D2.1 - Dissemination and Communication Plan and activities report

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Abstract

This deliverable outlines a strategic plan for Dissemination & Communication activities within the **exFan** project, emphasizing audience engagement and impact optimization. Through a structured five-step approach, target audiences are identified, and key messages aligned with project objectives. A series of activities are then proposed to effectively convey these messages, with ongoing monitoring and evaluation facilitated by digital analytics tools. Furthermore, the introduction of the "*exFan e-Approval Tool*" highlights the project's commitment to safeguarding intellectual property rights and ensuring publication integrity.

Keywords

Dissemination, Communication, Plan, Activities, Monitoring, Approval process

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Information Table

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Version	Date	Status	Author	Description
V.1.0	13/03/2024	Draft	George Anagnostopoulos	First deliverable draft
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Table of Acronyms and Abbreviations

Acronym/Abbreviation	Description / Meaning
TRL	Technology Readiness Level
WPs	Work Packages
D&C	Dissemination and Communication
PDCR	Dissemination and Communication Plan of Results
MROs	Maintenance and Repair Organizations
NGOs	Non-governmental organizations
SMEs	Small and medium-sized enterprises
EC	European Commission
KPIs	Key Performance Indicators

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Table of Contents

Funded by the European Union

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List of Figures

List of Tables

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1. INTRODUCTION

In driving economic growth, job creation, and the enhancement of living standards, research and innovation play essential roles. It's crucial to ensure that the insights gained from these efforts reach far and wide. This means finding accessible ways to share this knowledge with society, often through commercial products and services, which is how most people access research outcomes. Additionally, sharing research findings accelerates progress in both research and technology, pushing boundaries and pointing towards new directions for future developments.

The exFan project, which stands for "***Novel Recuperation System to Maximize Exergy from Anergy for Fuel Cell Powered Geared Electric Aircraft Propulsion System***," is focused on creating an innovative heat dissipation and recuperation system integrated into a geared fan propulsion system for Mega-Watt class aircraft powered by fuel cell technology. The primary goal of **exFan** researchers is to advance the development of a Heat Propulsor to Technology Readiness Level (TRL) 3.

The document is organized into the following six (6) chapters:

- **Chapter 1**: Introduces readers to the scope of the document and provides an overview of the subsequent chapters.
- **Chapter 2**: Outlines the dissemination and communication strategy, beginning with a brief overview and detailing the development of a dissemination model. It elaborates on the method used to ensure effective dissemination and communication management for **exFan**, defining key goals, objectives, messages, and target audiences.
- **Chapter 3**: Presents suitable dissemination and communication mechanisms, introducing the tools and channels employed by the **exFan** project.
- **Chapter 4**: Focuses on identifying measures and indicators to evaluate the efficacy of the strategy.
- **Chapter 5**: Briefly describes the consortium's agreed-upon dissemination approval process.
- **Chapter 6**: Provides a summary of the deliverable.

Finally, **Appendix A** includes the current planned and foreseen communication and dissemination activities of the **exFan** team.

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2. DISSEMINATION AND COMMUNICATION STRATEGY

2.1 Introduction

The **exFan** Consortium recognizes the importance of initiating communication and dissemination efforts early in the project to foster interest, maximize impact, and develop a broad community. This strategy will reinforce the outcomes planned across all project Work Packages (WPs), fostering new research and commercial connections, and generating market opportunities to enhance profitability, growth, and employment.

The custom-made Communication and Dissemination plan, shaped by input from all project partners, is structured around pre-established guidelines. The main guiding principle of this plan is to outline steps for a successful strategy, including identifying key messages, communicators, target audiences, and communication channels.

The primary objective of this deliverable is to specify and design an appropriate dissemination and communication plan for **exFan**. This plan aims to categorize and organize the various activities that **exFan** will undertake to ensure its success and sustainability. It will enable efficient dissemination and communication activities, utilizing suitable tools and mechanisms to effectively convey the project's objectives and outcomes to its diverse target audiences; thereby, contributing to its anticipated impact on European and International levels.

Specifically, the main objectives of the Dissemination and Communication plan are:

- **Identify** appropriate persons and information at the right time using suitable language.
- **Establish** and maintain collaboration mechanisms for effective dissemination to each identified target audience.
- **Support** partners in their dissemination, communication, and networking efforts.
- **Ensure** timely sharing of information with appropriate audiences using the most effective means.
- **Leverage** the Consortium as an effective dissemination amplifier.
- **Maintain** a dynamic network of key actors, stakeholders, and policymakers, keeping them informed of project progress and encouraging networking.
- **Promote** the utilization of project results for future research activities and strategic research policy decisions.

The **exFan** Dissemination and Communication (D&C) plan is designed to serve as a practical framework and guide for day-to-day communication activities. It will begin at the project's outset and continue throughout its lifecycle, aligning coherently with project developments and considering the key tools, audiences, channels, and messages to be disseminated.

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2.2 Overview

A robust D&C strategy is essential for all HORIZON EUROPE projects to optimize their impact and promote European research and innovation, reaching diverse audiences across projects.

The **exFan** Consortium values D&C activities as effective means to support project objectives and actively engage partners throughout the project's lifecycle. Each partner acts as a channel for communicating project progress to stakeholders and end users. Dissemination activities for **exFan** span the project's 48-month duration, aiming to communicate progress, achievements, and outcomes consistently and distinctly to relevant audiences.

The first step in developing this strategy involves identifying the goals and objectives of **exFan**'s dissemination activities, falling into categories such as:

1. **Making People Aware**: Ensuring people know about **exFan**'s work.
2. **Helping People Understand**: Making sure people understand what **exFan** does.
3. **Encouraging Action**: Motivating people to use **exFan**'s concept.

During the planning phase of the dissemination strategy, the **exFan** model emphasizes four key pillars:

- **Effective D&C Management**: Implementing clear strategies to ensure the efficient diffusion of project information.
- **Clearly Defined Goals and Objectives**: Establishing specific aims and objectives to guide dissemination efforts effectively.
- **Target Audience Identification**: Identifying and understanding the specific groups that need to be reached and engaged.
- **Tailored Messaging**: Create messages and content tailored to fit effectively with the identified target audiences.

These elements form the backbone of **exFan**'s dissemination strategy, as depicted in Figure 1.

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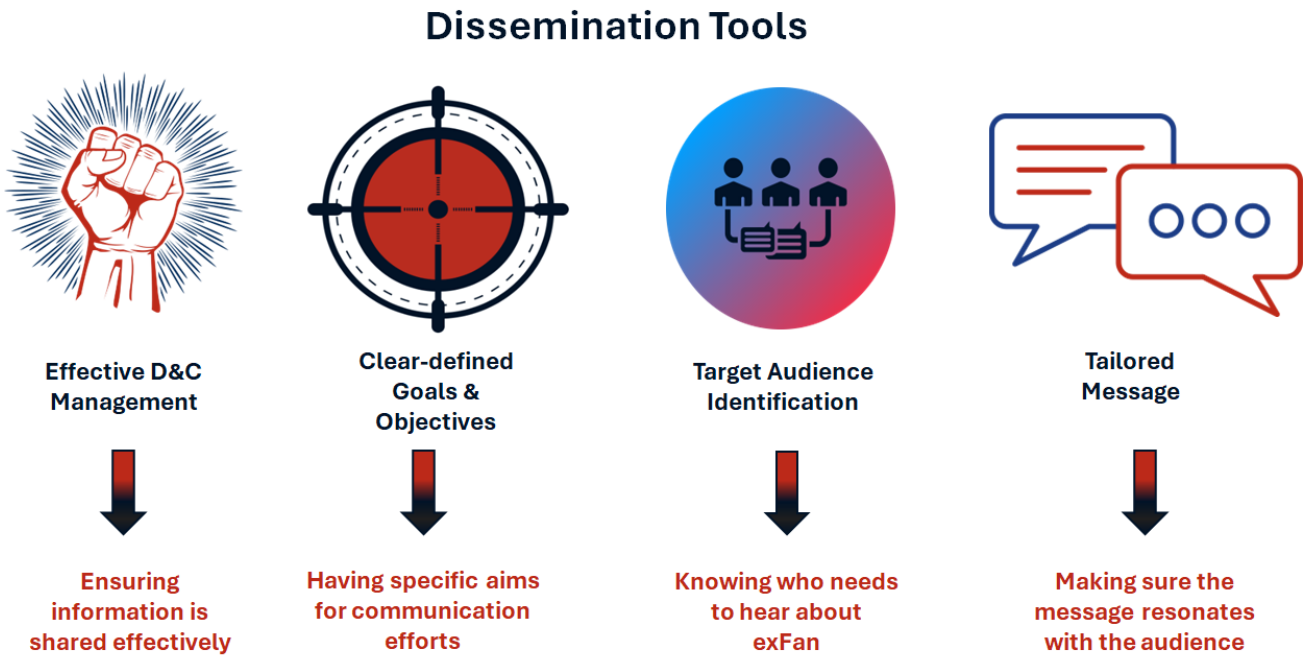

Figure 1. exFan D&C model

The following sections present the steps of the communication and dissemination strategy of the **exFan** project.

2.3 Dissemination approach

Dissemination involves conveying a message to specific groups or organizations through various channels to achieve a particular impact. Developing a coherent dissemination strategy is essential for effectively sharing the significant research findings from the **exFan** project.

Maximizing the impact of **exFan** necessitates identifying the appropriate individuals and information, using language tailored to the audience. Drawing from the Diffusion of Innovation theory[1], which emphasizes the spread of new ideas, the **exFan** Dissemination and Communication Plan of Results (PDCR) aligns with this approach.

To ensure consistent and effective dissemination efforts throughout the project's lifecycle, a systematic methodology is employed. This approach ensures partner involvement, maintains continuity and consistency in actions, and appropriately allocates time and resources.

[1] https://www.healthaffairs.org/doi/10.1377/hlthaff.2017.1104

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2.3.1 Methodology

The methodology implemented for the **exFan** project is based on the following steps:

Step 1 - Identifying the Target Audience:

The initial phase involves defining the target audience for **exFan**. This encloses European stakeholders in aerospace infrastructures, including industry, research, academia, alongside the general public, recognizing the significant financial support provided by European taxpayers. The detailed breakdown of target groups is presented in section *2.3.2 "Target audiences and key messages*".

Step 2 - Developing Collection Tools:

Next, templates are devised to collect input from project partners regarding dissemination and communication activities. These templates are outlined in APPENDIX A - Plan for Dissemination and Communication.

Step 3 - Crafting Detailed Plan:

Following the creation of PDCR template, it is circulated among **exFan** consortium members for completion with their proposed dissemination and communication activities. Analysis of received input leads to the development of the **exFan** PDCR. Through partner input analysis, the target audience is identified, enabling the selection of effective communication methods. Additionally, communication measures, including workshops, presentations, press articles, social media, etc., are determined based on partner input, aiming to leverage their strengths and mitigate weaknesses.

Step 4 - Execution of Activities:

This phase implements all actions outlined in the PDCR. Objectives include executing dissemination and communication activities, establishing communication channels, and raising awareness about **exFan**'s objectives and expected outcomes. Consortium members contribute based on their expertise and influence to promote future exploitation opportunities.

Step 5 - Evaluation:

This step involves ongoing monitoring, updating, and evaluation of dissemination and communication activities throughout **exFan**'s lifecycle. Continuous monitoring ensures adherence to the plan, with interventions made if deviations occur. The PDCR is regularly updated and circulated among **exFan** team members for feedback and amendments. Furthermore, evaluation of dissemination and communication activities provides feedback to refine strategies as needed.

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2.3.2 Target audiences and key messages

Effective D&C plays pivotal roles in promoting the **exFan** project and its outcomes across diverse audiences, including media representatives and the general public, fostering potential interaction. Our communication approach prioritizes sharing **exFan**'s achievements with interconnected groups sharing common interests and goals, employing suitable communication tools and channels.

Successful communication lies in delivering messages to target audiences through optimal means. Identifying these audiences constitutes a fundamental step preceding the selection of appropriate media for message delivery. **exFan**'s key audience segments encompass European stakeholders within the aerospace domain. The subsequent section underlines the specific interest subgroups for the **exFan** Consortium, categorized into six (6) distinct sectors.

- **Airlines/Aircraft end users (Group #01):** it covers Aviation Maintenance and Repair Organizations (MROs), which can be companies specialized in providing maintenance, repair, and overhaul services for aircraft, including line maintenance, heavy maintenance, and component repair.
- **Aircraft producers (Group #02):** it includes companies as well as private sector potential users who can be benefit from the outcomes of the project, e.g. supply/service chain actors, investors, financiers etc.
- **Scientific Community (Group #03):** it includes Academic Institutions and Research agencies/establishments, researchers, innovators, as well as young researchers such Post-Docs, Ph.D., MSc, and graduate students, respectively.
- **Standardisation authorities and IP offices (Group #04):** it includes Industry Associations representing stakeholders within the aerospace sector, collaborating on standardization efforts as well as International Standardization Bodies that develop and publish global standards across various industries, including aerospace and Technology Transfer Offices, within research institutions and universities, responsible for commercializing intellectual property, licensing patented technologies, and fostering collaborations between academia and industry in the aerospace sector.
- **Policy makers (Group #05):** it includes representatives from regulatory bodies responsible for overseeing aviation and aerospace regulations at local, regional, and national levels. Also, it may include non-governmental organizations (NGOs) engaged in policy advocacy or research related to aviation and aerospace governance as well as academic researchers or think tanks contributing to policy discussions and analysis in the aerospace domain.
- **General Public/Citizens (Group #06):** it may include (a) Small and medium-sized enterprises (SMEs) operating in industries closely linked to aviation, (b) Journalists, reporters, and news organizations covering aviation-related stories and events, informing the public about industry developments, and most important (c) Citizens and Taxpayers who are main financers of such projects in Europe and it is an imperative precondition to ensure: i) maximum return on the investment through exploitation, and ii) full openness about the actions financed through the implemented communication measures

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The following table summarizes the target audience groups as well as presenting the ways to reach them out and the corresponding key messages to deliver them.

Table 1. exFan Target Audience identification, Ways of Approach and Key messages per Target Group

Target audience	How to reach (Tools)	Key message/ Type of information to be shared
Airlines/Aircraft end users (Group #01)	• Workshops/Conferences/Industrial Events • Website • Dissemination through ind. associations	**Message 1**: **exFan** reduces fuel and maintenance costs for airlines. **Message 2**: **exFan**'s zero-emission tech keeps airlines competitive amid regulatory changes. **Type of information**: cost reduction and operational efficiency gains via fuel economy.
Aircraft producers (Group #02)	• Workshops/Conferences/Industrial Events • Website	**Message 1**: **exFan**'s technologies efficiently implement thermal management challenges in fuel cell electric aircraft. **Message 2**: explore **exFan**'s performance results and efficiency benefits for key components. **Type of information**: discover how **exFan**'s innovations optimize performance and efficiency in fuel cell electric aircraft.
Scientific Community (Group #03)	• Conferences/Workshops • Open Access (OA) publications uploaded on project website. • Social media • Lectures	**Message 1**: **exFan**'s modeling and simulation optimize thermal management system sizing and contribute to mass improvements. **Message 2**: **exFan**'s innovations offer promising energy recovery solutions with ramjet/Meredith-effect ducted radiators. **Type of information**: simulation models demonstrating efficiency, heat rejection, and thrust production for the novel thermal management system and propulsion components.
Standardisation authorities and IP offices (Group #04)	• Workshops • Webinars	**Message 1:** innovative propulsion and thermal management tech demand new certification standards **Message 2: exFan**'s advancements shape certification standards, ensuring aerospace innovation safety. **Type of information:** guidelines and safety criteria, along with significant contributions to industry standards.

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Policy makers (Group #05)	• Workshops • EC or other Association (e.g. CAJU, EASA, ICAO) organized conferences.	**Message 1:** supporting EU Aviation Strategy to enhance business opportunities, uphold safety standards, and foster innovation. **Message 2**: facilitating technology transfer within EU industry for sustainable growth. **Type of information**: guidelines for business, technical, and organizational agreements in tandem with Comprehensive technology roadmap.
General Public/Citizens (Group #06)	• Website • Social media • Non-scientific articles • Videos	**Message 1**: promoting awareness of transitioning towards zero-emission propulsion technologies. **Message 2**: building trust in electrified aircraft. **Type of information**: project overview, objectives, and goals

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3. DISSEMINATION AND COMMUNICATION TOOLS

The **exFan** team intends to conduct customized D&C efforts to effectively engage the various target groups mentioned earlier, with the ultimate goal of maximizing the impact and ensuring optimal utilization of the project's results. Each target audience will be approached using diverse communication methods tailored to their specific needs. Below is a summary of the primary D&C communication tools and channels that **exFan** will utilize to efficiently share project-related knowledge and information with each identified audience.

Table 2. exFan Main D&C tools to be used for targeting each group

	Target audience					
D&C tools & channels	**Airlines/ Aircraft end users (Group #01)**	**Aircraft producers (Group #02)**	**Scientific Community (Group #03)**	**Standardization authorities and IP offices (Group #04)**	**Policy makers (Group #05)**	**General Public/Citizens (Group #06)**
Website & social media	☒	☒	☒	☒	☒	☒
Video(s)	☒	☒	☒	☒	☒	☒
Press releases & Interviews	☒	☒	☒	☒	☒	☒
Workshops & Conferences	☒	☒	☒	☒	☒	☐
Digital & printed material	☒	☒	☒	☒		☒

The following subsections give a brief overview of the various communication tools that will be employed throughout the project to carry out the **exFan** D&C strategy.

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3.1 Visual Identity

3.1.1 Logo

The project's visual identity began with crafting a logo that embodies its essence. This logo had to be visually appealing, editable, and meaningful, aligning with the project's goals and activities. It serves as the foundation for the project's visual representation, influencing the choice of colours and fonts in documents, the website, and branding materials.

Several logo designs (see Figure 2) were created by **EASN-TIS** to ensure attractiveness, recognizability, and suitability for different sizes and outputs. These designs were discussed with the coordinator and consortium partners, leading to the finalization of the exFan logo (see Figure 3).

Figure 2. Alternative logo design suggestions for exFan project

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Figure 3. exFan official logo

3.1.2 Visual identity guidelines

The coloured version should be used, wherever possible, for all internal and external communication activities in the frame of the project. The monochromatic logo should be used in combination with a solid colour background or a photo background with a dark overlay.

Figure 4. exFan official logo various version

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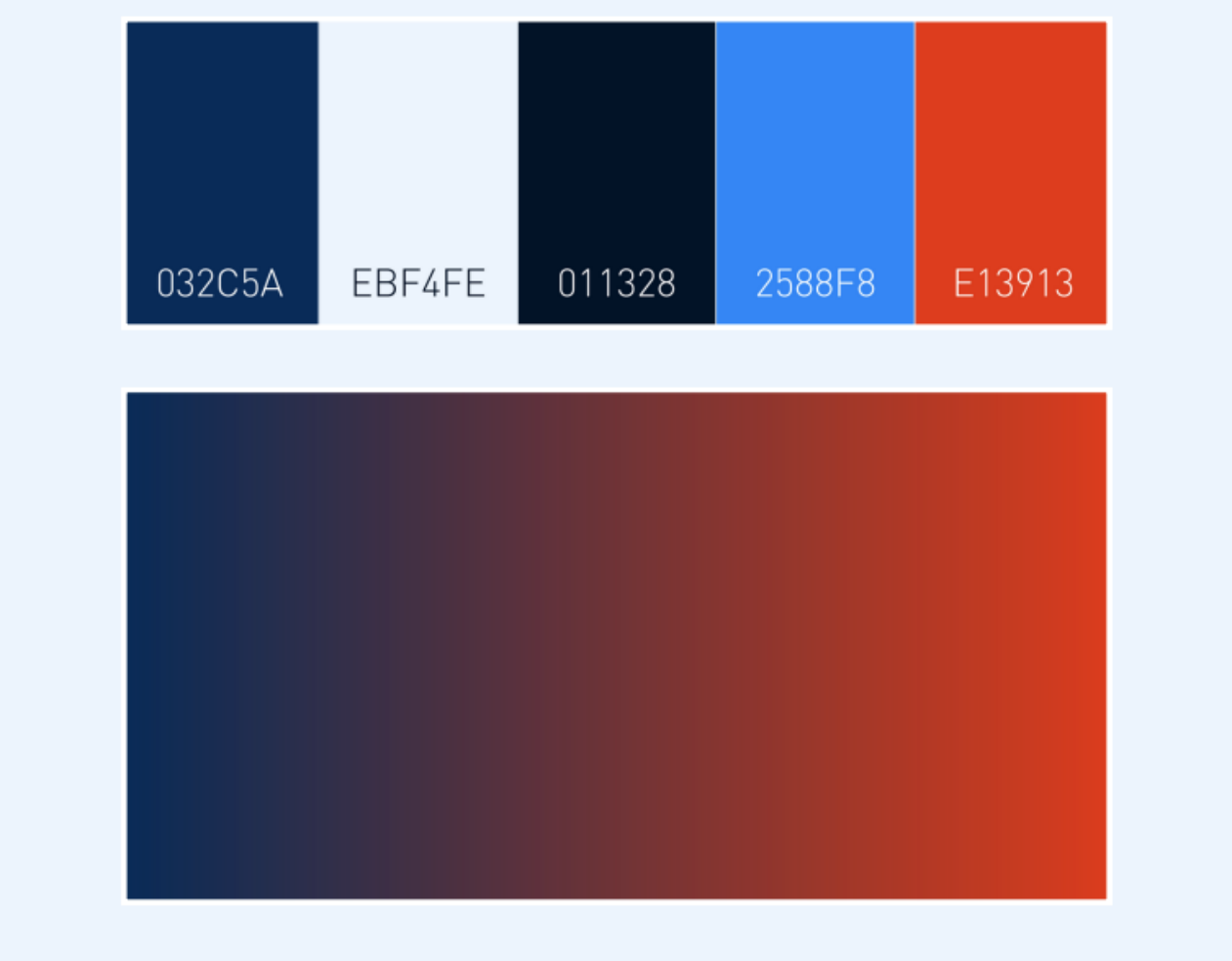
Ensure the logo is always used as a unified graphic element, avoiding division into separate parts, rotation, or distortion, and refraining from adding visual effects. It should always be prominently displayed alongside other logos or emblems, maintaining equal or larger size to uphold its significance. Utilize negative space effectively, providing ample clear space around the logo to preserve its clarity and visual impact. The logo must remain legible at all times, with a minimum size of 2 cm, ensuring visibility across various materials and visual content.

Below are presented the colour palette and the corresponding gradient as well as the selected fonts and basic icons for the exFan project.



(a)

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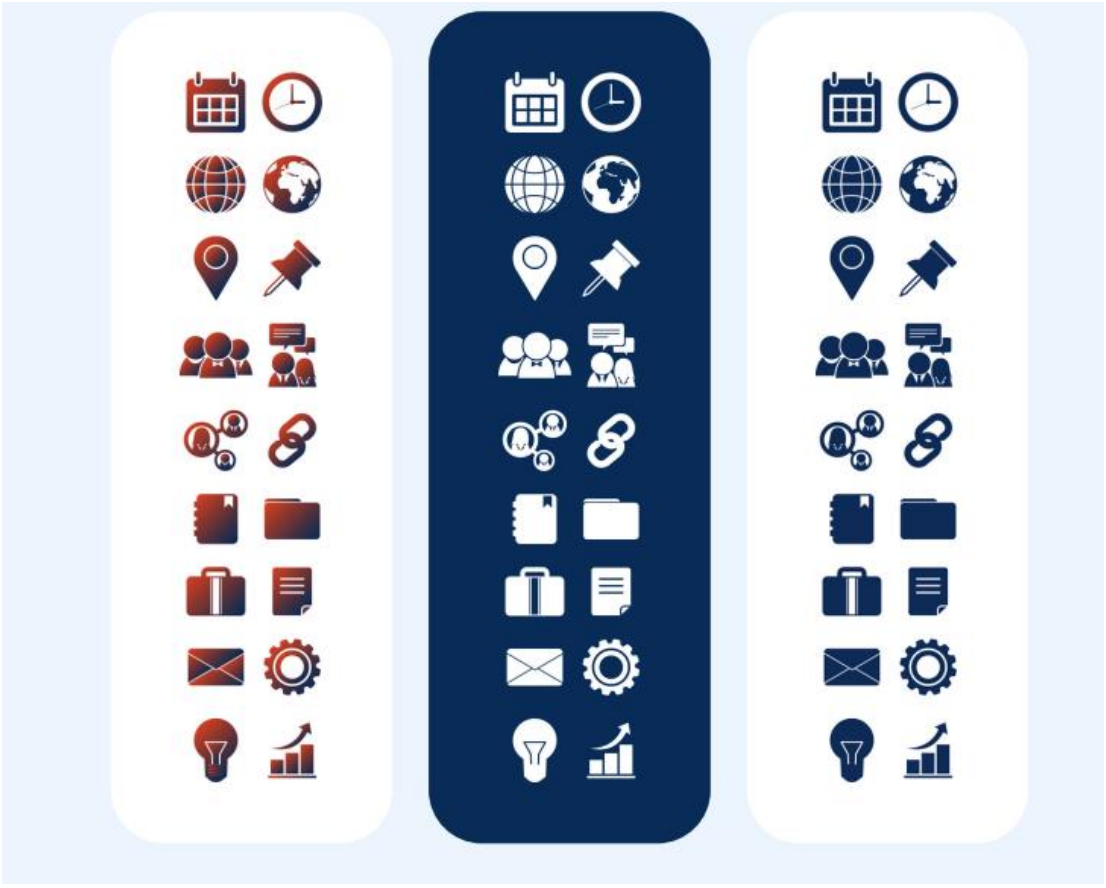
(b)



(c)

Figure 5. The exFan (a) Colour palette & Gradient, (b) Fonts and (c) Basic icons

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3.2 Communications packs (digital & printed material)

Throughout the timeline of **exFan**, a range of digital and printed materials will be developed for communication purposes. These materials will be distributed to all project partners for dissemination within their respective institutions and communities, as well as at relevant European and international events and workshops. An initial communication package has already been compiled, providing comprehensive information about **exFan**'s objectives and anticipated impact. Moreover, similar communication package will be curated and presented in D2.2 & D2.3 in M18 and M48, spotlighting **exFan**'s accomplishments and results, respectively.

3.2.1 Leaflet (initial version)

The project's informative leaflets serve a dual purpose: promoting the **exFan** project and its core messages while also aiding partners in their dissemination efforts. These leaflets will be distributed during significant scientific events, technical seminars, and exhibitions, targeting researchers, academics, experts, and industry representatives familiar with the project's technical language, challenges, and goals. A smaller digital version can be downloaded from the **exFan website**.

Additionally, the leaflets will be distributed at open events and networking activities, targeting audiences less familiar with the technical aspects but interested in the project's societal outcomes and impact. This includes policy makers, investors, and European citizens. Therefore, the language and illustrations used in the leaflets were carefully crafted to be easily understood by these diverse audiences.

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With these considerations in mind, the leaflet's content is structured as follows:

Internal Trifold Side

• ***Objectives:*** a very important message to be communicated includes the objectives and expected outcomes of **exFan**. This justifies the project's significance and importance to the technical advancements of the European Aeronautics Industry while the main, high-level objectives of the project are presented.

• ***Workplan:*** a simple schematic representation of the exFan Working Packages (WPs) and their interactions is presented.

• ***Challenges:*** a visual lean and content description of the issues that **exFan** partners have to overcome.

External Trifold Side

• ***About:*** in this section, general information on the concept and mission of the project is provided as well as a brief reference on the innovations proposed in **exFan**.

• ***Team:*** a complete list of the international consortium partners involved in the project is provided.

• ***EC Acknowledgement statement:*** the proper statement acknowledging the funding received from the European Commission (EC) for the European partners towards implementing this project is included, according to the rules described in the project's Grant Agreement. Through this statement, the exFan consortium acknowledges the ability and interest of the EC to support research and innovation through collaborations like this, which can achieve more than would have otherwise been possible by individual partners alone.

• ***Additional information:*** the project's full name is provided, as well as its starting date, duration including the indication of its social media accounts, email address and project website's URL with a QR Code pointing to that.

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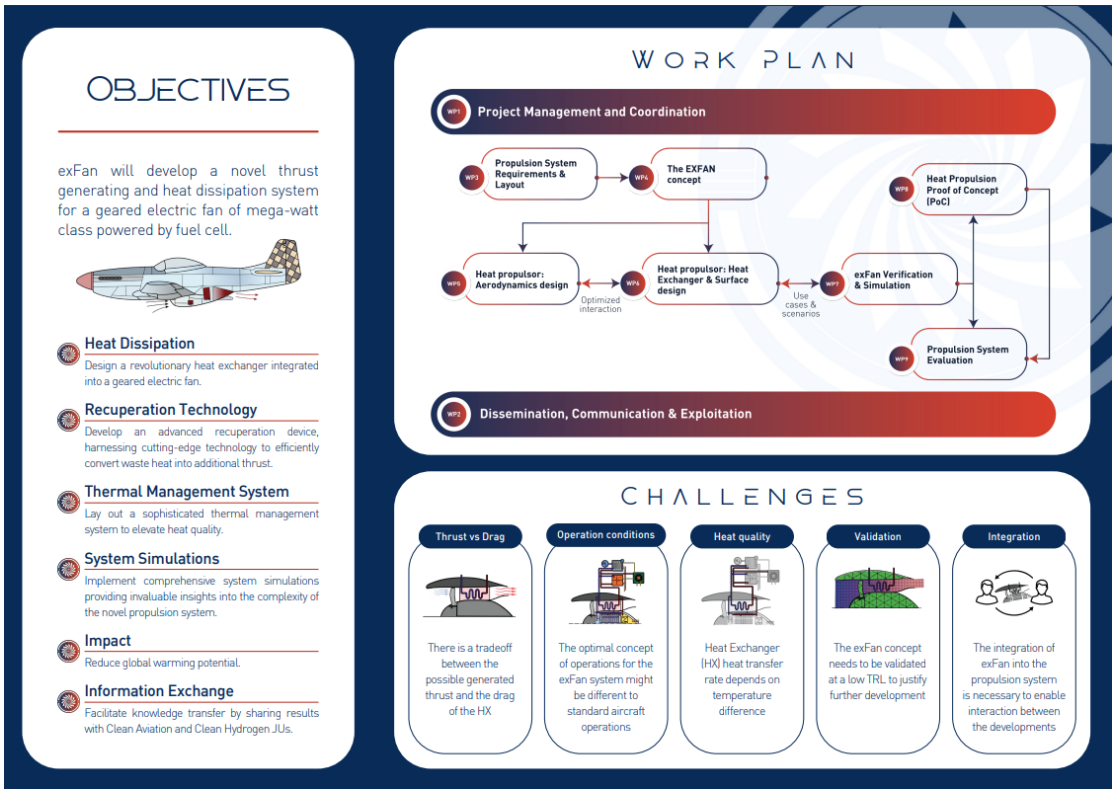

Figure 6. exFan leaflet presenting an overview of the project.

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3.2.2 Poster (initial version)

The exFan poster initial version matches the project's leaflet and helps partners spread the word. It will be displayed at scientific events, seminars, and exhibitions. Designed by **EASN-TIS**, it follows the leaflet's content and layout. A smaller digital version can be downloaded from the **exFan website**.

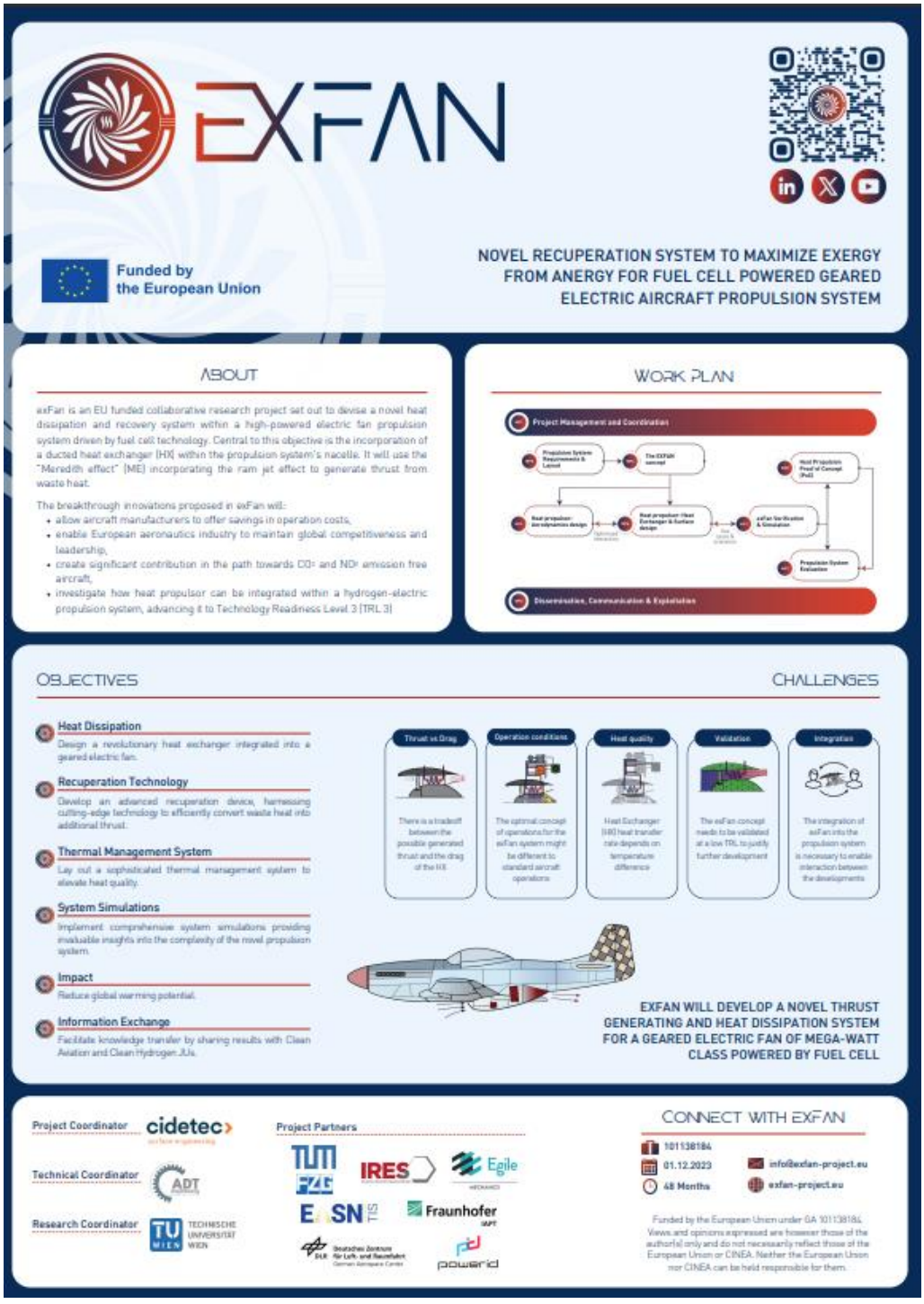

Figure 7. exFan poster presenting an overview of the project.

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3.2.3 Templates

Templates play a vital role in maintaining the project's visual identity. **exFan** templates for deliverables, presentations, and internal documents were created early in the project and shared with all partners. This helps them customize documents to their requirements and ensures consistency in information presented within the consortium. Two formats are available: a Word template for text documents like deliverables, agenda and minutes of meeting, and a PowerPoint format for presentations.

DX.X - DELIVERABLE TITLE

Document Author(s)	Name (organization), Name (organization)
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Abstract

<This section is mandatory and should be a summary of the content of the document (maximum ½ page). The main results /findings should be summarised here>

Keywords

Section Break (Next Page)

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Information Table

Contract Number	101138184
Project Name	Novel recuperation system to maximize exergy from anergy for fuel cell powered geared electric aircraft propulsion system
Project Acronym	exFan
Topic	HORIZON-CL5-2023-D5-01-08
Type of Action	HORIZON Research and Innovation Actions
Project Starting Date	1 December 2023
Project End Date	30 November 2027
Duration	48 Months
Project Coordinator	FUNDACION CIDETEC (CID)
Deliverable Number	DX.X
Deliverable Title	
Version	#
Status	Draft / Final
Responsible Partner	Organization
Deliverable Type	Report / Demo / Other / DMP
Contractual Date of Delivery	
Actual Date of Delivery	
Dissemination Level	PU / SEN

Page Break

(a)

Agenda

Meeting Title | Date

Contract Number	101138184
Project Name	Novel recuperation system to maximize exergy from anergy for fuel cell powered geared electric aircraft propulsion system
Project Acronym	exFan
Project Start Date	1 December 2023
Project End Date	30 November 2027
Duration	48 Months
Project Coordinator	FUNDACION CIDETEC (CID)
Meeting Date	
Meeting Location	
Author(s)	

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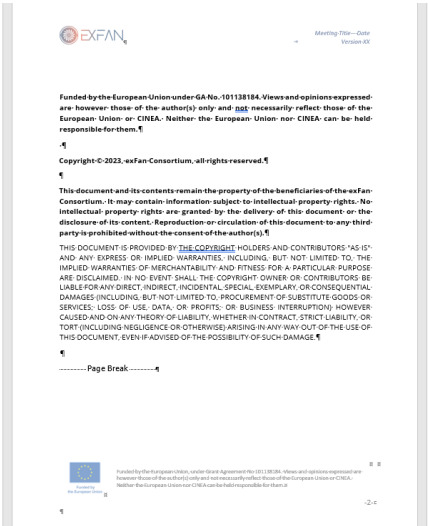

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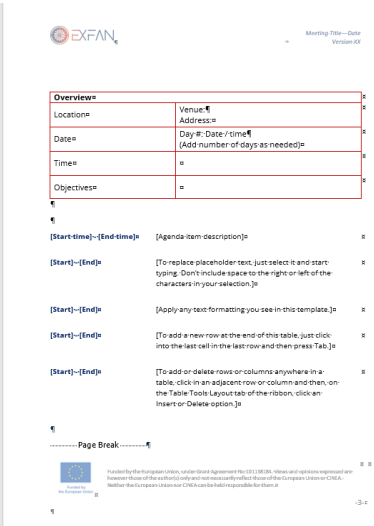

Overview	
Location	Venue Address
Date	Day #: Date / time (Add number of days as needed)
Time	
Objectives	

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[Start] – [End]	[Apply any text formatting you see in this template.]
[Start] – [End]	[To add a new row at the end of this table, just click into the last cell in the last row and then press Tab.]
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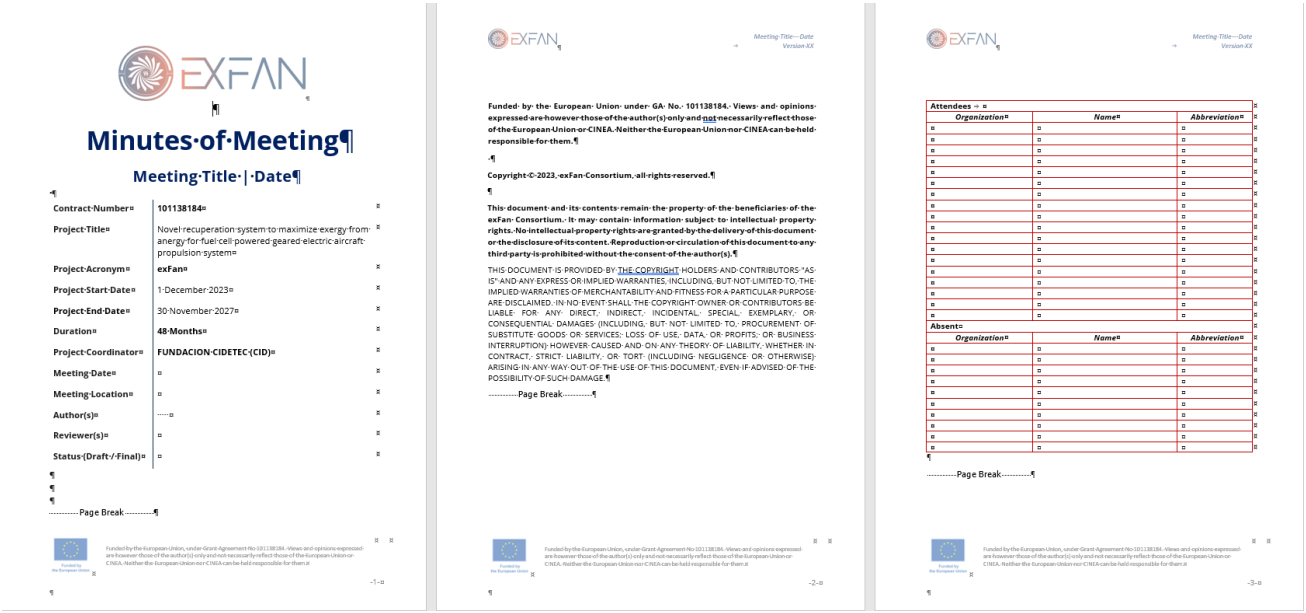

Minutes·of·Meeting¶

Meeting·Title·|·Date¶

Contract·Number¤	101138184¤
Project·Title¤	Novel·recuperation·system·to·maximize·exergy·from·anergy·for·fuel·cell·powered·geared·electric·aircraft·propulsion·system¤
Project·Acronym¤	exFan¤
Project·Start·Date¤	1·December·2023¤
Project·End·Date¤	30·November·2027¤
Duration¤	48·Months¤
Project·Coordinator¤	FUNDACION·CIDETEC·(CID)¤
Meeting·Date¤	¤
Meeting·Location¤	¤
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Meeting-Title—Date
Version-XX

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Meeting-Title—Date
Version-XX

Attendees ⇒ ¤

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Organization¤	Name¤	Abbreviation¤
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-3-¤

(c)

Figure 8. exFan indicative project templates for (a) deliverable, (b) agenda and (c) minutes of meeting

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Content overview

- Insert text here

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Title of meeting, Date, Location 2

EXFAN

Click to add Chapter Title here

Click to add additional content here

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Title of meeting, Date, Location 3

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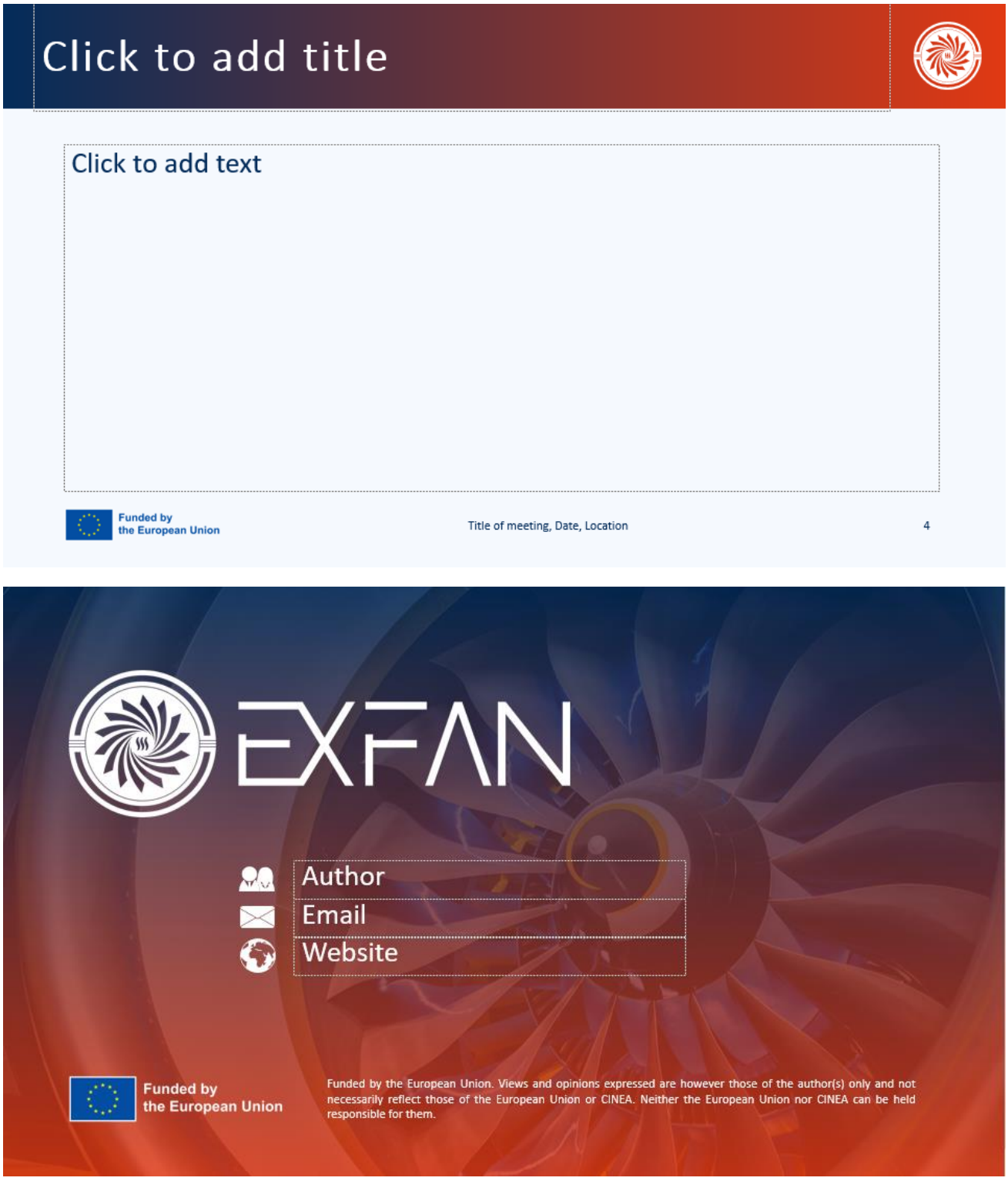

Figure 9. exFan slides presentation template

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3.3 Website & social media

3.3.1 Website

The **exFan** website reflects the project's visual identity seen in its **logo**, **leaflet**, **poster**, **templates**, respectively. Its main goal is to inform the public about the project, its objectives, challenges, and anticipated outcomes. Regular updates will showcase progress within each WP and highlight the Consortium's achievements.

Following "*Communicating and raising EU visibility*"[2] the official domain is the: **https://exfan-project.eu/**

EASN-TIS provides technical support for hosting, development, maintenance, and support. Their expertise in EC-funded project websites ensures the site's design and structure align with the project's communication strategy.

Methodology for the establishment of the exFan public website

The **exFan** public website was created through a collaborative process involving all the Consortium partners. The methodological steps for developing the official website are outlined in Figure 10.

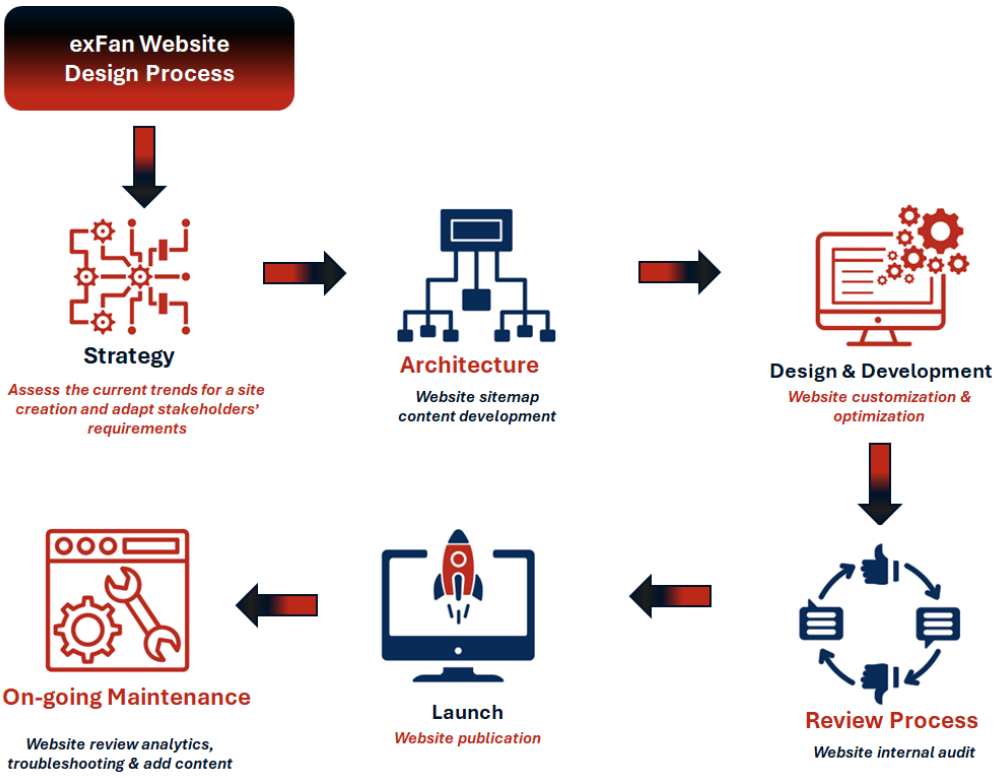

Figure 10. exFan public website development methodology

[2] https://commission.europa.eu/funding-tenders/managing-your-project/communicating-and-raising-eu-visibility_en

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Step 1 - Strategy: The objectives of the **exFan** official website were defined and conducted thorough research on current trends. The needs of the target audience to structure the site and content were analysed accordingly. Additionally, it was identified the resources and tools required to support the website's operation and development.

Step 2 – Architecture: This stage was crucial since it was necessary to define and describe the project's objectives and the key messages as lean as possible. Key questions addressed include:

• *What purpose does the **exFan** website serve?*

• *What outcomes are expected from its creation?*

• *What information will the target audience seek?*

• *What core messages do Consortium partners wish to convey?*

After consideration of the above issues, the content of the **exFan** website was outlined. Initial considerations indicated it would cover project description, the Consortium description, objectives and impact, the methodology to be followed, as well as the dissemination activities etc. The website was to be designed to appeal to a diverse audience, including:

- Airlines/Aircraft end users (Group #01)
- Aircraft producers (Group #02)
- Scientific Community (Group #03)
- Standardisation authorities and IP offices (Group #04)
- Policy makers (Group #05)
- General Public/Citizens (Group #06)

Step 3 – Design & Development: Within this step the process of actually building the **exFan** public website is performed. In particular, an extendible directory and file structure for the website was created. Additionally, the selection and use of the appropriate content management system and modules (where helpful) and the use of templates for supporting the consistent look and feel of the **exFan** public website were performed.

The outcome of this step is the development and finalization of the **exFan** public website both in terms of the content and in terms of the appropriate and relevant functionalities.

Step 4 – Review Process: During website development process, continuous feedback from the **exFan** partners was received so as to not only collect the required information for the project but also for the partners' review on the entire website content prior being publicly available to ensure that no sensitive or fake information is communicated outside the consortium.

Once the website was prepared, a one-week period was provided to the Consortium to review the content and design of the website and provide EASN-TIS with its final feedback, comments, and suggestions for improvement.

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Step 5 - Launch: After incorporating the partners' comments and suggestions, the **exFan** public website was launched on 12th of March 2024.

Step 6 - On-Going Maintenance: This step includes all the processes related to the maintenance and updating of the **exFan** public website. Particularly, this step involves the process of handling all the public-relations issues of the website, namely making the existence of the **exFan** website known to on-line communities through publicity, as well as forming information and continuous inputs (content updates, announcements, articles, etc.) that will contribute to feed and make an engaging website.

Moreover, this phase involves integrating new features into the website, ensuring ongoing development and enhancement. This entails exploring additional functionalities suitable for the website and implementing innovative ways to boost its appeal, traffic, and visibility. Continuous research is conducted to incorporate the latest trends and improve usability, exceeding user expectations. Regular updates to the website content will be made throughout the project lifespan, ensuring it remains current and relevant. This ensures the website's content, and functionalities are consistently updated and upgraded.

To evaluate the effectiveness of the project's dissemination strategy via the public website, specific Key Performance Indicators (KPIs) will be utilized. These KPIs will primarily rely on data gathered by Google Analytics, a web analytics service provided by Google, which tracks and reports website traffic. Metrics such as the number of unique visitors, user engagement, popular pages, and geographical reach will be monitored to gauge the website's performance. Google Analytics will also help identify areas for improvement and inform potential adjustments to the dissemination plan.

Below, a brief overview of the various sections featured on the **exFan** public website is provided.

A. Homepage

The **exFan** project homepage, as depicted in Figure 11, serves as an entry point to the project, offering general details about the initiative and its participating partners. It highlights the project's European Commission funding for its European partners. The primary objective of the homepage is to familiarize visitors with the **exFan** concept and capture their interest.

Utilizing visuals and graphic designs aims to enhance visitor engagement, offering a more captivating experience compared to lengthy textual content. These elements provide an overview of the project's concept and introduce key characteristics in a visually appealing and comprehensible manner. The homepage will undergo periodic updates throughout the project's duration, featuring additional images and/or videos related to research activities. Additionally, it includes links to the **exFan** social media profiles (**Twitter**, **LinkedIn**, and **Zenodo**).

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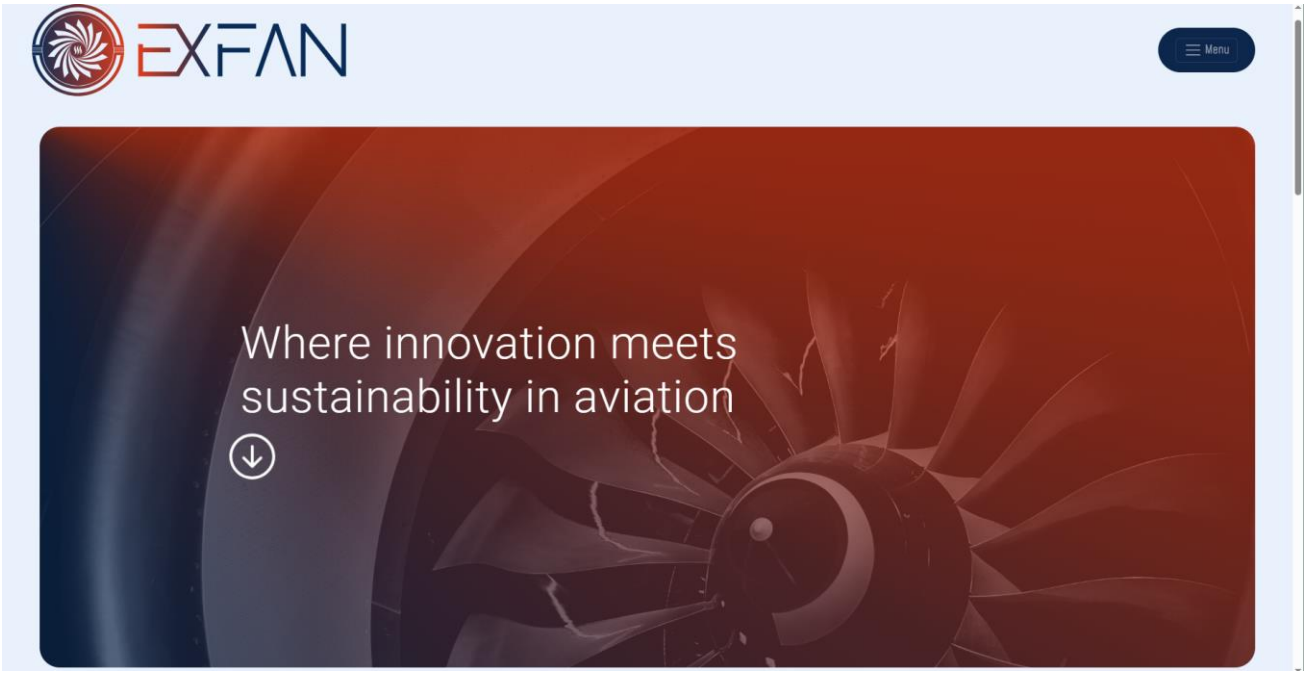

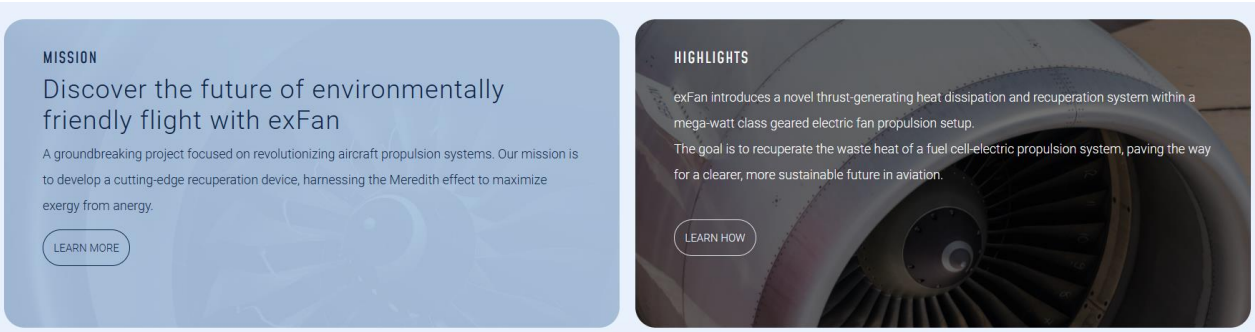

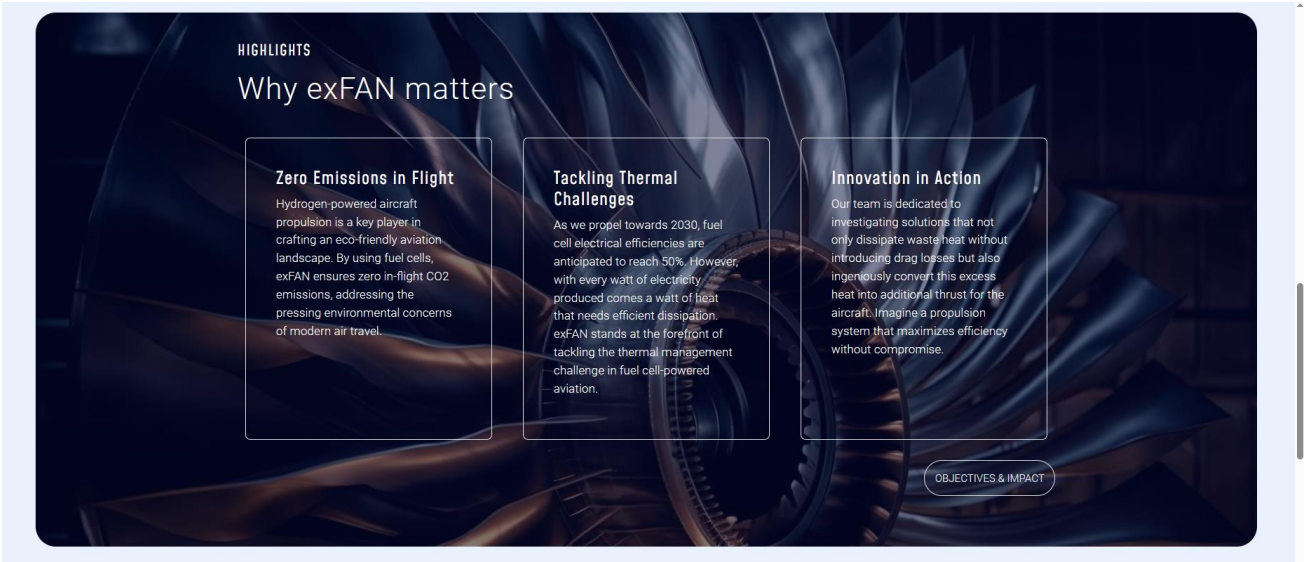

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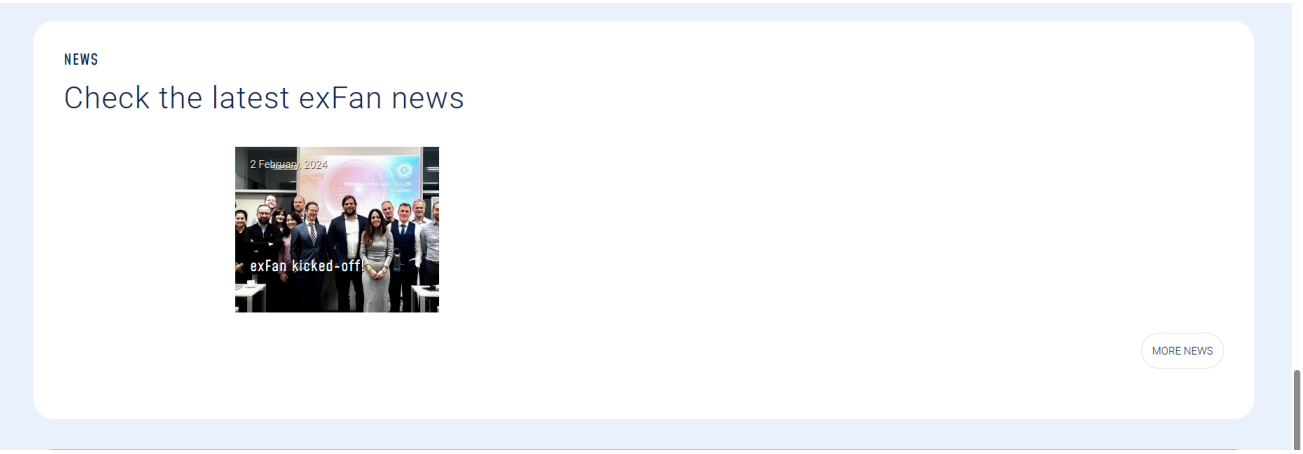

Figure 11. Scrolling down the homepage of the exFan public website (https://exfan-project.eu/)

Top Side Menu

The content of the website is divided into nine (9) main categories illustrated in the top right-side menu (Figure 12). Via this menu, the navigation to the website can be achieved. The top right-side menu includes the following tabs:

- Home
- The Project
- Consortium
- Objectives & Impact
- Methodology
- Dissemination
- Media
- Newsroom
- Contact

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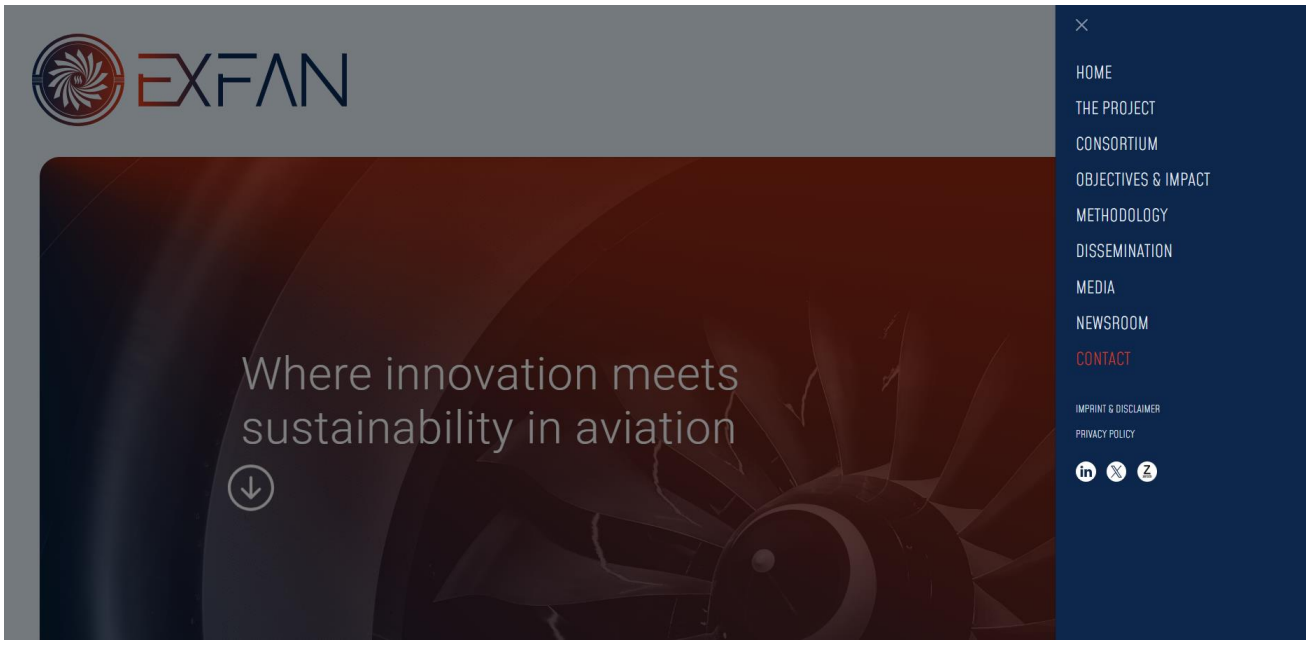

Figure 12. Menu of the exFan public website (https://exfan-project.eu/)

Bottom Side Menu

The bottom side menu (Figure 13), which appears in the footer of all web pages, provides information not directly related to the objectives of the project. This includes a link to the **exFan** Imprint and Disclaimer, the EU logo and the acknowledgment to the financial support received by the EC. It also provides the window for signing up for the **exFan** mailing list.

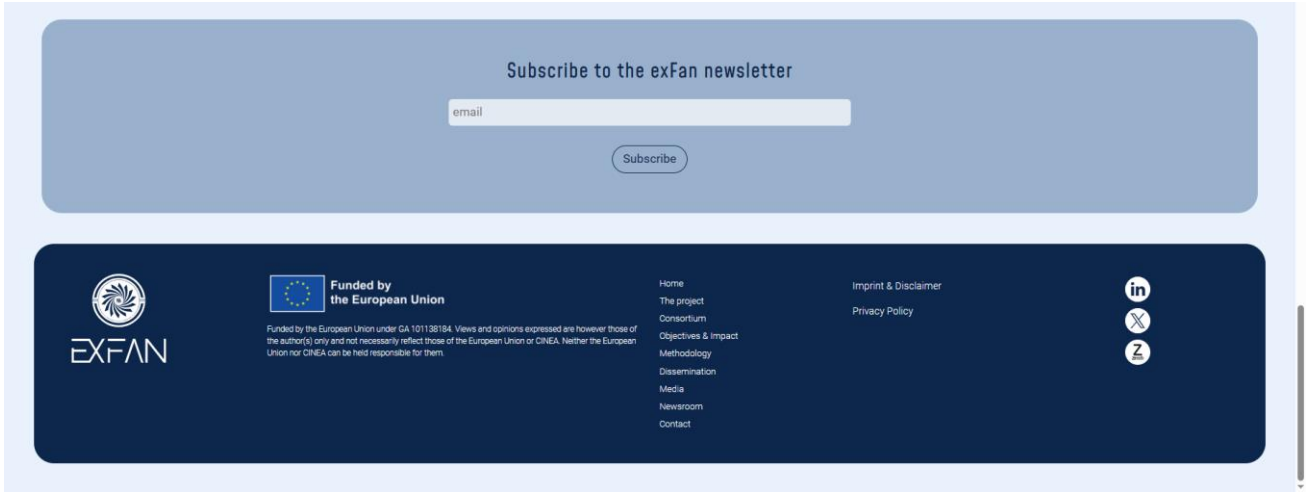

Figure 13. exFan Imprint and Disclaimer, the EU logo and the acknowledgment to the financial support received by the EC, as well as the mailing list sign up window.

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"THE PROJECT" Tab

The **exFan** '**THE PROJECT**' tab provides a brief description of the project's main information about the project. This section is linked with the introductory section of the homepage.

Figure 14. exFan "THE PROJECT" webpage section.

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"CONSORTIUM" Tab

When the user clicks on the ' **CONSORTIUM** ' tab (Figure 15), a page appears presenting all the project's partners participating in the **exFan** project including a short description of them as well as their role in the project. By clicking on each partner's logo, a respective link sends the user to the partner's own website.

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Technische Universität München

The Institute of Machine Elements at **Technische Universität München**, also called "**Gear Research Center (FZG)**", has been the competence center for mechanical drive technology with comprehensive facilities for examination and testing of machine elements, such as gears, bearings, synchronizations, and couplings. Based on the research results developed here during the past decades, the **FZG** is the leading international research institute for gears and transmissions today. The development of methods and tools of reliable determination of fatigue life, efficiency, and vibration characteristics of gears and transmission elements is in the focus of the research activities at the **FZG**. The implementation of the research is carried out in close cooperation with the industry, funded either through public research funding or industrial community research or direct industrial commission.

Within **exFan**, **FZG** supports the powertrain's concept phase with knowledge of the design of high-speed electromechanical powertrains. This includes foremost the gearbox, the electric engine, and thermal management, which connects all active components and allows for thrust increase by the heat exchanger. The **exFan** project aims for a high-power density of the powertrain. Therefore, a small-sized high-speed electric machine is combined with a compact gearbox, which reduces speed according to the fan's demands. In this manner, **FZG** leads gearbox-related topics and oversees the final gearbox concept. To finally evaluate generated thrust versus the drag from the heat exchanger, **FZG** oversees the functional system verification. Additionally, **FZG** is intensely involved in transferring the gained knowledge to education.

Innovation in Research & Engineering Solutions

IRES is an independent Belgian consulting company (SME). **IRES** has a core business and wide experience in the fields of Life Cycle Assessment (LCA) & Life Cycle Costing (LCC), Exposure and Risk Assessment (hazard and exposure scenarios), Data Management Plan (DMP), Machine learning and Data analysis. Through its international network, **IRES** supports the development of innovative technologies and products.

IRES will assess the potential environmental impacts and evaluate the overall environmental performance of the new exFan concept towards the aviation industry's commitment to action on climate change.

MECHANICS

EGILE is a leading organization dedicated to the development and manufacturing of crucial components or systems for aircraft, helicopters, or drones. Operating through three (3) distinct business units, each specialized in technology or market segments, namely **Aero Transmissions**, **Aero Engines**, and **Aero Systems**, EGILE is committed to providing comprehensive support to large OEMs.

With a core focus on projects that are challenging to outsource and emerging technological advancements, EGILE serves as a viable alternative to in-house production of intricate components or complex systems. Their specialized expertise enables them to deliver swift solutions during the development phase and maintain competitiveness throughout mass production stages.

Renowned for their proficiency, **EGILE** not only offers innovative technological solutions but also plays a pivotal role in enhancing products and processes in long-term projects. Their commitment to excellence, coupled with a specialist profile, positions them as a reliable collaborator for large OEMs, contributing to the overall advancement of aerospace technologies.

EASN-Technology Innovation Services (EASN-TIS), a dynamic Belgian SME, stands as a key player in aeronautics and air transport research. Born out of the support from the EASN Association, **EASN-TIS** serves as a crucial bridge, actively participating in research projects and maintaining strong connections through the extensive EASN database. With a focus on collaborative endeavors, **EASN-TIS** plays a pivotal role in crafting successful research consortia by identifying and bringing together the most relevant partners from academia, industry, and major research organizations, both nationally and internationally.

Within the **exFan** project, **EASN-TIS** takes on multifaceted responsibilities. Spearheading a tailored dissemination and communication strategy, it ensures widespread adoption of project results, regularly publish achievements, and enhance societal awareness. **EASN-TIS** also manages **Intellectual Property Rights (IPR)** positioning, develops business plans for joint and individual exploitation, and facilitates seamless information exchange with **CAJU & CH Partnership**. Additionally, a succinct **Data Management Plan** is in place, emphasizing open data principles while respecting confidentiality and data protection. **EASN-TIS's** comprehensive role ensures the success and impactful outcomes of the **exFan project**.

IAPT

The **Fraunhofer Research Institution for Additive Manufacturing Technologies (IAPT)** in Hamburg, Germany, specializes in **Additive Manufacturing** and focuses on next-generation topics such as **Mobility**, **Energy**, **Life Science**, and **Security**.

In the **exFan** project, the **IAPT** develops and integrates **new heat exchangers** to cool the fuel cell and recover heat for the **propulsion system**. Additive manufacturing allows for design freedom and lightweight parts, enabling the creation of customized cooling channels with improved heat dissipation. The **IAPT** also provides **support in surface design for corrosion resistance** and **manufactures prototypes** for the validation of simulation results and performance evaluation.

German Aerospace Center

The **German Aerospace Center (German: Deutsches Zentrum für Luft- und Raumfahrt e.V., abbreviated DLR, literally German Center for Air- and Spaceflight)** is the national center for aerospace, energy, and transportation research of Germany, founded in 1969. It is headquartered in Cologne with 35 locations throughout Germany. The **DLR** is engaged in a wide range of research and development projects in national and international partnerships. The **DLR** acts as the German space agency and is responsible for planning and implementing the German space programme on behalf of the German federal government. As a project management agency, **DLR** coordinates and answers the technical and organizational implementation of projects funded by several German federal ministries. As of 2020, the German Aerospace Center had a national budget of €1.348 billion.

DLR is organized in institutes, and in **exFan** project the Institute of Propulsion Technology is mainly involved. The institute focuses its research on the development and virtualization of high-performance and environmentally friendly aircraft engines and power plant turbines. We investigate the evaluation and validation of innovative propulsion concepts such as the use of hydrogen and alternative aviation fuels in gas turbines and aircraft engines, on highly efficient turbo components and on low-emission combustors.

The role of DLR, which in the **exFan** project is represented by the **Fan and Compressor department**, is to design and explore different fan concepts in conjunction with heat release in the bypass channel. The operational implications of the fan will be explored, along with exploring the options to maximize thrust to power ratio and the interaction with the heat exchanger.

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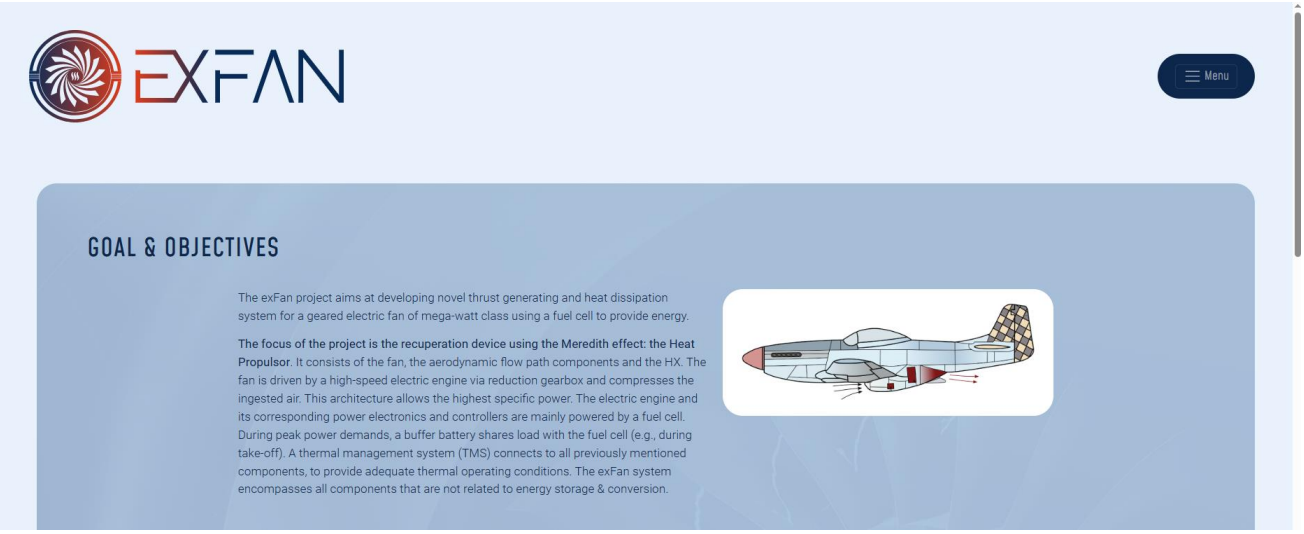
Figure 15. exFan "CONSORTIUM" webpage section.

"OBJECTIVES & IMPACT" Tab

The ' **OBJECTIVES & IMPACT** ' tab briefly summarizes the ambitious high-level goals and objectives as well as the expected impact set by the **exFan** Consortium in a non-scientific/non-technical easy-to-understand language, attempting to attract the interest of the general public.



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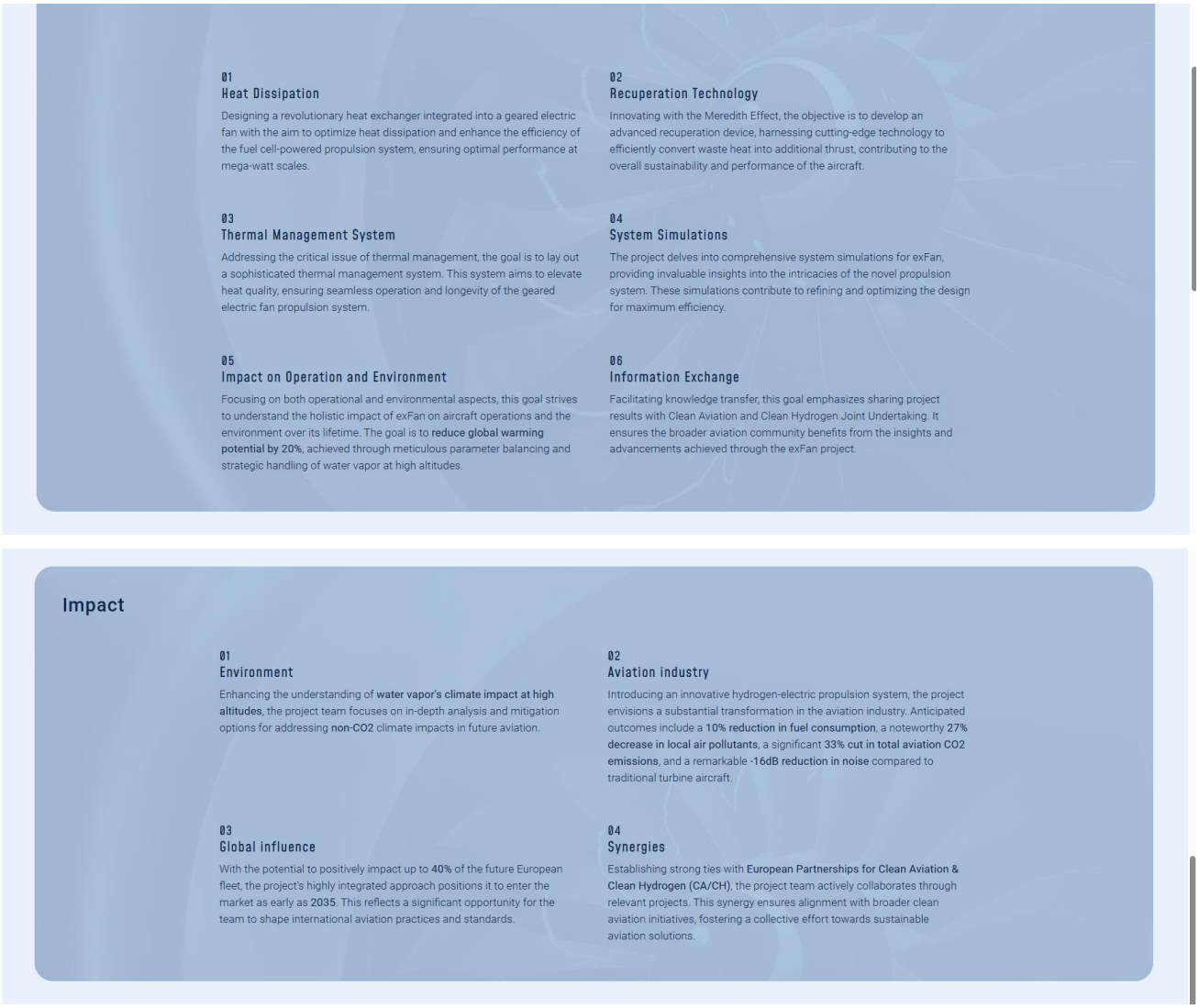

Figure 16. exFan "OBJECTIVES & IMPACT" webpage section.

"METHODOLOGY" Tab

The ' **METHODOLOGY** ' subsection briefly describes the processes and the structure of the work to be performed in the scope of the **exFan** project, as well as the interconnections amongst the various WPs.

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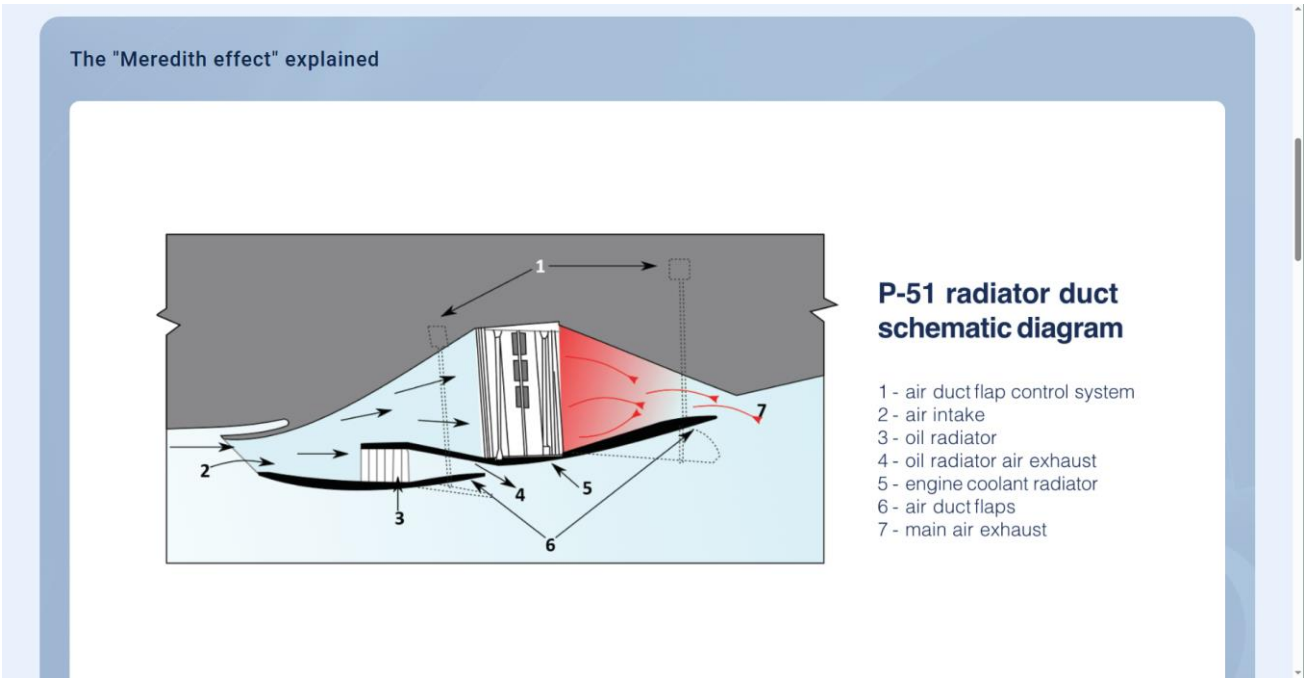

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The Meredith effect (ME) allows to neutralize/counteract the drag created because of the cooling radiator/heat exchanger, containing a hot working fluid, by generating thrust due to added heat to a flow with elevated pressure level.

Required Conditions:

The duct must be moving at a significant speed relative to the air for the ME to take place.

Airflow Dynamics:

Air entering the duct faces drag resistance from the radiator surface.
Compression occurs due to the ram air effect as the duct travels through the air.

Exhaust Duct Design:

Convergent duct accelerates and directs heated, pressurized air backward, creating a small forward thrust.

Cycle Processes:

Achieves compression, constant-pressure heat addition, and expansion (open Brayton cycle).

Thrust Generation:

Depends on pressure ratio and coolant temperature.
The higher boiling point of the working fluid increases specific thrust.

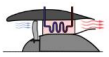
Net Aerodynamic Drag:

If the generated thrust is less than the aerodynamic drag of the ducting and radiator, it reduces the net aerodynamic drag of the installation.
If the generated thrust exceeds the aerodynamic drag, the entire arrangement contributes a net forward thrust to the vehicle.

And today, it's used as the basis methodology for the exFan project.

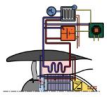
Challenges

Thrust vs. Drag



- trade-off between thrust and the drag
- high heat transfer and low pressure losses
- particle accumulation - increase pressure losses and decrease heat transfer
- demand on high mass flow

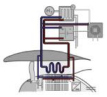
Operation conditions



Optimum different to standard aircraft

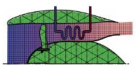
- aircraft layout
- propulsion system layout
- flight envelope (speed and altitude)

Heat quality



- Proton-exchange membrane fuel cells (PEMFC), also known as polymer electrolyte membrane (PEM) fuel cells, work at low temperature (low heat quality)
- Heat exchanger (HX) rate depends on temperature difference
- High heat quality is needed for compact and lightweight design

Validation



- Further development needs justification
- Validation of technical & environmental parameters
- Validation at low TRL is required (low TRL simulation)

Integration

- Integration of system in aircraft needs to be considered
- Clean aviation projects investigate configurations, architectures, etc.
- Further development needs to use synergies

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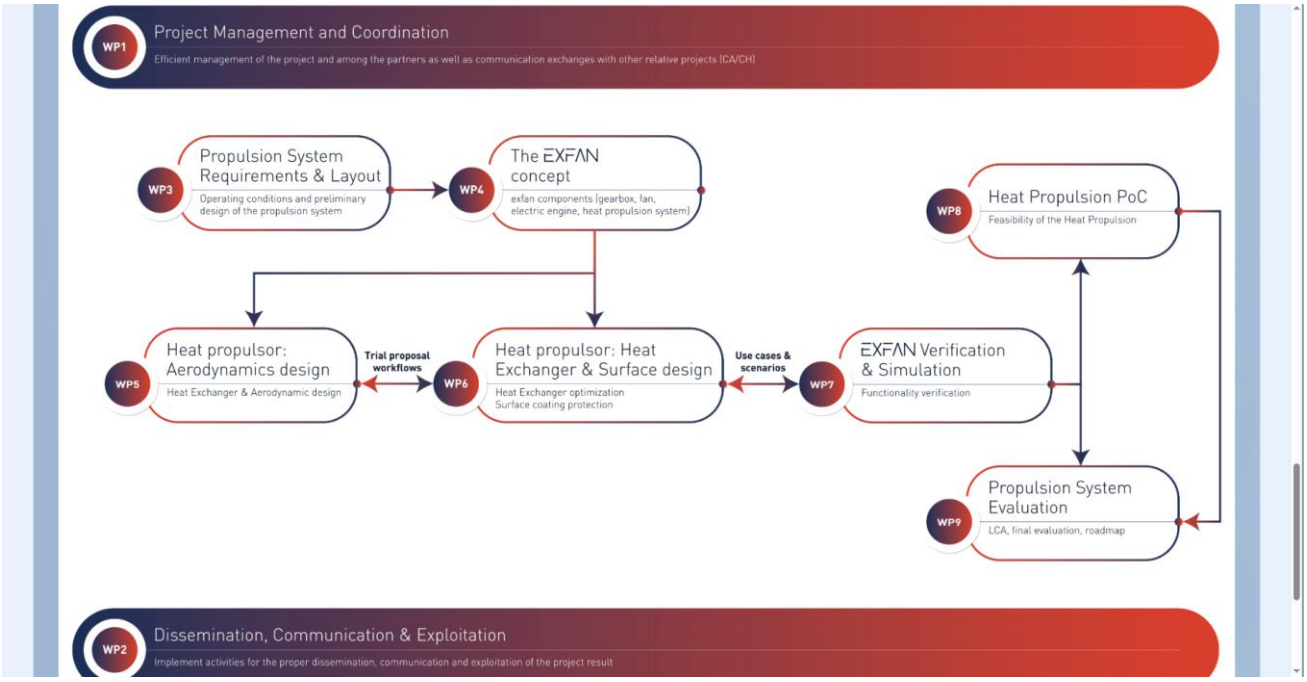

Figure 17. exFan "METHODOLOGY" webpage section.

"DISSEMINATION" Tab

The ' **DISSEMINATION** ' Tab provides information to the user about the dissemination activities to be performed by the consortium members. This section will be updated regularly to provide the visitors with the latest information about the project's activities.

Figure 18. exFan "DISSEMINATION" webpage section.

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"MEDIA" Tab

The ' **MEDIA** ' subsection will include **exFan** - related material available for download (e.g. poster, informative leaflet, press releases, etc.).

Figure 19. exFan "MEDIA" webpage section.

"NEWSROOM" Tab

This section includes in chronological order all **exFan** news. These include project meetings, press releases, attendance at conferences and exhibitions, etc.

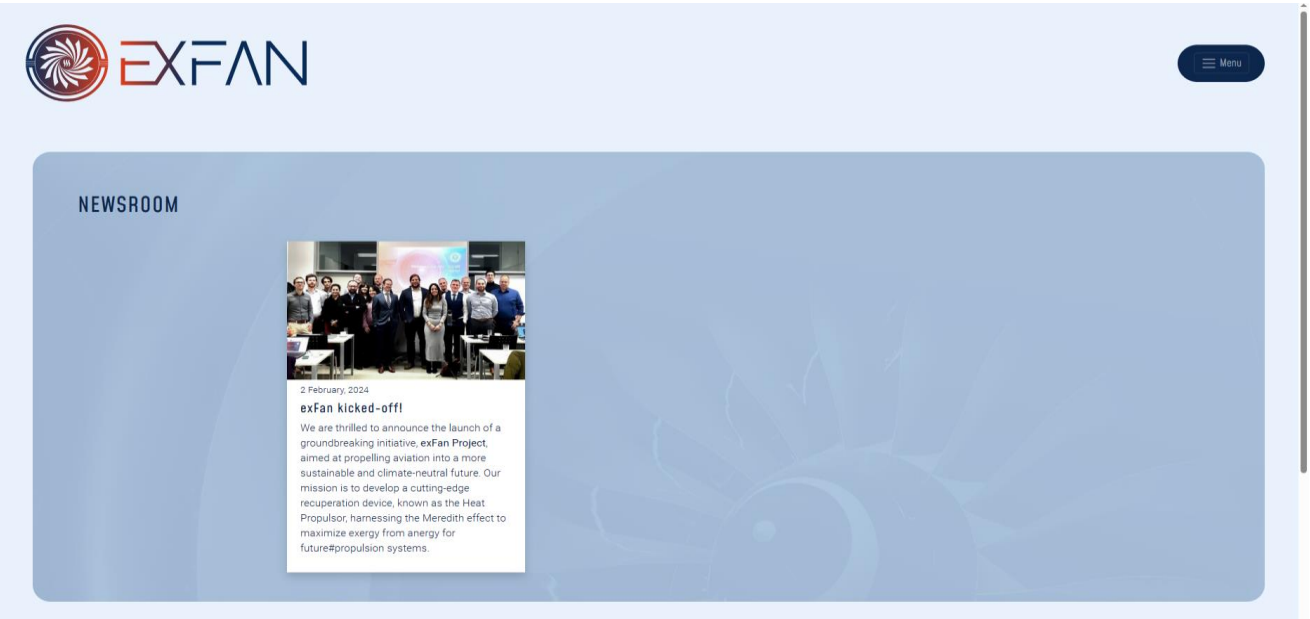

Figure 20. exFan "NEWSROOM" webpage section.

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"CONTACT" Tab

The ' **CONTACT** ' option enables the visitor to contact the **exFan** Consortium directly for inquiries regarding the project or the public website.

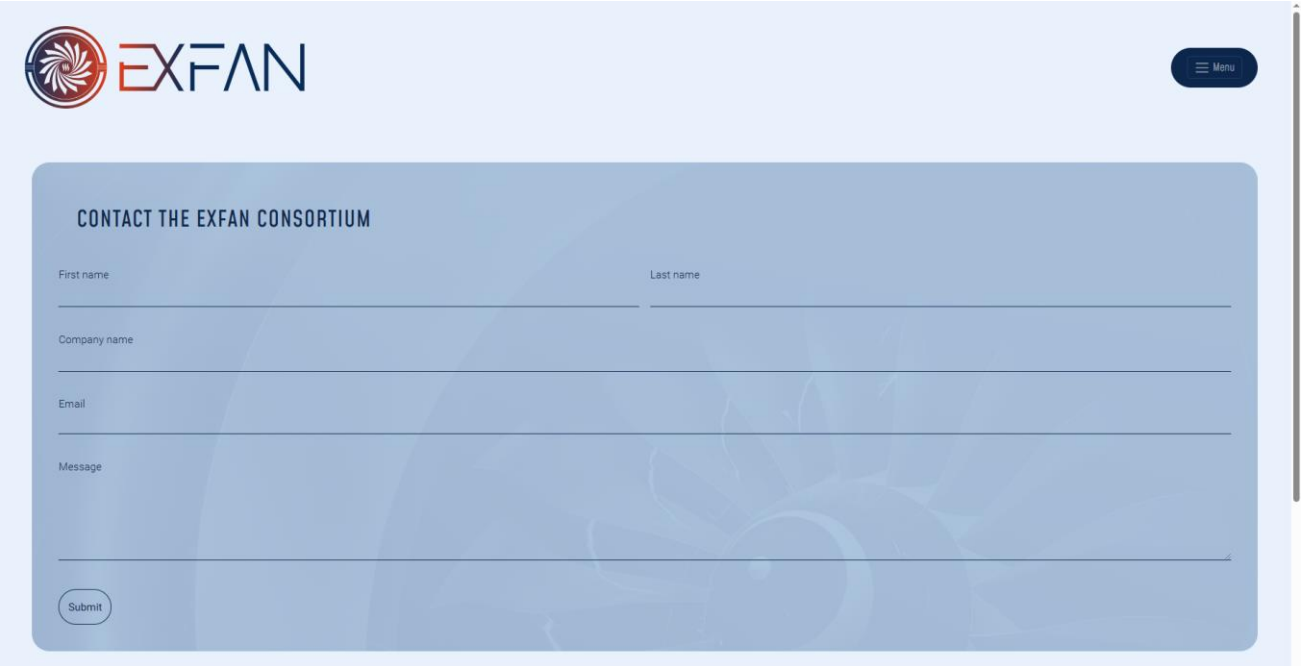

Figure 21. exFan "CONTACT" webpage section.

Social media on the website

One significant feature of the site is social media integration, which allows visitors more opportunities to interact with the site in a more meaningful way than just navigating. Visitors can easily share our news with their friends and followers through their personal social media profiles, a tactic that increases our reach and influence.

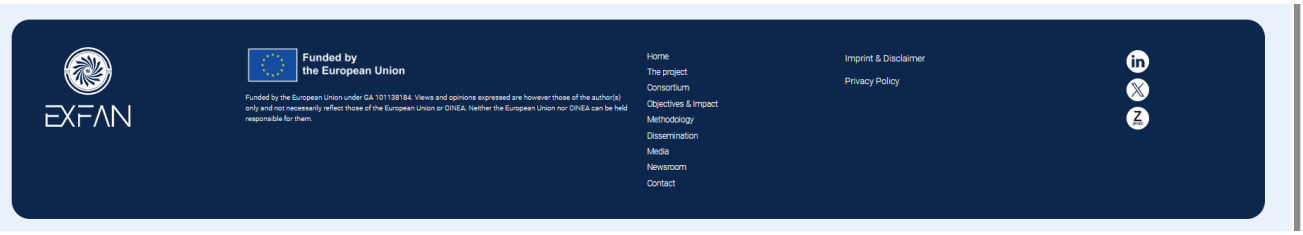

Figure 22. exFan social media share option through the website

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3.3.2 Social media

exFan has recently established a presence on social media platforms such as **LinkedIn** and **Twitter**, with plans to expand onto YouTube in the near future pending the availability of video content. These platforms serve as important communication channels, enabling the project to engage with diverse audiences and disseminate updates effectively.

The project's objectives on these platforms are multifaceted. It is aimed to grow a follower base, engage with industry professionals and enthusiasts, and drive traffic to the official **exFan** website. By maintaining an active presence, the project seeks to foster meaningful conversations, share project milestones, and demonstrate its commitment to advancing aviation technologies.

Interested individuals are encouraged to join **exFan** on **LinkedIn** and **Twitter** to stay informed about the latest developments, participate in discussions, and become part of the project's community. Links to the social media pages are provided below:

https://www.linkedin.com/company/exfan/

https://twitter.com/exFan2024

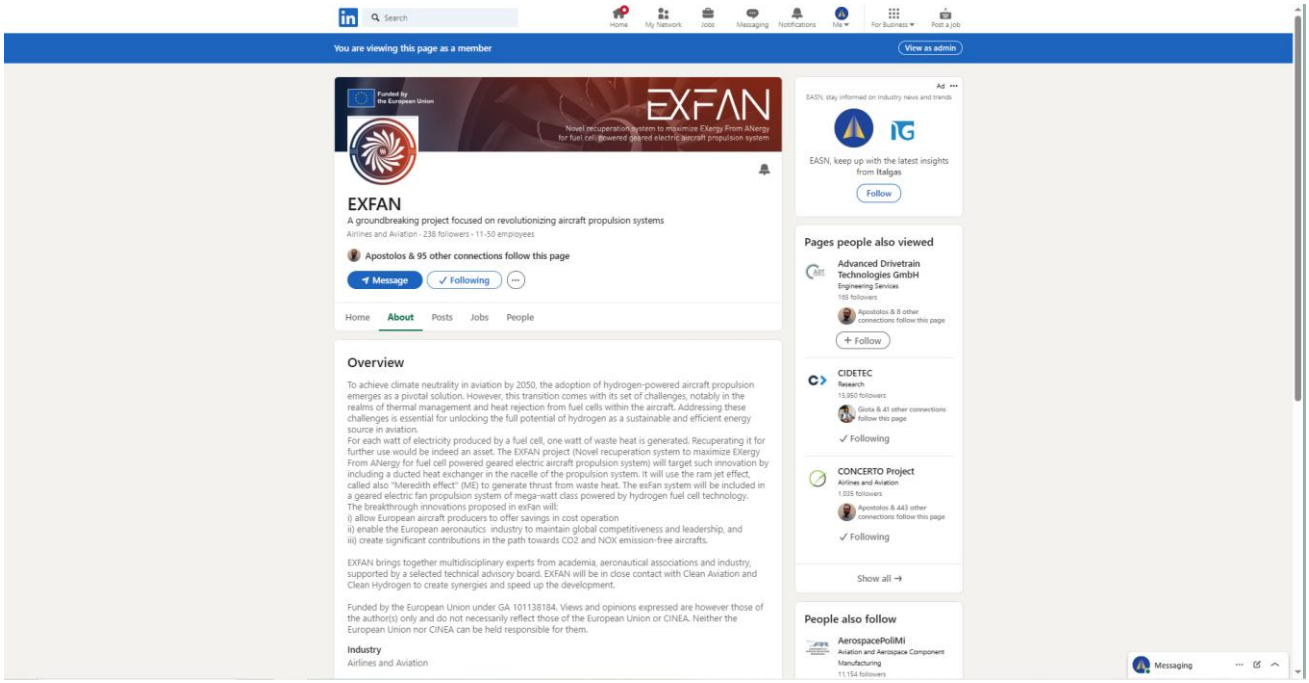

Figure 23. exFan LinkedIn page

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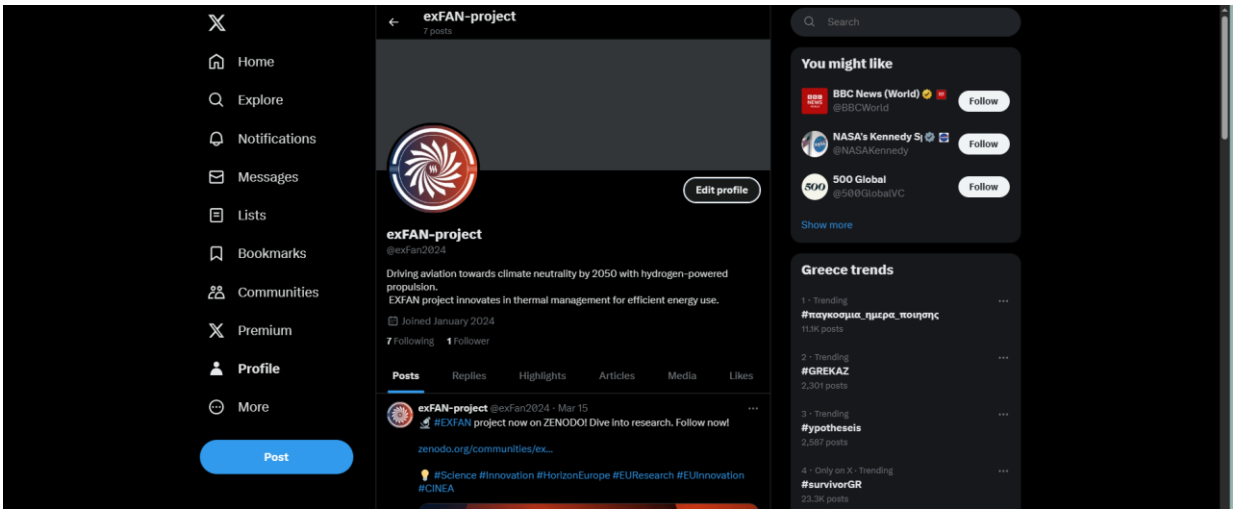

Figure 24. exFan Twitter (X) page

Figure 25. exFan social media pages links through the website

LinkedIn

According to LinkedIn analytics there are up to **1023 page views** (365 desktop, 658 mobile), **343 Unique visitors**, **286 followers**, more than **7 posts** with more than **8,800 impressions** in total since the beginning of the project corresponding website (13th December 2023). Below the evolution of the exFan LinkedIn followers' overtime is presented.

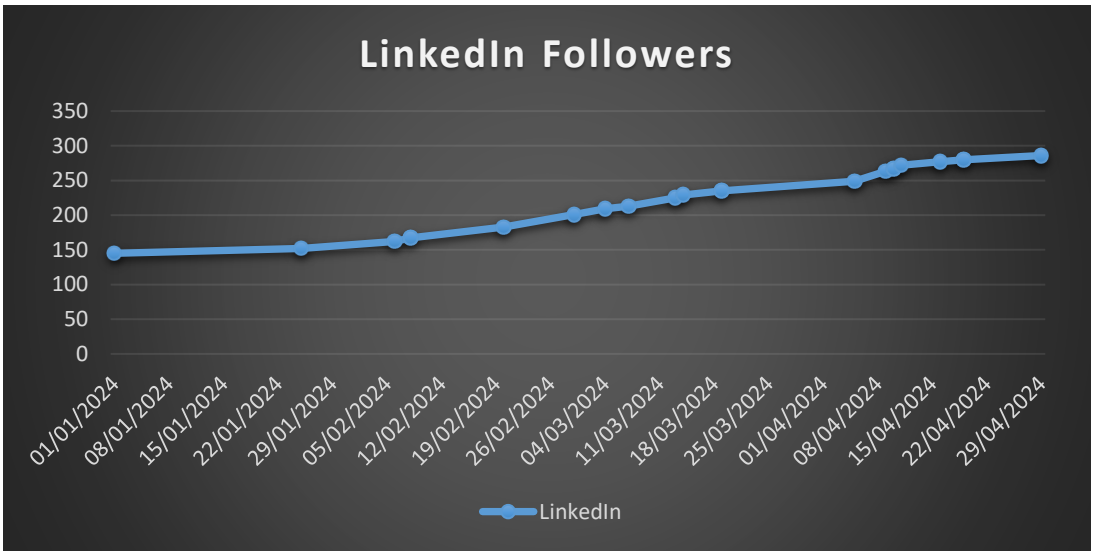

Figure 26. exFan LinkedIn profile followers' evolution

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Up to end of April 2024 they have been increased by 49.3%.

The LinkedIn profile is followed by people coming from **Engineering** (14.7%), **Business Development** (14.1%), **Research** (12.2%), **Operations** (5.8%), **Education** (5.5%), **Program and Project Management** (5.4%), **Product Management** (2.2%), **Information Technology** (1.7%), **Community and Social Services** (1.3%), **Administrative** (1.0%), **Customer success and support** (< 1%), **Sales** (< 1%), **Military and protective services** (< 1%), **Finance** (< 1%), **Quality Assurance** (< 1 %), **Consulting** (< 1 %), **Legal** (< 1 %), **Arts and Design** (< 1 %), **Purchasing** (< 1 %), Entrepreneurship (< 1 %), and almost 22.4% of other professional activities.

The above followers are from the below areas of interest: **Aviation and Aerospace Component Manufacturing** (40.9%), **Research Services** (9.9%), **Industrial Machinery Manufacturing** (8.4%), **Airlines and Aviation** (8.0%), **Architecture and Planning** (5.8%), **Higher Education** (5.2%), **IT Services and IT Consulting** (4.6%), **Business Consulting and Services** (3.1%), **Motor Vehicle Manufacturing** (2.5%), **Defense and Space Manufacturing** (1.8%), **Oil and Gas** (1.0%), **Machinery Manufacturing** (< 1.0%), **Advertising Services** (< 1.0%), **Nanotechnology Research** (< 1.0%), **Manufacturing** (<1.0%), **Truck Transportation** (<1.0%), **Software Development** (< 1.0%), **Government Administration** (< 1.0%), **Chemical Manufacturing** (<1.0%), **Armed Forces** (< 1.0%), **Public Relations and Communications Services** (< 1.0%), **Appliances, Electrical, and Electronics Manufacturing** (<1.0%), **Civil Engineering** (<1.0%), **Broadcast Media Production and Distribution** (< 1.0%), **Renewable Energy Semiconductor Manufacturing** (<1.0%), **Automation Machinery Manufacturing** (< 1%), **Information Services** (< 1%), **Recreational Facilities** (< 1%), Farming (< 1%), **International Affairs** (< 1%), **Mining** (< 1%), **Telecommunications** (< 1%), **Paper and Forest Product Manufacturing** 1 (< 1%) and almost 1.5% of other professional areas.

Twitter (X)

A dedicated **exFan** Twitter account was established, aiming to foster a virtual community of professionals and stakeholders who are interested in the project's endeavors. Since mid-January 2024, **exFan** Twitter page has **1 follower** and **9 following**, while all its posts **29 engagements** have **10 likes** and **243 impressions**.

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3.4 Conferences, workshops, and other extrovert events

exFan recognizes the importance of active involvement in various industry events and conferences to effectively disseminate project insights. Through meaningful engagement at conferences, workshops, and exhibitions, the project aims to foster productive dialogues with potential end users and stakeholders.

By maintaining a dynamic list of relevant events, meticulously updated by project partners and the Dissemination & Communication Manager, **exFan** ensures its ongoing presence and impact within target communities.

Table 3. Representative conferences/events to be exploited for exFan dissemination.

Conference/Workshop/Exhibition
International Council of the Aeronautical Science Congress series (ICAS)
International Conference on AeroSpace Manufacturing series (ICAM)
EASN Conference series
Farnborough International Airshow series
IEEE Aerospace Conference
AIAA Science and Technology Forum and Exposition
ILA BERLIN
Vienna Aviation Days

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3.5 Non-scientific publications, newsletters & press releases

The project's outcomes ought to be published by all partners in the local, national, and worldwide press as well as through EC communication channels (e.g., Horizon the EU Research and Innovation Magazine, research*EU results magazine, research*EU focus, etc.). Sharing project's news with people increases project awareness among the target audiences.

3.6 Scientific publications

The dissemination of project findings extends to scholarly publications, including papers in scientific journals and presentations at conferences. Emphasis is placed on Open Access publications to ensure unrestricted access to knowledge. The dissemination manager oversees the publication process, ensuring that project outcomes reach the intended audience. In collaboration with the project coordinator, efforts are made to address any gaps in dissemination. A list of the scientific publications where the consortium intends to publish research articles is provided in Table 4.

Table 4. Preliminary list of the scientific journals to be targeted for the publication of the project's research results.

Journal Name	Online ISSN
Aerospace Science and Technology	1626-3219
AIAA Journal of Propulsion and Power	1533-3876
Design Science	2053-4701
AIAA Journal (American Institute of Aeronautics and Astronautics)	1533-385X
Composites Part A: Applied Science and Manufacturing	1878-5840
Composites Part B: Engineering	1879-1069
Journal of Manufacturing Science and Engineering	1528-8935

3.7 Cluster activities

Creating or joining clusters can enhance the project's impact by improving management, communication, and knowledge exchange among related projects. **exFan** will prioritize networking and clustering activities to foster partnerships with existing networks, associations, and communities. Additionally, collaboration with other projects in related fields will be pursued to create synergies and maximize collective impact.

The 3rd of May 2024, the **exFan** project joined ClimAvTech Cluster. This cluster formed by HESTIA project together with twelve other EU-funded research projects has the focus on sustainable

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aviation. The projects will engage in scientific cooperation and carry out join dissemination actions to facilitate access to research results. Moreover, **exFan** is involved in the creation of another a smaller cluster (*H2 HEU Project Mini Cluster*) together with projects funded in the same topic.

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4. Analysing the Impact of the Communication & Outreach Strategy

Various indicators have been identified to track the progress and effectiveness of communication and dissemination activities within **exFan**. These indicators will be continuously optimized and refined throughout the project. To ensure effective communication, the following measures have been established to monitor **exFan**'s impact:

- **Website and Social Media Analytics**: Google Analytics will track website traffic, visitor engagement, duration of visits, popular pages, traffic sources, and geographic distribution. Social media metrics will include follower count and post engagement, etc.
- **Dissemination Material**: The number of press releases, brochures, posters, and other materials produced and distributed throughout the project will be recorded.
- **Events, Presentations, and Publications**: **exFan** will document the number of external events attended, along with the types of materials presented (e.g., papers, posters, presentations) and feedback received from the audience, providing insights into the reach of dissemination efforts.

Additionally, the following table summarizes the preliminary Key Performance Indicators (KPIs) set for assessing the effectiveness of the strategy.

Table 5. Proposed Dissemination and Communication KPIs for the exFan project

Activity	Indicator	Proposed Target
Project website	Number of visits	3000 annual visits on the homepage
Social media	Number of posts on social media pages	At least 2 posts per month in social media
Dissemination	Number of attended events	Participation to ≥ 5 networking events & organization of ≥ 2 exFan networking events with at least 50 participants
	Number of participants of organized dissemination events	At least 100 participants
	Events organization/participation	At least 4 joint sessions/workshops or meetings at major aviation conferences
	Number of OA publications in peer reviewed publications	At least 16 publications
	Number of papers and posters presentations in conferences	Paper presentation of at least 10 congresses, at least 10 poster presentations, at least 5 workshops/info days

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Communication	Interviews and press releases	At least 20 interviews and press releases
	Number of distributed materials	At least 3 packs of promotional packs
	Videos	At least 10 videos conveying key message of exFan targets & achievements

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5. DISSEMINATION E-APPROVAL TOOL

The D&C Leader (EASN-TIS) has implemented an automated "*approval process*" to oversee dissemination operations and prevent potential IP issues. This process is facilitated through the "*exFan e-Approval Tool*," an online platform.

As per the agreed procedure, all partners are required to submit intended publications, such as presentations, posters, press releases, and scientific publications, to EASN-TIS, WP2 leader, at least 15 days before the dissemination activity (Article 17 of the G.A). Upon receipt of a notification regarding an intended publication, consortium members must:

- Acknowledge receipt within 48 hours or receive reminders every 2 days.
- Download and review the dissemination material.
- Deny the publication if there are significant conflicts of interest, accompanied by a clear explanation. The dissemination manager will intervene to resolve the issue.

This process is conducted through clickable links in the notification email.

- After 15 days, any voter who has not expressed their opinion is considered to have accepted the publication, and the approval process is concluded. The tool notifies the dissemination manager and the author of the approved publication.
- If all partners approve the dissemination activity before the deadline, the tool notifies the dissemination manager and the author of the approval. However, if there is an objection, the tool alerts the dissemination manager and the author, and approval is pending until the issue is resolved.

Automating this process streamlines project progress, reduces errors, and enhances workflow efficiency, accuracy, and consistency.

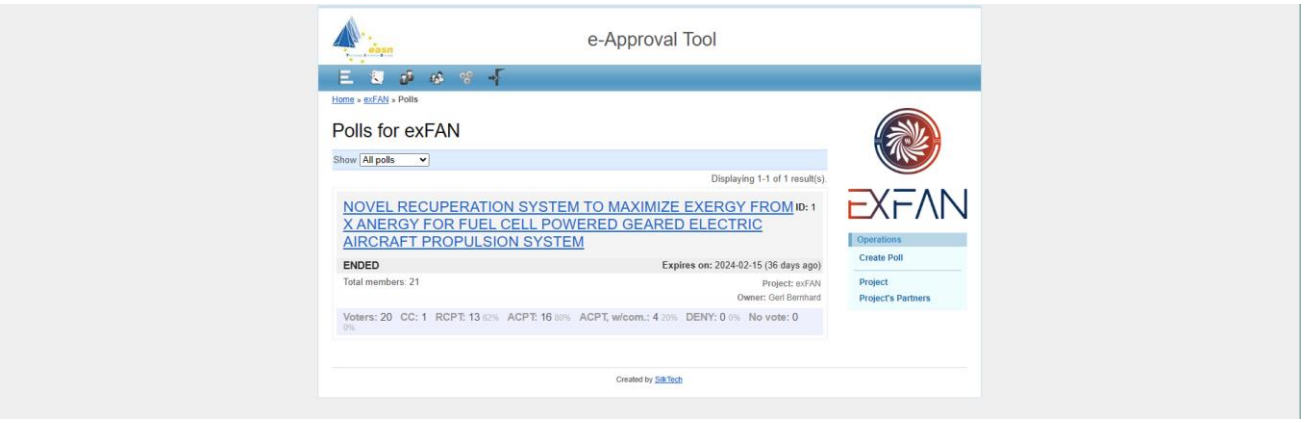

Figure 27. exFan e-Approval Tool

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6. SUMMARY

This deliverable lays the foundation for forthcoming Dissemination & Communication activities, presenting the initial PDCR table.

The Dissemination plan, devised as a comprehensive five-step process, commences with identifying target audiences based on their respective interests. Following this, a thorough analysis of project objectives is conducted, with a focus on associating each objective with a key message tailored for the intended audience.

Once the framework for Dissemination and Communication is established, a series of activities are delineated per key message to ensure their successful execution. Utilizing tools such as social media and website analytics, ongoing monitoring and evaluation will enable dynamic adjustments for optimal impact.

Additionally, an innovative online platform titled "*exFan e-Approval Tool*" is introduced, dedicated to protecting partners' intellectual property rights and overseeing materials earmarked for publication.

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[1] https://www.healthaffairs.org/doi/10.1377/hlthaff.2017.1104

[2] https://commission.europa.eu/funding-tenders/managing-your-project/communicating-and-raising-eu-visibility_en

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APPENDIX A – PLAN FOR DISSEMINATION & COMMUNICATION ACTIVITIES OF PROJECT RESULTS (PDCR)

Based on the results selected from the Consortium partners the following activities have emerged within the M01-M06 period:

Scientific publications:

- One (1) publication to a workshop by TUW (https://zenodo.org/records/10820143 ; https://exfan-project.eu/sites/default/files/Poster_V8.pdf)
- Three (3) publications as articles in journal are planned by TUM/FZG/ADT, respectively.

Dissemination activities:

- Two (2) dissemination activities were delivered by CIDETEC and TUW, respectively.

  CIDETEC has been accepted to participate in ADDIT3D conference part of BIEMH (3-7 June 2024), the biggest trade fair of manufacturing in Spain (Bilbao). A poster presentation is already approved. The article will be published in a Spanish industrial magazine that will be distributed during the fair. Audience: industry and research community. Impact: ≥ 35.000 attendants from 52 countries

  TUW participated in TU Wien Science Days - Project Presentation to foster inter-institutional exchange and develop new synergies, projects, and insights.
- Twelve (12) dissemination activities are scheduled by ADT/CIDETEC/TUW/TUM/FZG, respectively.
- ILA BERLIN (5-9 June, Berlin). A video, presentation of the project, has been recorded during the month of May and will be shown at the EC Boost. Additionally, ClimAcTech Cluster is organizing an event at the ILA BERLIN (6 June). At this event, all projects integrate the cluster will be presented and there will be technical panel discussion. **exFan** project will be represented by ADT.
- Vienna Aviation Days 2024 (8-9 July, TU VIENNA, Vienna) are organized through the **exFan** consortium. The aim of this congress is to establish a platform to enable an exchange of green aviation topics for aviation research projects and build a connection between the different projects, programmes and policy makers. At the event, the participating projects will present their activities towards hydrogen propulsion. To promote the congress, a marketing campaign has been launched during the first half of May.

Communication activities:

- Fifteen (19) communication activities were delivered by EASN-TIS & ADT which are posts in projects and companies social media accounts, respectively.

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- Three (3) communication activities are under preparation by CIDETEC which are announcements in its website.

Images of the PCDR tables as filled up the partners are presented below.

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Table A1: List of Current and Foreseen Scientific Publications																		
NO.	Type of PID (repository)	PID of deposited publication	PID (publisher version of record)	Type of publication	Link to publication[1]	Info about the Author(s)		Title of the scientific publication[2]	Title of the journal or equivalent	Number	ISSN or eISSN	Publisher	Date of Publication	Was the publication available in open access (OA) through the repository at the time of publication ?	Is this publication peer reviewed ?	Book title	Did you charge OA publishing fees to the project ? [3]	Type of publishing venue (only if the answer to the previous question is "yes")	Article processing costs that will be charged to the project (€)
						Entity	Author(s)												
1	DOI	10.5281/zenodo.10820142	ZENODO	Publication in workshop	https://zenodo.org/records/10820143 https://exfan-project.eu/sites/default/files/Poster_V8.pdf	TECHNISCHE UNIVERSITAET WIEN (TUW)	Gerl Bernhard	NOVEL RECUPERATION SYSTEM TO MAXIMIZE EXERGY FROM X ANERGY FOR FUEL CELL POWERED GEARED ELECTRIC AIRCRAFT PROPULSION SYSTEM	TU Wien Science Day 2024			TU Wien Science Day 2024	21/02/2024	Yes	No		Yes	Full open access venue	Yes
2		tbd.	tbd.	Article in journal		TECHNISCHE UNIVERSITAET MUENCHEN (TUM) / GEAR RESEARCH CENTER (FZG)	tbd.	Working title: "Gearbox design for high-speed electric propulsion aircraft"	tbd.	tbd.	tbd.	tbd.	2027	tbd.	tbd.	tbd.	tbd.	tbd.	tbd.
3		tbd.	tbd.	Article in journal		ADVANCED DRIVETRAIN TECHNOLOGIES GMBH (ADT)	tbd.	Working title: "Thermal Management Concepts to maximise heat rejection in fuel cell electric aircraft"	CEAS Journal	tbd.	tbd.	tbd.	2026	Yes	Yes		Yes		
4		tbd.	tbd.	Article in journal	tbd.	tbd.	tbd.	Working title: "exFan system optimization in a multidisciplinary approach"											

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Table A2: List of Planned & Performed Dissemination activities									
No.	Dissemination activity name	Main leader		Date of dissemination activity When?	Place of dissemination activity Where ? (Country)	Type of dissemination activity What?	Target audience reached Who?	Status of the dissemination activity	Why? Description of the objective(s) with reference to a specific project output (max. 200 characters)
		Entity	Participant(s)						
1	exFan Project presentation	ADVANCED DRIVETRAIN TECHNOLOGIES GMBH (ADT)	Lorenz Braumann	30.09.24	Germany	Conferences	Research communities	Ongoing	DLRK is the largest german aviation conference and a good place to make a project presentation e.g. as poster presentation. TUW and DLR might also publish at DLRK.
2	exFan Project presentation	CIDETEC (CID)	TBD	3-7.06.24	Spain	Conferences	Industry, business partners	Delivered	ADDIT3D conference part of BIEMH, the biggest traid fair of manufacturing in Spain (Bilbao). A poster presentation is already approved and it is under evaluation the possibility of an oral presentation. Audience: industry and research community. Impact: ≥ 35.000 attendants from 52 countries.
3	exFan Project presentation		TBD	9-11.10.24	Greece	Conferences	Research communities	Ongoing	Invited by PO and EASN to participate in an specific session for the project topic
4	exFan Project presentation	TECHNISCHE UNIVERSITAET WIEN (TUW)	Bernhard Gerl, Matthias Ronovsky-Bodisch	14.2.24	Austria	Other scientific collaboration	Research communities	Delivered	TU Wien Science Days - Project Presentation to foster inter-institutional exchange and develop new synergies, projects, and insights.
5	exFan Project presentation	TECHNISCHE UNIVERSITAET WIEN (TUW)	TBD	22-26.07.24	United Kingdom	Other	Industry, business partners	Ongoing	Farnborough International Exhibition & Conference. Presentation of the research project and networking with other companies + wide a wide public audience.
6	Presentation of first results and potential of exFan	TECHNISCHE UNIVERSITAET WIEN (TUW)	TBD	30. 9-2.10.24	Germany	Conferences	Research communities	Ongoing	The DLRK is the central event for the German-speaking aerospace community. The event allows to present this novel and very benefical topic to a wide audience with a focus/background on hydrogen aviation topics.
7	Possible implementation of the system in an aircraft. Correlations & effects of different flight and geometric parameters	TECHNISCHE UNIVERSITAET WIEN (TUW)	TBD	8.10-11.10.24	Greece	Conferences	Research communities	Ongoing	EASN Conference focused on "Innovation in Aviation & Space towards sustainability today & tomorrow". Allowing to reach a wide scientific audiance in the aviation field.

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Table A3: List of Planned & Performed Communication activities

No.	Communication activity name[1]	Description	Main leader		Type of audience: Who?	Communication channel How?	Outcome[2]	Status
			Entity	Participant(s)				
1	LinkedIn	Introducing EXFAN Project: Pioneering Innovation in Hydrogen-Powered Aviation https://www.linkedin.com/feed/update/urn:li:activity:7141013748412043264	EASN TECHNOLOGY INNOVATION SERVICES (EASN-TIS)	George Anagnostopoulos	Citizens, Civil society, Industry, business partners, Research communities	Social media	735 IMPRESSIONS 144 ENGAGMENTS 44 LIKES 83 CLICKS	Delivered
2	Twitter	Launch exFan Twitter profile https://twitter.com/exFan2024/status/1742827646789038448	EASN TECHNOLOGY INNOVATION SERVICES (EASN-TIS)	George Anagnostopoulos	Citizens, Civil society, Industry, business partners, Research communities	Social media	12 IMPRESSIONS 5 ENGAGMENTS 1 LIKES - CLICKS	Delivered
3	LinkedIn	Xmas and New Year wishes https://www.linkedin.com/feed/update/urn:li:activity:7143198404670644224	EASN TECHNOLOGY INNOVATION SERVICES (EASN-TIS)	George Anagnostopoulos	Citizens, Civil society, Industry, business partners, Research communities	Social media	893 IMPRESSIONS 46 ENGAGMENTS 26 LIKES 20 CLICKS	Delivered
4	Twitter	Meet the Consortium partners_CIDETEC https://x.com/exFan2024/status/1750120334500516080?s=20	EASN TECHNOLOGY INNOVATION SERVICES (EASN-TIS)	George Anagnostopoulos	Citizens, Civil society, Industry, business partners, Research communities	Social media	7 IMPRESSIONS 6 ENGAGMENTS 2 LIKES - CLICKS	Delivered
5	LinkedIn	Meet the Consortium partners_CIDETEC https://www.linkedin.com/feed/update/urn:li:activity:7155855691822309376	EASN TECHNOLOGY INNOVATION SERVICES (EASN-TIS)	George Anagnostopoulos	Citizens, Civil society, Industry, business partners, Research communities	Social media	622 IMPRESSIONS 42 ENGAGMENTS 23 LIKES 18 CLICKS	Delivered
6	Twitter	exFan on the EASN Newsletter https://x.com/exFan2024/status/1755180189221298415?s=20	EASN TECHNOLOGY INNOVATION SERVICES (EASN-TIS)	George Anagnostopoulos	Citizens, Civil society, Industry, business partners, Research communities	Social media	119 IMPRESSIONS 6 ENGAGMENTS 2 LIKES - CLICKS	Delivered
7	LinkedIn	exFan on the EASN Newsletter https://www.linkedin.com/feed/update/urn:li:activity:7160918372723892224	EASN TECHNOLOGY INNOVATION SERVICES (EASN-TIS)	George Anagnostopoulos	Citizens, Civil society, Industry, business partners, Research communities	Social media	1156 IMPRESSIONS 49 ENGAGMENTS 22 LIKES 24 CLICKS	Delivered

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