Communication, Dissemination and Exploitation Plan

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Abstract

This report is dedicated to the planning of the SIGN-AIR's project's Communication, Dissemination and Exploitation (CDE) activities, providing the general information and the main activities that need to be performed and setting the guidelines for the consortium members.

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STA	15/09/2023	12/02/2024	20/12/2024
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SIGN-AIR

IMPLEMENTED SYNERGIES, DATA SHARING CONTRACTS AND GOALS BETWEEN TRANSPORT MODES AND AIR TANSPORTATION

SIGN-AIR

This document is part of a project that has received funding from the SESAR 3 Joint Undertaking under grant agreement No 101114845 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 SIGN-AIR project. 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.

Additionally, it is important to mention that this document is not only reflecting the outcomes of Task 2.18: Dissemination and communication plans and actions but also the results of the close connected tasks namely T2.14 Workshops of SIGN-AIR´s stakeholders, Task 2.19: Cross projects and initiatives collaboration and TSPs engagement activities and Task 2.20: Business architecture and exploitation strategy.

1.1 Definitions

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

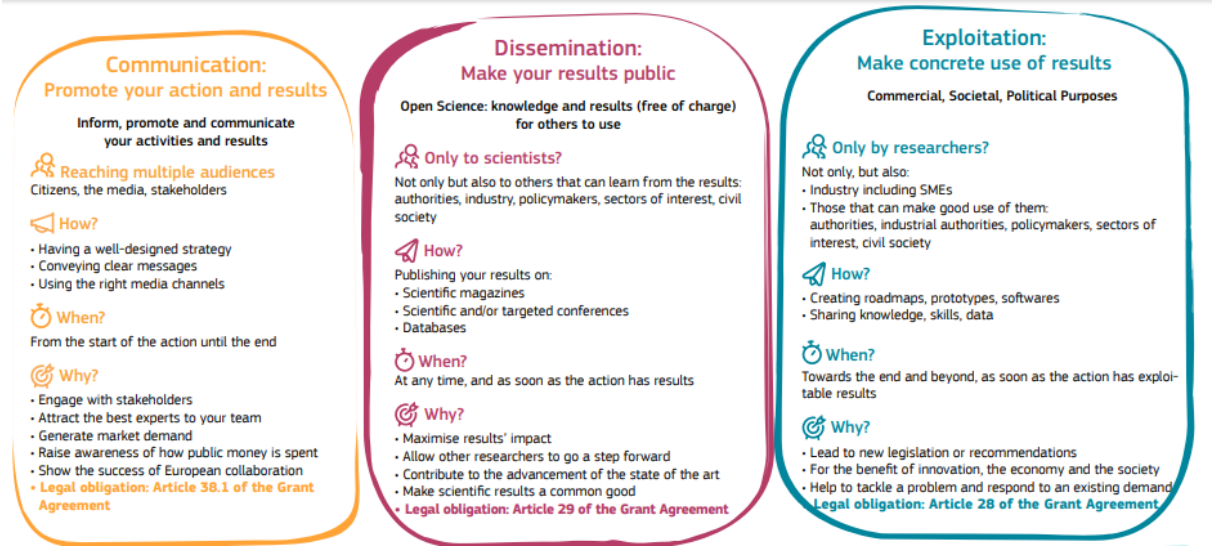

Figure 1: Definitions of communication, dissemination, and exploitation in Horizon Europe

1.2 Applicable reference material

SESAR 3 Joint Undertaking Project Handbook (Edition date: 11 April 2022, Edition: 01:00): Section 3.9 provides the main guidelines of CDE activities and preparation of a good CDE plan (current document), outlines the dedication of resources and coordination with the SESAR 3 JU communication team and the principal roles and responsibilities of the Project Manager and SESAR 3 JU. Finally, it refers to the external stakeholders' management to secure the largest possible visibility.

SESAR 3 JU communication guidelines[1]: It sets all the communication guidelines that need to be followed throughout the project.

SIGN-AIR project kick-off meeting-Programme Overview: Jérôme Delmeulle (SESAR 3 JU Programme Manager) presented in Barcelona on 13 June 2023, the "SESAR 3 JU Programme How to communicate" slides. These slides provided the main guidelines on the CDE activities.

Digital European Sky Industrial Research & Fast-Track Innovation and Uptake 1 Projects Kick-Off Meeting: This presentation held on the 5th of July in 2023, detailed the CDE activities to the projects' coordinators. It stated the mission and high-level objectives of SESAR 3 JU which is no other than delivering the Single Digital European Sky. The key events organised by SESAR 3 JU, the e-publications along with the social media presence as well as the SESAR 3JU team focus on CDE activities and their role. Moreover, guidance to SESAR 3 JU project consortia on communications was provided to achieve the CDE objectives.

Additional reference material concerning CDE activities can be found below:

- **Communication, dissemination and exploitation: Why they all matter and what is the difference?**
  https://ec.europa.eu/research/participants/docs/h2020-funding-guide/imgs/quick-guide_diss-expl_en.pdf
- **Communicating EU research and innovation guidance for project participants**
  http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf
- **The use of the EU emblem**
  http://ec.europa.eu/dgs/communication/services/visual_identity/pdf/use-emblem_en.pdf
- **EU interinstitutional style guide**
  http://publications.europa.eu/code/en/en-000100.htm
- **Misused English words and Expressions in EU publications**
  http://ec.europa.eu/translation/english/guidelines/documents/misused_english_terminology_eu_publications_en.pdf
- **How to write clearly**
  http://bookshop.europa.eu/en/how-to-write-clearly-pbHC3010536/
- **Social networks of the EU**
  https://europa.eu/european-union/contact/social-networks_en

[1] For the project partners can be found in the project's repository

2 Project introduction

2.1 "About" project text

The SIGN-AIR project is transforming how transport service providers (TSPs) collaborate to make door-to-door travel easier and more seamless for passengers. Its main goal is to create the SIGN-AIR web platform, a hub where TSPs can efficiently create and manage contracts (data sharing agreements and smart contracts) and monitor data sharing without giving up control of their own data or customers.

This platform simplifies data sharing by offering ready-to-use contract templates that comply with European and national rules, including GDPR, and provides secure tools to speed up agreement signing. SIGN-AIR also supports the use of standard data formats and contributes to aligning them with EU policies, making it easier for transport service providers to work together.

The platform assists TSPs, including airlines, airports, and public transport operators, improve services by sharing data to synchronize schedules, reduce delays, and even offer single multimodal tickets. SIGN-AIR integrates with third-party tools like travel companion apps and data-sharing platforms to enhance the passengers´ experience.

Through real-world pilot tests, SIGN-AIR aims to demonstrate how its components benefit both service providers and travellers. Ultimately, the project supports a shift from focusing on flights to a passenger-centred, multimodal transport system, creating smoother and more connected journeys for everyone.

2.2 Project key messages

The first step in any communication exercise is to define the messages to be transmitted.

The paragraph below contains the identified benefits that need to be conveyed to key messages for SIGN-AIR Stakeholders who are described in section 2.5.

- **Facilitate Collaboration**
  Before: The existing collaboration among TSPs of different modes are limited (please refer at D3.2 of SYN+AIR) but the current trends of collaboration (e.g., Lufthansa & DB, Air France & SNCF, T-Mobilitat etc) show that there is a movement towards embracing the benefits of collaboration.
  SIGN-AIR is a groundbreaking project that boosts collaboration among multimodal transport operators, enabling seamless mobility and transforming the future of transportation by providing a standardise process to TSPs to create and manage data sharing agreements and smart contracts.

- **Data Standardization and Harmonization**
  Before: Data standardization and harmonization are crucial for the TSPs and data sharing. EC is promoting data standards for the digitalization and homogenization of services.
  SIGN-AIR ensures interoperability and trust among transport service providers (TSPs) for efficient data sharing and collaboration; it will provide guidelines and tools for data standardization and harmonization.

- **Overcoming barriers towards seamless transport**
  Before: During planning and executing a 4h multimodal chain trip, a traveller might encounter obstacles (e.g., disruptions, multiple ticketing/issuing, transfer waiting time, total travel time etc.) that restrict travellers' satisfaction.
  SIGN-AIR's end users (Travel Service Providers) can use the data sharing agreement and smart contracts to create new mobility packages and to manage disruptions in an effective manner.

- **Traveller Empowerment**
  Before: Current Travel Companion (TCs) applications are usually dedicated to one mode of transport (e.g., WAZE, skyscanner etc) or they offer one functionality to the travellers (e.g., booking, price optimization, navigation, passengers' rights advice etc).
  SIGN-AIR will connect to TCs, enabling travellers to access the results of data sharing contracts between TSPs. This will allow travellers to choose itineraries offered through collaborations between TSPs, ensuring a seamless and reliable journey experience.

- **Compliance and Legal Framework**:
  Before: Existing data sharing agreements are conducted in ad hoc basis and their generation is a time-consuming process.
  SIGN-AIR standardizes and streamlines agreements, ensuring compliance with relevant laws and regulations, including GDPR. It establishes a standard legal layer for facilitating data sharing and collaboration among TSPs.

- **Shift to Passenger-Centric and Multimodal Approach**
  Before: Air Traffic Management (ATM) follows a flight-centric approach. Currently, ATM follows a conventional Air Traffic Control with sectorization, however the tendency is to change this to a flight-centric structure based on the controller's responsibility for a certain number of aircraft within a given airspace. Flight centric approach tackles the challenge to take the passenger from Gate2Gate.
  SIGN-AIR contributes to the shift of Air Traffic Management (ATM) from a flight-centric to a passenger-centric and multimodal approach, enhancing total airport management operations, coordination, and reducing time-to-gate in and around airports. SIGN-AIR solution can contribute shaping the ATM approach to be passenger centric and take the passenger from Door2Door in a seamless way.

Table 1 presents the three key messages of the project for communication & dissemination purposes and slightly adapted for the exploitation purposes.

Table 1: Project's key messages

# Key message id	Dissemination & Communication	Exploitation
1	SIGN-AIR standardizes and streamlines data sharing agreements and smart contracts, ensuring compliance with relevant laws and regulations, including GDPR, to facilitate	SIGN-AIR platform forms a cohesive ecosystem… All-in-one DSA and SC tool for multimodal collaboration.

	data sharing and collaboration among Transport Service Providers to achieve seamless multimodal transport.	
2	Data sharing, standardization and harmonization are key to enhance smart and seamless multimodal transport for Europe's citizens	To achieve seamless 4hour D2D, to provide added value services to travellers of European market.
3	Future travellers using Travel Companion application connected with the SIGN-AIR platform or services that have behind an established data sharing agreement, will have the opportunity to choose itineraries using the benefits of a single ticketing system, real time information and ensuring their rights.	SIGN-AIR facilitates TSPs to unlock their data value and therefore future travellers could receive a personalized service tailored to their needs.

These key messages can be updated during the project life cycle, to make the values more concrete to the targeted stakeholders. Furthermore, the aforementioned key messages are examples that can be used however depending on the targeted audience and the situation, they might be changed to use less "jargon".

2.3 Keywords

Table 2 presents the key words that can be used to identify SIGN-AIR, in different channels such as social media, research papers etc.

Table 2: Keywords of SIGN-AIR

Key Word	Definition
Smart Contracts Framework	Smart Contracts Framework (SCF) is a business process that defines data exchange rules among Transport Service Providers (TSPs) that share the common goal of getting the passenger to the destination through a multimodal chain of trips. The SCF is facilitated by a web platform that allows TSPs to create, modify, cancel, and validate signed contracts (both data sharing agreements and smart contracts).
Transport Service Providers (TSPs)	Transport Service Providers (TSPs) are entities or organizations that provide transport and mobility services to travellers such as airports, airlines, railway operators, bus operators, ferries etc.
Data sharing	Data sharing is the process to exchange data between different entities.
Data Sharing Agreement	Data sharing agreement is an e-contract that defines the data that a data provider TSP makes available to a data consumer TSP and that sets out the terms and conditions for the use of such data.
Smart Contract	Smart Contract is an e-contract based on the "external smarter contract model" composed of a legal part and a software part. The general aim of a smart contract is to detail the objective of one (or more) data sharing agreement(s) by specifying the triggers and actions of TSPs. For example, if the general objective of a data sharing agreement is "single

	ticketing", the smart contract might define more detailed obligations (actions) for TSPs (such as, in case of a disruption, informing the other party and Travel Companion (TC) and take specific remedial operational decisions) as well as legal consequences in terms of revenue and responsibility sharing.
Seamless transport	The provision of a smooth, efficient, safe, secure and enjoyable travel experience from a traveller's point of origin to a destination, within the destination, and back again
Multimodality	Multimodal transport implies full coordination and integration of different modes of transport. This concept includes possibility of buying single ticket for whole travel (including all segments performed by different modes of transport), fully coordinated timetables, responsibility shared between TSP and passengers, better location of terminals and stops in order to facilitate shorter walking distances between terminals during transfer, possibility of remote check-in (at the beginning of journey), additional access facilities at transfer between terminals and stations for all modes of transport.
Air Traffic Management	The set of systems, procedures, and regulations designed to ensure the safe and efficient movement of aircrafts within the airspace and on the ground.

Moreover, the SIGN.AIR consortium has worked on a glossary as SIGN-AIR project brings together organizations from across the transport ecosystem to foster collaboration and create a seamless multimodal travel experience for users. This effort involves integrating various modes of transport through shared rules and agreements, overcoming the fragmentation in today's transport market. A key challenge in achieving this collaboration is the lack of a common language, as different organizations often use their own terminology, leading to misunderstandings and inefficiencies.

This glossary serves as a practical tool to define and clarify terms, including abbreviations, used by project partners from diverse governance and transport backgrounds. By establishing a shared understanding, the glossary supports the development and implementation of SIGN-AIR's one-stop platform, which is built on Smart Contracts and Data Sharing Agreements.

Aligned with the principles of multimodality, this glossary is also designed to benefit other related projects, such as MultiModX, MAIA and Travel Wise. It plays a critical role in building mutual trust and ensuring effective communication, ultimately contributing to a more connected and cooperative transport system.

The glossary will be presented during the project execution and will be divided in three sections:

- A multimodality glossary with the term, its definition, the source of the concept and the context area for the SIGN-AIR project
- A comparation and listing of terminology from IATA (Internation Air Transport Association) vs Transmodel (Reference Data Model for Public Transport), with the objective of aligning them it, for market's benefit.
- A list of abbreviations with full text, source and comments as well as the SIGN-AIR context

This glossary will be presented during the execution of the project.

2.4 Focal point for communications, dissemination and exploitation.

Table 3 indicates the focal point(s) for communications, dissemination, and exploitation activities.

Table 3: Focal points of contact

Name	Role	Email address
Josep Lluís Larriba	Project Coordinator	larri@ac.upc.edu
Ismini Stroumpou	Project Manager	ismini@sparsity-technologies.com
Cristina López	Dissemination Leader	cristina.lopezdelaosa@carnetbarcelona.com

2.5 Stakeholders' identification

Table 4 presents the general target groups and some targeted measures for these different groups/communities. Nevertheless, a more specific analysis and stakeholders' mapping is presented in the following paragraphs, and the reason is to allow us to plan a more targeted approach of CDE activities.

Table 4: SIGN-AIR project stakeholders

Stakeholder	Content
EC and SESAR 3 JU	Further research funding can be justified. Compliance with the Grant Agreement (GA).
Universities, Research Centres	Advance research expertise in the domains of transport data sharing, contractual law, data standardization and harmonization and multimodality.
Policy makers	Provide guidelines and legislation. Get the conclusions about the pilots and Policy recommendations.
Project partners	Create new knowledge and promote their own exploitation interests.
Transport Service Providers (TSPs)	Offering better travelling services, more efficient system by using SIGN-AIR platform and establishing new collaborations.
MaaS operators and Travel Companion companies	Provide new tailored services to the travellers
Transport Alliances (e.g., ACI, IATA, UITP, UIC, UNIFE etc)	Promote collaboration to their members to provide better services.
Civil society	General information on the project

Traveller	Gain the benefits of the contracts signed by the Transport Service Providers
Software companies related to data management (i.e., storage, transformation, sharing)	Interest in developing an overall market framework and/or connect with SIGN-AIR platform.

However, it is important to mention that certain SIGN-AIR's stakeholders are presented in Table 4 and represented in Figure 2, based on their interaction with SIGN-AIR platform after the initial stakeholders' mapping that was performed. The stakeholder mapping overview provides a comprehensive perspective on the individuals, organizations, and entities that play pivotal roles in shaping the success and resonance of collaborative initiatives within the SIGN-AIR platform. By mapping out these key stakeholders, we gain insight into their interests, expectations, and roles, thereby laying the groundwork for informed engagement, strategic partnerships, and the realization of multi-modal collaboration. Furthermore, this analysis allowed us to form the exploitation key messages presented in the last column of Table 1.

SIGN-AIR' stakeholders can be divided based on their interaction with the system in three categories:

1. **Core Stakeholder:** Individuals or groups with significant influence and vested interests in the SIGN-AIR platform. The end users of the SIGN-AIR platform, organization that sign the contracts either as data provider or as data consumers.
    - Cluster 1-Infrastructure managers managing transport hubs: airports, ports, railway stations and bus central stations.
    - Cluster 2- Traffic controllers proving permissions to the transport carriers: ANSPs, VTC, Transport Authorities, Companies managing ERTMS.
    - Cluster 3- Transport carriers operating fleets of vehicles: Airlines, ferries operators, Railway operators, bus operators, Demand Responsive Transport operators, micro mobility providers.

2. **Directly involved:** Stakeholders that are part of SIGN-AIR's ecosystem for specific reasons such as to demonstrate the contract's results or to update the data catalogs or to facilitate standardization and harmonization data processes, provide or consume data. These are Software companies related to data management (i.e., storage, transformation, sharing), Mobility as a Service (MaaS) operators and Travel Companion companies, Transport Alliances (e.g., ACI, IATA, UITP, UIC, UNIFE etc.).

3. **Indirectly involved:** Stakeholders that have an interest in the outcome but are not directly engaged in the project's execution. In other words, stakeholders that are affected by the results of the data sharing agreements and/or the smart contracts at a different extent which are the travelers and policy makers.

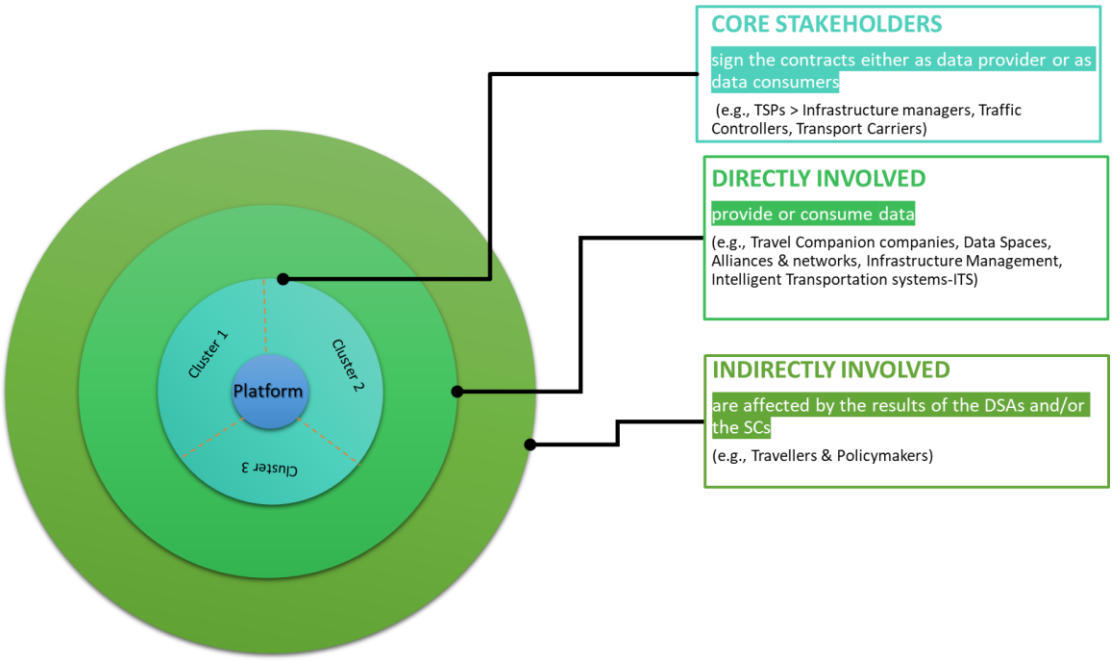

Figure 2: SIGN-AIR platform stakeholders

Table 5: Clustering of SIGN-AIR's platform stakeholders

Stakeholder	Cluster	Description of interaction with the SIGN-AIR platform
Transport Service Providers (TSPs) (e.g., airports, airlines, railway operators, bus operators, infrastructure managers, etc)	Core	Establishing new collaborations and generate data sharing agreements and smart contracts to fulfil D2D seamless transport.
Software companies related to data management (i.e., storage, transformation, sharing)	Direct	Interest in developing an overall market framework and/or connect with SIGN-AIR platform.
Mobility as a Service (MaaS) operators and Travel Companion companies	Direct	Provide new tailored services to the travellers
Transport Alliances (e.g., ACI, IATA, UITP, UIC, UNIFE etc)	Direct	Promote collaboration to their members to provide better services.
Policy makers	Indirect	Provide guidelines and legislation. Get the conclusions about the pilots and Policy recommendations.
Traveller	Indirect	Gain the benefits of the contracts signed by the Transport Service Providers

The stakeholders of Table 4 and their benefits are going to be furthered analysed in D2.11 Cost-benefit analysis (CBA) to be delivered in M32 and its draft versions of M8 and M20 linked with Milestones 4 and 11 respectively.

3 Communication

The aim of communications is to raise the visibility of the project's activities among audiences beyond the project's own stakeholder community as presented in the previous section 2.5. Communications activities aim to convey the benefits of research for European citizens and the economy and demonstrate how EU funding contributes to tackling societal challenges.

3.1 Communications objectives and strategy

The specific aim of the project communication strategy is to draw attention regarding the benefits and impact of the project to society and general public. The objective of SIGN-AIR communication strategy is to spread information on the project's activities and results so as to identify the main path-lines that the SIGN-AIR promotion and technology diffusion strategy should follow during its lifespan as well as its main objectives. All this will be carried out by means of:

- **Communicate for awareness:** making people (target audience, stakeholders, and the general public) aware of the SIGN-AIR project, of its on-going activities and developments.
- **Communicate for exchanges of concepts and solutions - Cross projects and initiatives collaboration:** providing information relative to specific topics for an audience composed of experts, organizing exchanges of best practices between people with a deeper knowledge as well as within the member of the stakeholders' community such as Exploratory Research projects on multimodality of SESAR (MAIA and MultiModX), other EU project such as DATA4PT (data standardization), NAPCORE (data standardization), MobiDataLab, Ecorridor (cyber security and multimodality), STARS (blockchain), AICHAIN (blockchain), PrepDSpace4Mobility (dataspaces, multimodality), Eona-X (data space for tourism) and the DG MOVE initiatives of MDMS and EMDS.
- **Communicate for wider acceptance:** sharing information and promoting the project's mission and results to a wide group of stakeholders at international, European, national, and local level.

The project's communication activities will be aligned, to the maximum possible extent, with the communication activities of SESAR and promote collaboration among multimodality projects of SESAR. To ensure similar styling as with SESAR the project's communication will follow the SESAR Joint Undertaking graphical guidelines following the referenced documents of section 1.2.

To have high communication impact in events, materials such as a roll-up, leaflets and brochures that will be used to attract attention will be created. Considering that some workshops and events will be done onsite and online. The communication toolkit is composed of basic marketing materials such as consistent photographs, project logos, a presentation template, a brief project presentation in English and banners for social media posts or newsletters. The toolkit will be available to partners since M4 of the project timeline and will be updated accordingly as the project evolves.

All communication activities are logged in a shared file at the project repository to keep track of progress. This directory can accessed by the project's partners through this link.

3.2 Communication target audiences

To understand SIGN-AIRs target audience we conducted a stakeholder analysis to gather more insight regarding our potential target audience.

A stakeholder analysis is a process of identifying these people by grouping them according to their levels of participation, interest, and influence in the project and determining how best to involve and communicate throughout each of these stakeholder groups. The purpose of this type of analysis are to:

1) Enlist the help of key organizational players.
2) Gain early alignment among all stakeholders on goals and plans.
3) Help address conflicts or issues early on.

To conduct our stakeholder's analysis, we first brainstormed all possible target audiences that could match any of the 3 requirements described above. By doing so we managed to reduce the list to the most interested parties as they are clustered in section 2.5. The main target audiences that have been identified during the first phase of the project can be seen in the following table (Table 6).

The project's communication strategy will continuously vary slightly depending on the focused audience. It is divided in:

- **Internal Communication – Communication between the project partners, Communication between the project partners and the SESAR 3 JU & EC representatives:** Team members will use dedicated mailing lists, regular management meetings, and teleconferences, in-person project meetings, and communication tools like Google Drive, Slack, and Google Calendar. A similar approach will be followed with the communication with the SESAR 3 JU and EC representatives using mails, regular management meetings and the dedicated platforms of STELLAR and Participant Portal. This communication strategy is duly described in the deliverable of D1.1-Project Management Plan.
- **External Communication – Communication with the Stakeholders:** Public communication and dissemination of the SIGN-AIR project will occur on various social media platforms (Twitter, LinkedIn). Further details about the communication tools are discussed in subsequent sections.

Table 6: Communications target audiences

Target	Examples	Channel	Message	Activities
Core	TSPs (e.g., Airports, airlines, railway operators etc) and transport authorities (e.g., OASA)	-Industry and academic events & conferences - Workshop(s) -Bilateral meetings -Project's website & social media	SIGN-AIR standardizes and streamlines data sharing agreements and smart contracts, ensuring compliance with relevant laws and regulations, including GDPR, to facilitate data sharing and collaboration among Transport Service Providers	Provide them access to the SIGN-AIR platform to use it and test it. Participate in elicitation of requirements and performance validation activities.

			to achieve seamless multimodal transport.	
Direct	Software companies related to data management (i.e., storage, transformation, sharing) Mobility as a Service (MaaS) operators and Travel Companion companies	-Industry and academic events & conferences - Workshop(s) -Bilateral meetings -Project's website & social media	Data sharing, standardization and harmonization are key to enhance smart and seamless multimodal transport for Europe's citizens	Cross fertilizes information to optimize the SIGN-AIR ecosystem. Connect with 3rd parties' services that can facilitate data sharing and the generation of data sharing contracts. Participate in elicitation of requirements and performance validation activities.
Indirect	Transport Alliances (e.g., ACI, IATA, UITP, UIC, UNIFE etc) Policy makers	-Industry and academic events & conferences - Workshop(s) -Bilateral meetings -Project's website & social media	Future travellers using Travel Companion application connected with the SIGN-AIR platform or services that have behind an established data sharing agreement will have the opportunity to choose itineraries using the benefits of a single ticketing system, real time information and ensuring their rights.	Give insights about the project and help search for cooperating stakeholders. Participate in elicitation of requirements and performance validation activities. Co-organize meetings/workshops for the promotion of SIGN-AIR solution.
Indirect	Universities, Research Centres	-Industry and academic events & conferences - Workshop(s) -Bilateral meetings -Project's website & social media	-SIGN-AIR standardizes and streamlines data sharing agreements and smart contracts, ensuring compliance with relevant laws and regulations, including GDPR, to facilitate data sharing and collaboration among Transport Service Providers to achieve seamless multimodal transport.	Get insights about the project and collaborate in the scientific and research excellence. Participate in elicitation of requirement and performance validation activities.

			- Data sharing, standardization and harmonization are key to enhance smart and seamless multimodal transport for Europe's citizens - Future travellers using Travel Companion application connected with the SIGN-AIR platform or services that have behind an established data sharing agreement will have the opportunity to choose itineraries using the benefits of a single ticketing system, real time information and ensuring their rights.	Co organize activities such as panels, round tables and publication of scientific papers.
Indirect	Travellers Civil society	-Project's website & social media	Future travellers using Travel Companion application connected with the SIGN-AIR platform or services that have behind an established data sharing agreement will have the opportunity to choose itineraries using the benefits of a single ticketing system, real time information and ensuring their rights.	Participate as audiences in various events. Involve them in our small-scale pilots (if possible)

3.3 Branding and acknowledgements

Figure 3 shows the project's logo which needs to be present in each and every CDE activity of the project in a visible place.

SIGN-AIR

Figure 3: Project logo

Moreover, for all CDE actions, projects should acknowledge EU funding by displaying the EU emblem and SESAR 3 JU logo, in addition to the project logo.

3.4 Communication channels

This section outlines the communication channels designated for our outreach endeavours. It specifies the platforms chosen to enhance awareness about project developments and foster connections with our intended audience. Within the scope of SIGN-AIR's strategy, the paramount consideration is the sustainability of our communication, which is our preferred approach.

Given the predominant digital nature of interactions, we intend to place particular emphasis on online content, such as articles and videos, to effectively captivate and involve our audience. Visual materials will play a pivotal role in conveying our messages across various platforms, including our website, LinkedIn, and Twitter profiles.

While our newsletter activities will occur less frequently, they will significantly underscore the redirection of the audience towards our website. This digital hub will serve as the primary repository for an extensive collection of project-related information available for comprehensive exploration. Additionally, we are contemplating leveraging SESAR 3 JU communication channels to extend our reach to a wider demographic.

As SIGN-AIR progresses, our focus on social media will intensify in the latter phase of the project, coinciding with the unveiling and dissemination of more substantial advancements to the public.

Table 7 summarizes the main platforms planned to spread awareness of project updates and establish connection among our target audience.

To better coordinate and standardize CDE activities, the SIGN-AIR partners will need to follow the templates[2] of Press Releases (Annex I: Press Releases), Events (Annex II: Events and web presence (Annex III: Web presence).

Table 7: Communication channels

Channel	Link	Information to be shared
Website	https://sign-air.eu/ https://cordis.europa.eu/project/id/101114845	• Project Comms • Entrance to SIGN-AIR platform & Project deliverable
LinkedIn (please also see	https://www.linkedin.com/company/syn-air/about/	• Promotion of the project and its objectives to the general public

[2] The project partners can find the templates here.

section 3.4.3)		• News and articles • Distribution of gained knowledge to the Air Transport and TSPs community. • Promoting project results
Twitter (please also see section 3.4.3)	https://twitter.com/signairproject	• Promotion of the project and its objectives to the general public • Distribution of gained knowledge to the Air Transport and TSPs community. • Promoting the acceptance of project results
Newsletter (please also see section 0)	n/a	• Promotion of the project and its objectives to the general public • Distribution of gained knowledge to the European Aviation and TSPs community. • Promoting the acceptance of project results
SESAR 3 JU social media channels	https://www.sesarju.eu/enews	• Promotion of the project and its objectives to the general public • Distribution of gained knowledge to the European Aviation and TSPs community. • Promoting of project results • Inclusion of SIGN-AIR at a newsletter of SESAR 3 JU

By creating visual content, we will be able to share messages through SIGN-AIR's website, LinkedIn, and Twitter accounts. The newsletter actions will not be as recurring but will have a big focus towards pushing the audience towards our website, where most of the project content will be available for further inspection.

3.4.1 Website

Apart of the dedicated page handled by SESAR 3 JU in coordination with the project members. SIGN-AIR has its own landing page (https://sign-air.eu/) which is regularly updated with the project's public deliverables, and it is the entrance point for the SIGN-AIR platform. Additionally, it is linked to the social media that contain all the communication and dissemination material of the project.

3.4.2 Press, media, and social media channels

To emphasise significant project achievements, we will compose press releases. These releases will be circulated to pertinent industry media outlets, policymakers, science-oriented platforms like CORDIS and Horizon*EU, as well as general news channels, ensuring thorough coverage.

In response to specific needs, representatives from SIGN-AIR will participate in interviews. These interviews will be scheduled to coincide with major project milestones, allowing the project team to spotlight the advantages of SIGN-AIR and its potential to revolutionise multimodal transportation.

For public events and presentations, a dedicated flyer will be designed. This material will incorporate a QR code, directing recipients to the project's website for in-depth information.

Furthermore, we will develop and distribute additional publications discussing the potential policy implications of SIGN-AIR. These materials will be shared on policy-oriented platforms such as Euractiv and CORDIS, facilitating engagement with policymakers. Additionally, articles focusing on the project's research aspects will be published on platforms like CORDIS or ScienceBusiness, thereby reaching out to the scientific community.

Table 8: Contribution to external media.

Media activity	Date	Link
	Past contribution	
Post on multi-modal collaboration	22/2/2024	https://www.linkedin.com/feed/update/urn:li:activity:7166346733621387265
Transport Service Providers and their opportunities	26/2/2024	https://www.linkedin.com/feed/update/urn:li:activity:7167820628756971520
Benefits to passengers from the SIGN-AIR platform	29/2/2024	https://www.linkedin.com/feed/update/urn:li:activity:7168915359658373120
Data Spaces Symposium Save the Date	8/3/2024	https://www.linkedin.com/feed/update/urn:li:activity:7171909753881706497
Unlocking the Benefits of Standardization in Public Transport	18/3/2024	https://www.linkedin.com/feed/update/urn:li:activity:7175460961825210368
Paper on sustainable passenger air transport system	25/3/2024	https://www.linkedin.com/feed/update/urn:li:activity:7177949254403973120
Embracing Standardization for Enhanced Public Transport	25/3/2024	https://www.linkedin.com/feed/update/urn:li:activity:7177997684685889536

Leveraging Standardization for Smoother Public Transport Operations	1/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7180519284798808065
Participation of CRIDA A.I.E	3/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7181246687120642048
Transforming the travel experience	10/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7183780766206607360
1st Technical Meeting	12/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7184476617375682561
Save the Data presentation TRA (1)	13/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7184882362550280192
Save the Data presentation TRA (2)	13/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7184887889669869568
Passenger Terminal-expo	16/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7185876422391910400
Save the Data presentation TRA (3)	16/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7185877737394380800
Sign-Air Poster	19/4/2024	https://www.linkedin.com/feed/update/urn:li:activity:7187094156329000961
Boost the benefits of air-rail integration	17/5/2024	https://www.linkedin.com/feed/update/urn:li:activity:7197189119825891329
Consortium Meeting in Belgrade	21/5/2024	https://www.linkedin.com/feed/update/urn:li:activity:7198679353918910464
Reshape the future of sustainable and connected transportation.	31/5/2024	https://www.linkedin.com/feed/update/urn:li:activity:7202262566188781568
21st Conference of the European Passengers' Federation	10/6/2024	https://www.linkedin.com/feed/update/urn:li:activity:7205943818259509249

Goal: Smooth connection times between trains and flights	14/6/2024	https://www.linkedin.com/feed/update/urn:li:activity:7207335998148587520
SIGN-AIR connectivity index at EASN	2/9/2024	https://www.linkedin.com/feed/update/urn:li:activity:7236395752271282176
Standarised Data	3/9/2024	https://www.linkedin.com/feed/update/urn:li:activity:7236655423246761985
Data interoperability	16/9/2024	https://www.linkedin.com/feed/update/urn:li:activity:7241374023589257216
Data cooperation and standardized data	30/9/2024	https://www.linkedin.com/feed/update/urn:li:activity:7246447438830391296
Poster of the EASN	15/10/2024	https://www.linkedin.com/feed/update/urn:li:activity:7251948278634713088

3.4.3 Social media Strategy

Task leaders have established a social media profile, which will be jointly managed with input from all consortium partners. The primary objective is to enhance the visibility of our website by showcasing our ongoing initiatives. Concurrently, we aim to foster interaction with key stakeholders to raise awareness about our project and product. Our strategy involves sharing essential project outcomes and advancements, alongside blog entries about events and pertinent news.

To systematically monitor our communication's effectiveness, we've devised a tracking document to gauge our progress. To connect with the pre-existing community, we will include references to EU-SESAR 3 JU funding in our profile bios, using official handles such as @SESAR_JU, @HorizonEU, and @cinea_eu. Furthermore, posts will tag or mention SESAR 3 JU and the EU when considered necessary to improve visibility of the activities developed.

The consortium will leverage its independent social media accounts to provide updates pertinent to the project's development. Sustaining a consistent flow of information, consortium members will be obligated to share the advancements of their tasks for public dissemination. This practice will not only engage our target audiences but also align with the platforms' algorithms, which favour frequent content publication.

To promote project activities throughout the duration of the grant and engage directly with multiple audiences to show the benefit of their work. A social media strategy should cover the following elements:

1. Establishing project-level accounts on social media platforms;
    - LinkedIn: https://www.linkedin.com/company/sign-air/?
    - Twitter: https://twitter.com/signairproject
2. Ensuring that EU-SESAR 3 JU funding is referenced in profile bios using the relevant handles and/or hashtags.
    - LinkedIn: @SIGN-AIR, @SESAR3_JU @HorizonEU, #ATM #DigitalSky #innovation #SESARJU #HorizonEU #MobilityStrategy, #SESAR3JU, #DigitalSky @SESAR_JU
    - Twitter, the handles to use are @SESAR_JU @HorizonEU
3. Tagging or referencing the SESAR 3 JU and EU in all posts;
4. Making use of beneficiaries' own accounts on social media platforms.

In addition to these accounts, a tracking document has been developed to monitor the progress of the communications.

To further enhance the social media presence since the project needs to maintain the interest of stakeholders and keep them regularly updated on the progress, the communication plan of 6 months has been updated (Annex IV Communication plan).

3.4.4 Communication events

SIGN-AIR has two dedicated tasks related to communication(/dissemination) events:

1. Task 2.14 Workshops of SIGN-AIR´s stakeholders
2. Task 2.19: Cross projects and initiatives collaboration and TSPs engagement activities

Table 9: Events with SIGN-AIR's participation

	Event	Date	Place	Information to be shared. Form & topics	Importance for the project
1	Data Spaces Symposium	12/3/2024	Frankfurt	Facilitating data sharing among different stakeholders but always having at the centre the passenger	
2	TRA	17/4/2024	Dublin	The TRA presentation focused on SIGN-AIR's aims to create a platform that facilitates Transport Service Providers to create and monitor data sharing agreements and smart contracts.	
3	Passenger Terminal	From 16/4/2024	Messe Frankfurt	Exploring the complexities airports	

	Conference 2024	to 18/4/2024		face when integrating multiple modes of transport and the strategies to streamline operations for seamless connections.	
4	21st Conference of the European Passengers' Federation	From 21/6/2024 to 22/6/2024	Warsaw	SIGN.AIR was presented to the EPF partners	This workshop aided in both the exposition of the project and the external validation of the solutions developed within the project framework
	EASN Conference	From 8/10/2024 to 11/10/2024	Thessaloniki	Through a data-driven methodology, timetable synchronization and network integration at major hub airports was analysed, improving passenger accessibility and creating smoother travel experiences across EU cities.	This poster & paper presents the enhanced air connectivity index to multimodality connectivity index introducing to the air stakeholders the potential benefits of air-rail collaboration

In all the events presented in Table 9, SESAR 3 JU representatives or representatives of SESAR projects as well as members of ACI are more than welcome and their presence will provide added value to these events.

Table 10 list the envisioned events for SIGN-AIR project participation. This list will be enhanced in the future or modified as the participation of SIGN-AIR partners in these events/conferences depends on invitations received to participated as an exhibitor, as a presenter of a poster or a scientific paper, as participant/expert in round tables and panels by the organizators.

Table 10: Events & conferences

#	Event	Link	Date	Place	Information to be shared	Importance for the project	Confirmed
1	UITP Training Programme on Mobility as a Service (MaaS)	N/A	27-29 June 2023	Brussels, Belgium	Presenting the project objective and future	Connecting the project with MaaS operators and travel companio	Yes

					activities	ns as well as policy actors.	
2	EASN 2023	http://easnconference.eu/2023/key-dates	5-8/09/2023	Salerno, Italy	Presenting the scientific & research outcomes of the project	Connection of the project's results with the air transport community	Yes
5	SESAR 2nd Annual Conference	https://www.sesarju.eu/node/4518	10/10/2023	Brussels, Belgium	Presenting the project objective and future activities	Connection of the project's results with the air transport community	Yes
6	Smart City Expo World Congress 2023	https://www.smartcityexpo.com/	7-9/11/2023	Barcelona, Spain	Project objectives and description of SIGN-AIR concept.	Connection of the project's results with the multimodality actors	Yes
8	SESAR innovation days	https://www.sesarju.eu/node/4478	27-30/11/2023	Seville, Spain	Project objectives and description of SIGN-AIR concept.	Connection of the project's results with the air transport community Establish cross project collaboration with the other SESAR projects.	Yes

11	TRA2024	https://traconference.eu/	15-18/4/2024	Dublin, Ireland	Presenting the scientific & research outcomes of the project	Connection of the project's results with the multimodality actors	Yes
14	EPF annual conference	https://www.epfconference.eu/	21-22 June 2024	Warsaw, Poland	Presenting the scientific & research outcomes of the project	Connection of the project's results with the multimodality actors. Organization of a focus group.	Yes
	EASN 2024	https://easnconference.eu/	8-11/10/2024	Thessaloniki, Greece	Presenting the scientific & research outcomes of the project	Presentation of poster: connectivity index	Yes
	SESAR Annual Conference	https://www.sesarju.eu/SJUAnnual2025	18/02/2025	Brussels, Belgium	Presenting the scientific & research outcomes of the project	Demo	Yes

3.4.4.1 SIGN-AIR 1st stakeholders' workshop

The 1st stakeholders' workshop was organized on the 2023, November the 17th, just a day before the SESAR Innovation Days 2023 in Seville, Spain. The main reason was to attract more stakeholders and also reduce costs for both stakeholders and the consortium. We hosted 54 experts with different backgrounds related to multimodality. The project overview was presented to them to get a first taste of SIGN-AIR's challenges, then the experts were invited to join three parallel sessions of 2h and 30 min intensive discussions.
This workshop's objective was twofold:

- to present the project to the stakeholders and initiate a collaboration with them.
- to get the experts' insights on specific topics which are challenging for SIGN-AIR.

The highlights of this workshop are in section 10.

3.4.5 Publications and newsletters

SIGN-AIR has developed the following publications, printed material (roll-ups, stickers, etc.) or newsletters, presented in Table 11, ensuring the SESAR 3 JU and EU funding is referenced/displayed. Additionally, the consortium partners will contribute to SESAR 3 JU publications (e.g., SESAR solutions catalogue, results brochures, annual highlights, e-news) providing text and illustrative content, where needed.

Table 11: Printed material

Publications/newsletters/printed material	Description	Date	Link
Roll-up	Design of roll-up for congresses, fairs and events	30/09/2023	N/A
Flyer	Design of flyer for congresses, fairs and events	31/10/2023	N/A
Banner	Design of digital banner for publications and social media	30/09/2023	N/A
Poster	Design of poster for congresses, fairs and events	29/2/2024	N/A
SESAR 3 JU newsletter	Digital newsletter for subscribers	Once TBD	N/A

3.4.6 Videos

SIGN-AIR consortium plans to have two videos/teasers to promote the results of the project more details are presented in the following table (Table 12). The description of the videos might change during the progress of the project. Additionally, the planning refers at the launch of these videos and might be altered based on the technological advancements achieved by the solution and the results obtained that SIGN-AIR consortium would like to disseminate with these videos. However, we will ensure that these videos will include logos of all participating partners, as well as the SESAR 3 JU and the EU logos.

Table 12: Videos

Videos	Description	Planning	Link
1-Project presentation and main components of SIGN-AIR platform	Presentation of the main components of the SIGN-AIR platform and the backbone mechanisms used to identify potential collaborators, how the standardization tool works, how the graph technologies are implemented, how the legal layer works etc.	M20	-
2-SIGN-AIR platform	Presentation of SIGN-AIR platform at the stage of TRL7	M30	-

3.5 Communication key performance indicators (KPIs) and success criteria

Table 13 presents the communication Key Performance Indicators and the success criteria of SIGN-AIR project.

Table 13: Communication KPIs and success criteria

Action	KPIs	Success criteria	Currently achieved	Last update	Annual growth
Web presence [3]	1 Number of visits=120 page visits per month, 80 unique visitors 2 Bounce rate=10% 3 Number of page views=4000 4 Average time of visit=10min	Expected KPI value by the end of the maturity gate.	N/A	12/02/2024	N/A

[3] The landing page of SIGN-AIR was programmed to be launched in February 2024 and be the entrance point of the SIGN-AIR platform.

Press and media	# of press releases & articles (online & printed) =5 per year # of press enquiries=10 per year	Expected KPI value by the end of the maturity gate	Yes	12/02/2024	N/A
Social Media[4]	# of clicks>12849 # likes>549 40 #Shares>10 #tags>10 video views>100 new followers, profile visits>20 engagement rates> 18,3 % uses of your hashtag>20 #Types of comments received, their tone, the number of people they reached, the types of followers, impressions.	Expected KPI value by the end of the maturity gate.	Yes	10/12/2024	N/A
Events	# of organised workshops/events=2 # of attendees=20 # of entities asking for feedback or more information.>5 # of participation in external events and seminars.>10	Expected KPI value by the end of the maturity gate.	Yes Yes Yes Yes	12/12/2024	N/A

[4] *Guidance Social media guide for EU funded R&I projects.*

4 Dissemination

Dissemination means sharing research results with potential users (e.g., peers in the research field, industry, other commercial players, and policymakers). By sharing our research results with the rest of the scientific community, we are contributing to the progress of science in general. Some examples are peer-reviewed papers, books and book chapters, white papers, presentations at scientific conferences (both ATM and non-ATM), workshops, webinars, bilateral meetings, etc.

4.1 Dissemination objectives and strategy

The specific goal of Dissemination within the SIGN AIR project is to outline and arrange the measures required to advance the project's results and attain widespread diffusion, aiming to mobilise and engage the intended communities, encompassing both ATM and non-ATM sectors. As the project evolves, the dissemination approach will be adjusted, and the dissemination efforts will be integrated into the project's reporting documentation. The subsequent elements will be incorporated into the distribution endeavours, with specific focus on being extensively showcased at major international and European conferences, as well as relevant industrial exhibitions. In the event that these activities are held online or offer virtual participation options, the consortium will consider remote participation.

The project also includes engagements such as individual presentations and discussions with influential stakeholders from public and private spheres. Participation in forums like round table discussions and events like the Meeting of the EURO Working Group on Transportation and the ATRS - Air Transport Research Society conference is scheduled.

Furthermore, the project will take an active role in meetings orchestrated by SESAR to enhance collaboration among diverse SESAR initiatives, assess progress, and stimulate cross-fertilization of activities.

Scientific and industry-related information will find publication and presentation avenues in esteemed journals such as Sustainability, Journal of Advanced Transportation, Journal of Air Transport Management, Transport Policy, and Transportation Research.

Even beyond the project's conclusion, the online resources will remain accessible and updated. The primary objectives of the dissemination efforts encompass:

- Effectively conveying project information, advancement, and anticipated outcomes through adept communication approaches.
- Collaborating to curtail redundant efforts and sharing insights with other endeavours and institutions within the sector.
- Distributing the project's knowledge, methodologies, and technological innovations.
- Formulating the project's outputs for efficient commercial and non-commercial utilization, encompassing the early version of the IPR directory.
- While key events have been designated and will be regularly revised throughout the project, the presentation at all events cannot be guaranteed due to potential thematic variations.

- Participation in conferences is open to both EU and non-EU nations, provided the travel is essential for the project's objectives and fiscally viable.

For further details, please refer to page 80 of the Annotated Model Grant Agreement.

Similar to communication strategies, the dissemination actions within the project will be harmonised to the utmost extent feasible with SESAR's communication endeavours to cultivate synergies and augment outcomes.

4.2 Dissemination channels

The following table presents potential conferences that SIGN-AIR findings can be presented, however the participation of SIGN-AIR in these conferences does not depend on the partners willingness but also on the themes chosen by the organisers of these conferences. SIGN-AIR partners will be able to present a paper to topics related to multimodality, data sharing, travel companion and seamless transport. Also, an approval of the scientific papers, abstracts and/or posters is a procedure and for that reason the aforenoted table does not include dates.

Conferences/Symposia/Journals **Title of paper/poster if status is pending for approval or approved**	**Link of conference/journal (if available)**	**Status**
Euro Working group on Transportation Meeting.	N/A	
EASN	https://easnconference.eu/2023/home	Two presentations: “ATM towards the adoption of a passenger-centric approach” “The role of Electric Vertical Take-Off and Landing (eVTOL) aircrafts in the advanced air mobility (AAM) and its integration into the multimodal system”
Air Transport Research Society (ATRS)	https://www.atrsworld.org/	
International Conference for Research in Air Transportation (ICRAT)	N/A	

SESAR Innovation Days	https://www.sesarju.eu/sesarinnovationdays	
International Conference on Air Transport (INAIR)	TBD	
Balkan Conference on Operational Research (BALCOR)	TBD	
Symposium on Operational Research (SYM-OP-IS)	http://symopis2021.matf.bg.ac.rs/index.php?lang=en&page=	
International Symposium (SYMORG)	To be announced	
Transportation Research Board Meeting	http://www.trb.org/Calendar/Blurbs/179047.aspx	
Scientific Conference of the Italian Society of Transportation Academics (SIDT)	N/A	
International Conference on Traffic and Transportation engineering	https://waset.org/traffic-and-transportation-engineering-conference-in-november-2021-in-venice	
IEEE International Conference on Environment and Electrical Engineering (IEEE EEEIC21)	https://www.eeeic.net/eeeic/	
hEARTH Symposium of the European Association for Research in Transportation		
EASN International Conference on "Innovation in Aviation & Space for opening New Horizons"	https://easnconference.eu/	2 presentations accepted see official program (https://easnconference.eu/2023/home) Full paper submitted for evaluation but rejected
Transport Research Arena (TRA) Conference	https://traconference.eu/	Full paper submitted for evaluation

Journal of Air Transport Management	https://www.journals.elsevier.com/journal-of-air-transport-management	
Journal of Advanced Transportation	https://www.hindawi.com/journals/jat/?utm_source=google&utm_medium=cpc&utm_campaign=HDW_MRKT_GBL_SUB_ADWO_PAI_DYNA_JOUR_X&gclid=Cj0KCQjwyN-DBhCDARIsAFOELTlANyS9HwgLdsbBWZzE5iFYyGBfkX_QTgNh05z1XYA6lJXnXy1k3iYaAhDAEALw_wcB	
Transportation Research Part A Transportation Research Part B Transportation Research Part C Transportation Research Part E	https://www.journals.elsevier.com/transportation-research-part-a-policy-and-practice https://www.journals.elsevier.com/transportation-research-part-b-methodological https://www.journals.elsevier.com/transportation-research-part-c-emerging-technologies https://www.journals.elsevier.com/transportation-research-part-e-logistics-and-transportation-review	
Transport Policy	https://www.journals.elsevier.com/transport-policy	
Transportation Planning and Technology	N/A	
Journal of Transport Geography	https://www.journals.elsevier.com/journal-of-transport-geography	
Transport Reviews	https://www.tandfonline.com/toc/ttrv20/current?gclid=Cj0KCQjwyN-DBhCDARIsAFOELTn2ubmmPAa48nJGwLx3YN3u-mqd5_JqH-	

	GuWTJXTiIa39wIzMBdWf8aAogbEALw_wcB	
Sustainability (golden open access)	https://www.mdpi.com/journal/sustainability	
Frontiers in Future Transportation (golden open access)	https://www.frontiersin.org/journals/future-transportation	
Tourism Management	https://www.journals.elsevier.com/tourism-management	
Case Studies on Transport Policy	https://www.journals.elsevier.com/case-studies-on-transport-policy/	
14th EASN	https://easnconference.eu/	Full paper submitted for evaluation

Most events and dissemination channels are common with the list presented in: Table 10: Events & conferences.

4.2.1 Open access to scientific publications

The project will comply with the published EC guidelines on "Recommended standard licenses, datasets and charging for the reuse of documents" (2014/C 240/01) and the policy of open access where it is possible.

Publication of Data and Open Access Plan & Data Preservation: Research results developed using the funds of SESAR JU are expected to be published through peer-review international academic journals and in selected Open Access Journals (preferably provide a green/gold open access) and repositories like Zenodo, OpenAIRE and UPCommons.

Table 14: Scientific papers, publications and presentations

Scientific papers/ presentations	Link	Information to be shared
ATM towards the adoption of a passenger-centric approach	EASN agenda: https://www.program.easnconference.eu/	General concept of SIGN-AIR platform focus on the connection with ATM
The role of Electric Vertical Take-Off and Landing (eVTOL) aircraft in the advanced air	EASN agenda: https://www.program.easnconference.eu/	Evtols and their integration

mobility (AAM) and its integration into the multimodal system		
Implementation of a novel concept to unlock data value in multimodal systems	PS 4.3 Transport Data Sharing Wednesday, Apr 17, 2024 9:45 AM - 11:00 AM	General concept of SIGN-AIR platform focus on the data sharing value among stakeholders

4.2.2 Dissemination events

4.2.2.1 The envisioned dissemination events are the same with the ones presented in conferences SIGN-AIR's 1st stakeholders' workshop

After the coordination with the communication and event managers of the SESAR 3 JU, the consortium aims to conduct SIGN-AIR's 1st stakeholders' workshop on the 27 of November2023, from 10:00-12:00, just before SESAR Innovation Days (SIDS) in Seville, Spain. This workshop will be divided into three parts.

1. Presentation of SIGN-AIR platform (10min)
2. Parallel round tables of experts (100min)
    I. Data standardisation and data exchange between different modes (moderators from AETHON and STA)
    II. Disruption management airport-train intermodal connection and new ATM. (moderators from ENAC and EPF)
    III. Business model of SIGN-AIR platform (moderators from SPA and FD)
3. Conclusions and remarks extracted by the round tables (10min)

The main objective of this workshop is to gain insides of the experts and elicit requirements from the platform's development.

4.3 Dissemination target audiences

Table 15 presents SIGN-AIR's dissemination target audience the corresponding channels, their potential benefits, and the expected feedback.

Table 15: Dissemination target audiences

Target	Channel	Benefits from the project	Expected feedback
EC, SESAR 3 JU	Scientific publications	Further research funding can be justified	Compliance to the proposal
Universities, Research Centres	Scientific publications	Research expertise	Establish contact among experts
ATM service providers	Scientific publications and direct outreach	Efficient use of resources and cost-efficient system	Possible cooperation with project

Airlines	Direct outreach	Efficient system	Acquire new insights on the system and help spread information
Transport Authorities	Direct outreach	Interest in developing an overall market framework	Give insights about the project and help search for cooperating stakeholders
Transport Service Operators	Direct outreach	Offering better travelling services, more efficient system	Possible cooperation with project
MaaS	Direct outreach	More efficient system, easier integration with stakeholders	Possible cooperation with project
Community groups or social networks	Social media outreach	Efficient system	Acquire new insights about the system and help spread information
Mobility as a Service Operators	Direct outreach	More efficient system, easier integration with stakeholders	Cooperation
Other research projects	Scientific publications and congresses/fairs	Research expertise and insights	Cooperation

4.4 Dissemination KPIs and success criteria

Table 16 shows the dissemination Key Performance Indicators (KPIs) and the success criteria.

Table 16: Dissemination KPIs and success criteria

Action	KPIs	Success criteria	Currently achieved	Last update	Annual growth
Academic publications	# of published scientific publications = 4 per project year # of published articles= 4 per project year # of white papers=1	Expected KPI value by the end of the maturity gate.	2 waiting for approval	12/02/2024	N/A

	# of downloads on website publications page=20 # of references in scientific publications=20				
Events	# of organised workshops/events, of attendees, entities asking for feedback or more information=2 per project year # of participation in external events and seminars=4 per project year # of speaker evaluations from conference presentations = 2 per project year	Expected KPI value by the end of the maturity gate.	Yes Yes Yes	12/02/2024	N/A
Print materials	# of graphic postcards, recipients, infographics, flyers/ brochures =10 per project year	Expected KPI value by the end of the maturity gate.	No	12/02/2024	N/A
Website	1 Number of visits=2000 visitors per year 2 Bounce rate=10% 3 Number of page views=4000 4 Average time of visit=10min # of posts in website 'News' section =10 per project year	Expected KPI value by the end of the maturity gate.	No	12/02/2024	N/A
Video content	# of views =30 # of views (if uploaded to a social network) =20	Expected KPI value by the end of the	N/A	N/A	N/A

		maturity gate.			
Social media	# of clicks>250 # likes>10 #Shares>10 #tags>10 video views>100 new followers, profile visits>20 engagement rates> 30% uses of your hashtag>20 #Types of comments received, their tone, the number of people they reached, the types of followers, impressions.	Expected KPI value by the end of the maturity gate.	Yes	12/02/2024	N/A

5 Exploitation

Exploitation refers to the utilization of results in further research activities other than those covered by the action concerned, or in developing, creating, and marketing a product or process, or in creating and providing a service, or in standardization activities. Exploitation is the use of results for commercial purposes or in public policymaking. The following sections present the initial exploitation plans which are going to be enhanced in the following versions of the CDE. However, more specific information concerning the business model of SIGN-AIR solution will be provided in the Cost Benefit Analysis (CBA) deliverables.

5.1 Project exploitable results

Considering the challenges detailed in the preceding section, we now showcase the primary benefits that the SIGN-AIR platform can offer to TSPs and therefore the project's exploitable results.

1. **TSPs can gain more customers:** TSP collaboration offers the potential for substantial customer expansion, leading to remarkable increases in individual profits. Collaboration with other TSPs can result in a marked growth in customer reach, driving up revenues.
    a. **Expansion of customer base:** Collaboration enables TSPs to tap into new customer segments, leveraging each other's strengths to offer comprehensive and enticing solutions.
    b. **Synergistic marketing**: Joint marketing efforts can amplify brand visibility and attract a broader audience, driving customer acquisition.

2. **Unlocking data value with SIGN-AIR:** The SIGN-AIR platform empowers TSPs to fully capitalize on their data resources, transforming data into a valuable asset.
    a. **Data monetization:** By facilitating secure and standardized data sharing, SIGN-AIR enables TSPs to derive monetary value from their data assets.
    b. **Data-driven insights:** Shared data can uncover insights that lead to informed business decisions and enhanced operational efficiency.

3. **Comprehensive smart contract tool for multi-modal collaboration:** SIGN-AIR serves as an all-in-one Smart Contract Framework tool that promotes seamless collaboration among TSPs operating across different modes of transportation.
    a. **Unified platform:** SIGN-AIR offers a unified digital space where TSPs can find collaborators, start negotiations, and streamline the creation and settlement of Data Sharing Agreements and Smart Contracts.

   b. **Streamlined workflows:** The platform streamlines complex multi-modal collaboration processes, enhancing operational efficiency and reducing bottlenecks throughout the entire negotiation process.

4. **Reduced data sharing complexity:** SIGN-AIR simplifies the data sharing process, establishing minimum data requirements for data sharing contracts and facilitating collaboration between TSPs.
   a. **Standardized Data Sharing:** By setting minimum data requirements, SIGN-AIR ensures that data sharing contracts are straightforward and aligned, reducing negotiation complexities.
   b. **Enhanced Collaboration:** Streamlined data sharing processes remove barriers to collaboration, encouraging TSPs to engage in mutually beneficial partnerships.

5.2 Exploitation strategy and objectives

Exploitation strategy of SIGN-AIR is needed to capitalise knowledge and technology developed throughout the lifespan of the project and to bring value generated to both market (from a business perspective), and society (from an educational, scientific, political and societal perspective). SIGN-AIR goals consist of developing a web platform for generating data sharing agreement and smart contracts between transport service providers of different transport means by focusing on 3 distinct areas:

1. **Research:** Throughout the SIGN-AIR project, high-level transport research related to multimodality will be carried out by the partners of the Consortium, and many technical reports have been produced and scientific publications have been published in peer-reviewed journals. In addition, a great variety of outcomes were produced to widen societal impact and to raise awareness amongst transport service provider and data engineers as well as policy makers.

2. **Technology-Platform development:** SIGN-AIR platform will be developed, and the main focus of exploitation will be given to engage testers for the Minimum Valuable Product presented in M12 of the project and early adopters of the solution after M25 of the project.

3. **Societal-Stakeholders' activities and policy makers' white paper:** SIGN-AIR will spend significant effort in cross collaboration activities. These activities aim to exploit the scalability and the usability of the platform.

5.3 Exploitation of results

Table 17 presents the initial project internal & external exploitation results. This table will be enhanced in the following CDE.

Table 17: Project internal and external exploitation of results

Project outputs	Area impacted	Action	Outcomes	When	Main Patner
SIGN-AIR platform	Core stakeholders (Table 4: SIGN-AIR project stakeholders)	market validation, product commercialisation	Creation of Data Sharing Agreements and Smart Contract between TSPs of multimodal chain	After M32	SPA/UPC
Extension of Transitool	Core stakeholders (Table 4: SIGN-AIR project stakeholders)	market validation, product commercialisation	Assistance in the standardization and harmonization process of TSPs	After M18	AETHON
Optimization algorithms	Core stakeholders (Table 4: SIGN-AIR project stakeholders)	Further research, licencing, education.	Disruption management Intramodality module (air-railways)	After M25	ENAC
Conclusions of Pilots and policy making recommendations	Indirect stakeholders (Table 4: SIGN-AIR project stakeholders)	Translate findings into policy actions - To define a pragmatic procedure to translate the findings into policy actions to maximise the impact	Data sharing Passengers' right on multimodality Disruption management Transport data spaces Single Ticketing in 4h D2D journeys	After M25	FD EPF STA

5.4 Data protection strategy

Ensuring the protection of results and data generated by the SIGN-AIR project is of great importance to safeguard the privacy and security of all stakeholders involved. The data protection strategy incorporates a series of robust measures, aiming to comply with relevant data protection regulations and best practices while fostering transparency and accountability.

At the core of our data protection approach is strict compliance with all applicable data protection laws, including the General Data Protection Regulation (GDPR) in the European Union, and adherence to international data protection standards.

Data minimization and purpose limitation will be integral to our strategy. We will only collect and process necessary and relevant data, aligning with the specific objectives of the project. Personal data will be anonymized or pseudonymized whenever possible, protecting the identity of individuals and reducing the risk of unauthorized access. Access to sensitive data will be restricted to authorized personnel only, and during data transfer.

To facilitate data sharing with external parties, we will establish clear data-sharing agreements that outline the purpose, scope, and limitations of data usage. These agreements will require third-party partners to comply with data protection regulations and ensure data is protected with the same level of care as the project team.

Transparency and user consent will be fundamental elements of our data protection strategy. Travellers and stakeholders will be fully informed about the data collection process, the purposes of data usage, and how their data will be handled. Explicit consent will be sought from travellers for data collection, processing, and sharing, and they will retain the right to withdraw their consent at any time.

In anticipation of potential data breaches or security incidents, we will establish a robust incident response plan. In the event of a data breach, affected individuals and relevant authorities will be promptly notified following the legal requirements and procedures.

Data retention periods will be clearly defined and adhered to. Once data is no longer necessary for specified purposes, it will be securely deleted following proper data disposal protocols.

Through the implementation of this data protection strategy, SIGN-AIR aims to secure the handling of all generated data, protect the privacy of travellers and stakeholders, and establish a foundation of trust and confidence among our collaborators and the wider transportation community.

5.5 IPR management

In accordance with the H2020 rules for participation, the Consortium Agreement will govern dissemination, access rights and use of knowledge and intellectual property. To make sure that these terms are followed and to avoid disputes, the project Board will maintain an IPR Directory throughout the lifetime of the project. This document will list all items of knowledge relating to the work of the project, both pre-existing know-how and results developed in the project, especially related to develop courses content and tools, and make explicit for each item:

- The owner(s);
- The nature of the knowledge, and its perceived potential for exploitation;

- The currently agreed status of the item concerning plans to use the knowledge in exploitation, or plans to disseminate it outside the consortium;
- Measures required, or in place, to ensure protection of IPR for the item.

The directory will be regularly updated, and available to all partners. It will form a key tool to enable knowledge management. To maximize societal impact, the project will widely disseminate knowledge outside the consortium. An initial version of the IPR directory will be created at the start of the project. The project coordinator is responsible for the use of IPR within the consortium, according to the terms laid out in the Consortium Agreement. Finally, all knowledge will be managed in accordance with the H2020 Grant Agreement and a Consortium agreement that will be timely prepared and signed by all consortium members.

6 Overview of communication and dissemination activities

summarises the schedule of communication and dissemination activities as captured in sections 3 and 4 of this deliverable.

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Table 18: Overview of communication and dissemination activities

Activity	Channel	Tool	Objective	Target audience	KPIs	Success criteria	Frequency /date	Planning activities	Responsible partner
Post LinkedIn	LinkedIn	Articles, images	Updates regarding SIGN-AIR ACTIVITIES	TSPs and researchers	# engagement	15 Engagement / post	Monthly	Section 9.4	CARNET
Post Twitter	Twitter	Articles, images	Updates regarding SIGN-AIR ACTIVITIES	TSPs and researchers	# engagement	5 Engagement / post	Monthly	Section 9.4	CARNET
Newsletter	Mailchimp	Newsletter software such as MailChimp	Updates regarding SIGN-AIR ACTIVITIES	TSPs and researchers	% above industry average opening rate	5% above industry average [5]	M13, M14, M16, M20 and M25		SPA
Workshop	Social media	Presentations, brochures	Meeting with TSPs to gather insight	TSPs and other stakeholders	# participants per event	10 participants per event	M6, M20, M34	A month after the workshop/ event	SPA

[5] To measure email performance indicators such as Open rate and Click rate you must compare them against other organizations. These thresholds can be found online, for instance: https://bit.ly/3mvwJNw

Blog posts on LinkedIN	Social media	Articles, images	Updates regarding SIGN-AIR ACTIVITIES	TSPs and researchers	# visitors per year # news per year	2000 visitors per year 2 news per year	Bianually	Section 9.4	CARNET

6.1 Cross projects & cross initiatives collaborations

SIGN-AIR has a dedicated task on the cross project and cross initiative collaborations (Table 19 and Table 20 respectively) and the reason of this task is not only to identify the common working areas but also to establish connection with on going or future EU project and initiatives.

Table 19: Cross project collaborations

#	On going projects	Topic	Action	Updated actions
1	MutiModX	Multimodality	Coordination meetings to exchange information and to check SIGN-AIR can use the SOL of MultiModX.	8 meetings where performed. Participation of experts from MultiModX at SIGN-AIR's 1st stakeholders' workshop and SIGN-AIR partners participated at the 1st industrial partners workshop of MultiModX. -A meeting to identify the differences between the SIGN-AIR connectivity index and scheduler SOL2 of MMX. -An onsite meeting was performed for identifying more technical aspects of collaboration using Sparksee graph and Mercury software. -A meeting was organized for identifying the

				commonalities and differences on the disruption scenarios -Experts from SIGN-AIR participated in the 2nd industrial workshop of MMX. -A meeting organized with the leaders of the multimodality index to explain to MMX representative its results. -Experts from SIGN-AIR participated at the passenger experience and multimodality performance framework formation.
	2	MAIA	Multimodality	TBD	
	3	DATA4PT	Data standardization for public transport	Invitation at the 1st stakeholders' workshop.	The technical coordinator participated at the 1st stakeholders' workshop
	4	NAPCORE	Data standardization for public transport	Invitation at the 1st stakeholders' workshop.	
	5	MobiDataLab	New mobility data sharing solutions	Invitation at the 1st stakeholders' workshop.	Experts participated at the 1st stakeholders' workshop
	6	Ecorridor	Cyber security and multimodality	Invitation at the 1st stakeholders' workshop.	Experts participated at the 1st stakeholders' workshop
	7	STARS	Blockchain	Invitation at the 1st stakeholders' workshop.	-
	8	PrepDSpace4Mobility	Transport data space	Invitation at the 1st stakeholders' workshop.	-
	9	Eona-X	Tourism data space	Invitation at the 1st stakeholders' workshop	

10	Engage II	Knowledge Transfer	Coordination meetings to establish the collaboration between SESAR multimodality projects and projects from other SESAR flagships.	SIGN-AIR experts getting ready to participate in the flagship workshop to be organized in April 2025
11	Eurocontrol	Knowledge Transfer and stakeholders' engagement	Coordination meetings to steer the participation and involvement of Eurocontrol in SIGN-AIR activities	Participation at the 1st stakeholders' workshop and organization of a bilateral meeting to see the future involvement of Eurocontrol in SIGN-AIR. SIGN-AIR has a monthly meeting with Eurocontrol experts to present interesting advancements
12	EUREKA	Knowledge Transfer	Participation at the activities of EUREKA	The diagrams of evtols that will be created by SIGN-AIR will be distributed for validation to EUREKA experts and member of SIGN-AIR consortium is part of EUREKA´s advisory board. A meeting with the CIA of Eureka to be organized in February 2025
13	TRAVEL WISE	Knowledge Transfer and stakeholders' engagement	Participation in the project	Member of SIGN-AIR consortium are also members of TRAVELWISE
14	PEARL	Knowledge Transfer	Participation in the passenger experience KPA formation	Participaction at the workshop organized by PEARL in Madrid, 21.3.2024

SIGN-AIR initiated the common multimodality-passenger performance framework organizing the first common workshop on the 10.7.2024. However, afterwards it was decided that MMX should lead this activity as it has a dedicated solution. This synergy brings together SIGN-AIR, MMX, MAIA, Travel Wise, FAST-NET, JARVIS, and the transversal projects PEARL and AMPLE3.

Table 20: Cross initiatives collaboration

#	Initiative	Topic	Action	
1	Europe's Rail	Intramodality & Multimodality	Invitation at the 1st stakeholders' workshop.	Experts participated at the 1st stakeholders' workshop
2	EMDS	The common European mobility data space (EMDS) aims to facilitate data access, pooling and sharing for more efficient, safe, sustainable, and resilient transport. It builds on initiatives and applications related to transport data and will be supported by initiatives to boost interoperability, security, and the availability and provision of data and services	Arrangement of a meeting to present SIGN-AIR at DG move representatives of this initiative	1 meeting arranged to present the project.
3	MDMS	Multimodal digital mobility services (MDMS) can be defined as 'systems providing information about, inter alia, the location of transport facilities, schedules, availability and fares, of more than one transport provider, with or without facilities to make reservations, payments or issue tickets'.	Arrangement of a meeting to present SIGN-AIR at DG move representatives of this initiative	2 meetings arranged to present the project.

7 List of acronyms

Table 21: List of acronyms

Acronym	Description
ATM	Air Traffic Mangement
B2B2C	Business to Business to Customer
CDE	Communication Dissemination Exploitation
D2D	Door-to-door
GDPR	General Data Protection Regulation
IPR	Intellectual property
KPI	Key Performance Indicator
MaaS	Mobility as a Service
SCF	Smart Contracts Framework
TBD	To Be Determined
TSPs	Transport Service Providers

8 Guidelines

8.1 Indication of funding

In line with the Grant Agreement, in communication and dissemination activities, the project will:

- Use the EU emblem (no need for prior approval from the SESAR 3 JU), downloadable from here: https://europa.eu/european-union/about-eu/symbols/flag_en
- Use the "Supported by SESAR 3 Joint Undertaking" logo, downloadable from here: *https://www.sesarju.eu/node/3406#sesar-logos7694*
- Use the following reference in all communications, dissemination and exploitation material: This project has received funding from the SESAR 3 Joint Undertaking (JU) under grant agreement No [number]. The JU receives support from the European Union's Horizon Europe research and innovation programme and the SESAR 3 JU members other than the Union.

Indicate that the activity reflects only the author's view, and that the SESAR 3 JU is not responsible for any use that may be made of the information it contains.

8.2 Disclaimer excluding SESAR 3 JU responsibility

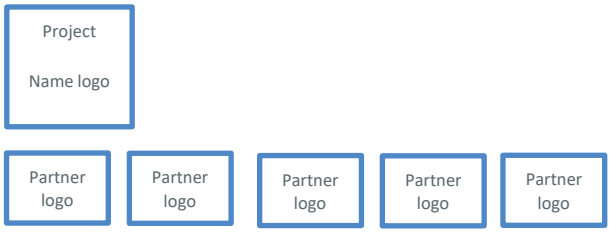
The communication and dissemination activities will always indicate that it reflects only the author's view, and that the SESAR 3 JU is not responsible for any use that may be made of the information it contains.

When displayed together with another logo, the SESAR 3 JU logo and the EU emblem will have appropriate prominence.

9 Annexes of CDE activities

9.1 Annex I: Press Releases

Press release layout



Press release
[DD Month YY]

[HEADLINE]

- **[summary bullet]**
- **[summary bullet]**
- **[summary bullet]**

[City], [Country], [DD Month YY] – [Introduction paragraph]

[Paragraph explaining why]

[Paragraph explaining what]

[Paragraph explaining when]

[Quotes from partners]

[Notes to editors]

[About project]
About SESAR 3 Joint Undertaking

It should be included in the press release.
The SESAR 3 Joint Undertaking is an institutionalised European private-public partnership set up to accelerate through research and innovation the delivery of the Digital European Sky. The partnership is developing cutting-edge technological solutions to manage conventional aircraft, drones, air taxis and vehicles flying at higher altitudes. The SESAR 3 JU partnership brings together the EU, Eurocontrol, and more than 50 organisations covering the entire aviation value chain, from airports, airspace users

of all categories, air navigation service providers, drone operators and service providers, the manufacturing industry and scientific community. The partnership also works closely with the regulatory and standardisation bodies, notably EASA and Eurocae, as well as key stakeholders, such as professional staff organisations, the space and military communities and global partners. www.sesarju.eu
[About individual partners]

[Links to materials]
[Contact details]

Press release examples

- *Project launch: https://tindair.eu/?p=391*
- *Flight tests:*
  - *https://gof2.eu/gof2-drone-test-flights-2022-helsinki/*
  - *https://www.volocopter.com/newsroom/volocopter-m3-systems-and-pipistrel-complete-deconfliction-flight-tests-in-france/*
  - *https://www.leonardo.com/en/press-release-detail/-/detail/16-10-2020-aviation-industry-tests-a-key-solution-to-fly-seamlessly-and-with-more-efficiency-in-europe*
- *Partner focused: https://avtrain.aero/article/cl511vis09635446mlb9cvid2vt/digital-skies-cleared-for-take-off*

Best practices to consider when filling the template

Audience

- *Projects should target trade press (including magazines, not journals), such as Aviation24, Aviation International News, Aviation Today, International Airport Review, ATC Network, Unmanned Airspace, etc.*
- *Projects should consider media outlets beyond trade press in order to target other important audiences, such as policy makers and general interested public. Outlets to consider include: CORDIS, Euronews, Horizon*EU, Euractiv, ScienceBusiness and inflight magazines.*
- *Projects may also wish to send press releases to relevant stakeholder associations/representatives groups, in order to relay the news on their own respective communications channels, including CANSO Europe, ASD Europe, A4E, EBAA, ERA, ACI Europe and relevant staff organisations.*
- *Projects should consider using press release portals for journalists in order to reach more relevant audiences, such as AlphaGalileo.*
- *Projects should ensure that final press releases are sent to the SESAR 3 JU, which publishes them in its website, in addition to using the releases as the basis for news items.*

Purpose

Projects should consider the purpose and timing of the press release:

- *Launch of the project*

- *Focus on the involvement of one or several partners*
- *First flight trials get underway*
- *Making unprecendented progress on a solution/technology*
- *Announcing results or the implementation of results*

Style

- *As press releases are for a broader audiences than air traffic management, projects should keep acronyms and technical details to a minimum.*
- *Do not assume that readers of press releases know much about SESAR, air traffic management, etc. Use "Notes to editors" to provide background and useful links, such as on the SESAR 3 JU, the project and individual partners.*

Material/content

- *Projects should consider including quotes reflecting the diversity of partners in the project. Partners may decide to develop text common to all, as well as text that each partner may customise (such as quotes).*
- *Projects should consider providing pictures or other multimedia to accompany their press releases.*

Branding

- *Projects should ensure that all materials used for press releases correctly display the EU emblem and SESAR 3 JU logo, in addition to the logos of the other partners.*
- *All project member logos should be given equal prominence in press releases, unless otherwise agreed by the consortia.*

Issuing

Depending on the purpose of the press release, it may be issued by one partner on behalf of all, or by all partners having customised the content with specific quotes/texts about their involvement.

Coordination

- *Projects should coordinate media outreach with the SESAR 3 JU and all the partners, particularly in relation to any press launches/releases and Europe-level opportunities before publishing.*
- *Drafts should be circulated at least two weeks in advance to allow sufficient time for partners to comment and approve the press release.*

9.2 Annex II: Events

Save the date – text template

Event title

- *Insert title of name of event – solution numbers and project numbers should not be used here.*
- *Insert project name.*
- *Insert date and time – avoid using 'th', 'st', 'nd' and 'rd' in dates.*

Text

SESAR partners are organising an **[workshop/info session/open day]** to present **[objectives of projects/specific technology/results from a recent validation]**.

Organised by ***[insert partners],*** the open day aims to ***[insert text].***

To register for this **[in-person/virtual/hybrid]** event, please contact ***[insert link or name].***

Text Event template example

Green taxiing techniques

AEON and ARTIMATION final workshop

9 November 2022 Toulouse

The SESAR exploratory research projects, AEON and ARTIMATION, are organising a final workshop is to present outcomes of their work on 9 November in Toulouse, France.

AEON has defined a new concept of operations to make the best use of green taxiing techniques; specifically TaxiBots, WheelTugs, e-Taxi and single-engine taxi were investigated to address airport ground operations at a strategic and tactical level.

Register by 20 October: [LINK]

Save the date – visual template

Download template: https://www.sesarju.eu/node/3406#sesar-logos7694

Best practices to consider when filling the template

Project consortia are responsible for organising events throughout the duration of the project. These may be in the form of workshops, info sessions and open days. Projects are responsible for managing the A to Z of the event, from invitations to communications.

Projects should keep in mind the practical guidance and adhere to the obligations set out in this document when organising and executing their events.

Format

- *Events can be organised physically, virtual or in hybrid modes.*
- *For virtual events, project partners need to foresee an online platform to host the event. This may be a platform belonging to one of the project partners.*

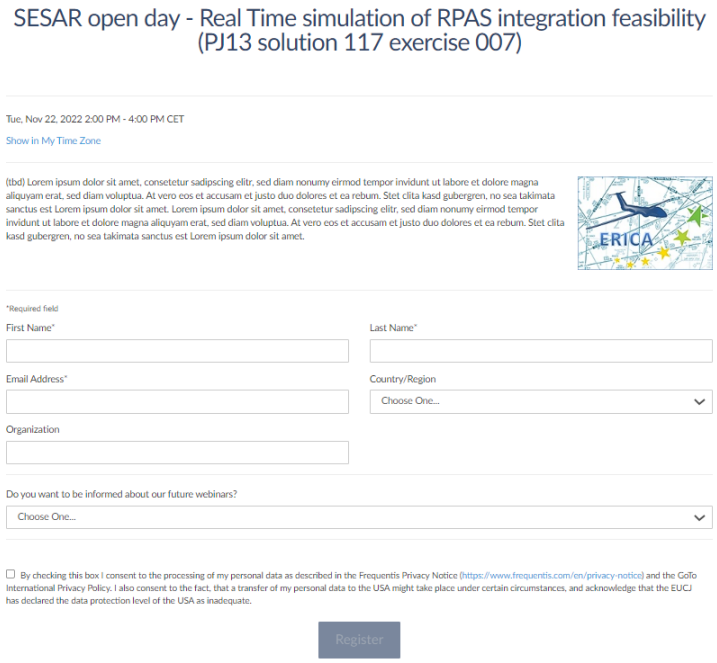
Audiences

- *Projects should consider the audience for each event. Workshops may be technical and limited to partners, stakeholders and experts only, while open days should aim to reach broader and mutiple audiences, including policymakers, media and beneficiaries.*

Invitations and registration

- *Projects are responsible for sending out invitations for their events – this may be done by email or via a dedicated mailing platform.*
- *For registration, projects should provide invitees with a registration link or a person whom they can contact to register.*
- *Projects should take note of the EU's personal data protection provisions[6] when developing registration forms or invitations, including data protection conditions (e.g. how does the organisation plan to process their personal data), including opt-outs for any photography or future mailings. See example below.*

[6] https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en


SESAR open day - Real Time simulation of RPAS integration feasibility (PJ13 solution 117 exercise 007)

Tue, Nov 22, 2022 2:00 PM - 4:00 PM CET

Show in My Time Zone

(tbd) Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

ERICA

*Required field

First Name* Last Name*

Email Address* Country/Region

Choose One...

Organization

Do you want to be informed about our future webinars?

Choose One...

By checking this box I consent to the processing of my personal data as described in the Frequentis Privacy Notice (https://www.frequentis.com/en/privacy-notice) and the GoTo International Privacy Policy. I also consent to the fact, that a transfer of my personal data to the USA might take place under certain circumstances, and acknowledge that the EUCJ has declared the data protection level of the USA as inadequate.

Register

Branding

- *Projects should ensure that all material (e.g. lecterns, roll-ups, social media visuals, backdrops, etc) used to promote the event correctly displays the EU emblem and SESAR 3 JU logo, in addition to the logos of the other partners.*
- *If projects are using a mailing platform owned by one of the consortium partners, they should ensure the mailing template shows the EU emblem and SESAR 3 JU logo correctly – projects should not use their own corporate templates to send project invitations.*
- *All project member logos should be given equal prominence.*
- *A PowerPoint template for projects is available from the SESAR 3 JU programme library.*

Communications

- *Projects should publish save-the-dates on their project website/social media accounts or those of partners.*
- *Text for the save-the-date should be shared with the SESAR 3 JU in advance via STELLAR, and coordinated so the SESAR 3 JU can also promote the event through its channels.*
- *Projects should make use of the text and visual templates provided by the SESAR 3 JU – changing the text and images as appropriate.*
- *Projects should coordinate with the SESAR 3 JU via STELLAR post-communications summaries of the event, videos or pictures to ensure that they featured on the project's dedicated webpage and SESAR 3 JU e-news.*

9.3 Annex III: Web presence

General text example

[Provide a short problem statement e.g., the airspace is busy and complex, and increasingly difficult to manage because…]

[Introduce the project e.g. [project name] aims to …]

[Explain the desired outcomes].

350 words maximum.

Project web page examples

- *https://www.sesarju.eu/projects/icarus*
- *https://www.sesarju.eu/projects/4Dskyways*

Best practices to consider when filling the template

All EU-funded projects are required to have a web presence.

Projects may consider developing standalone websites.

Projects are also asked to populate a dedicated space for projects on the SESAR 3 JU website.

Project webpage on SESAR 3 JU website

This webpage can host text about the project, name of partners, latest news, videos and other communications material. Projects will be provided templates for a number of content types (e.g. events, news, general website text updates), which they will be invited to submit to the SESAR 3 JU for publication on the SESAR 3 JU website and provided guidance on how to customise it and keep it up to date.

Banner

- *Projects should indicate a picture or provide banner (1920*480) that would like to use to customise their project webpage.*

General text about the project

- *Each project must prepare a text for their web page, outlining the rationale for the projects, the main objectives and desired outcomes (word count: 350 max).*
- *The text should avoid too much technical jargon and acronyms. Assume the reader knows very little about air traffic managemement and SESAR.*
- *Share texts with the SESAR 3 JU via STELLAR, accompanied with the list of beneficiares in alphabetical order and a link to the project website.*

Note on standalone project websites

- *Plans for standalone websites (e.g. URL, layout, navigation) should be shared with the SESAR 3 JU for approval as part of the communications, dissemination and exploitation plan.*
- *In terms of the URL, projects should consider using their name and that of SESAR, as well as the EU or aero domain.*
- *If feasible, projects should consider covering the costs for the URL for a duration that extends beyond the project's end date.*
- *Projects should ensure that the website correctly displays the EU emblem and the SESAR 3 JU logo, in addition to the logos of the other partners.*

9.4 Annex IV Communication plan

Guidelines

What is this?

For our efforts to be recognized, part of our task is ensuring that the correct dissemination channels are used.

As you can see, CARNET (Comms responsible) and Sparsity Technologies (Project Coordinator) have drafted, aligned with the Communication plan, this version of a social media plan.

Thus, we show you this document to:

- Gather your input on the topics we believe are best to post about.
- Know what information we're going to ask you for so that you can already prepare if and have it ready.
- Plan the communications so that our networks attract the right audience.

What are we asking from every partner?

3 bullet points with the information for every post so that we can adapt it for a post. It doesn't have to be formatted; CARNET will take care of making it "postable"

To write their name wherever they see their expertise may fit to facilitate the Comms work

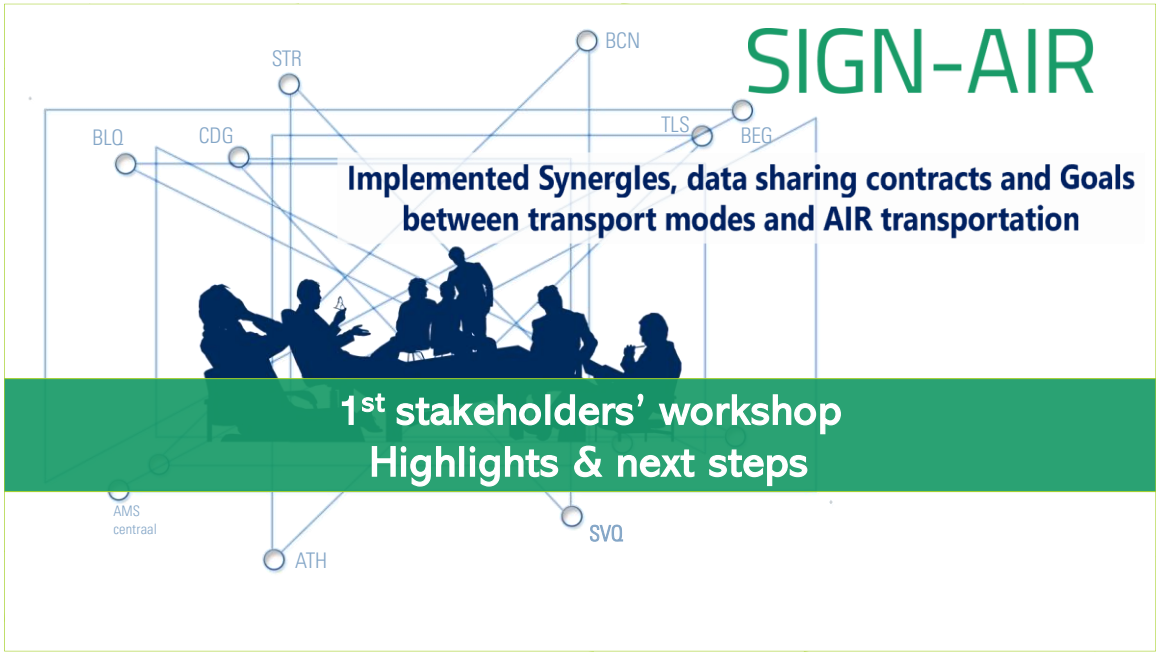
Any images they may see fit (optional)

Any suggestion of topic you believe would be of interest (optional)

Month	Topic	Posts	Approx. Publication Date	Linked Partner
July	Impact on Passengers	1. How Passenger Experience Shapes Transportation Services Use the key points of the workshop conducted during EPF conference	Early August	European Passengers' Federation
August	Demand-Responsive Transport in Multimodality	1. The Future of Multimodal Transport: Demand-Responsive Solutions	Early August	AMTU
	Standarisation	2. How standardization can improve data sharing	Mid August	AETHON
September	Data Sharing Mechanisms	1. The Importance of Data Sharing in Transportation Systems	Early September	Franck Dumortier
		2. Building Robust Data Sharing Mechanisms for Seamless Travel	Mid September	Universitat Politècnica de Catalunya
October	Smart Contracts	1. Introduction to Smart Contracts in Transportation	Early October	Universitat Politècnica de Catalunya
		2. How Smart Contracts Are Revolutionizing Travel Transactions	Mid October	Franck Dumortier Juriste
November	Data Sharing Agreements	1. Crafting Effective Data Sharing Agreements for Transport Operators	Early November	Franck Dumortier Juriste
		2. Real-world Examples of Data Sharing Agreements Enhancing Transport Efficiency	Mid November	Universitat Politècnica de Catalunya
December	Smart Mobility	1. Smart mobility and air travel	Early December	Universitat Politècnica de Catalunya
		2. The Role of evtols in Smart Mobility Solutions	Mid December	Swiss Aeropole

Month	Topic	Posts	Approx. Publication Date	Linked Partner
January	Passengers' Experience	1. Measuring Passenger experience in Public Transportation	Early January	European Passengers' Federation
		2. Strategies to Enhance Passengers' experience Using Technology	Mid January	Universitat Politècnica de Catalunya
February	TSPs Agreements	1. Understanding Transport Service Providers (TSP) Agreements	Early February	Universitat Politècnica de Catalunya
		2. Benefits of Comprehensive TSP Agreements for Seamless Travel	Mid February	Universitat Politècnica de Catalunya
March	Synchronization	1. Synchronization: The Key to Efficient Multimodal Transport Systems	Early March	Ecole Nationale De L' Aviation Civile (ENAC)
		2. Technologies Enabling Better Synchronization in Transport Services	Mid March	Sparsity
April	Glossary	Explanation of the glossary	Early April	Universitat Politècnica de Catalunya
		Most relevant Terms	Mid April	Universitat Politècnica de Catalunya
May	Blockchain for SIGN-AIR	1. How Blockchain is Transforming the SIGN-AIR Project	Early May	Universitat Politècnica de Catalunya
		2. Enhancing Transparency and Security in SIGN-AIR with Blockchain	Mid May	Ecole Nationale De L' Aviation Civile (ENAC)

10 Appendix A: 1st stakeholder workshop highlights



A few words…

Months of preparations and exchange of numerous emails allowed us to host 54 experts with different backgrounds related to multimodality. SIGN-AIR project 1st stakeholders' workshop was successfully executed on the 27th of November in Seville, Spain. The project overview was presented to them to get a first taste of SIGN-AIR's challenges, then the experts were invited to join three parallel sessions of 2h and 30 min intensive discussions.
This workshop's objective was twofold:

i. to present the project to the stakeholders and initiate a collaboration with them.
ii. to get the experts' insights on specific topics which are challenging for SIGN-AIR.

The three "round" table discussions' highlights were gathered, processed, and are presented in the form of bullet points.

SIGN-AIR consortium members are more than grateful for the experts' contribution during and…after the workshop. Merging the input of so many experts in a pager was just impossible but these eight pages reflect the most important aspects raised and certainly gave us a lot of "homework", insights, and inspiration to continue the challenging multimodal journey of SIGN-AIR project.

Round table I: Data standardization and data exchange between different modes

In today's dynamic transportation landscape, the standardization and harmonization of data play a pivotal role in ensuring seamless travel, efficiency, interoperability, and innovation across all transport-related domains. The round table discussion aimed to foster a collaborative dialogue among industry experts, researchers, and other stakeholders in the mobility environment to explore the challenges and opportunities surrounding transport data standardization and harmonization.
The discussion focused on the critical role of data standards and their adoption in the transportation industry highlighting the importance of data sharing to facilitate the implementation of multimodality. Challenges of Transport Service Providers (TSPs) to adopt established standards and their unwillingness to share their private data were explored via examples. The importance of collaborative efforts among stakeholders to improve customer experience and increase ridership through multimodal collaboration was emphasized. The use of static and real-time data, following guidelines and requirements stemming from EU directives, enables many use-cases which are necessary to support seamless door-to-door travel for all passengers.

Topic 1 - Current Landscape of Data Standardization

Understand the existing standards and initiatives in transportation data management.

- **Aviation Data Harmonization:** Efforts by IATA and ICAO to harmonize aviation data, aiming for boundary-less aviation and system efficiency.
- **Airport Collaborative Decision-Making (CDM):** Introduced in the 90s, A- CDM aims to optimize airport operations using real-time data (). Challenges include data interpretation and integration. A-CDM manual is available online but there is a problem with the interpretation of some of its concepts.
- **Data Standards:** Analysis of Transmodel (which is an abstract model of common public transport concepts and data structures, , and its associated data standards SIRI and NeTEx. Mention of GTFS and GBFS. Organizations like ITxPT and projects like Data4PT (for open architecture and interoperability. Emphasis on the need for data sharing and collaboration among stakeholders. Transmodel- **data model and dictionary for all publicly available transport modes**
  More specifically, existing technical standards based on Transmodel relevant to journey planner:
  - **NeTEx - for planned data** (to be used as input for journey planner),
  - **SIRI - for real-time data** (to feed journey planner).
  - For technical artifacts: NeTEx, SIRI, validation-tool
  - **OJP - Interface for distributed journey planning.** The OJP standard is currently (or very shortly under voting process in CEN)
  - **OTP: open source journey planner for ground based transport modes,** supports feeds from NeTEx/SIRI and Gtfs/ Gtfs RT. official website and GitHub as well as the **OJP open interface to support OTP** GitHuboppenmove 1, GitHuboppenmove2.

Topic 2 - Challenges of Development, Adoption, and Harmonization of Data Standards

Challenges of integrating diverse data sources and formats in a seamless manner

- **Data Integration Challenges:** Integration of various standards like SIRI, NeTEx, and GTFS, alongside e-ticketing systems, is complex due to disparities among industry players, both large and small.
- **Legal Requirements and Adoption Difficulties:** The law mandates sharing both static and dynamic mobility data with National Access Points (NAPs). However, differing standards and practices among ITS providers create hindrances. The challenge lies in standardizing products and addressing specific needs in tenders.
- **Standardization and IT Infrastructure:** Emphasizes the need for standardized tenders and highlights the IT infrastructure challenges for data sharing. Companies often lack the necessary infrastructure, leading to significant investment costs. Lack of expertise and knowledge. Usually, the stakeholders check for more advanced information exchange (like the one supported by Transmodel) if they advance in their systems and their requirements are increased. Already investment in other systems is done so need transition cost and time so especially large transport companies are "Locked" - in situations in legacy systems.
- **Diverse Data Formats:** Addresses the difficulties in unifying various data formats and definitions across multiple systems and the aviation sector's confidentiality issues. Working in sectorial silos is also an important challenge.
- **SIGN-AIR Platform Role:** Discussion on how the SIGN-AIR platform could facilitate data exchange and contract management, emphasizing the importance of harmonization in local and international markets.
- **Challenges in Adoption:** Highlights the difficulties in changing established work practices, the time required for transitioning to new standards, and the issues arising from the use of different terminologies and equipment specifications. IT infrastructure for sharing the data in a standard way (companies do not have it, and it's costly). Finally, companies are hesitant to data-sharing in general because they are afraid that they will lose their competitive advantage.
-

Topic 3 - Opportunities for Collaboration and Innovation

Understand the innovations that can be enabled by adoption and evolution of data standards and by collaborations among data exchange initiatives, industry leaders and standardization bodies.

- **Ticketing and Revenue Sharing:** Focus on the opportunities presented by single ticketing initiatives (new ticket validation initiatives) and revenue sharing models, using examples from Bologna Airport and other European initiatives.
- **MDMS Regulation and TSP Appearance:** Examination of how MDMS regulation aims to ensure fairness in TSP adoption of standards and systems and the potential challenges for platforms like SIGN-AIR.
- **Safety, Security, and Environmental Considerations:** The role of NAPs in ensuring a standardized ecosystem for data exchange, with a focus on safety, security, and environmental impact.
- **Multimodality, Micromobility:** Integration of public transport and micromobility means of transport like bike sharing. Airport is a central node in most multimodal trips. Door-to-door in the multimodal system is possible only in the standardized ecosystem (https://www.acare4europe.org/acare-goals/).
- **Challenges and Solutions in Data Sharing:** Discusses the practical aspects of data sharing, including manual versus automated processes, issues with radar communication, and the impact of standardization on the community.

Future steps?

- Incorporate the feedback from experts in T2.2: Data standardization and harmonization aspects.

Round table II: Disruption management airport-train intermodal connection and new ATM.

The following two scenarios were presented to the experts.

Scenario 1: Train Shutdown and Delayed Flight Boarding
John is a passenger traveling domestically by train to catch his flight at a regional airport. Due to unforeseen circumstances, the train service experiences a shutdown, causing a delay in his journey. John boards the train as planned, but midway through the journey, the train service is disrupted due to a technical issue, and all passengers are required to disembark. John has to wait for an alternative mode of transportation to reach the airport. By the time he arrives at the airport, he has missed the boarding time for his flight.

Scenario 2: Airside Delay and Missed Connecting Train
Sarah is arriving at a major international airport after a long-haul flight. She has a connecting train to catch, which is an integral part of her journey to reach her final destination. Sarah's flight lands at the airport, and she promptly disembarks, goes through security, and collects her baggage. However, due to unexpected delays during the flight and long queues at the security checks, she reaches the airport train station just in time to see her connecting train pulling away from the platform. The next train is scheduled in a couple of hours, causing a significant delay in her overall travel plans.

About current air-rail collaboration. →existing good practices and scalability

- Data sharing happens on a voluntary basis. Many airlines are still using a very old system / data format. IATA is working on standards to exchange messages with potential partners.
- Air-rail collaboration agreements exist today. However, they are few & it takes many years to negotiate before reaching agreement between companies. Easier to accomplish for bigger networks (LH group, DB for example) than for smaller ones.
- Trains are given a flight number & treated as connecting flights in case there's a joint offer.
- Only 10 airports in Europe connected to high-speed rail → investments needed here to facilitate air-rail connections, rail replacing short-haul flights.

Incentives for TSPs to collaborate? → air/rail asymmetry

- Airlines: different approaches to integration, depending on business model. Open to new partnership if done on a voluntary basis & if it makes sense / adds value for all parties involved.
- Incentive for rail to collaborate with air seems less clear than vice versa. Shift to rail but trains in Europe are often already full. Prices mostly higher for air than for rail.
- Need to focus not only on profitability, but also on sustainability (Green Deal objectives).

Current passenger rights in case of multimodal connections? →policy

- New EC legislative proposal launched 29.11.2023 as part of a Passenger Mobility Package
- Different types of tickets (single, combined, separate)→ different passenger rights and different Transport Service Providers (TSPs) responsibility.
- Single ticket or combined ticket or mobility packages or travel bundles → there has to be an agreement between TSPs.
- Difference between passenger experience optimization and between TSPs objectives.

How are disruptions handled currently and what are the challenges?

- Passengers' main concern is to finish their trip – reach their destination.
- In case of delays or cancellations, passengers are re-routed, if necessary, through competing airlines or other modes (arranged through B2B agreements between companies).
- Re-routing → also financial interest for TSPs, to avoid having to pay compensation to passengers + can be an opportunity to re-sell seats.
- For rail, depends. Regional rail (high frequency), even if the train is cancelled there are still enough options, passengers should calculate enough transfer time, the main thing is to inform passengers; vs long-distance rail: more complicated, more expensive tickets, lower frequency.
- What if it's no one's fault? Even in unavoidable and extraordinary circumstances, passengers have the right to reimbursement or re-routing.
- TSPs need to know where the passenger is: airlines know, but railways don't (anonymous tickets, no check-in); tracking legally not allowed; SIGN-AIR proposes to use a token for this that will be deanonymized only in certain circumstances.
- What if the last train is missed? Impact on price if e.g. missed last train is always covered price would increase, so perhaps better to offer this as a choice to passengers.

What can be the role of third parties (intermediaries / integrators)?

- Intermediaries can create a link even if there's no agreement between operators.
- Third parties could have a contract with multiple providers.
- Third parties can offer added value services e.g. insurance, asking a fee for that (e.g., Dohop).
- Liability remains with the operator but easier to have one point of access.
- In case of combined tickets, TSPs stress that they must be aware that they're part of the contract with passengers.

Other points raised:

- Scope: Do we need to cover the first/last mile? Maybe integration of the trip to/from the airport is not needed?
- SIGN-AIR = a digital solution, supposing passengers have a (working & connected) phone; not all passengers are digitally savvy; some airlines (US) still require paper tickets
- If multimodal would be profitable, it would already exist vs. multimodality will grow once the offer is there (several studies confirming this)
- Need a model for validation, highlight the benefits of the SIGN-AIR solution maybe use the Mercury model enhance in MultiModX project and create a nice synergy between SESAR projects.
- Impact on modal shift: lacking parameters to measure sustainability impact; investments needed in rail; in some cases, short-haul flights are essential (cf. islands)

Future steps?

- Even if we only pass on the info to passengers, this would already be an improvement → easier, accomplish this first.
- Are we too focused on what exists now? Think out of the box, trial and error.
- Most proposed solutions are passive / reactive; but in aviation other solutions are possible to guarantee connections, e.g. speed up / wait, change gates.
- Small tolerance for delays (15') → airlines lose their slots, for rail maybe even more difficult. Passenger experience vs changes in the system.

- In the long term, no more tickets will be sold.

Round table III: Business model of SIGN-AIR platform

The business model helps to target the customer base and the uptake of the Solution that will be created at the end of this 3 years project. It helps in making marketing strategies, and projections of revenues and expenses considering the type of Business models and clientele. Despite the early stage of the project, it was decided to have a round table dedicated to the business model of SIGN-AIR platform and therefore tackling the two following objectives:

- **How do we create an irresistible value-proposition for SIGN-AIR Platform?**
- **How do we attract and retain new customers into the Platform?**

The discussion of the 10 experts was focused on the benefits of SIGN-AIR's platform, its Go to Market Strategy and the scalability of the system.

Highlights

- Focus and design 1 or 2 very well-defined scenarios starting with the Passenger and work backwards.
- Disruption management would probably be a Good starting point (especially important for PRM). Focus on disruption management to avoid competition with Amadeus.
- [Promote value with data] Large companies have huge data lakes and are not afraid to share them if we convince them that they are going to create new value.
- SIGN-AIR should target Public Transport Authorities and sell them X number of licenses. It is easier for us to reach TSPs. It is necessary to make them part of the Project, so they can refer our solution to local companies.
- Smart Contract will make TSPs lose money. Example: only 3% of travelers who lose a flight ask for compensation. By offering better service to users this percentage would increase. This is the reason why Smart contracts are being delayed. SIGN -AIR needs to convince companies "why" they will generate more benefits by offering a better service
- By introducing brokers or intermediaries we are increasing the cost of the service.
- Who will cover the cost of this service and the data sharing?
- "Not all services from the airlines are profitable, so they are not running on higher load factors. It might be one market entry strategy. For those routes which you have problems filling up the capacity you put into the platform, increasing the sales channel."
- Companies want to make money, offer the best services, and now need to be sustainable. They are not in the business of making money out of their data, they will share data if they are going to create a new value (create new service, reduce costs, generate more efficiencies, increase the quality and satisfaction of users). They really need to understand which data they need to share to reach these goals.
- Public authorities can promote data-sharing and standards in their bids. One of them can be the revenue sharing model. The platform should be in public hands.
- Who is going to provide the top layer that will provide the passenger support for decision making? This should be discussed before talking about the business model.
- SIGN-AIR is not tackling at a strategic level as Amadeus, but rather at an instruction and technical level. And that is beyond the level of a travel agency.

- GDS is much more static, whereas SIGN-AIR will be more interactive and will still give value through the monitoring phase.
- Do not reinvent the wheel. Talks about the DEPLOYMENT project from EONA-X
- Why did Germany create the single ticketing? Related to Carbon neutrality by 2045. Single ticketing is a way to boost public transport and foster the transition to carbon neutrality. Help demonstrate carbon intensive companies their commitment to sustainability by combining their services with public or low carbon intensive modes of transport.
- SIGN-AIR could have much better perception if it was in the hands of public authorities. "It will be a more stable step for operators" […] Sell licenses to public bodies who can buy the licenses for all the local operators. Because it will be hard for operators to see the value from SIGN-AIR. […] Sell the license according to the size of population, number of operators, region, etc.
- Recommendations on sources to look regarding European data-sharing directives.

Future Steps?

1. Role Public Transport Authorities (PTAs) should be enhanced in the project.
    a. SIGN-AIR should target PTAs as main customers.
    b. SIGN-AIR should involve as much as possible PTAs, to make them promoters of our platform.
    c. The eco-transition – promoted by multimodal collaboration - should be the focus of our discussions with public authorities.
    d. The platform should be governed by a public entity.
2. Value proposition of SIGN-AIR to users:
    a. [Local Companies] The platform is going to open doors to a global market.
    b. [Large Companies] The platform will allow companies to monetize their data and create new value. This will allow them to enhance their service models.
3. Start with 1 very-well defined use case and work from there. Could potentially be disruption management between air transport and railways.