Communication, Dissemination and Exploitation Plan

Deliverable ID:	**D6.1**
Project Acronym:	**SynthAIr**
Grant:	**101114847**
Call:	**HORIZON-SESAR-2022-DES-ER-01**
Topic:	**HORIZON-SESAR-2022-DES-ER-01-WA1-7**
Consortium Coordinator:	**SINTEF**
Edition date:	**04 July 2024**
Edition:	**03.00**
Status:	**Official**
Classification:	**[PU]**

Abstract

This document is the Communication, Dissemination and Exploitation Initial Plan for SynthAIr. It contains detailed information about the Communication and Dissemination strategy, and the preliminary Exploitation strategy. Targets, key messages, information about branding, channels, social media, publications, events and overall KPIs both for communication and dissemination actions are detailed in this document.

EUROPEAN PARTNERSHIP

Co-funded by the European Union

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Document History

Edition	Date	Status	Company Author	Justification
00.01	15/11/2023	Draft	Viviana Couto Sayalero (Deep Blue)	First consolidated draft
00.02	16/11/2023	Draft	Serena Fabbrini (Deep Blue)	Review
01.00	28/11/23	Official	Viviana Couto Sayalero (Deep Blue)	Final version
02.00	16/02/24	Official	Viviana Couto Sayalero (Deep Blue)	Final version after review from SJU

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[2] Representatives of the beneficiaries involved in the project

SynthAIr

IMPROVED ATM AUTOMATION AND SIMULATION THROUGH AI-BASED UNIVERSALMODELS FOR SYNTHETIC DATA GENERATION

SynthAIr

This document is part of a project that has received funding from the SESAR 3 Joint Undertaking under grant agreement No 101114847 under European Union's Horizon Europe research and innovation programme.

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1 Introduction

The present deliverable details the communication, dissemination and exploitation plan for SynthAIr. It details the communication goals, high-level messages and a short description to be broadcasted in different media with the aim of making the project understandable at a first glance.

The communication means include the project's website, the social media and other relevant means. The deliverable also details the strategy the project will follow to make use of or disseminate the project's results, as a plan of activities including a schedule and metrics to measure its impact and effectiveness.

The exploitation charter explains the project's approach and strategy to make the best use of the project results.

1.1 Definitions

Before getting started, it is important to note the difference between communications and dissemination - see figure 1. The guidance in this document refers to external communications and not internal communications between project consortium members.

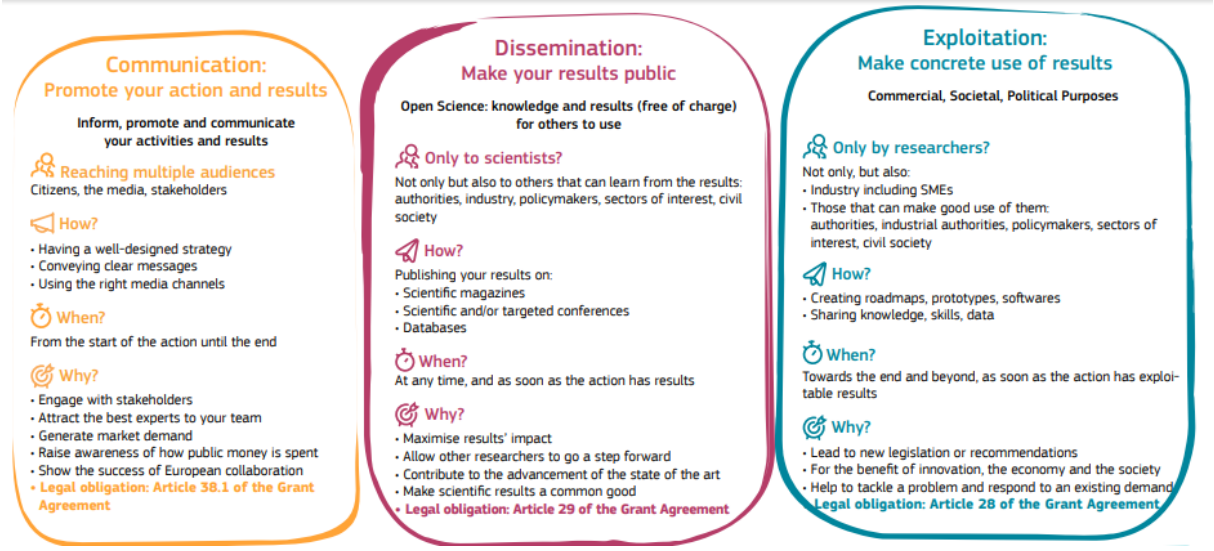

Figure 1: Definitions of communication, dissemination and exploitation in Horizon Europe

1.2 Applicable reference material

[1] SESAR 3 JU Visual Identity Charter, latest version

[2] SESAR 3 Joint Undertaking "Multiannual Work Programme 2022-2031"

[3] Grant Agreement number: 101114692

[4] Dissemination and exploitation of research results – European Commission

[5] Communication at a glance guidelines, last update – SESAR 3 JU

2 Project introduction

2.1 About SynthAIr

The main objective of SynthAIR is to explore and define AI-based methods for synthetic data generation in the domain of Air Traffic Management (ATM) system due to the limitation of AI-based tools development by the lack of enough data available (e.g., safety-related data) and the problem of generalization of those AI-based models.

SynthAIr will explore data-driven methods for synthetic data generation, since they require 1) less user knowledge expertise (no need to derive the explicit model of the distribution), 2) better generalization capabilities. More in detail, inspired by recent advancement in Computer vision and Language Technology, the project proposes the concept of Universal Time Series Generator (UTG). A UTG, is a model trained on several different time series, and able to generate a synthetic dataset representing a new dataset, simply conditioned by a compressed representation of it.

In aviation domain, this generator can be trained on a certain set of data related, for example to few airports, and be used to generate synthetic data from a new airport. The same principle can be applied to define a Universal Time series Forecaster (UTF) able to do prediction to a new environment (I.e., data from a new airport) without any new training.

2.2 Project key messages

Key message #1 – Synthetic data offers new opportunities to develop AI applications to improve the efficiency of air traffic management

As the aviation sector addresses the challenges of increasing air traffic and the need for sustainable practices, AI offers transformative solutions that could significantly improve the industry's capabilities and ensure safer, more reliable and environmentally responsible air travel. In fact, AI-based technologies and methods are now proved to be beneficial in many fields using data, datasets and data analysis.

The dissemination materials will outline the innovation of the project in developing new AI tools, increasing awareness around the use of AI in the ATM field. The main focus of communication materials will be to highlight the state of the art and how AI-based technologies will modernize the ATM.

Key message #2 – Solutions – How will we get there?

The AI tools and methods will be studied, developed and improved during the whole course of SynthAIr's lifetime. In order to facilitate the understanding of the project and its context, significant attention will be given to integrating the solutions that SynthAIr aims to bring to a new level of maturity.

Use cases, research, solutions, methods will be disseminated and communicated to enhance knowledge sharing and to apply the values of Open Science and the European Community.

Key message #3 – Results – How ATM will benefit from SynthAIr

New methods for synthetic data generation and improved and accelerated AI-drive automation are long-awaited innovations in the field of aviation and ATM. Increased air traffic creates the need to improve automation, to find new concrete and solid ways to implement efficient and modern tools.

The third key message focuses on how ATM will in fact benefit from SynthAIr, communicating and disseminating project results, benefits, outcomes and possible future applications.

2.3 Keywords

Key Word	Definition
Artificial Intelligence (AI)	Computer-based procedures providing efficiently solutions usually requiring human intelligence. In this project, AI potential is specifically considered in the context of aviation to facilitate air traffic management in the upcoming years.
Synthetic data generation	Synthetic data generation refers to the creation of artificial or simulated data that mimics real-world data, but is not derived from actual observations. This process is widely used in several fields, including machine learning, data analytics, and computer simulation. The synthetic data generated should have similar statistical properties, patterns, and structures to the authentic data it is intended to represent.
Air Traffic Management (ATM)	A set of operations needed to ensure safety and security to aircrafts in movement. ATM includes air traffic services (in which air traffic control is placed), airspace management and air traffic flow management.

2.4 Focal point for communications, dissemination and exploitation.

Name	Role	Email address
Viviana Couto Sayalero	Communication, Dissemination Manager	viviana.coutosayalero@dblue.it
Massimiliano Ruocco	Exploitation Manager	massimiliano.Ruocco@sintef.no

Table 1: Focal points of contact

2.5 Stakeholders identification

Stakeholder	Content
Researchers/Academics (R&I institutes, Universities, Private research companies)	Science-related information, outcomes, concept of operations
Industry (Air Navigation Service Providers, future industrial stakeholders)	Value of the project, impact for economy, future deployments
Policy-makers (regulators and standardization bodies)	Guidelines and recommendations, impact for society, economy and environment

Table 2: Stakeholders

Company/Istitution	Type	Expected Contribution
SWISS AIR, Ryanair	Airline	Participating in AB workshops to validate the project concept and use cases, the preliminary

		implementation of the SynthAIr solutions and the project final results
Istanbul Airport, Prague Airport, Malpensa Airport	Airport	Participating in AB workshops to validate the project concept and use cases, the preliminary implementation of the SynthAIr solutions and the project final results
HAIKU - Human AI teaming Knowledge and Understanding for aviation safety	European research project	Participating in AB workshops, commenting TRAIT achievements and aligning them with the work done in the project. Provide lesson learnt and best practices. Provide feedback on the project final results
ANACNA	Italian ATCOs association	Participating in AB workshops to validate the project concept and use cases, the preliminary implementation of the project solutions and the project final results.
CANSO	Industry association	Participating in AB workshops to validate the project concept and use cases, to share and disseminate the project results with world's ANSPs, leading industry innovators and ATM specialists

Table 3. Stakeholders expected contribution

3 Communication

3.1 Communications objectives and strategy

At the beginning of the project and through all its life cycle, the communication activities intend to:

- **Raise awareness** of the project and its mission.
- **Generate understanding** around the project activities, in the form of transferring key messages to the target audience, verifying that the messages are correctly received and facilitating comprehension;
- **Engage** the target audience in the use of the project results and findings and in further interaction between stakeholders;
- **Ensure long-term impact** by showing the profitability of the project outcomes to key decision makers.

To deliver effective and efficient communication, coherent with these objectives, the type of message, topics and tone of voice will be customised according to each specific target and mean of communication.

Moreover, to ensure that **communication is consistent with SESAR visual identity**, the project consortium and Communication and Dissemination leaders (Deep Blue) will be periodically in contact with the SJU Communications office. This will guarantee that the project communication is well integrated into the broader SJU communication plan. Similarly, the European Union core objectives will be taken into consideration.

SynthAIr is committed to achieve an effective communication, dissemination, and exploitation of its results. **All partners will be actively involved in these activities** and will contribute communicating and disseminating the project in their own countries and at Local, National and European level; exploiting their contacts and networks to enhance the project visibility. The partners will also contribute to news and updates for the website, social media channels and newsletter, scientific papers and other publications and participating to dissemination events to promote the project.

3.2 Communication target audiences

The main target audiences identified are:

- **General public:** people interested in general topics pertaining SynthAIr (Artificial Intelligence, AI-based technologies, aviation). General public could include civil society groups (passengers assiociations, aviation enthusiasts, retired workers, etc.) and citizens.
- **Specialized audience:** segment of the population that could be directly affected or interested in SynthAIr impact or outcomes.
    1) Air Navigation Service Providers (ANSPs)
    2) Users
    3) Scientific community:
        i) Researchers involved in similar research projects
        ii) R&I institutes
        iii) Universities
        iv) Private research companies
        v) Students

- **Policy-makers (regulators and standardization bodies):** entities responsible for aligning the allocation of resources and investments with societal and economic prioritie.

    1) Standardisation and regulatory bodies
    2) European Union and European Commission (EU and EC)
    3) SESAR 3 Joint Undertaking

Each target audience will be addressed with tailored messages, dedicated channels, and personalised activities, to ensure effective engagement and maximize the impact of our communication efforts.

Target	Channel	Message	Activities
General public	Sesar Web page, social media, graphic materials, press and media	State of the art	Creation of communication campaigns on social media Sharing of visual and textual materials providing key information through different channels (posts, infographics) Elaboration of simplified visual representations (concept image, visual gallery) Distribution of informative materials (video, brochures, flyers, posters) Publication of relevant news/events on social media and website
Specialized audience/Industry	SESAR web page, social media, events presentations, graphic materials, video, press and media, newsletters, scientific papers	State of the art, solutions, results	Creation of communication campaigns on social media Share of informative social media content (posts, infographics) Elaboration of visual representations (concept image, visual gallery) Distribution of materials on the website (presentations, deliverables, brochures, posters) Publication of relevant news/events on social media and website Publication of scientific articles in journals Distribution of project newsletter Invitation to the events
Policy-makers	SESAR web page, social media, events, graphic materials, press and media, newsletters, scientific papers	State of the art, solutions, results	Creation of communication campaigns on social media Share of informative social media content (posts, infographics) Distribution of materials on the website (presentations, deliverables, brochures, posters) Publication of relevant news/events on social media and website

	Publication of scientific articles in journals
	Distribution of project newsletter
	Invitation to the project events

Table 4: Communications target audiences

3.3 Visual identity: branding and acknowledgements

Branding is a decisive element for SynthAIr, as it contributes to the visibility, credibility and impact of the project. A well-defined and consistent brand not only communicates its objectives and results, but also underlines its legitimacy and alignment with EU values. It builds trust among stakeholders by demonstrating the project's commitment to rigorous scientific standards and innovation. A strong brand helps to establish the project's unique identity in the vast landscape of research initiatives, making it easier to attract collaborators, garner support and disseminate results. In addition, an effective brand strategy can help to reach a wider audience, including potential beneficiaries and other research organisations.

Every communication material will be produced strictly following SESAR's guidelines, visual charters and the visual identity of SynthAIr.

3.3.1 Logo

As an exploratory research project, SynthAIr's main color is the Deep Blue (CMYK:C 100% / M 85% / Y 5% / K 30% - RGB: R 0 / G 48 / B 111 - EX: #00306F). The logos are presented in Figure 2 in the main version and in figure 3 for the white version, for darker backgrounds.

SynthAIr

Figure 2: Project main logo

SynthAIr

Figure 3. Project white logo

3.3.2 Acknowledgment

In all the communication and dissemination materials the EU funding will be acknowledged by displaying the EU emblem and funding statement (Figure 4). As well, the SESAR 3 JU logo will be displayed in every communication material (Figure 5). If for any reason the visual logos can't be displayed, the acknowledgments will be transcribed textually.

The refence document for the development of SynthAIr visual identity is the S3JU Visual Charter [1] and the S3JU Project communications at a glance [5]. In accordance with the provided documents, all SynthAIr communication and dissemination materials will display the agreed acknowledgement: *This project has received funding from the SESAR 3 Joint Undertaking under grant agreement No 101114847 under European Union's Horizon Europe research and innovation programme*.

Co-funded by the European Union

Figure 4.EU emblem and funding statement

SUPPORTED BY sesar JOINT UNDERTAKING

Figure 5. SESAR Joint Undertaking logo

3.3.3 Project image

SynthAIr's project image has been selected to recall the imagery of artificial intelligence, connections and synthetic data. The colors are coherent with the project colors and the image is calming and expresses trustworthiness. Figure 6 will be used for communication and dissemination materials for different purposes, elements like logo and ackwnoledgments will be adapted and included in the materials.

Figure 6. Project image

3.3.4 Social media template and materials

For social media elements, SESAR's elements and acknowledgements have been integrated into the project's visual identity.

The header for the project's LinkedIn's profile is shown below in Figure 7.

Figure 7. LinkedIn Header

Templates for events and general posts have been created as well. In Figure 8 the “Save the date” templates are presented and in figure 9 the templates for carousels, posts and generic content. For these templates a second image has been used as well, giving a visual description of the field in which SynthAIr will operate.

Figure 8. "Save the date" templates

Figure 9. Generic post templates

3.3.5 Document templates

The project's logo and brand elements will be integrated into templates provided by SJU. Templates reinforce the consistency of the project brand. Therefore, they have been set up and made available to all the partners to be used for presentations, deliverables and other documents for internal and external communication. They

present the project logo and its recognizable colors and, where requested, the partners' logos. Three formats of templates are currently available:

1. Word format for press releases;
2. Word format for deliverables;
3. PowerPoint format for presentations.

3.3.6 Concept image

To visually describe the project a concept image has been produced. Partners were asked to answer a form in which a common vision of the project has been assessed. Deep Blue in fact shared with partner some initial information that have been validated by the coordinator and the consortium. From this initial work Deep Blue's graphic designer illustrated a project's collective image to describe the aim, the challenges and the outcomes of SynthAIr. A series of drafts have been created and the final approved version is presented in Figure 10.

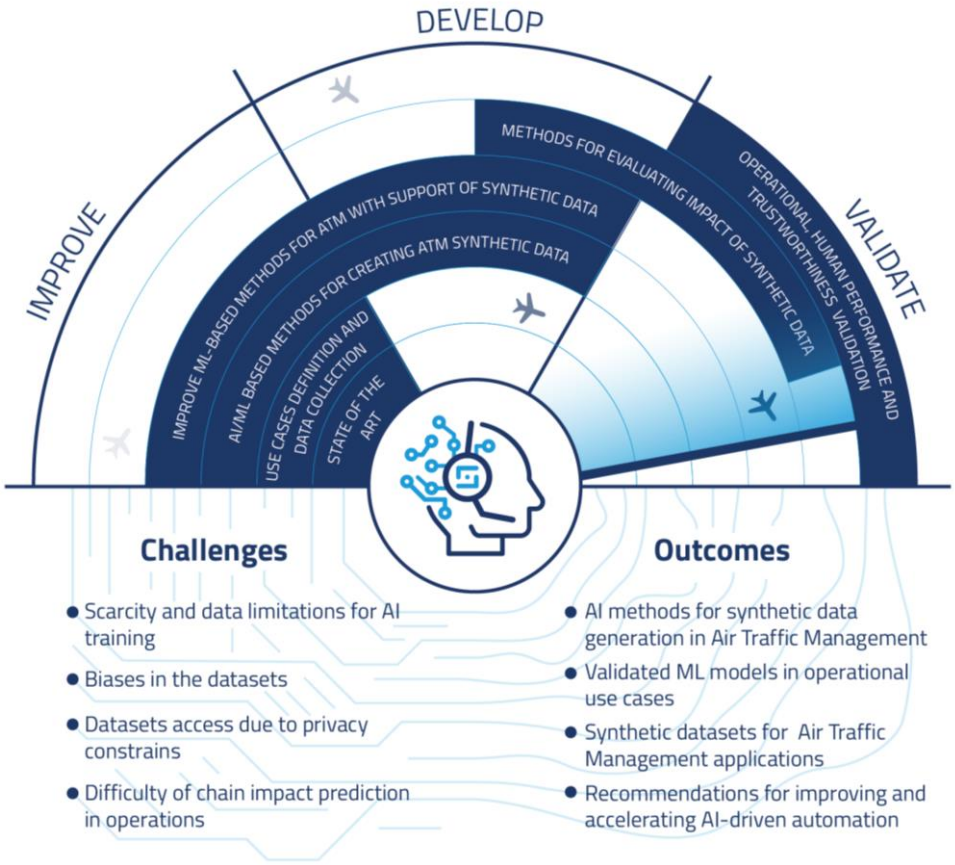

Figure 10. Concept Image

3.4 Communication channels

3.4.1 Website

The web presence of SynthAIr will be granted through the SESAR section of the project: https://www.sesarju.eu/projects/synthair.

The webpage is hosted by SESAR and it will be populated by Deep Blue and all partners. It will be one of the main dissemination channels for both the scientific community and the specialized audience, including stakeholders. The website section will provide a presentation of the project, including an overview, updates on project results, etc.

E-news, such as SESAR Joint Undertaking | A new horizon for synthetic data generation in aviation (sesarju.eu), will be prepared to share relevant milestones and new outcomes of the project with stakeholders.

3.4.2 Press and media

In the communication and dissemination strategy, press and media are key to reach a broader audience.

Press releases will be prepared for relevant outcomes and results. The press releases will be delivered to press offices and journals with the support of MediaAddress, a specific tool already in use by Deep Blue which serves as a database of the journalist's contacts.

SynthAIr will contact some generalist newspapers, websites, magazines both online and offline that are interested in aviation, proposing the publication of short news articles about the project. To give some examples:

- Aviation news
- Aviation Week
- Aviation Today
- CANSO
- Flying Magazine
- Wayne Farley's Aviation Blog
- Air Transport News
- FoxATM

The dissemination and communication will target as well media outlets that are relevant for different stakeholders, such as:

- CORDIS
- Euronews
- Horizon Magazine
- Euractiv
- ScienceBusiness

With the contribution of all partners, relevant events/milestones (such as the start of validation processes, first results, relevant news and updates, etc.) will be communicated and disseminated. Partners will be encouraged to translate the press releases in their languages and share them with local media, to reach an amplified audience.

Media activity	Date	Link
	Past contribution	
E-news/Press release to launch the project	23rd October 2023	SESAR Joint Undertaking | A new horizon for synthetic data generation in aviation (sesarju.eu)

	Forecasted contribution	
Press releases	When needed	N/A
Magazines/Journals	When needed	N/A
E-news	When needed	N/A

Table 5: Contribution to external media.

3.4.3 Social media

For the social media strategy, LinkedIn is the selected channel for SynthAIr.

Project information, outcomes, results, milestones, events and materials will be share through LinkedIn's project profile: https://www.linkedin.com/company/synthair.

LinkedIn is the designated space because it allows to reach the specialized audience that can engage and be interested by SynthAIr. Workers, users, academics, researchers, our targets have a strong presence in this social media channel. Moreover, LinkedIn gives the possibility to share different types of content: videos, blog posts, external links to articles and materials, and in-site newsletters as well. Communication on Linkedin can be either brief or in-depth, as it is suiTable for different forms of content, as described.

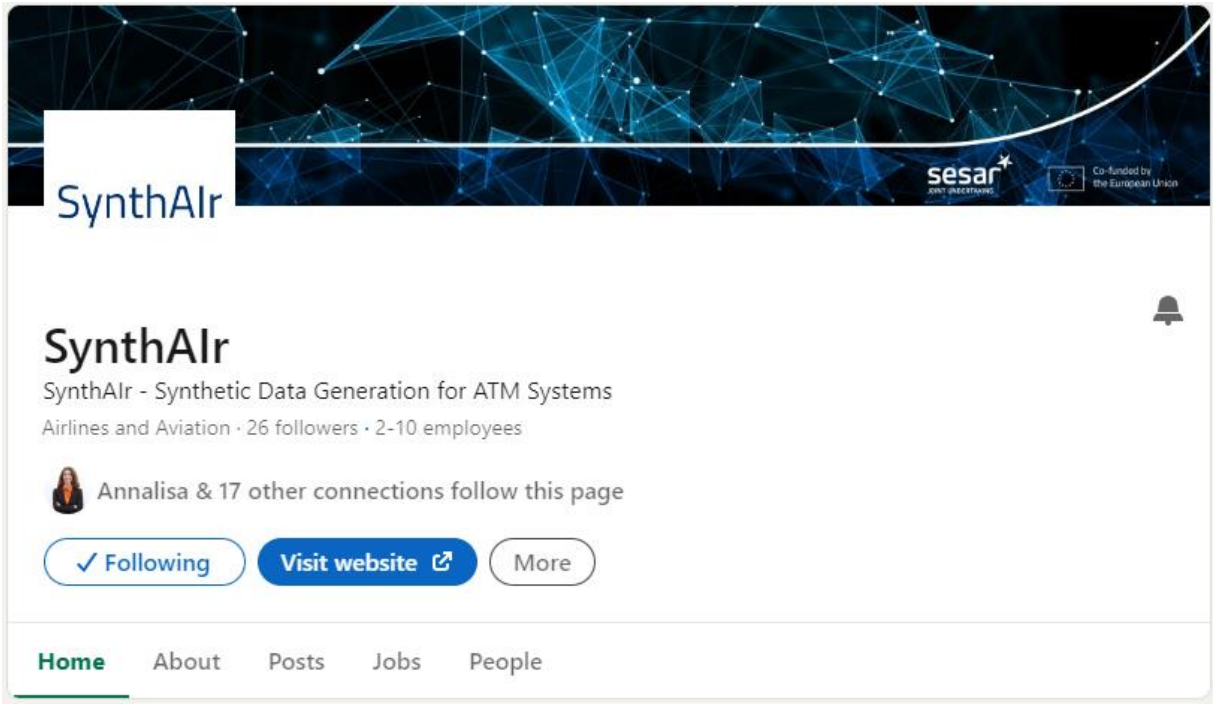

Figure 11. SynthAIr's LinkedIn profile

To ensure consistent visibility, tag or references to the SESAR 3 JU and the EU in social media posts are going to be present, creating a direct link to the funding sources. In addition, project beneficiaries are encouraged to use their own social media accounts to further disseminate project updates and achievements, thereby extending

the reach and engagement. Hashtags such as #SESAR3JU, #SESAR, #DigitalSky, #HorizonEurope, #SynthAIr will be used to index the posts and keep communication consistent.

The consortium's decision to refrain from establishing a presence on **X (former Twitter)** was driven by several key considerations. Firstly, the character limit imposed by X presents a significant hurdle in effectively communicating complex research findings. This constraint hinders the ability to convey nuanced or detailed information, which is often essential in research dissemination. Secondly, the predominant user base on X tends to favor concise content, which may not align well with the depth and complexity of research discussions. Lastly, research projects generally benefit more from platforms that support expansive content, including visual aids and diverse engagement mechanisms. These features are crucial in reaching and resonating with the intended audience. Platforms like LinkedIn or specialized project websites offer a more suiTable environment for sharing and promoting research outcomes, given their capacity for more detailed and engaging content. This strategic choice reflects an understanding of the need to match the communication style and platform with the nature and requirements of the research being disseminated.

To monitor the growth of social media, reporting information from LinkedIn will be downloaded monthly.

Communication and dissemination activities on social media have started from the beginning of the project, but from M5-M6 a dedicated editorial plan will be specifically developed.

Details on branding applied to LinkedIn have been described in section 3.3.

3.4.4 Communication events

One of the many objectives for SynthAIr's communication and dissemination strategy is to take part to events that can lead to and enhanced credibility for the project. Participating to events adds a different layer to communication and dissemination activities, where in-person meeting can make a significant difference.

The objective for the project's participation to events are, in detail:

- **Engage with sister project**
- **Encourage knowledge sharing**
- **Networking with relevant stakeholders**
- **Dissemination**
- **Generate awareness**

Materials for events will be prepared following always the same criteria: consistency with SESAR's branding and values and SynthAIr's own brand identity.

Table 6 containt only events organized by SESAR. Table 10 gives an overview of conferences/fairs and events SynthAIr could participate for communication and dissemination activities.

Event	Date	Place	Information to be shared	Importance for the project
SESAR Innovation Days	2024 / Future editions	Rome / TBA	Flyer with concept image (2023 edition) Poster with an overview of the project, ambition and solutions	Engage with the SESAR's community and new projects, network with stakeholders

SESAR Annual conference	Future editions	N/A	Poster or paper	Engagement with projects in the same flagship and research strand, awareness, stakeholder engagement
FLY AI Forum 2024	29 - 30 April 2024	Brussels	Abstract	Engage with relevant stakeholders and other projects
ESOF 2024	12–15 June 2024	Katowice	Poster	Engage with different and broader audiences
EASN International Conference	8-11 October 2024 / Future editions	Thessaloniki / N/A	Abstract	Engage with relevant stakeholders and other projects

Table 6: Events

3.4.5 Graphic materials and other publications

SynthAIr aims to convey and share new findings, outcomes, and insights with stakeholders by creating three project newsletters, to be published yearly. These newsletters will not only provide relevant updates about the SJU program but also generate digital materials that partners and stakeholders can find valuable.

During the project's course, printed materials will be meticulously designed and accompanied by digital files for online distribution, allowing partners to print them as needed and/or translate them. Additionally, a project brochure will be carefully crafted with collaborative input from WP leaders, effectively communicating SynthAIr's aspirations, objectives, and goals to specific target audiences.

A first flyer (Figure 12) has being prepared to be distributed at the SESAR Innovation Days 2023, where the project will not participate as exhibitor but some partners will attend. The SESAR Innovation Days will be an opportunity to network with stakeholders and sister projects.

Figure 12. SynthAIr's first project flyer

Furthermore, E-news will be prepared and published to update stakeholders on the project's progress.

Publications/newsletters /printed material	Description	Date	Link
Newsletter	Including relevant internal updates and SESAR's updates	3 newsletters overall, one per every year of the project	N/A
Graphic materials	Generic overview of the project/Updated with results and outcomes Type of material: flyer, concept image, cards for social media, other materials when needed	When needed	N/A
E-news	E-news with relevant information from the project	When needed	N/A

Table 4: Publications

3.4.6 Videos

To maximise communication efforts during external events, two types of animated product will be realized:

- **Animated presentation:** a project presentation including the main purpose of the project, solutions, methodologies, ambitions and possible outcomes will be prepared and animated in loop. This animated presentation will be a versatile tool to be displayed at an initial stage of the project to conferences and fairs, and is thought to help partners describe the project to a broad audience and stakeholders. The Power Point presentation will be updated through the months to be coherent with the research timeline.
  The animated video will be ready by M6, if the course of the project goes as planned.
- **Technical video:** a second video will focus on technical aspects of the project to provide a detailed overview, with interviews and insight from consortium partners. Events attendended in person and online workshop as well will be the occasions to shoot relevant materials for the technical video. Eventually the video will be updated in a second moment. It will be delivered by M26.

The guidelines for videos and branding provided by S3JU will be strictly followed, and the video will include the intro and outro provided by SESAR through STELLAR. The videos will be then shared with S3JU to be uploaded to the official SESAR youtube account.

Videos	Description	Planning	Link
Animated presentation	Promotional video to highlight projects' ambitions and solutions	M6	N/A
Technical video	Video with technical shooting to provide a detailed overview of the project	M26	N/A

Table 5: Videos

3.5 Communication key performance indicators (KPIs) and success criteria

KPIs success criteria is to be intended by the end of the project.

Action	KPIs	Success criteria	Currently achieved	Last update	Annual growth
Visual identity	Coordinated graphics and visual identity package (logo, templates, coordinated social media graphics, concept image)	1	1	November 2023	100%

Promotional material	Number of printed materials	250	150	30/11/23	N/A
Webpage (hosted by SESAR website)	Page visits (monthly)	120	N/A	14/02/24	N/A
	Unique visitors (monthly)	80	N/A		
LinkedIn	Number of followers	150	26	30/11/23	N/A
Press/media	Yearly appearances	2+	2	30/11/23	N/A
Newsletter	Number of subscribers	At least 50	N/A	N/A	N/A
	Newsletters delivered	3			
Events	Number of dissemination events organized	2	N/A	N/A	N/A
	Number of international conferences/fairs/initiatives attended	6			

Table 7: Communication KPIs and success criteria

4 Dissemination

4.1 Dissemination objectives and strategy

For a research project, sharing results, best practices, and know-how extends the project's benefits beyond the immediate stakeholders or existing partners, contributing to the advancement of science as a whole. Dissemination plays a crucial role and it is essential to undertake actions to ensure the widespread circulation of scientific knowledge, thereby expediting significant achievements in scientific research.

AI is a complex technology that has been recognized for many years but is currently under exploration as a practical application. Given the AI research component in SynthAIr, adopting an open science approach based on knowledge sharing and networking becomes even more critical.

The main objectives of the dissemination strategy are:

- **Raise awareness:** As a fundamental project objective, the first goal is to raise awareness, particularly in the context of SynthAIr about the project outcomes and its benefits, and generate new knowledge. Raising awareness will enhance the project visibility and make project results available to the audience.
- **Knowledge sharing:** Embracing the European research practice of open science, the second objective focuses on the sharing of ideas, know-how, methods and data. By promoting inclusivity and openness, knowledge sharing makes science more efficient and impactful, and accelerates overall innovation. As part of the knowledge sharing, the strategy will support exploitation of the project outputs and thus contribute to the increase of EU competitiveness.
- **Stakeholder engagement:** Collaboration and interest are crucial for the impact of a project. The third dissemination objective is to actively engage with relevant stakeholders, fostering an ongoing dialogue with industry, specialized audiences, aviation community, academia, experts and regulators.

To achieve the dissemination goals, a series of actions will be taken throught several means:

- **Events**: both internal workshops and external events will be attended and/or organized to foster knowledge sharing among participants;
- **Scientific publications**: papers will be submitted and published in peer reviewed scientific journals;
- **Webpage**: SynthAIr's SESAR section will be used to share general information, scientific publications and communication materials;
- **LinkedIn:** main channel for SynthAIr's web presence. Updates, news, interactions with new projects, milestones and every relevant goal achieved will be shared through this channel;
- **Newsletter**: proect newsletters will be used to share updates and engage with stakeholders.

4.2 Dissemination channels

The strategy involving the dissemination channels is described in section 4.1.

Channel	Objective	Tools	Link	Information to be shared
Scientific Publications	Engage stakeholders, share results	i.e. scientific publications,	N/A	Project values, progress, results

		technical publications		
Conferences and events	Engage with new projects/stakeholders, networking	i.e. infographics, posters, brochures	N/A	Project values, progress, results
Website	Share project results to broader audiences and reach specific targets	i.e. videos, presentations, scientific publications, infographics	https://www.linkedin.com/company/synthair	Project values, progress, results, participation to events
Social Media	Reach targeted audiences	i.e. videos, presentations, scientific publications, infographics, digital brochures	https://www.linkedin.com/company/synthair	Project values, progress, results, participation to events
Newsletter	Engage with stakeholders	Newsletter	N/A	Project values, progress, results, EU/EC/SESAR relevant news, state of the art, events

Table 8: Dissemination channels

4.2.1 Open access to scientific publications

Open Science is the initiative to make scientific research activity and data obtained during scientific research activities available from professionals and industry to citizens. This approach significantly improves the effectiveness and productivity of research by preventing duplication and increasing reproducibility and thus contributes to research integrity and excellence.

SynthAIr welcomes the Open Science focus and will work according to the principle: "As open as possible, as closed as necessary". SynthAIr will produce results to be disseminated also through scientific articles. The participation of project partners from research, industry and end-users increases the variety of outcomes of the research. The collaborative way for production and sharing of findings and related data will cover all aspects of the research cycle, from scientific discovery and review to research assessment, publishing and sharing. SynthAIr expects that following Open Science principles will bring significant impact. First, the publication in open access journals or features will result in higher citation rate and more efficient dissemination. Furthermore, research papers will be freely available to the general public which will help to reach a bigger impact in terms of communication of results. Publications available in open access regime will also get more media coverage through sharing information on social media and mainstream media outlets which enable not only better science communication but also attract the interest of industry and general public and eventually, support citizen science.

SynthAIr will follow an approach to maximise the open access policy to ensure that research outcomes, even though limited, are accessible without paywalls. All the publications will be also uploaded to either a general repository or a discipline-specific repository trusted in a given research field. The upload will take place at the latest on the date of publication. Special attention will be paid to the copyright conditions set by the journals to ensure that the articles are published under CC-BY or similar licence in order to allow commercial use of the outputs.

Furthermore, the partners are committed to make the research data as open as possible while taking confidentiality and IP protection into account. Relevant datasets will be uploaded to trusted repositories in line with the Data Management Plan that will be agreed and implemented at the beginning of the project´s implementation. The Data Management Plan will describe the type of data that the project is generating/ re-using and specify how this data will be handled, shared and preserved during and after the project. It will also specify the tools and instruments (software, models, algorithms) needed to validate the results.

The exploitation opportunities, the protection of generated IP, the confidentiality obligations, the security obligations and the obligations to protect personal data will always be considered before making the data openly accessible.

Scientific papers/ presentations	Link	Information to be shared
Applied Intelligence (APIN)	https://www.springer.com/journal/10489	Results/Outcomes/Methodologies
Frontiers in Future Transportation	https://www.frontiersin.org/journals/future-transportation	Results/Outcomes/Methodologies
International Journal of Artificial Intelligence	https://ijai.iaescore.com/index.php/IJAI	Results/Outcomes/Methodologies
Journal of Air Transport Management (JATM)	https://www.sciencedirect.com/journal/journal-of-air-transport-management	Results/Outcomes/Methodologies
Journal of Air Transportation	https://arc.aiaa.org/journal/jat	Results/Outcomes/Methodologies
Aerospace Science and Technology	https://www.sciencedirect.com/journal/aerospace-science-and-technology	Results/Outcomes/Methodologies
Journal of Artificial Intelligence Research (JAIR)	https://www.jair.org/index.php/jair	Results/Outcomes/Methodologies

Table 9: Scientific papers, publications and presentations

4.2.2 Dissemination events

Event	Date	Place	Information to be shared	Importance for the project
Final dissemination event / Final close-out meeting	M30	N/A	Final overview, results, stat of the art, future developments	Engage with stakeholders from industry to enhance exploitation strategy and possibilities, grant visibility
SESAR Innovation Days	Future editions	Seville, Spain (2023 edition)	Poster with an overview of the project, ambition and solutions	Engage with the SESAR's community and new projects, network with stakeholders

SESAR Annual conference	Future editions	N/A	Scientific poster or paper	Engagement with projects in the same flagship and research strand, awareness, stakeholder engagement
DASC – Digital Avionics Systems Conference	Future editions (tbd)	Spain	Scientific paper	Engage with specialized audience, grow awareness about the project, network with stakeholders and policy makers
World ATM Congress	Future editions	N/A	Scientific poster or paper	Engage with specialized audience, grow awareness about the project, network with stakeholders and policy makers
IEEE International Conference on Intelligent Transportation Systems (ITSC)	Future editions	N/A	Scientific paper	Engage with specialized audience, grow awareness about the project, network with stakeholders and policy makers
International Conference on Artificial Intelligence Techniques in Aviation	Future editions	N/A	Scientific paper	Engage with specialized audience, grow awareness about the project, network with stakeholders and policy makers

Table 10: Dissemination conferences and workshops

4.3 Dissemination target audiences

Target	Channel	Benefits from the project	Expected feedback
Specialized audience	Publication of scientific dissemination materials and organisation of face-to-face events, social media, newsletter	Results and contents generated in the project for further research projects	Generate interest in the research, adoption of SynthAIr's know-how for other research projects, create engagement
Industry (providers, suppliers, future users industries)	Publication of scientific dissemination materials, face-to-face events (fairs, conferences, workshops, etc.),	Assessment for business opportunities and uptake of the demonstrated solutions	Adopt the know-how for other research projects, create engagement, integrate expertise from stakeholders, implement the solutions

	social media, newsletter, printed/digitals materials		
Policy-makers (regulators and standardization bodies)	Publication of scientific dissemination materials and organisation of face-to-face events, newsletter, printed and digital materials	Uptake of the demonstrated solutions	Support on the methodological work of the project, recommendations and feedback on project activities and findings

Table 11: Dissemination target audiences

4.4 Dissemination KPIs and success criteria

The following Table contains dissemination KPIs. Unlike communication KPIs, dissemination KPIs are only and exclusively those concerning the dissemination of results, outcomes, data and know-how produced during the course of the project.

Communication KPIs and Dissemination KPIs may overlap. It is emphasised that the following Table therefore only and exclusively takes into account KPIs relating to dissemination.

Action	KPIs	Success criteria	Currently achieved	Last update	Annual growth
Promotional material	Number of materials printed	250	150	30/11/23	N/A
LinkedIn	Number of articles published on LinkedIn	8+	1	30/11/23	N/A
Press/media	Yearly appearances	2+	2	30/11/23	N/A
Newsletter	Number of subscribers	At least 50	N/A	N/A	N/A
	Newsletters delivered	3			
Scientific publications	Number of scientific publications	6			
Events	Number of dissemination events organized	2	N/A	N/A	N/A
	Number of international conferences/fairs/initiatives attended	4			

Workshops	4

Table 12: Dissemination KPIs and success criteria

5 Exploitation

5.1 Project Exploitable results

Exploitation activities will start early in the project and will follow an exploitation path which will evolve with the project.

The exploitation path is ideally organised in three phases:

1) Initial phase (M1-M7): initial mapping of the Exploitable Key Results, preliminary market analysis
2) Mid phase (M7-M18): market analysis and initial exploitation plan, validation of plan with stakeholders
3) Final phase (M18-M30): finalization of Exploitable outputs, exploitation agreement

The currently identified expected exploitable Key Results are listed in the section 5.3 below, but additional items may be determined during the execution of the project and will be updated in the next deliverables. In section 5.2 the initial exploitation strategy from partners is described.

5.2 Exploitation strategy and objectives

Partner	Plan
SINTEF	SINTEF intends to leverage the pivotal outcomes of the SynthAIr project to enhance and fortify expertise in synthetic data generation and AI. The organization will actively pursue the advancement and refinement of the most promising results. This involves seeking opportunities for follow-up research and development projects and seamlessly integrating the acquired knowledge and skills into ongoing collaborations with the scientific community and ATM industrial stakeholders.
DBL	The preliminary exploitation intentions for Deep Blue are as follows: • Strengthen the adoption of Human Factors design methodologies and competences in different ATM operational use cases. • Strengthen the Human Performance assessment methodologies and techniques of innovative artificial intelligence (AI) applications in different ATM scenarios. • Improve competencies in Human-AI teaming assessment methodologies and metrics in early maturity phases. • Reinforce the network and consolidate the partners in the current research field.
ECTRL	ECTRL strategy includes further validations in the scope of Industrial Research and Fast track innovation projects with research, industry, and operators' partners. Deployment of synthetic ATM data generator solution to be used by academic and research partners and iteratively enhanced based on the feedback of the users. ECTRL aims as well to populate academic database with ATM data that are not accessible to the academic world.
TUD	TUD will utilize the outcomes for future research. Specifically, to apply the developed synthetic data generation algorithms to other air transport operations not considered in the project, and to extend the developed algorithms so that these operations could be modelled.

Table 13. Initial Exploitation Strategy

5.3 Exploitation of results

Project outputs	Area impacted	Action	Outcomes	When
Knowledge generated within the project	Academia/research, ATM	Further research, education	Educational materials, further research	Throughout the project, after the end of the project
Synthetic data generation algorithms: enhanced existing process/tools in Network Management operations	ATM	Commercialisation, licencing, industrial application, education, further research, further validation	Enhanced processes, implemented network management operations	After the end of the project
Academic improvement: make methods and datasets publicly available	Academia/research	Further research	Open science, knowledge sharing, fostering further research	Throughout the project, after the end of the project
Increased automation	ATM	Further research, further validation, industrial validation	Increased level of automation in the aviation field and improved efficiency	Throughout the project, after the end of the project
Implemented synthetic data generation algorithms	ATM	Further validation, further research	Improved performance in various ATM fields	Throughout the project, after the end of the project

Table 14 Project exploitation of results

5.4 Data protection strategy

SynthAIr will be compliant with the legal and ethical regulations that apply to the project. Research ethics is an integral part of all research activities funded by the European Union, and ethical compliance is seen as pivotal to achieve research excellence. The Horizon Europe ethical standards and guidelines will be rigorously applied in the SinthAIr project, regardless of the country in which the research is carried out.

All project partners will ensure that procedures comply with relevant EU legislation, in particular (EU) 2016/679 (GDPR)3, national data protection laws and other relevant legislation. SINTEF, as project coordinator, is subject to relevant laws and guidelines in Norway: the Personal Data Act (LOV 2000-04-14 nr 13) and the Ethical Guidelines for Internet Research4 (National Committee for Research Ethics in the Social Sciences and the Humanities (NESH), December 2014). At the beginning of the project SINTEF will report all planned studies to the Norwegian Social Science Data Services (NSD). This means that specific activities must be in conformity with the

protection the personal data of participants who take part in SynthAIr project, regardless of whether they live in Norway or in any other partner-country.

As part of making research data findable, accessible, interoperable and reusable (FAIR), a Data Management Plan (DMP) includes information on the handling of research data during & after the end of the project, will be produced: what data will be accessed, collected, processed and/or generated; which methodology & standards will be applied; whether data will be shared/made open access; how data will be curated & preserved (including after the end of the project). Furthermore, it will take into account the most recent EU recommendations the related to AI such as the Ethics Guidelines for Trustworthy AI and the Proposal for the Artificial Intelligence Act.

5.5 IPR management

SynthAIr follows an open approach for sharing knowledge to stimulate the development of innovations. This applies particularly for the open sharing of data and other results generated within the project. It is a major challenge to address the appropriate and systematic management of the knowledge flows between partners and define an appropriate framework to organise these collaborative innovation activities, whilst at the same time maintaining control over the scientific dissemination of the knowledge.

The project partners will agree on rules with regards to IP ownership, access rights to Background and Results IP for the execution of the project, the protection of IPR and confidential information.

Partners will share the access to IP generated during the project according to the basic IPR rules defined in the GA. All IP is owned by the partners generating it. In case of joint invention, partners enter into an agreement detailing the rights and strategy for commercial exploitation and the ownership shares according to individual contributions. All partners will have access to IP generated in the project if they need it to carry out their project tasks. A Consortium Agreement (CA) on which main conditions are agreed upon will be signed. Regarding the project results, partners will have a proactive policy to protect IP. Know-how generated, when it cannot be protected by any of the mentioned mechanisms, will be protected by trade secret. The IPR will be further detailed in the next CDE Intermediate Plan. Partners do not anticipate any IP conflict.

6 Overview of communication and dissemination activities

Activity	Channel/Tool	Objective	Target audience	KPIs	Success criteria	Frequency/date
Events	Talks, conferences	Create awareness, disseminate results	Specialized audience	Number of posters and talks at international conferences	6	Throughout the project lifetime
Press/media appearences	Other websites, Newsletters	Scientific knowledge sharing, awareness, dissemination	Specialized and non-specialized audience	Number of references of SynthAIr in other websites	2 yearly	Throughout the project lifetime
Newsletter	Online distribution	Awareness, state of the art, dissemination, sharing between partners and stakeholders	Specialized and non-specialized audience	Number of newsletters delivered	3	By the end of the project
Brochures	Physical distribution or through website/social media	Awareness, dissemination, information on the state of art and results	Specialized and non-specialized audience	Number of copies distributed (digital or physical)	250	For events
Technical video	Online distribution (e.g., website) and offline (e.g., conferences)	Inform, illustrate project results	Specialized audience	Number of videos	At least 1	M20-M30

Table 15: Overview of communication and dissemination Activities

7 List of acronyms

Acronym	Description
ANSP	Air Navigation Service Provider
ATM	Air Traffic Management
CA	Consortium Agreement
CC BY	Creative Commons Attribution Licenseat
EC	European Commision
EU	European Union
FAIR	Findability, Accessibility, Interoperability, Reusability
IPR	Intellectual Property Rights
KPI	Key Performance Indicator
R&I	Research and Innovation
SID	SESAR Innovation Days
SJU	SESAR Joint Undertaking
UTF	Universal Time series Forecaster
UTG	Universal Time Series Generator
WP	Work Package

Table 16: List of acronyms