

# 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. On the other hand, this document is an M3 initial version, so it will be dully updated in both M19 and M35.





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# **SIGN-AIR**

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

# SIGN-AIR

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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 and its updates that will follow on M19 and M35, 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.

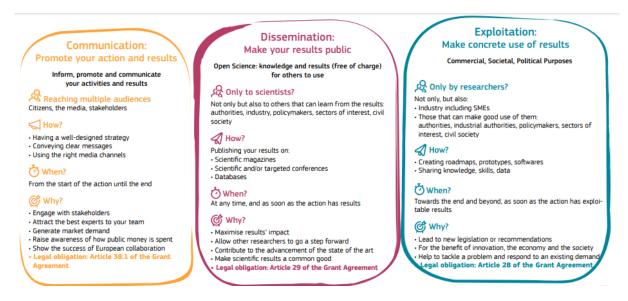


Figure 1: Definitions of communication, dissemination, and exploitation in Horizon Europe



#### 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 guidelines¹:** 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 5<sup>th</sup> 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?
   <a href="https://ec.europa.eu/research/participants/docs/h2020-funding-guide/imgs/quick-guide-diss-expl-en.pdf">https://ec.europa.eu/research/participants/docs/h2020-funding-guide/imgs/quick-guide-diss-expl-en.pdf</a>
- 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
   <a href="http://ec.europa.eu/translation/english/guidelines/documents/misused english terminology\_eu\_publications\_en.pdf">http://ec.europa.eu/translation/english/guidelines/documents/misused\_english\_terminology\_eu\_publications\_en.pdf</a>
- 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



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<sup>&</sup>lt;sup>1</sup> For the project partners can be found in the project's repository



## 2 Project introduction

### 2.1 "About" project text

SIGN-AIR project fosters collaboration among multimodal Transport Service Providers (TSPs) to achieve passenger Door2Door seamless mobility. The project's objective encompass developing the SIGN-AIR web platform for TSPs; a novel centralized hub for Contracts' (i.e., data sharing agreements and smart contracts) generation and management/monitoring, revolutionizing data sharing processes while tailoring it to their specific needs. While the platform handles contractual aspects, TSPs continue to manage their own data and that of their customers. To achieve that, SIGN-AIR emphasises on the importance of data sharing, it demonstrates the value of using data standards and contributes to their harmonization providing suggestions aligned with the current trends and EU polices and using existing tools. Additionally, the platform uses "a minimum required data mechanism" to propose collaborators and it provides Contracts' templates that adhere to national and European requirements (including GDPR) and a secure negotiation mechanism to speed up the contracts signature towards unlocking data value. Additionally, SIGN-AIR enables interoperability through APIs for integration with third parties such as Travel Companions applications and Data Spaces. Moreover, SIGN-AIR project executes real environment pilots (TRL7) to further demonstrate its stakeholders' benefits. Finally, the end goal of the solution offered is to contribute to the shift of Air Traffic Management (ATM) from a flightcentric to a passenger-centric and multimodal approach. The SIGN-AIR project follows a Business to Business-Business to Customer (B2B2C) approach, prioritizing the end goal of benefiting travellers while catering to TSPs, including airlines, airports, and Public Transport Operators to share their data to enhance operations in and around airports, synchronize their timetables, reduce time-to-gate, generate multimodal single tickets, and manage disruptions. SIGN-AIR aims to be a game changing platform towards transport data sharing.

## 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* ensuring interoperability and trust among transport service providers (TSPs) for efficient data sharing and collaboration, 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, so travellers gain access the results of data sharing contracts between TSPs. Travellers could choice itineraries offered by the collaboration of 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<br>message<br>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 data sharing and collaboration among Transport Service Providers to achieve seamless multimodal transport.                            | SIGN-AIR platform forms a cohesive ecosystem All-in-one DSA and SC tool for multimodal collaboration.  |
| 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 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 provide shorter walking distance 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.  |
|                                    |   |

# 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       |
| Neus Matamoros      | Dissemination Leader | neus.matamoros@carnetbarcelona.c<br>om |





#### 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 authority  | Optimize transport network in the region by implement and/or using SIGN-AIR's results.  |
| 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<br>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 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.

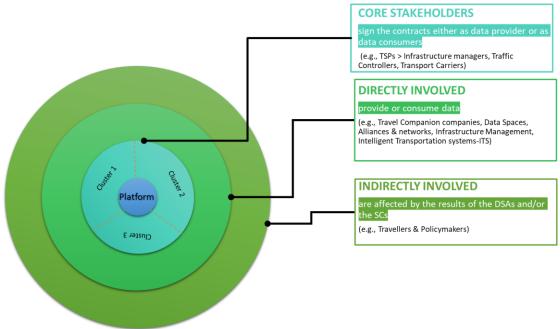


Figure 2: SIGN-AIR platform stakeholders





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, ANSPs 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. It is important to take into consideration that it is still early in the project and thus, it is only a first glance that will keep evolving through time.

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.,<br>Airports,<br>airlines, railway<br>operators etc)<br>and transport<br>authorities<br>(e.g., OASA) | -Industry and<br>academic<br>events &<br>conferences -<br>Workshop(s)<br>-Bilateral<br>meetings | 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 |





|          |   | -Project's<br>website &<br>social media   | to achieve seamless multimodal transport.  | performance validation activities.   |
|----------|---|---|--|--|
| 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,<br>standardization and<br>harmonization are key to<br>enhance smart and<br>seamless multimodal<br>transport for Europe's<br>citizens   | Cross fertilize 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   |
| 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. | performance validation activities.  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,<br>Research<br>Centres  | -Industry and<br>academic<br>events &<br>conferences -<br>Workshop(s)<br>-Bilateral<br>meetings                 | -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   | Get insights about the project and collaborate in the scientific and research excellence.  Participate in elicitation of requirement and   |



|          |                             | -Project's<br>website &<br>social media | Transport Service Providers to achieve seamless multimodal transport.  | performance validation activities.   |
|----------|-----------------------------|---|--|--|
|          |                             |   | - Data sharing,<br>standardization and<br>harmonization are key to<br>enhance smart and<br>seamless multimodal<br>transport for Europe's<br>citizens   | Co organize activities such as panels, round tables and publication of scientific papers.        |
|          |                             |   | - 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. |  |
| Indirect | Travellers<br>Civil society | -Project's<br>website &<br>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.



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<sup>2</sup> 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/                  | •                        | Project deliverables             |  |
|          |                                       | •                        | Entrance to SIGN-AIR platform    |  |
| LinkedIn | https://www.linkedin.com/company/syn- | •                        | Promotion of the project and its |  |
| (please  | air/about/                            |                          | objectives to the general public |  |
| also see |                                       | •                        | News and articles                |  |

<sup>&</sup>lt;sup>2</sup> The project partners can find the templates here.



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

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 <u>page</u> handled by SESAR 3 JU in coordination with the project members. SIGN-AIR has its own landing page (<a href="https://sign-air.eu/">https://sign-air.eu/</a>) 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 and media

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 |   |
| Online appearance: LinkedIn project member   | 15/06/2023        | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:707<br>5025359296962560/ |
| Online appearances: Newsletter from AETHON   | 20/06/2023        | https://aethon.gr/2023/06/1<br>6/sign-air-kick-off-meeting/                       |
| Save the date "13th EASN<br>International Conference"  | 28/07/2023        | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:709<br>0646715355025408  |
| Online appearance: LinkedIn project member   | 03/08/2023        | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:709<br>0665410080976896/ |
| Aviation and MDMS: the passengers' perspective (repost)  | 09/08/2023        | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:709<br>4948761298243584  |
| Save the date "SESAR Annual Conference "   | 09/10/2023        | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:711<br>7147858071367681  |
| SIGN-AIR roll up   | 12/10/2023        | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:711<br>8210988700508160  |
| Article "Towards seamless door-<br>to-door travelling within Europe:<br>Transport operators' and<br>passengers' perspectives" (link) | 14/12/2023        | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:714<br>1001577179381760  |





| Results of SIGN-AIR's 1 <sup>st</sup><br>stakeholders' workshop | 18/12/2023 | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:714<br>2463327489744897 |
|---|------------|--|
| Participation at AI4HyDrop<br>project's workshop                | 12/02/2024 | https://www.linkedin.com/fe<br>ed/update/urn:li:activity:716<br>2755381532856320 |

#### 3.4.3 Social media

CARNET, as task leader, has established two social media profiles, 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 our 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, every post will involve tagging or mentioning SESAR 3 JU and the EU.

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;
  - o 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
  - o 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, CARNET created a communication plan of 6months (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 organized by SIGN-AIR

| Event                              | Date                            | Place                    | Information to be shared. Form & topics  | Importance for the project   |
|------------------------------------|---------------------------------|--------------------------|--|--|
| 1 1st<br>stakeholders'<br>workshop | 27/11 from<br>10:00-<br>12:00   | Sevilla, Spain           | Parallel round tables with 7-8 participants per table/topic.  I. Data standardisation and data exchange between different modes  II. Disruption management airporttrain intermodal connection and new ATM.  III. Business model of SIGN-AIR platform | Getting the insights of experts of different domains is of high importance in the elicitation of requirements. |
| 2 Focus group                      | June 2024                       | EPF annual<br>conference | Presentation of mobility packages idea and disruption management   | Get the feedback of stakeholders   |
| 3 Multimodality<br>workshop        | September<br>or October<br>2024 | TBD (e.g.,<br>Brussels)  | Assessment of multimodality solutions and Key Performance Indicators Framework   | Enhance the cross-<br>project collaboration<br>between MultiModX<br>and SIGN-AIR facilitated<br>by Engage II.  |
| 4 Focus group of airports          | M28-M30                         | TBD (e.g.,<br>Brussels)  | Assessment of multimodality solutions and Key Performance  | Present the benefits of the collaboration between airport and ground transport                                 |





|  |         |   | Indicators Framework. Demonstration of the results of Bologna use case and engage new end users for the platform. | means. Potential collaboration with ACI (Airports Council International) and/or ARC (Airport Regions Council) and UIC (International Union of Railways) or UITP (International Association of Public Transport) |
|--|---------|---|---|---|
| 5 2 <sup>nd</sup><br>stakeholders'<br>workshop | M31-M32 | TBD (e.g.,<br>Bologna,<br>Brussels<br>hosted in<br>Eurocontrol<br>premises) | On hands training and deep interviews.  | Present SIGN-AIR platform to the core stakeholders and have validation exercises  |
| 6 Final event                                  | M35-M36 | TBD   | Presentations and Q<br>&A session.  | Present SIGN-AIR platform to the core stakeholders and have validation exercises  |

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<br>Programme on<br>Mobility as a<br>Service (MaaS) | N/A  | 27-29 June 2023 | Brussels,<br>Belgium             | Presenting<br>the project<br>objective<br>and future<br>activities | Connecting the project with MaaS operators and travel companions as well as policy actors.                   | Yes       |
| 2 | EASN 2023  | http://easnconference.eu<br>/2023/key-dates  | 5-8/09/2023     | Salerno, Italy                   | Presenting the scientific & research outcomes of the project       | Connection of<br>the project's<br>results with the<br>air transport<br>community                             | Yes       |
| 3 | Data Driven<br>Urban Mobility in<br>Europe                       | https://web.cvent.com/ev<br>ent/fa35b0eb-365f-4cc0-<br>8e72-<br>7c252fa9cf9d/summary | 14/09/2023      | Amsterdam,<br>The<br>Netherlands | research<br>outcomes   | Connection of<br>the project's<br>results with the<br>urban<br>transport<br>actors and<br>MDMS<br>initiative | No        |



| 4 | CIVITAS forum                              | https://civitas.eu/umd-<br>2023                 | 4-6/10/ 2023 | Seville,<br>Spain    | research outcomes  | Connection of<br>the project's<br>results with the<br>urban<br>transport<br>actors. | No  |
|---|--|---|--------------|----------------------|--|---|-----|
| 5 | SESAR 2 <sup>nd</sup> Annual<br>Conference | https://www.sesarju.eu/n<br>ode/4518            | 10/10/2023   | Brussels,<br>Belgium | Presenting<br>the project<br>objective<br>and future<br>activities     | Connection of<br>the project's<br>results with the<br>air transport<br>community    | Yes |
| 6 | Smart City Expo<br>World Congress<br>2023  | https://www.smartcityexp<br>o.com/              | 7-9/11/2023  | Barcelona,<br>Spain  | Project<br>objectives<br>and<br>description<br>of SIGN-AIR<br>concept. | ,   | No  |
| 7 | NAPCORE event                              | https://napcore.eu/mobili<br>ty-data-days-2023/ | 7-9/11/2023  | Budapest,<br>Hungary | Project<br>objectives<br>and<br>description<br>of SIGN-AIR<br>concept. | Connection of<br>the project<br>with NAPCORE<br>project                             | No  |





|   | SESAR innovation<br>days       | https://www.sesarju.eu/n<br>ode/4478 | 27-30/11/2022 | Seville, Spain         | Project<br>objectives<br>and<br>description<br>of SIGN-AIR<br>concept. | Connection of the project's results with the air transport community  Establish cross project collaboration with the other SESAR projects. | Yes |
|---|--------------------------------|--------------------------------------|---------------|------------------------|--|--|-----|
| 9 | Airspace Geneva                | https://airspaceworld.co<br>m/       | 19-21/03/2024 | Genova,<br>Switzerland | research outcomes  | Connection of the project's results with the air transport community and many industry partners.   | Yes |
|   | Bauhaus Luftfahrt<br>Symposium | Bauhaus Luftfahrt<br>Symposium       | 12-13/3/2024  | Berlin,<br>Germany     | Presenting<br>the<br>scientific &<br>research<br>outcomes              | Connection of the project's results with the air transportation actors and other   | No  |





|    |                     |  |               |                     |  | multimodality<br>projects   |     |
|----|---------------------|--|---------------|---------------------|--|---|-----|
| 11 | TRA2024             | https://traconference.eu/                | 15-18/4/2024  | Dublin,<br>Ireland  | Presenting the scientific & research outcomes of the project | Connection of<br>the project's<br>results with the<br>multimodality<br>actors | Yes |
| 12 | IMC24               | N/A                                      | TBD           | Sitges, Spain       | Presenting the scientific & research outcomes of the project | Connection of<br>the project's<br>results with the<br>multimodality<br>actors |     |
|    | UITP summit<br>2025 | https://uitpsummit.org/h<br>amburg-2025/ | 15-18/06/2024 | Hamburg,<br>Germany | Presenting the scientific & research outcomes of the project | Connection of<br>the project's<br>results with the<br>multimodality<br>actors | No  |





|    | EPF annual<br>conference | https://www.epfconferen<br>ce.eu/                                       | 21-22 June 2024 | Warsaw,<br>Poland                 | Presenting the scientific & research outcomes of the project | Connection of Yes the project's results with the multimodality actors. Organization of a focus group. |  |
|----|--------------------------|---|-----------------|-----------------------------------|--|---|--|
| 15 | ITS congress 2024        | https://www.itsinternatio<br>nal.com/events/its-world-<br>congress-2024 | 16-20/09/2024   | Dubai,<br>United Arab<br>Emirates | Presenting the scientific & research outcomes of the project | Connection of<br>the project's<br>results with the<br>multimodality<br>actors                         |  |
| 16 | ACI events               | https://www.aci-<br>europe.org/events.html                              | TBD             | TBD                               | Presenting the scientific & research outcomes of the project | Present the project results and solution to air industry partners.                                    |  |



#### 3.4.4.1 SIGN-AIR 1<sup>st</sup> stakeholders' workshop

The 1<sup>st</sup> stakeholders' workshop was organized on the 17<sup>th</sup> of November 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 will develop the following publications, printed material (roll-ups, stickers, etc.) and 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<br>for congresses,<br>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<br>banner for<br>publications and<br>social media | 30/09/2023 | N/A  |
| Poster                                    | Design of poster<br>for congresses,<br>fairs and events             | 29/2/2024  | N/A  |
| Newsletter                                | Digital newsletter for subscribers                                  | Biannual   | 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<br>the SIGN-AIR platform and the backbone<br>mechanisms used to identify potential<br>collaborators, how the standardization tool<br>works, how the graph technologies are<br>implemented, how the legal layer works<br>etc. | M14      | -    |
| 2-SIGN-AIR platform   | Presentation of SIGN-AIR platform at the stage of TRL7  | M20      | -    |

#### 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. Please edit the table as appropriate for your project.

Table 13: Communication KPIs and success criteria

| Action          | KPIs   | Success criteria                                    | Currently achieved | Last update | Annual growth |
|-----------------|--|---|--------------------|-------------|---------------|
| Web<br>presence | 1 Number of visits=120 per month, 80 unique visitors 2 Bounce rate=10% | Expected KPI value by the end of the maturity gate. | N/A                | 12/02/2024  | N/A           |
|                 | 3 Number of page views=4000  |   |                    |             |               |
|                 | 4 Average time of visit=10min  |   |                    |             |               |
|                 | 5  |   |                    |             |               |

<sup>&</sup>lt;sup>3</sup> The landing page of SIGN-AIR was programmed to be launched in February 2024 and be the entrance point of the SIGN-AIR platform.



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| Press and<br>media           | # of press releases & articles (online & printed) =5 per year  # of press enquiries=10 per year  | Expected KPI<br>value by the<br>end of the<br>maturity gate | Yes        | 12/02/2024 | N/A |
|------------------------------|--|---|------------|------------|-----|
| Social<br>Media <sup>4</sup> | # of clicks>250  # likes>10  #Shares>10  #tags>10  | Expected KPI value by the end of the maturity gate.         | Yes        | 12/02/2024 | N/A |
|                              | 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. |   |            |            |     |
| Events                       | # of organised<br>workshops/events=2<br># of attendees=20  | Expected KPI value by the end of the maturity gate.         | Yes<br>Yes | 12/02/2024 | N/A |
|                              | # of entities asking for<br>feedback or more<br>information.>2<br># of participation in<br>external events and<br>seminars.>5            |   | Yes        |            |     |



<sup>&</sup>lt;sup>4</sup> <u>Guidance Social media guide for EU funded R&I projects.</u>



#### 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 endeavors 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/Journ als  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<br>/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<br>Research in Air Transportation<br>(ICRAT)                           | N/A                                       |  |





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





| Journal of Air Transport       | https://www.journals.elsev                       |
|--------------------------------|--|
| Management                     | ier.com/journal-of-air-                          |
| wanagement                     | <u>transport-management</u>                      |
|                                | https://www.hindawi.com/                         |
|                                | journals/jat/?utm_source=                        |
|                                | google&utm_medium=cpc                            |
|                                | <u>&amp;utm_campaign=HDW_M</u>                   |
| Journal of Advanced            | RKT GBL SUB ADWO PAI                             |
| Transportation                 | DYNA JOUR X&gclid=Cj0                            |
| ·                              | KCQjwyN-   |
|                                | DBhCDARIsAFOELTIANyS9H<br>wgLdsbBWZzE5iFYyGBfkX_ |
|                                | QTgNh05z1XYA6lJXnXy1k3i                          |
|                                | YaAhDAEALw wcB                                   |
|                                |  |
| Transportation Research Part A | https://www.journals.elsev                       |
| Transportation Nesearch Fart A | ier.com/transportation-                          |
|                                | research-part-a-policy-and-                      |
| Towns delice Beer old Bed B    | practice   |
| Transportation Research Part B | https://www.journals.elsev                       |
|                                | <u>ier.com/transportation-</u>                   |
|                                | <u>research-part-b-</u>                          |
| Transportation Research Part C | methodological                                   |
|                                | https://www.journals.elsev                       |
|                                | ier.com/transportation-                          |
|                                | research-part-c-emerging-                        |
|                                | <u>technologies</u>                              |
|                                | https://www.journals.elsev                       |
| Transportation Research Part E | ier.com/transportation-                          |
|                                | research-part-e-logistics-                       |
|                                | and-transportation-review                        |
|                                | https://www.journals.elsev                       |
| Transport Policy               | ier.com/transport-policy                         |
|                                |  |
| Transportation Planning and    | N/A  |
| Technology                     |  |
| Journal of Transport           | https://www.journals.elsev                       |
| Geography                      | ier.com/journal-of-                              |
|                                | <u>transport-geography</u>                       |
|                                | https://www.tandfonline.c                        |
| Transport Reviews              | om/toc/ttrv20/current?gcli                       |
|                                | d=Cj0KCQjwyN-                                    |
|                                | DBhCDARIsAFOELTn2ubm                             |





|   | mPAa48nJGwLx3YN3u-<br>mqd5_JqH-<br>GuWTJXTila39wlzMBdWf8<br>aAogbEALw_wcB   |                                   |
|---|---|-----------------------------------|
| Sustainability (golden open access)                           | https://www.mdpi.com/jo<br>urnal/sustainability                             |                                   |
| Frontiers in Future<br>Transportation (golden open<br>access) | https://www.frontiersin.or<br>g/journals/future-<br>transportation          |                                   |
| Tourism Management  | https://www.journals.elsev<br>ier.com/tourism-<br>management                |                                   |
| Case Studies on Transport<br>Policy                           | https://www.journals.elsev<br>ier.com/case-studies-on-<br>transport-policy/ |                                   |
| 14 <sup>th</sup> EASN   | https://easnconference.eu  L  | Abstract submitted for evaluation |

Most events and dissemination channels is 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:<br>https://www.program.e<br>asnconference.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 mobility (AAM) and its integration into the multimodal system | EASN agenda:<br>https://www.program.e<br>asnconference.eu/                           | Evtols and their integration  |
| Implementation of a novel concept to unlock data value in multimodal systems  | PS 4.3 Transport Data<br>Sharing<br>Wednesday, Apr 17,<br>2024<br>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

The envisioned dissemination events are the same with the ones presented in

#### 4.2.2.1 SIGN-AIR's 1<sup>st</sup> stakeholders' workshop

After the coordination with the communication and event managers of the SESAR 3 JU, the consortium aims to conduct SIGN-AIR's 1<sup>st</sup> 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,<br>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<br>Authorities          | Direct outreach                             | Interest in developing an overall market framework         | Give insights about the project and help search for cooperating stakeholders |  |
| Transport Service<br>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<br>Service Operators  | Direct outreach                              | More efficient system,<br>easier integration with<br>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<br>criteria                                 | Currently achieved           | Last update | Annual growth |
|------------------------------|--|---|------------------------------|-------------|---------------|
| Academic<br>publication<br>s | # of published scientific publications = 4 per project year  # of published articles= 4 per project year  # of white papers=1  # of downloads on website publications page=20  # of references in scientific publications=20 | Expected KPI value by the end of the maturity gate. | 2 waiting<br>for<br>approval | 12/02/2024  | N/A           |
| Events                       | # of organised workshops/events, of attendees, entities asking for feedback or more information=2 per project year  # of participation in external events and  | Expected KPI value by the end of the maturity gate. | Yes                          | 12/02/2024  | N/A           |





|                    | seminars=4 per project<br>year  |   |     |            |     |
|--------------------|---|---|-----|------------|-----|
|                    | # of speaker evaluations<br>from conference<br>presentations = 2 per<br>project year              |   | Yes |            |     |
| Print<br>materials | # of graphic postcards,<br>recipients, infographics,<br>flyers/ brochures =10 per<br>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%                                       | Expected<br>KPI value by<br>the end of              | No  | 12/02/2024 | N/A |
|                    | 3 Number of page views=4000   | the<br>maturity<br>gate.                            |     |            |     |
|                    | 4 Average time of visit=10min   |   |     |            |     |
|                    | # of posts in website<br>'News' section =10 per<br>project year                                   |   |     |            |     |
| Innovative         | # of views =30  | Expected KPI value by the                           | N/A | N/A        | N/A |
| video<br>content   | # of sessions in which the video was introduced =5  | end of the maturity gate.                           |     |            |     |
|                    | # of views (if uploaded to<br>a social network) =20   | Seco.   |     |            |     |
| Social             | # of clicks>250   | Expected KPI value by the                           | Yes | 12/02/2024 | N/A |
| media              | # likes>10  | end of the  |     |            |     |
|                    | #Shares>10  | maturity gate.                                      |     |            |     |
|                    | #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.





# 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:

- 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<br>stakeholders<br>(Table 4: SIGN-<br>AIR project<br>stakeholders)     | market validation, product commercialisatio n   | Creation of Data<br>Sharing<br>Agreements and<br>Smart Contract<br>between TSPs of<br>multimodal chain                              | After M32 | SPA/UPC          |
| Extension of<br>Transitool                                       | Core<br>stakeholders<br>(Table 4: SIGN-<br>AIR project<br>stakeholders)     | market validation, product commercialisatio n   | Assistance in the standardization and harmonization process of TSPs   | After M18 | AETHON           |
| Optimization algorithms  | Core<br>stakeholders<br>(Table 4: SIGN-<br>AIR project<br>stakeholders)     | Further research, licencing, education.   | Disruption management Intramodality module (air- railways)  | After M25 | ENAC             |
| Conclusions of<br>Pilots and policy<br>making<br>recommendations | Indirect<br>stakeholders<br>(Table 4: SIGN-<br>AIR project<br>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<br>EPF<br>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



| Table 18 summarises the schedule of communication and dissemination activities as captured in sections 3 ar 4 of this deliverable. | nd |
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Table 18: Overview of communication and dissemination activities

| Activity                     | Channel         | Tool  | Objective                                      | Target audience             | KPIs   | Success<br>criteria                             | Frequency/date                   | Planning activities                    | Responsible partner |
|------------------------------|-----------------|---|--|-----------------------------|--|---|----------------------------------|--|---------------------|
| Post<br>LinkedIn             | LinkedIn        | Articles,<br>images                         | Updates<br>regarding<br>SIGN-AIR<br>ACTIVITIES | TSPs and researchers        | #<br>engagement                              | 15<br>Engagement<br>/ post                      | Monthly                          | Section 9.4                            | CARNET              |
| Post<br>Twitter              | Twitter         | Articles,<br>images                         | Updates<br>regarding<br>SIGN-AIR<br>ACTIVITIES | TSPs and researchers        | #<br>engagement                              | 5<br>Engagement<br>/ post                       | Monthly                          | Section 9.4                            | CARNET              |
| Newsletter                   | Mailchimp       | Newsletter<br>software such<br>as MailChimp | Updates<br>regarding<br>SIGN-AIR<br>ACTIVITIES | TSPs and researchers        | % above industry average opening rate        | 5% above industry average <sup>5</sup>          | M13, M14,<br>M16, M20 and<br>M25 |  | SPA                 |
| Workshop                     | Social<br>media | Presentations,<br>brochures                 | Meeting with<br>TSPs to gather<br>insight      | TSPs and other stakeholders | #<br>participants<br>per event               | 10<br>participants<br>per event                 | M6, M20, M34                     | A month after<br>the<br>workshop/event | SPA                 |
| Blog posts<br>on<br>LinkedIN | Social<br>media | Articles,<br>images                         | Updates<br>regarding<br>SIGN-AIR<br>ACTIVITIES | TSPs and researchers        | # visitors per<br>year<br># news per<br>year | 2000 visitors<br>per year<br>2 news per<br>year | Bianually                        | Section 9.4                            | CARNET              |

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<sup>&</sup>lt;sup>5</sup> 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: <a href="https://bit.ly/3mvwJNw">https://bit.ly/3mvwJNw</a>

# 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           | Торіс         | Action  | Updated actions   |
|---|-----------------------------|---------------|---|---|
| 1 | On going projects  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<br>-Experts from<br>SIGN-AIR  |
|   |                             |               |   | participated in the<br>2 <sup>nd</sup> industrial   |



|    |                     |  |  | workshop of MMX.  |
|----|---------------------|--|--|---|
| 2  | MAIA                | Multimodality  | TBD  |   |
| 3  | DATA4PT             | Data<br>standardization for<br>public transport          | Invitation at the 1 <sup>st</sup> stakeholders' workshop.  | The technical coordinator participated at the 1st stakeholders' workshop  |
| 4  | NAPCORE             | Data<br>standardization for<br>public transport          | Invitation at the 1st stakeholders' workshop.  |   |
| 5  | MobiDataLab         | New mobility data sharing solutions                      | Invitation at the 1st stakeholders' workshop.  | Experts<br>participated at the<br>1st stakeholders'<br>workshop   |
| 6  | Ecorridor           | Cyber security and multimodality                         | Invitation at the 1st stakeholders' workshop.  | Experts<br>participated at the<br>1st stakeholders'<br>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<br>stakeholders'<br>workshop   |   |
| 10 | Engage II           | Knowledge<br>Transfer                                    | Coordination meetings to establish the collaboration between SESAR multimodality projects and projects from other SESAR flagships. |   |
| 11 | Eurocontrol         | Knowledge<br>Transfer and<br>stakeholders'<br>engagement | Coordination<br>meetings to steer the<br>participation and<br>involvement of<br>Eurocontrol in SIGN-<br>AIR activities             | Participation at the 1 <sup>st</sup> stakeholders' workshop and organization of a bilateral meeting to see the future involvement of Eurocontrol in SIGN-AIR. |





|                |  |   | SIGN-AIR has a<br>monthly meeting<br>with Eurocontrol<br>experts to present<br>interesting<br>advancements  |
|----------------|--|---|---|
| EUREKA         | Knowledge<br>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 |
| TRAVEL<br>WISE | Knowledge<br>Transfer and<br>stakeholders'<br>engagement | Participation in the project              | Member of SIGN-<br>AIR consortium<br>are also members<br>of TRAVELWISE  |

SIGN-AIR initiated the common multimodality-passenger performance framework inviting 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 &<br>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, | Arrangement of a meeting to present SIGN-AIR at DG move representatives of this initiative | 1 meeting arranged<br>to present the<br>project.       |





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 Multimodal digital mobility services (MDMS) can be defined as 'systems providing information about, inter alia, the Arrangement of a location of meeting to present 2 meetings arranged transport SIGN-AIR at DG 3 MDMS facilities, to present the move schedules, project. representatives of availability and this initiative fares, of more than one transport provider, with or without facilities to make reservations, payments or issue tickets'.





# 7 List of acronyms

# Table 21: List of acronyms

| Acronym | Description                              |
|---------|--|
| ATM     | Air Traffic Mangement                    |
| 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.

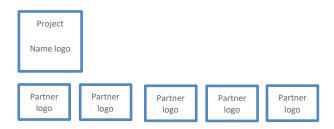




# 9 Annexes of CDE activities

## 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-completedeconfliction-flight-tests-in-france/
  - https://www.leonardo.com/en/press-release-detail/-/detail/16-10-2020-aviation-industrytests-a-key-solution-to-fly-seamlessly-and-with-more-efficiency-in-europe
- Partner focused: https://avtrain.aero/article/cl511vis09635446mlb9cvid2vt/digital-skies-cleared-fortake-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: <a href="https://www.sesarju.eu/node/3406#sesar-logos7694">https://www.sesarju.eu/node/3406#sesar-logos7694</a>





# 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**

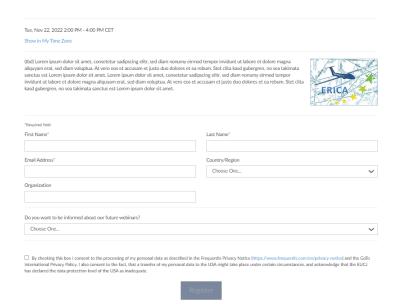
- Projects are responsible for sending out invitations for their events this may be done by email or via a dedicated mailing platform.
- For registration, projects should provide invitees with a registration link or a person whom they can contact to register.
- Projects should take note of the EU's personal data protection provisions<sup>6</sup> 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.

<sup>&</sup>lt;sup>6</sup> 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)



## **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 <u>picture</u> 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:

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

# What are we asking from every partner?

- 1. 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"
- 2. To write their name wherever they see their expertise may fit to facilitate the Comms work
- 3. Any images they may see fit (optional)
- 4. Any suggestion of topic you believe would be of interest (optional)





| Month                         | Topic   | Posts:  | Publication Date | Linked Partner |
|-------------------------------|---|---|------------------|----------------|
| M1 (February<br>2024)         | Cross<br>collaboration<br>with other<br>projects  | Cross collaboration with AIHyDrop (participation in their workshop 7/2)   |                  | SPA            |
|                               |   | Cross collaboration with MultiModX (participation in their workshop 20/2)   |                  | SPA            |
| M1 (February                  | Unveiling the<br>SIGN-AIR<br>Platform             | Overview of the platform functionalities  |                  | SPA            |
| 2024)                         |   | Benefits for Transport     Service Providers (TSPs)   |                  | SPA            |
|                               |   | Enhancement the passenger experience  |                  | EPF            |
| . `                           | _   | Airports and traffic management   |                  | UB-FTTE        |
|                               | chains  | 2. Total delay  |                  | ENAC           |
| Simplici<br>SIGN-Al<br>Module | Creating Legal<br>Simplicity with<br>SIGN-AIR and | Data standardization and homogenization importance  |                  | AETHON         |
|                               | Modules of the platform                           | Templates for contracts to<br>simplify legal processes, Data<br>Sharing agreements and<br>complementary Smart Contracts |                  | FD&Timelex     |
|                               |   | The impact on the legal framework in multimodal travel  |                  | FD             |
| M4(May 2024)                  | Use cases of SIGN-AIR Topic                       | Disruption management and optimization algorithms   |                  | ENAC           |





|                  | ı   |   |         |
|------------------|---|---|---------|
|                  |   | Smart contract on multimodal                                      | SPA/BLQ |
|                  |   | packages access to the airport of Bologna                         |         |
|                  |   | How this is explained in the Consortium Meeting                   | SPA     |
| M5 (June 2024)   | Ensuring Data Security and Privacy in Multimodal Travel | Overview of the measures taken by SIGN-AIR for data security      | FD      |
|                  | iravei  | Addressing privacy concerns in multimodal travel                  | FD      |
|                  |   | Compliance with regulations and standards                         | AETHON  |
| M6 (July 2024)   | Enhancing<br>Travel<br>Companions'<br>Experience        | How SIGN-AIR provides routing information for Travel Companions   | SPA     |
|                  |   | Enriched details about specific contracts for traveller customers | SPA     |
|                  |   | Improving the overall experience for TCs                          | SPA     |
| M7 (August 2024) | International<br>Impact and<br>Collaboration            | Overview of international collaboration efforts                   | ENAC    |
|                  |   | Partnerships beyond the consortium for a global impact            |         |



| How SIGN-AIR contributes to a more connected and efficient global transportation network | 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 1<sup>st</sup> stakeholders' workshop was successfully executed on the 27<sup>th</sup> 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, <u>A-CDM</u> 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 <u>ITxPT</u> and projects like <u>Data4PT</u> (for open architecture and interoperability. Emphasis on the need for data sharing and collaboration among stakeholders. <u>Transmodel</u>- 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 <u>MultiModX</u> 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.

