.

This task focuses on engaging relevant stakeholders to promote the future adoption of the developed UQ framework within the aviation sector. We will identify potential users, gather feedback, and address their needs to maximize project impact and create synergies with the Clean Aviation/Clean Hydrogen Partnership. Tailored engagement strategies will be developed for different stakeholder groups, highlighting the UQ framework's benefits and applicability. Following an initial phase, we will organize workshops, focus groups, and surveys to assess the UQ framework's usability, effectiveness, and areas for improvement. This engagement will run concurrently with technical developments to ensure we provide the most up-to-date information. Feedback will be integrated into the UQ framework's design and functionality, supporting decision-making and offering training resources to help stakeholders effectively implement UQ-enabled design tools in their workflows.

3.1 Target groups

The initial activity for this task, and more in general, for dissemination activities, was the identification of key stakeholders within the aviation industry, including aircraft and engine manufacturers, regulatory bodies, research institutions, and potential end-users. The project's consortium identified the following target groups to benefit from DEMOQUAS breakthroughs and advancements, and how to reach out to them.

Table 2. Target groups

Target Group	Description	How to reach out
Aircraft/Engine Manufacturers	Manufacturers of aircraft and engines.	General dissemination and event participation Direct contact during public events

		Involvement in the feedback collection
Airline Operators	Operators of commercial airlines.	General dissemination and event participation Direct contact during public events Involvement in the feedback collection
Industrial Players	Industrial stakeholders across all segments of the H2/SAF-powered market.	General dissemination and event participation Direct contact during public events Involvement in the user training
Established Aviation Sector Markets	Established aviation markets (short/medium/long-haul).	General dissemination and event participation Direct contact during public events Transmission of the project objectives and outcomes Involvement in the path to market
Emerging Aviation Sector Markets	Emerging aviation markets (commuter, regional, urban air mobility).	General dissemination and event participation Direct contact during public events Transmission of the project objectives and outcomes Involvement in the path to market
Regulatory Agencies	Regulatory agencies (EASA, FAA, EUROCONTROL).	Direct contact from the consortium members Participation to institutional events Involvement in the feedback collection and on the requirement analysis
Trade Associations	Industry trade associations (GAMA).	General dissemination and event participation Direct contact during public events Transmission of the project objectives and outcomes Involvement in the path to market
Standards Development Organizations	Standards development organizations (ASTM).	Direct contact from the consortium members Participation in institutional events Involvement in the feedback collection and on the requirement analysis
ANSPs	Air Navigation Service Providers.	General dissemination and event participation Direct contact during public events Involvement in the user training
Network Managers	Network management entities in aviation.	General dissemination and event participation Direct contact during public events Transmission of the project objectives and outcomes Involvement in the path to market
Ground Transport Stakeholders	Stakeholders in ground transportation.	Direct contact from the consortium members General dissemination and event participation Direct contact during public events Participation in institutional events Involvement in the feedback collection and the requirement analysis Involvement in the user training
Collaborative CA/CH and EU Projects	Collaborative Clean Aviation/Clean Hydrogen and relevant EU projects.	Direct contact from the consortium members General dissemination and event participation Direct contact during public events Transmission of the project objectives and outcomes Synergy events and activities

Traditional Airspace Users	Traditional airspace users (general/business aviation).	Direct contact from the consortium members General dissemination and event participation Direct contact during public events Participation in institutional events Involvement in the user training
OEMs	Original Equipment Manufacturers (general/business aviation).	Direct contact from the consortium members General dissemination and event participation Direct contact during public events Participation to institutional events Involvement in the feedback collection and the requirement analysis Involvement in the user training
R&D Departments	Research and Development departments.	Direct contact from the consortium members General dissemination and event participation Direct contact during public events Involvement in the user training
Policymakers	Policymakers and legislators.	Direct contact from the consortium members Participation to institutional events Involvement in the feedback collection and on the requirement analysis
Other Stakeholders	Other stakeholders (ESA, EDA, etc.).	Direct contact from the consortium members General dissemination and event participation Direct contact during public events Participation to institutional events Involvement in the feedback collection and the requirement analysis Involvement in the user training

3.2 Tentative timeline

To accomplish the ambitious goals fixed for the project, the consortium has developed a tentative timeline to involve the stakeholders, which sees a first period (on-going) that focuses on the identification of the stakeholders and how to reach out to them. To follow that until half of the project life, the team will engage this selected pool in relevant awareness raising activities (tailored on the category of stakeholders, has described in the table above). By then, the feedback collection phase will start, to be sure to initiate the requirement analysis by the end of year two of the project. Based on this analysis and on the technical developments performed by then, the last part of the task activities will be performed, with the organization of the training for users and the creation of the training resources.

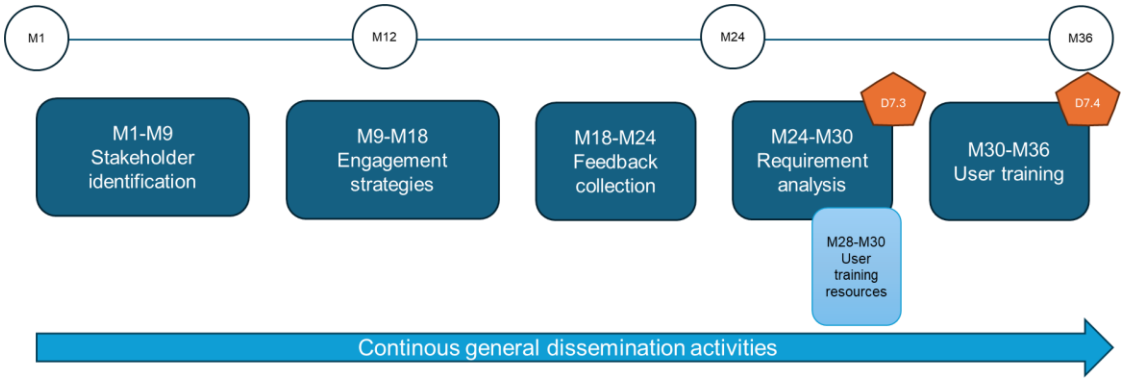

Figure 2. Stakeholder's activities timeline

4. Communication elements

Communication was the starting point of this WP. It is essential to give the public a clear and defined image of the elements that distinguish DEMOQUAS so that it immediately stands out. The initiative commenced with the redesign of the logo. Subsequently, the entire coordinated image was developed by utilizing both online and printed media, while adhering to the established principles for effectively and aesthetically presenting the work conducted by DEMOQUAS consortium.

4.1 Logo

The starting point for building the corporate image of the DEMOQUAS project was the design of the DEMOQUAS logo. An initial version was created during the proposal phase, but following the project launch, a refined version was developed to better reflect the core aspects of the project. DEMOQUAS, standing for **Designing, Manufacturing, and Operating Quantification of Uncertainties to Increase Aviation Safety**, focuses on advancing aviation safety through innovative quantification methods.

The final logo embodies the project's cutting-edge approach to uncertainty quantification with clean, modern design elements. The wordmark "QUAS" is prominently featured in bold typography, with a subtle gradient effect, creating a visual representation of both precision and fluidity, key themes in aviation safety. The upward-arching design of the "A" suggests elevation and progress, aligning with the project's goals of introducing probabilistic methods to advancing safety in aviation.

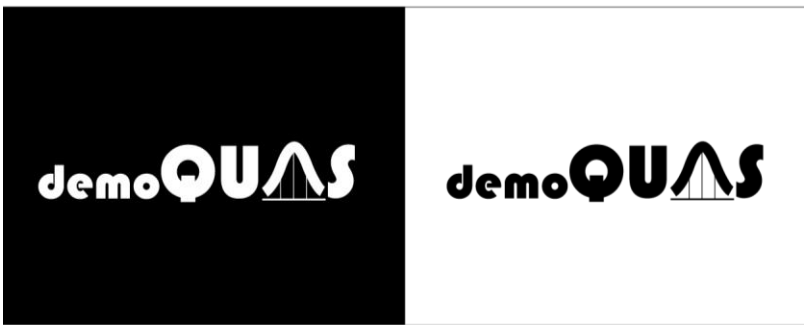

Figure 3. DEMOQUAS logo

Color palette

The DEMOQUAS logo uses a palette of deep and gradient blues, which are often associated with trust, stability, and professionalism—qualities that reflect the project's focus on safety and reliability. The use of a gradient transitioning from dark to lighter blue in the letters "A" and "S" symbolizes the project's forward-thinking approach to innovation and technological advancement in the aviation sector.

Figure 4. Color palette

Typography

The font used in the logo is **Bauhaus 93**, which is a bold, geometric typeface that evokes a sense of strength, precision, and modernity. The rounded edges of the letters in Bauhaus 93 provide a smooth and cohesive aesthetic that matches the project's emphasis on designing seamless solutions for aviation safety. This typography, paired with the colors, creates a strong visual identity that is both recognizable and memorable.

4.2 Website

The website, developed in month 3 by STAM, offers information about the project and its results to various audiences worldwide. It will constitute the main entry point for the dissemination of the project, serving several purposes:

- Institutional information about the project (motivation, objectives, technological approach) and the consortium.
- Public repository for institutional results (public deliverables) and for dissemination materials (scientific papers, presentations, leaflets, etc.).
- News and events related to the project (i.e., conferences, workshops) and to the involved thematic of process industries.
- Useful contacts to have more information about DEMOQUAS work.
- Showcase of training materials.

The website is designed to provide clear and organized information about the DEMOQUAS project. It is divided into the following key pages:

- **Home**: Introduces the project with a banner highlighting its mission and objectives, along with easy navigation to key sections.
- **Project**: Details the project's main objectives, test cases and impacts.
- **News**: Provides information on the latest articles, publications, and LinkedIn posts, keeping users informed about the project's updates and achievements.
- **Material Hub**: Showcases public deliverables, reports, promotion materials and training material with a **Download area**.

- **Partners**: Lists all partner organizations with logos and link to their websites.
- **Contact**: Contains a contact form for inquiries, alongside direct contact details for project representatives.

The website will be maintained and updated regularly, and it will be active for at least 4 years after the end of the project. The main language will be English, with some specific translations to other languages of the project partners, especially concerning leaflets and poster, if needed.
The home page provides an immediate overview of the issues being addressed in the project; simply scroll down the page and a summary appears of what is then reported on the other pages. This is followed by the part relating entirely to the practical information of the project easily accessible to users using a simple sequential language. The header contains clickable pages, and the footer includes the project disclaimer, the logo of the European Commission, the link to the Privacy Policy and the possibility to leave a contact email to subscribe to the newsletter.

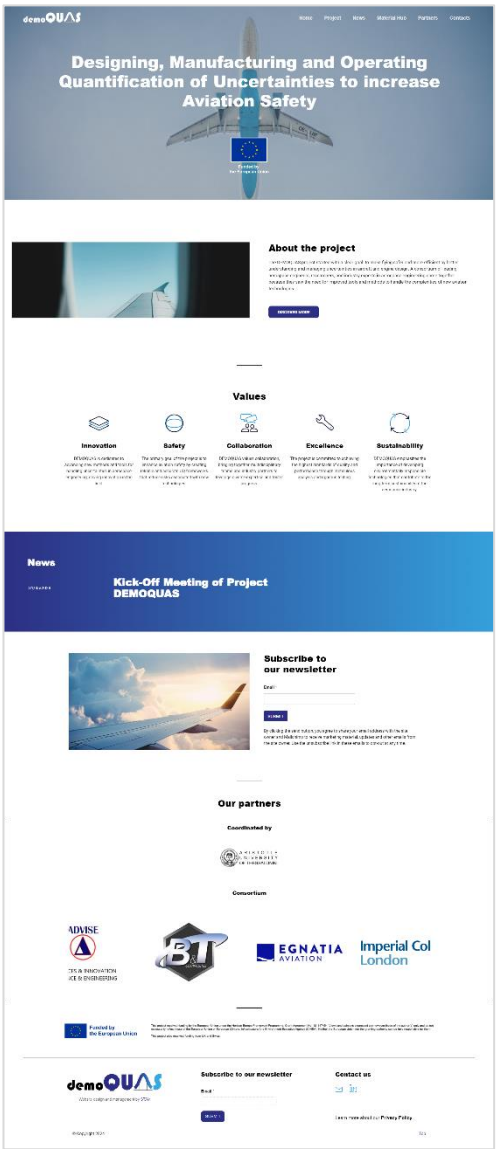

Figure 5. DEMOQUAS.eu Homepage

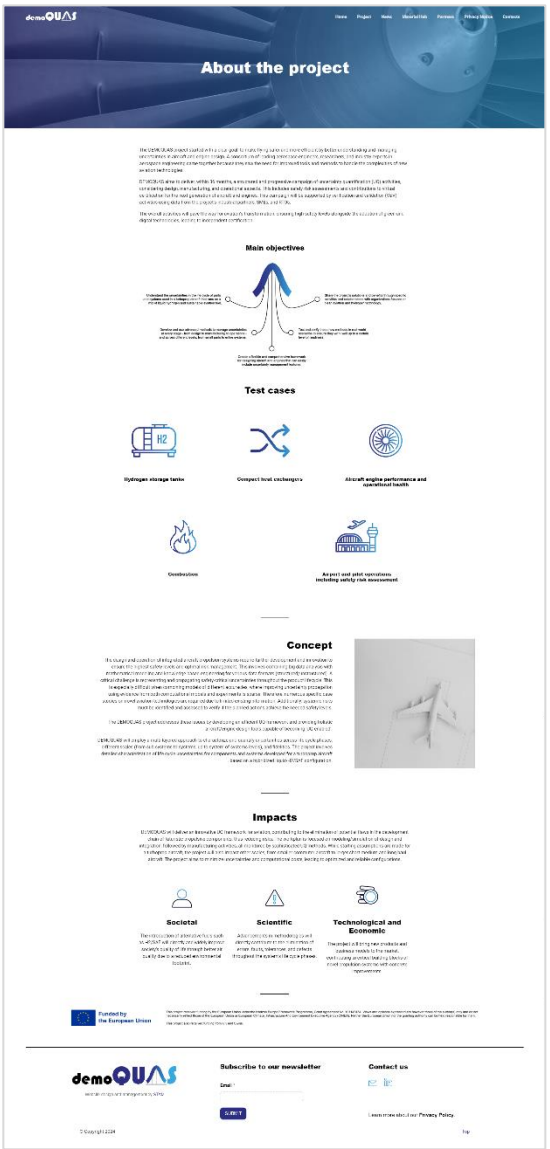

Figure 6. DEMOQUAS.eu Project page

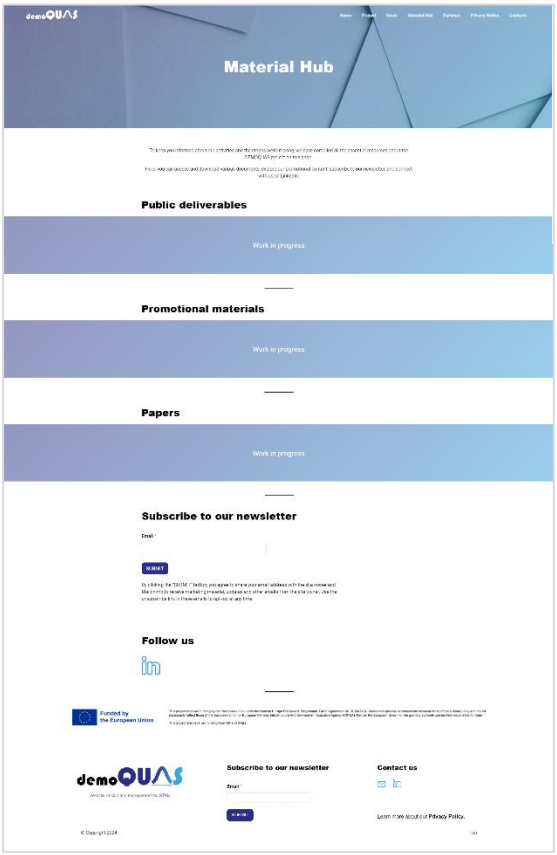

Figure 7. DEMOQUAS.eu Material Hub page

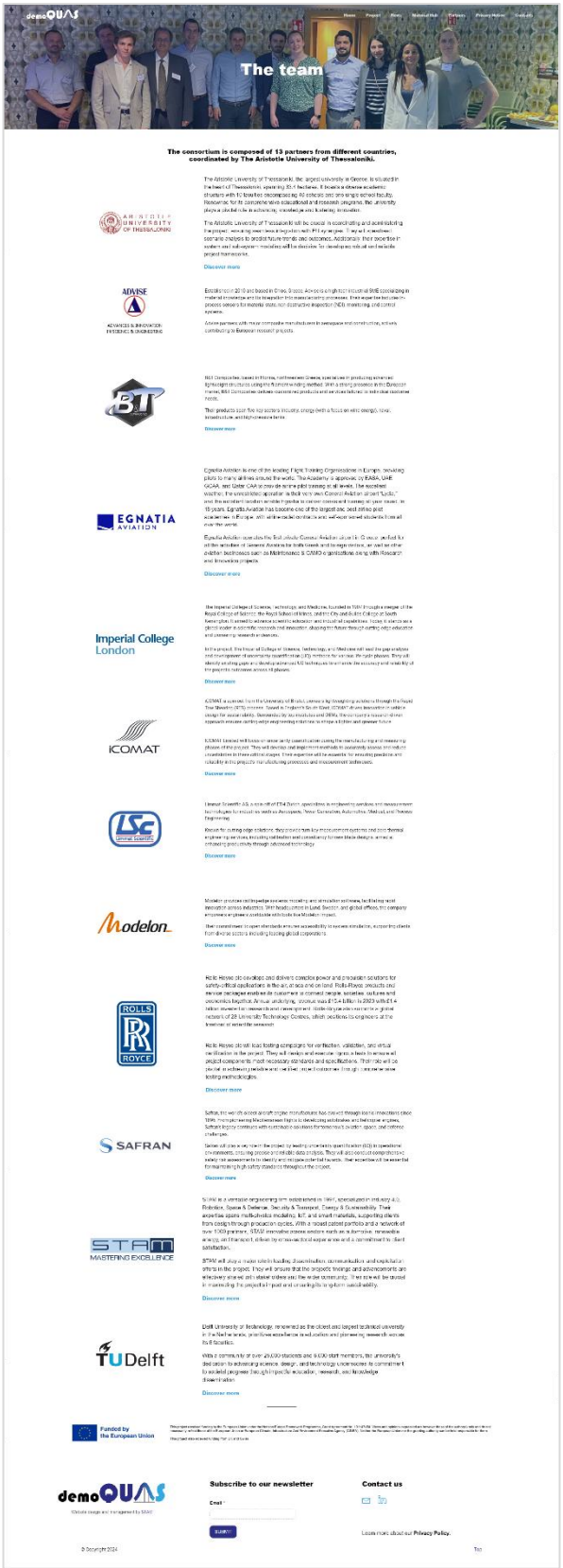

Figure 8. DEMOQUAS.eu Partners page

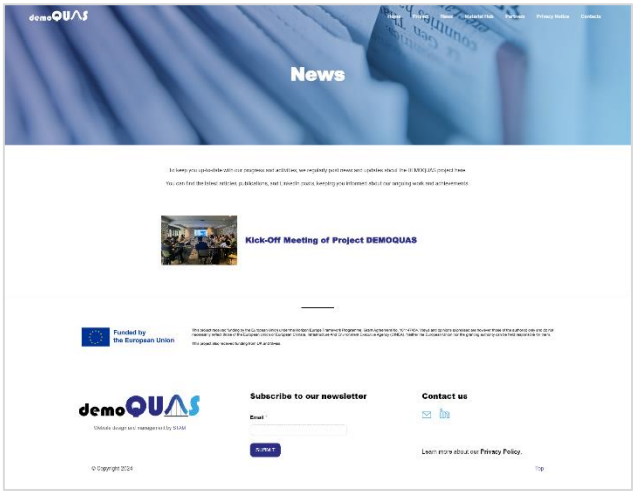

Figure 9. DEMOQUAS.eu News page

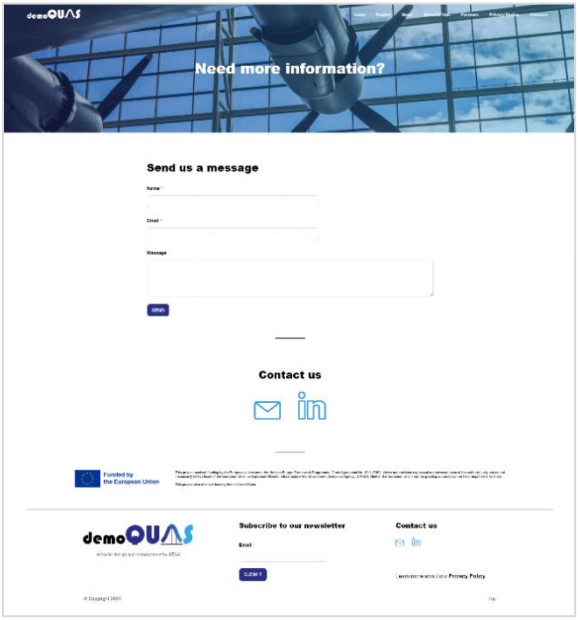

Figure 10. DEMOQUAS.eu Contact page

4.3 Templates

A template format was developed by STAM before the kick-off meeting to have all the partners on the same page for formal presentations and deliverable preparation.

A template was created in Word for sharing official project documents taking up the graphic style of the logo. In the header is the logo, the graphics of the innovation links and the EU logo. At the top of the page are the main project information and the table to be filled in by each partner according to the type of activities on the following pages, the logos of the partners involved and then the table of contents with the division into chapters.

Figure 11. Deliverable Word Template

The template for PowerPoint was realized for the kick-off meeting. Again, the starting point was the graphics of the logo and its colours. The layout is extremely simple and clean, on the cover page the logo has been enlarged and placed on the left-hand side with the innovation signs that have the function of emphasising the main fields where the name, job title and presentation title are to be inserted. The following pages are those for inserting textual content, graphics and images. On the right-hand side there is always the logo and at the bottom, as in the cover image, the logo of the European Commission. Each slide should have a title at the top and the contents correctly formatted and ordered in the centre on a white background using the correct font and avoiding visual overload.

Figure 12. Power Point Presentation Template

Thanks to the template in Word and in PowerPoint, each document will be tidy and will give uniformity and recognizability to all the materials produced by the partners.

4.4 Leaflets

The leaflet is a traditional but useful non-electronic dissemination material to be distributed during conferences, workshops and project events. The main objective of the leaflets is to provide an attractive and essential overview of the project. The leaflet will include brief information regarding the objectives and outputs of the project, its partners and its use cases. Furthermore, the document will provide contact information for the benefit of interested readers, including the contact of the coordinator and the URL of the website, which contains more comprehensive information about the project.

The consortium will develop these materials to present its aims and target, a brief description of the project objectives and its partners, what has been achieved by the project and the envisaged “after life” of the project. The first version will be created and shared digitally by the end of the first year of the project. A draft will be created by STAM, with contents agreed with the coordinator, and then be revised by the consortium, before being shared with the general public.

The leaflet will also be shared through social channels to interested stakeholders and field experts. Additionally, if evaluated as relevant, leaflets will be translated into the languages of the involved countries of the consortium to facilitate the access to the regional stakeholders. Leaflets will be put in electronic format and in hard copies.

4.5 Poster and roll-up

The main purpose of the poster is to catch the audience's attention during conferences. The DEMOQUAS poster will be created and shared digitally by the end of the first year of the project. A draft will be created by STAM, with contents agreed with the coordinator, and then be revised by the consortium, before being shared with the general public. In summary it will include:

- A short description of the project.
- Scientific and technical objectives.
- The description of the five use cases.
- A list of partners and contacts.

This poster will be used in workshops, conferences and other events, as a presentation of the project, where the partners participate in or hold the event. It is complementary to leaflets, since the latter provide more detailed information about DEMOQUAS. For the roll ups (marked with the DEMOQUAS logo) each partner will be in charge of the translation in the official language of the place hosting the event, if required. This material will be used in all events and workshops organised by the consortium and all public events (conferences, exhibitions, etc.) where the partners will participate.

4.6 Newsletter and mailing list

A mailing list has been created on MailChimp to spread project news through newsletters. STAM is creating the mailing list with contributions from all project partners. The newsletters will be shared by means of the mailing list every year and when necessary. The newsletters will also be published on the website, X and LinkedIn. The first issue will contain all the key activities carried out during the first months of the project, for which all partners collaborated, resulting in a final product that combines descriptions with images, links to articles, online channels and the project website.

The newsletter will present:

- The project meetings and published documents.
- The latest additions to the website.
- The participation in conferences, trade fairs and regulation bodies.
- The current activities of the project dealing with development, evaluation and exploitation.
- External information relevant to the project, e.g., newly published standards or books, events of interest.
- General information regarding the activities of the project.

In the footer of DEMOQUAS website there is already the possibility of subscribing to the mailing list.

4.7 Social channels

Over the last few years, online communication has become increasingly strong, fast and immediate, to complement print media, social channels have become more and more used and almost everyone relies on this type of information. For the DEMOQUAS project, the LinkedIn channel was opened immediately while waiting to publish the website. The DEMOQUAS LinkedIn account is constantly updated with news and information related to the project, is a company page, managed by STAM.

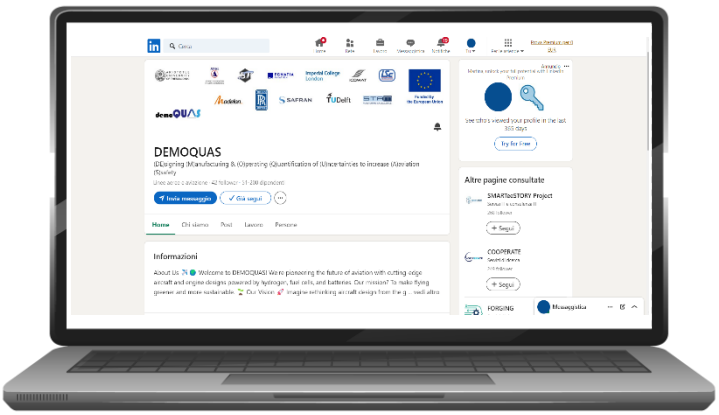

Figure 13. DEMOQUAS Linkedin page

The DEMOQUAS LinkedIn strategy includes, now, a dedicated "Weekly Partner Spotlight" series, which was launched in September to enhance the visibility of each consortium partner and foster stronger collaboration within the project. The series aims to provide a platform where each partner's role, expertise, and contributions to the DEMOQUAS project are showcased to a wider audience. By spotlighting each partner, the strategy aims to not only promote individual organizations but also highlight the strength and diversity of the consortium as a whole.

The posts are scheduled for release once per week, following a structured order that begins with the project coordinator, then moves on to universities, large enterprises, and finally Small and Medium Enterprises (SMEs). This organized approach ensures equal representation and a steady flow of content until mid-December.

During this period, the strategy will maintain continuous engagement with our LinkedIn audience, positioning DEMOQUAS and its partners in the spotlight for a prolonged and impactful period. In case of significant updates, breakthroughs, or partner participation in key events, these posts will take precedence. The "Partner Spotlight" posts will then be flexibly rescheduled to maintain relevance and ensure timely communication. This adaptable approach guarantees that, even in weeks without major announcements, the series will continue to highlight our partners, providing consistent activity on our LinkedIn page and reinforcing the project's presence online.

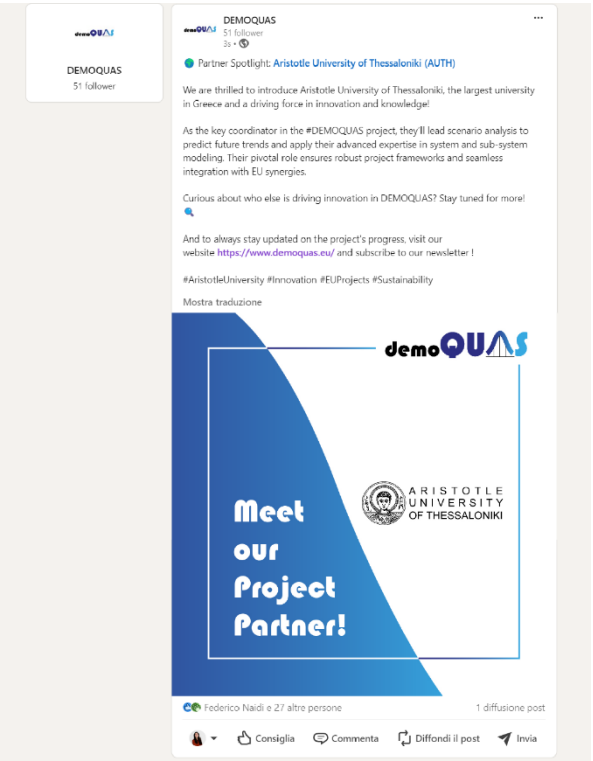

Figure 14. Example of "Partner Spotlight" Linkedin post

Linkedin statistics

Content engagement

Time range: Jun 30, 2024 - Oct 8, 2024

Show: 10

Post title	Post type	Audience	Impressions	Views	Clicks	CTR	Reactions	Comments	Reposts	Follows	Engagement rate
Partner Spotlight: Delft University of Technology Now, let's introduce the Delft University of... 10/8/2024	Image	All followers	152	-	8	5.26%	4	0	0	-	7.89%
Agenda | Easn Conference 2024 10/1/2024	Article	All followers	308	-	10	3.25%	13	0	2	-	8.12%
Partner Spotlight: Imperial College London Next in our partner series is Imperial College London – a... 9/24/2024	Image	All followers	426	-	13	3.05%	8	0	0	-	4.93%
Partner Spotlight: Aristotle University of Thessaloniki (AUTH) We are thrilled to introduce... 9/17/2024	Image	All followers	1,067	-	36	3.37%	28	0	1	-	6.09%
Home 7/31/2024	Article	All followers	477	-	21	4.4%	12	1	3	-	7.76%

Figure 15. DEMOQUAS LinkedIn page statistics

4.8 Promotional videos

Videos are increasingly being used for quick communication, they succeed in attracting more user attention and for these reasons a plan was made for the realisation of videos and video interviews of the partners involved with the aim of better communicating the work carried out within the consortium. A project video will be created, which will present the project's ambition, objectives, main outcomes, etc. In synergy with the video creation, a YouTube channel will be created for the project.

5. Dissemination activities

Having described the available tools for dissemination, this section explains the actions that will be carried out. All the partners will contribute and carry out these activities, in order to draw maximum attention toward these project's results.

5.1 Workshops, scientific conferences and industrial events

DEMOQUAS will aim to understand in the most optimised way which events are high-impact and which events we should become strategically aligned to.
However, except for DEMOQUAS dedicated sessions, the dissemination of the project will be built on existing events with appropriate special speeches and presentations, rather than planning completely new events. To do so, the dissemination coordinator collected from the consortium a list of relevant events and activities that either they organize or usually attend, to have an initial baseline for the project. In addition to that, all activities will be reported in the dissemination register (see **Section 2.5 Dissemination reporting).**
Below there is an initial list of the collected events:

Table 3. Dissemination targeted events

Name	Date, Place	Type of participants	Way of dissemination
14th EASN International Conference	October 8-11, 2024, Thessaloniki, Greece	Aviation experts, aerospace engineers, technology developers	Project's overview presentation in EU's dedicated session titled 'Digitalization of manufacturing, sustainable manufacturing, multifunctional structure and MRO'
Advanced Engineering UK 2024	October 30-31, 2024, Birmingham, UK	Composite materials technology providers.	Networking Leaflet handout
AIAA SciTech Forum 2025	January 6-10, 2025, Orlando, Florida, US	Aviation experts, aerospace engineers, technology developers	Article publications Tutorials Leaflet handout
Air Expo Abu Dhabi	November 19-21, 2024, Abu Dhabi, UAE	The Air Expo Abu Dhabi is an unparalleled global aviation exhibition & conference taking place in the capital of the UAE	Networking Leaflet handout
APATS (Asia Pacific Airline Training Symposium)	August 25-27, 2025 Marina Bay Sands, Singapore	The Asia Pacific Airline Training Symposium (APATS) is the Asia-Pacific region's largest aviation training event, designed by and for aviation professionals.	Networking Leaflet handout
ASME Turbo Expo 2024	June 24-28, 2025, London, England, UK	Turbomachinery and propulsion engineering leaders from industry, academia and government	Article publications Networking

ASME Turbo Expo 2025	June 16-20, 2025, Memphis, Tennessee, US	Turbomachinery and propulsion engineering leaders from industry, academia and government	Article publications Tutorials
Clean Aviation Annual Forum 2025	March 18-19, 2025	Aviation experts, aerospace engineers, technology developers, business developers, regulators (EASA, EUROCONTROL), aviation executives and managers	Networking Leaflet handout
EATS (European Airline Aviation Training Symposium)	November 5-7, 2024 Cascais, Portugal	The European Airline Training Symposium (EATS) is Europe's largest aviation training event, designed by and for aviation professionals.	Networking Leaflet handout
GPPS Forum 25 (Global Power and Propulsion Society)	January 15-16, 2025, Zurich, Switzerland	Turbomachinery and propulsion engineering leaders from industry, academia and government	Article publications Participation in panel sessions Keynote speeches
ICE Europe 2025	March 11-13, 2025, Munich, Germany	World's leading exhibition for the conversion of flexible, web-based materials such as paper, film, foil, and nonwovens	Networking Leaflet handout Posters
JEC 2025	March 4-5, 2025, Paris, France	It gathers the whole value chain of the composite materials industry and brings together all major global companies, innovative startups in the field of composites and advanced materials, experts, academics, scientists, and R&D leaders.	Networking Leaflet handout Posters
METSTRADE	November 19-21, 2024, Amsterdam, The Netherlands	The world's largest international B2B exhibition for the leisure marine industry.	Networking Leaflet handout
PilotExpo 2025	February 21-22, 2025, Brussels, Belgium	Europe's largest event dedicated to Flight Crew recruitment and training	Networking Leaflet handout
SESAR JU Annual Conference 2025	February 18, 2025	Aviation experts, aerospace engineers, technology developers, airspace users, air traffic management operators	Networking Leaflet handout

14th EASN International Conference

The EASN International Conference is a major event for aerospace engineers and researchers focused on sustainable aviation technologies. DEMOQUAS could present updates from Work Package 2, which addresses the manufacturing process for advanced heat exchangers. The project's innovations in this

area are set to improve production efficiency and reduce defects in hybrid-electric propulsion components.

Air Expo Abu Dhabi

Air Expo Abu Dhabi is an international exhibition showcasing innovations in aviation technology and operational safety. DEMOQUAS could be discussing its work under Work Package 6, specifically focused on safety risk assessments for hybrid-electric and hydrogen-powered propulsion systems. These risk assessments are critical for developing new pilot training protocols and improving overall safety in the industry.

Advanced Engineering UK

Advanced Engineering UK brings together industry leaders to showcase innovations in composite materials, manufacturing processes, and sustainable engineering solutions. At this event, DEMOQUAS could present its progress under Work Package 5 on hybrid-electric aircraft design and Work Package 4 on hydrogen storage systems manufacturing. These innovations are pivotal in improving the efficiency, performance, and sustainability of propulsion systems.

AIAA SciTech Forum 2025

The AIAA SciTech Forum is a key gathering of aerospace engineers and propulsion experts, where the latest advancements in aerospace technology are discussed. DEMOQUAS could present updates from Work Package 2, focused on the development of advanced heat exchangers for hybrid-electric and hydrogen-powered aircraft. These heat exchangers are designed to address critical thermal management challenges, improving both the efficiency and reliability of propulsion systems.

ASME Turbo Expo

The ASME Turbo Expo is a major event for professionals in turbomachinery and propulsion systems. At this event, DEMOQUAS could highlight its work under Work Package 2, which involves designing high-efficiency heat exchangers for hybrid-electric and hydrogen propulsion systems. These thermal management systems are essential for optimizing the performance and reliability of next-generation propulsion technologies.

Clean Aviation Annual Forum 2025

The Clean Aviation Annual Forum brings together experts and industry leaders to discuss sustainable aviation technologies. DEMOQUAS could present its work under Work Package 6, which focuses on safety risk assessments and virtual certification for hybrid-electric and hydrogen-powered systems. These efforts are integral to ensuring that future propulsion systems meet sustainability goals while maintaining safety standards.

Dubai Airshow 2025

The Dubai Airshow is a premier event in global aviation, gathering industry leaders, aircraft. The Dubai Airshow is a premier global aviation event, attracting industry leaders, aircraft manufacturers, and innovators. At this event, DEMOQUAS can showcase its work within Work Package 6, focusing on safety assessments and virtual certification frameworks. These efforts are key to supporting the safe integration of hybrid-electric and hydrogen propulsion systems into the aviation sector.

GPPS Forum 25

The GPPS Forum 25 brings together professionals from the turbomachinery and propulsion industries to discuss advancements in propulsion technology. DEMOQUAS could present its work under Work Package 3, focused on safety risk assessments for hybrid-electric propulsion systems. These assessments are essential for ensuring the safe integration of advanced propulsion technologies into the aviation sector.

ICE Europe 2025

ICE Europe focuses on processing and converting flexible materials for a variety of industries, including aerospace. DEMOQUAS could engage with professionals at the event to discuss the project's advancements in composite materials for hydrogen storage tanks. These innovations improve the safety and efficiency of hydrogen storage systems, which are critical for the future of hydrogen-powered aviation.

JEC World Trade Show 2025

The JEC World Trade Show is the leading international event for composite materials, attracting professionals from the aerospace, automotive, and material sciences sectors. DEMOQUAS could showcase its progress under Work Package 5, focused on composite structures for hybrid-electric aircraft, and Work Package 4, related to hydrogen storage systems. These advancements are pivotal in improving the performance and sustainability of next-generation propulsion systems.

METSTRADE 2024

METSTRADE is the world's largest trade exhibition for marine and aviation equipment, materials, and systems. It attracts professionals from various industries to discuss innovations in material technologies and engineering solutions. At this event, DEMOQUAS could present its progress under Work Package 5, focusing on advanced composite materials for hybrid-electric aircraft, and Work Package 4, related to the development of hydrogen storage systems. These innovations are critical for enhancing the performance, safety, and sustainability of modern aviation systems.

PilotExpo 2025

PilotExpo 2025 is Europe's largest event dedicated to flight crew recruitment and training, bringing together aviation professionals, airlines, and flight schools to explore innovations in pilot education and safety. During this event, DEMOQUAS can provide insights into the work under Work Package 6, which focuses on safety protocols and virtual certification for hybrid-electric and hydrogen-powered propulsion systems. The progress in developing these frameworks is expected to shape new approaches to pilot training, ensuring safe operations in next-generation aircraft.

5.2 Publications

Since publications are one of the most powerful means to disseminate results, both the partners from academia and from industry will use them widely. In fact, publication of project progress and findings is achieved through a combination of industry and academic journal articles, providing in-depth reporting and archival of the research findings. Academic publications are used to stimulate high quality research in the areas that DEMOQUAS covers.

In addition to scientific publications, project documents will be prepared for communication purposes, especially during events, and press releases will be sent to relevant media in various countries.

Publications related to the DEMOQUAS project will appear in highly respected international conferences, workshops, and journals. This will be based on the concept, vision, design, and implementation results of this project, all meticulously managed through a consistently updated publications plan. We anticipate the publication of at least 10 high-standard articles related to the project. These efforts, along with project documents and press releases, will help ensure that DEMOQUAS's groundbreaking research and innovations reach a broad and diverse audience, further promoting the project's objectives.

The project consortium will carry out different practices to ensure an open cooperative work approach, as well as the exchange of knowledge, methodologies, models, and tools developed (use and development of open UQ libraries), following the HEU guide Open access (OA

Most project results and reports will be available on the project's website including dissemination material (T7.1), publications, presentations, and research datasets. An open repository page (i.e. GitHub/Zenodo) will be evaluated to include the information there as well, according to the guidelines for OA in Horizon EU provided by the EC. Following OA policies of key publishers, partners have budgeted minor publication costs to allow for limited payments for open access. The consortium is committed to provide green and gold OA wherever feasible.

At proposal stage, full open access journals (further to the new Open Research Europe Platform) that provide open peer review have been already identified, including:

- ASME (Journal of Engineering for Gas Turbines and Power, Journal of Mech. Design, Journal of Turbomachinery),
- AIAA (Journal of Aerospace Computing, Information, and Communication, Journal of Aircraft, Journal of Propulsion and Power, Journal of Thermophysics and Heat Transfer),
- MDPI (Aerospace, Safety),
- Elsevier (Comput. Methods Appl. Mech. Engineering, Journal of Computational Physics, Applied Energy, Aerospace Science and Technology),

It is noted that at least 1/3 of the targeted publications will aim for safety related journals.

5.3 Identified Sister and related projects for Knowledge Sharing

The consortium will seek liaison with the most relevant EU communities involving potentially interested stakeholders, including the relevant Clean Aviation / Clean Hydrogen projects and HEU Cluster 5 projects for energy and mobility. At this purpose, DEMOQUAS is committed to create synergies with sister projects, as is the current directive and will dedicate a specific task on this activity (T1.4). An event is expected to be organized within the EU Hydrogen week, after the second year of the project. More information on this can be found in section **6.3.1 Cooperating with European projects.**

6. Exploitation strategy and roadmap

The exploitation task aims to ensure the effective exploitation of project outcomes and manage Intellectual Property Rights (IPR) associated with its outcomes. It involves developing strategies to protect and commercialize the project's intellectual assets while maximizing their societal and economic impact.

6.1 Exploitation phases

Key part of the exploitation strategy will be the comprehensive assessment of the Intellectual Property generated throughout the project to identify innovations, and potential areas for patent applications. Each partner will be responsible for delivering information to STAM and AUTH, according to the templates that will be created and shared during the second year and updated during the last months of the project and provide feedback on IP plan. A Data-Access and Innovation Manager (DAIM) will be appointed (STAM, AUTH) in the next few months of the project to identify all the available exploitation routes of the project results. He/She will monitor the IPRs as they develop during the project activities and will report at selected periods (M18, M30).
In parallel to this, desk research will be performed to identify markets and sectors where the UQ framework could have a marked impact, considering the needs of aviation companies and related industries. In addition to this, continuous work with sister projects and with relevant stakeholders will be performed, to outline the subsequent phases for advancing the project to higher TRLs and achieving commercialization.

6.2 Exploiting the results

The exploitation plans for DEMOQUAS will be structured around two key components. The first component focuses on qualitative exploitation, where the project's results and outputs will be utilized to benefit various stakeholders involved. The second component is centered around financial exploitation, which will involve developing the value proposition, business model, business plan, and financial plan. While the financial exploitation strategy will be developed better at a later stage in the project, based both on the outcomes of the work performed on IP and on the desk research on the market sector, this section is focused on outlining the plan and timeline for the qualitative exploitation component.

6.3 Qualitative exploitation

The qualitative exploitation strategy for DEMOQUAS is built around effectively communicating the results of its activities to external stakeholders. This will be achieved through dissemination and communication (as highlighted in previous chapters), but also through another primary channel.
This channel involves engaging with other European projects that can directly benefit from the insights and outcomes produced by DEMOQUAS. By fostering collaboration and knowledge sharing, we aim to ensure that the advancements made within DEMOQUAS are leveraged to enhance and complement the efforts of similar projects, creating a broader impact across the European research and innovation landscape.

6.3.1 Cooperating with European projects

The work performed in this section was to connect the project milestones with other relevant sister projects to highlight what the liaison could be. Initial contacts with this project will be made in the first year of the project. The general scope of this cooperation is to increase the general impact of the projects and avoid redundancy among them; where possible, technical information will be shared to optimize the research work and boost the results. The projects are categorized for themes.

Exploiting Design and Simulation of Heat Exchangers and Hydrogen Components

DEMOQUAS is working to reduce manufacturing defects and improve performance in compact heat exchangers. These milestones will generate the Key Exploitable Results by refining designs for cold plate and liquid hydrogen heat exchangers, with the ultimate goal of improving robustness, reliability, and cooling efficiency in aviation systems. This will open market opportunities as aircraft move toward hydrogen and hybrid-electric propulsion, with the technology being positioned to meet growing industry demand by 2050.

IMOTHEP project is dedicated to developing hybrid-electric propulsion systems to reduce emissions and improve energy efficiency in commercial aviation. DEMOQUAS's advancements in cold plate HEX technology could be highly relevant for IMOTHEP's power electronics, which require advanced thermal management solutions to prevent overheating and ensure consistent operation. By jointly exploiting DEMOQUAS's cold plate HEX designs, both projects could integrate these heat exchangers into hybrid-electric systems, improving performance and operational reliability. The key exploitable result related to cold plate HEX could significantly enhance IMOTHEP's thermal management capacity, enabling longer operational life for hybrid-electric propulsion systems.

MADELEINE project focuses on optimizing complex aviation components using advanced simulation methods to improve design and manufacturing processes. DEMOQUAS's liquid hydrogen heat exchanger models, which are intended to improve robustness and cooling efficiency, could align well with MADELEINE's simulation efforts. By sharing DEMOQUAS's models, MADELEINE can refine its simulations to better predict manufacturing outcomes and reduce defects. Both projects could benefit from integrating the simulation-driven design processes to develop reliable heat exchanger technology that could be commercialized for hybrid-electric and hydrogen-powered aircraft.

Exploiting Hydrogen Storage and Pressure Vessel Development.

DEMOQUAS aims to improve failure rates, insulation, and overall safety in liquid hydrogen storage tanks, which are key for the aviation industry as it transitions to hydrogen propulsion. These milestones could generate the Key Exploitable Result of more robust, safe, and efficient hydrogen storage systems, improving gravitational efficiency and minimizing boil-off, cracking, and permeation.

Overleaf Project works on designing and optimizing hydrogen storage tanks for aeronautical applications, with a focus on safety and performance. DEMOQUAS's work on reducing failure rates and improving insulation could aligns perfectly with Overleaf's objectives. By jointly exploiting DEMOQUAS's hydrogen storage tank designs and safety measures, Overleaf could accelerate the adoption of safe hydrogen storage in the aviation sector. Both projects could benefit from improved reliability, leading to safer hydrogen-based propulsion systems.

Stratofly Project is focused on high-speed stratospheric flight powered by hydrogen propulsion. The hydrogen pressure vessel developments in DEMOQUAS, which target high-performance and safety in extreme conditions, are critical for Stratofly's long-duration, high-altitude flights. Jointly exploiting DEMOQUAS's pressure vessel technology will ensure that Stratofly's hydrogen storage systems are optimized for the challenges of high-speed, high-altitude travel. DEMOQUAS's advancements in insulation and pressure management will contribute directly to Stratofly's goals of safe, reliable hydrogen flight.

EFACA project, which integrates hybrid-electric propulsion and hydrogen fuel cells, requires advanced hydrogen storage solutions to support their systems. DEMOQUAS's progress in pressure vessel design, with improved failure rates and safety protocols, will provide EFACA with more reliable hydrogen storage options. Both DEMOQUAS and EFACA will jointly benefit by integrating these storage systems into their hybrid-electric platforms, ensuring safe, efficient hydrogen use in aviation.

Exploiting Combustion and Fuel Testing for SAF and Hydrogen

Milestone MS8 (Atmospheric Burner Test for SAF/H2) and D5.3 (Atmospheric Burner Test Results) involve testing the combustion characteristics of sustainable aviation fuels (SAF) and hydrogen. These milestones aim to identify the safety and environmental characteristics of SAF and hydrogen, contributing to the Key Exploitable Result of developing safer and more efficient fuel technologies. By understanding the flammability limits, relight capabilities, and emissions profiles, DEMOQUAS will generate valuable data that can be applied to improve fuel safety protocols and environmental standards in aviation.

HESTIA project focuses on hydrogen-air combustion and is working to improve the safety and efficiency of hydrogen-powered engines. DEMOQUAS's real-world combustion test data provides HESTIA with critical insights into hydrogen's combustion properties, allowing them to refine their engine models. Jointly exploiting DEMOQUAS's test results will enable HESTIA to improve the accuracy of their combustion simulations, ensuring safer and more efficient hydrogen engines. DEMOQUAS and HESTIA will both benefit from shared data on fuel performance, leading to more robust combustion models.

ARTEM project is dedicated to reducing noise and emissions in aviation through the design of low-noise aircraft. DEMOQUAS's combustion tests will provide ARTEM with emissions data for SAF and hydrogen fuels, allowing them to design aircraft that minimize environmental impact while maintaining high performance. By jointly exploiting DEMOQUAS's emissions profiles, ARTEM can ensure their designs meet regulatory standards and offer significant reductions in both noise and emissions. This collaboration will enhance the sustainability of future aircraft designs, benefiting both DEMOQUAS and ARTEM in meeting environmental goals.

Exploiting Engine Health Monitoring and Remaining Useful Life (RUL)

Milestone MS12 (Engine Degradation and RUL Monitoring), MS6 (Open Dataset on Engine Degradation), and D6.2 (Engine Health and RUL Dataset), along with D5.1 (Predictive Maintenance Models), are focused on monitoring engine health and predicting the remaining useful life of hybrid-electric and hydrogen engines. These milestones will generate the Key Exploitable Result of open datasets and predictive maintenance models, which can be applied to improve engine performance, extend

operational life, and reduce maintenance costs. DEMOQUAS aims to make this data available for both academic research and industrial applications, providing valuable insights for the aviation industry.

PANDORA project works on validating new propulsion concepts by optimizing engine performance and noise emissions. DEMOQUAS's engine health data, along with their predictive maintenance models, will provide PANDORA with the necessary tools to monitor engine degradation and improve performance. Jointly exploiting these datasets will allow both projects to enhance the reliability and longevity of their propulsion systems, contributing to the development of more efficient engines.

TurboNoiseBB project is focused on reducing broadband noise generated by aviation engines. DEMOQUAS's engine degradation data will help TurboNoiseBB understand how engine wear affects noise emissions, allowing them to refine their noise-reduction technologies. By jointly exploiting this data, both projects will benefit from more accurate noise models that can reduce environmental impacts while maintaining engine efficiency. TurboNoiseBB's noise-reduction efforts will be strengthened by DEMOQUAS's data on engine health and degradation.

ANIMA project works on managing aviation noise in airport environments. DEMOQUAS's engine health data will help ANIMA develop more accurate models for predicting how engine degradation impacts noise levels. By incorporating this data into their strategies, ANIMA could improve noise management around airports, particularly for aging aircraft. Joint exploitation of these results could improve ANIMA's ability to minimize noise pollution, enhancing operational efficiency and community relations.

Exploiting Safety Risk Assessment and Virtual Certification

Milestone MS14 (Pilot and Airport Safety Risk Assessments) and MS16 (Virtual Certification Guidelines), along with deliverables D6.1 (Safety Risk Assessment Report) and D6.5 (Virtual Certification Framework), focus on developing safety risk models and virtual certification processes for hybrid-electric and hydrogen propulsion systems. These milestones will generate the Key Exploitable Result of new risk assessment tools and virtual certification methods, allowing for more efficient regulatory approval processes and enhanced safety intelligence. DEMOQUAS aims to apply big data analysis and uncertainty quantification to ensure that new aviation technologies meet safety standards efficiently.

ANIMA project is focused on reducing the environmental and operational impacts of aviation noise, particularly near airports. By incorporating DEMOQUAS's safety risk assessments into their work, ANIMA could develop more effective noise and safety management protocols. This joint exploitation could ensure that new propulsion technologies are integrated safely into airport environments, enhancing both safety and regulatory compliance for future aviation systems.

FUTPRINT5 project is working to accelerate the certification of hybrid-electric aircraft, particularly for regional aviation. DEMOQUAS's virtual certification framework could streamline FUTPRINT5's regulatory approval processes, allowing them to more efficiently certify their propulsion systems. By jointly exploiting DEMOQUAS's uncertainty quantification methods, both projects could reduce the time and cost associated with certification while maintaining high safety standards, benefiting the future of hybrid-electric aviation.

MAHEPA project, which focuses on modular hybrid-electric propulsion, will benefit from DEMOQUAS's virtual certification guidelines. These guidelines could allow MAHEPA to simplify the certification of their scalable propulsion systems, reducing complexity and ensuring compliance with regulatory standards. Joint exploitation of these methods could enhance the safety and efficiency of modular hybrid-electric aircraft, benefiting both projects.

Exploiting the activities of twin European project throughout the lifetime of the project

UPBEAT project, as a twin project to DEMOQUAS, shares a similar scope and objectives, focusing on advancing hybrid-electric and hydrogen-powered aviation technologies. Throughout the lifetime of both projects, close cooperation between UPBEAT and DEMOQUAS could lead to shared best practices, joint problem-solving, and the pooling of resources and expertise to ensure that both projects achieve optimal results.

By continuously exchanging insights and technical solutions, UPBEAT and DEMOQUAS could enhance each other's milestones and deliverables. For example, as both projects work on hydrogen storage solutions, heat exchanger designs, and engine health monitoring, sharing real-time results from tests and simulations can help to rapidly identify and implement improvements. Both projects can align their methodologies for predictive maintenance and engine degradation, which would allow them to cross-validate findings and create more robust models that benefit the broader aviation industry.

7. Conclusions

This document presents the overall DEC plan to be applied in DEMOQUAS project. This is the basis of a widespread impact of the overall results of DEMOQUAS, also beyond the project's end. This plan will function as a guideline for the consortium partners and at the same time will provide common ground and strategy that requires the participation of all.

Based on the objectives for dissemination and the generic communication activities (creating awareness, understanding and action), the defined dissemination tools and actions are aimed at enhancing public awareness and ensuring the involvement of relevant stakeholders in order to raise awareness of the work, activities and outcomes of the DEMOQUAS project.

In addition, the activities to be carried out provide information to the scientific community and disseminate knowledge about the existence of the project to the research stakeholders. The DEMOQUAS partners will actively use a variety of dissemination tools and activities to reach all audiences. These include, among others, attending conferences, events, workshops, website updates, factsheets, publishing articles and papers, sending press releases, links on partner websites, links on sister projects, presenting the project via virtual or real demonstrators, training sessions, etc.

An effective dissemination plan should be "dynamic" by definition, meaning that it is subject to changes based on newly available data. In this respect, further opportunities will be explored, and additional measures will be taken by all consortium members to collaborate in other activities and disseminate knowhow. In this way the DEMOQUAS dissemination plan is considered a constantly evolving process, which comprises the update of project's activities, gathering of publishable results and any other important activities to disseminate the project's outcomes.