

# Communication, Dissemination and Exploitation Plan

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#### Abstract

This deliverable (D7.4) defines the final communication, dissemination and exploitation (CDE) strategy of the SESAR JU exploratory research project "MultiModX", consolidating the approaches, tools and activities implemented throughout the project to maximise outreach to the targeted audiences. It reflects the evolution of the CDE strategy over the project lifetime and provides a comprehensive overview of the communication, dissemination and exploitation actions effectively carried out.





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 $<sup>^{\</sup>rm 1}$  Representatives of all the beneficiaries involved in the project

 $<sup>^{\</sup>rm 2}$  Representatives of the beneficiaries involved in the project



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### MultiModX

## INTEGRATED PASSENGER-CENTRIC PLANNING OF MULTIMODAL TRANSPORT NETWORKS

#### MultiModX

This document is part of a project that has received funding from the SESAR 3 Joint Undertaking under grant agreement No 101114815 under European Union's Horizon Europe research and innovation programme.







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#### 1 Introduction

This deliverable (D7.4) presents the final communication, dissemination and exploitation (CDE) framework of the MultiModX project. It consolidates the communication objectives, key messages and outreach approaches that were implemented throughout the project to ensure that its purpose, activities and results are clearly understandable to the targeted audiences.

Communication activities were carried out through the project website, social media channels and other relevant formats, enabling broad visibility and engagement across the SESAR JU ecosystem, stakeholder communities and the wider public. This deliverable provides an overview of the communication and dissemination actions effectively implemented, together with the associated monitoring indicators used to assess their reach and effectiveness.

In addition, the exploitation section outlines the approach adopted by the consortium to maximise the use of the project results, including their uptake in research, policy and stakeholder contexts beyond the project duration.

#### 1.1 Definitions

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

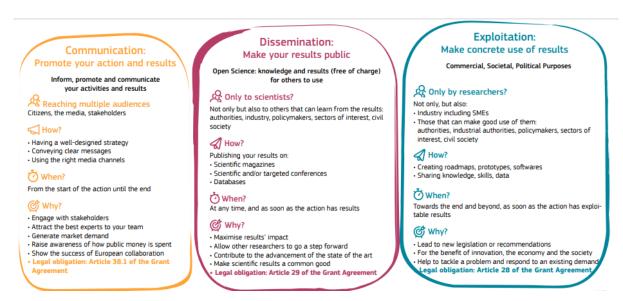


Figure 1: Definitions of communication, dissemination and exploitation in Horizon Europe<sup>3</sup>

 $<sup>^3\</sup> https://research-and-innovation.ec.europa.eu/strategy/dissemination-and-exploitation-research-results\_en$ 





#### 2 Project introduction

#### 2.1 "About" project text

MultiModX (Integrated Passenger-Centric Planning of Multimodal Transport Networks) aims to deliver innovative multimodal solutions and decision-support tools for the coordinated planning and management of multimodal transport networks. The project has developed a comprehensive multimodal modelling and evaluation framework, including a set of key performance areas and indicators, enabling a robust assessment of the impacts of multimodal transport systems and solutions for a wide range of stakeholders.

The main objectives of MultiModX were to:

- identify and characterise current and future scenarios for long-distance multimodal passenger transport in Europe;
- develop a passenger-centric multimodal performance framework;
- develop a multimodal modelling and assessment framework;
- develop an integrated schedule design solution;
- develop a multimodal disruption management solution;
- support the transfer of MultiModX solutions to subsequent stages of the Research and Innovation (R&I) cycle.

The project enhances existing indicators and metrics by complementing current frameworks with passenger-centric performance measures, enabling improved assessment of significant disruptions such as extended delays, missed connections, denied boarding and cancellations.

MultiModX is supported by the SESAR 3 Joint Undertaking and its members under Grant Agreement No. 101114815 and was implemented from July 2023 to December 2025, with a total grant amount of €1,750,380.

#### 2.2 Project key messages

# Key message id	Communication	Dissemination
1	MultiModX ensures that rail and	MultiModX fosters collaboration
	aviation stakeholders benefit from	between different modes of transport,
	integrated and potential multimodal	thus contributing to the creation of a
	network developments, alleviating	truly smart mobility system that
	congestion and reducing the	allocates capacity efficiently across
	environmental impact of transport.	different modes to avoid a capacity
		crunch, reduce transport's CO₂ emission
		while ensuring connectivity, and also
		contributing to reduce passengers'
		door-to-door travel times in the future.
2	MultiModX delivers an integrated	MultiModX increases network
	transport network crisis	resilience and the reliability and
	management process which will	predictability of journey parameters,





	have a direct impact in transport capacity and passenger experience, to the benefit of the society (travellers' trip decision making based on predictability and reliability of journeys).	enhancing punctuality and passenger experience overall.
3	MultiModX provides environmental benefits coming from alleviating congestion and improving passenger flows, given that well-informed passengers will take better decisions regarding their mode and itinerary choice.	MultiModX provides tools for alleviated congestion, enhanced passenger experience, enhanced quality of life, better connectivity and transport resilience based on sustainable and cost-efficient alternatives.

**Table 1: Project Key Messages** 

#### 2.3 Keywords

Key Word	Definition	
Multimodality	Multimodal transportation includes public transportation, rail and waterways,	
	bicycle and pedestrian. Multimodal access supports the needs of all users	
	whether they choose to walk, bike, use transit or drive.	
Air-rail	Airport rail link, a type of rail service providing passenger rail transport from an	
	airport to a nearby city or region.	
Passenger door-	Intermodal and multimodal door-to-door journeys refer to the usage of various	
to-door	transport modes (air, rail, bus, road or maritime) by the traveller to complete a	
transport	single journey.	
Transport	The ability of a transportation system to move people around in the face of one	
resilience	or more major obstacles to normal function.	

#### 2.4 Focal point for communications, dissemination and exploitation.

Name	Role	Email address
Eric Tchouamou Njoya	Project coordinator & Exploitation Manager, Bauhaus Luftfahrt e.V. (BHL)	Eric.TchouamouNjoya@bauhaus- luftfahrt.net
Alena Maximova	WP7 Leader & Dissemination Manager, Airport Regions Council (ARC)	alena.maximova@airportregions.org
Vanessa Perez	Communication Manager, International Union of Railways (UIC)	perez@uic.org

**Table 2: Focal points of contact** 





#### 2.5 Stakeholders identification

Stakeholder	Content
General public (especially passengers) and media	Information about the benefits of enhanced passenger experience, better accessibility and improved multimodal options.
Aviation community (airports, airlines, industry)	Information about collaboration between different modes of transport, and thus contributing to the creation of a truly smart mobility system.
Railway community (railway operators, associations, industry)	Information about collaboration between different modes of transport, and thus contributing to the creation of a truly smart mobility system.
European and national authorities, regulatory bodies and NGOs	Information about the benefits of integrated network and potential multimodal network developments reducing the environmental impact of transport.
European and national authorities, regulatory bodies and NGOs	Information about the benefits of integrated network and potential multimodal network developments reducing the environmental impact of transport.
Cities and regions	Information for enhanced quality of life and passenger experience thanks to sustainable and resilient multimodal network developments.
Scientific community (academia and researchers)	Scientific findings supporting the implementation of an optimised European transport system.
GDS (Global Distribution Systems) organisations	Information for improved overall logistics and supply chain management.
SJU3 members and other EU projects	Information for integration/further advancement regarding an integrated performance cockpit.

Table 3: Stakeholders





#### 3 Communication

The communication strategy of MultiModX ensured the consistent use of the project branding and established the channels used to reach target audiences, the media and society throughout the project duration.

#### 3.1 Communications objectives and strategy

The main objectives of the MultiModX communication activities were to:

- 1. inform relevant stakeholders, end-users and the media about the project results and their impact on European society and the economy, and to demonstrate how European-scale collaboration contributes to multimodality and enhanced research and innovation;
- 2. raise public awareness of the aviation sector's research and innovation efforts in support of sustainability objectives and the digital transition;
- 3. communicate the results of the project, in particular the MultiModX solutions, in order to highlight their direct benefits and stimulate stakeholder interest.

The MultiModX Communication Manager, UIC, was responsible for the development and coordination of the project communication kit, including key messages, visual elements, templates and supporting materials.

All project deliverables and presentations followed the templates and visual identity guidelines provided by the SESAR Joint Undertaking and included the project and EU visual elements in line with SESAR requirements.

To ensure consistency and alignment, communication actions were shared within the consortium and with the SESAR 3 Joint Undertaking using the established project channels, including mailing lists, Confluence and Stellar.





#### 3.2 Communication target audiences

The project communication activities addressed a broad range of target audiences beyond the typical SESAR community, reflecting the multimodal focus of MultiModX. These audiences included the general public (particularly passengers), the media, the aviation community (airports, airlines and industry), the railway community (railway operators, associations and industry), European and national authorities, regulatory bodies and NGOs, cities and regions, the scientific community (academia and researchers), Global Distribution Systems (GDS) organisations, SESAR 3 Joint Undertaking members and other EU-funded projects.

Given the expected impact of the project results on passenger experience and travel decision-making, communication activities also targeted the wider public, with an emphasis on accessibility, clarity and relevance of the project messages.

Target	Channel	Message	Activities
(particularly air sand rail	Public Website Social Media E-News Press Release	OC1: Airports have an important role as multimodal nodes for aviation to improved passenger experience in terms of better accessibility of airports (travellers) and improved multimodal options. OC3: An integrated transport network crisis management	Public website with adapted language and easy to find links to communication material Communication via social media (such as Twitter and LinkedIn)
	transport capacity and pase experience which is of inte	process will have a direct impact in transport capacity and passenger experience which is of interest to society (travellers' trip decision	Video, teaser, flyer, press release
		making based on predictability and reliability of journeys). OC4. Environmental benefits will	Hybrid workshops with open registration
		come from alleviating congestion and improving passenger flows.  Well informer passengers will take better decisions regarding their mode and itinerary choice;	Exchanges with European Passenger Association.





Target	Channel	Message	Activities
European and national authorities, regulatory bodies	Public website; Articles in the SJU e-News UIC e-News Social media posts and newsletter	OC1. Airports have a special role to play as multimodal nodes for aviation and also to improved passenger experience in terms of better to meet and integrate distinct passenger travel behaviour. OC3. Policymakers and regulatory bodies would find useful to consult multimodal performance evaluator to assess policies across implemented scenarios. OC4. They might also count with more detailed insight into environmental benefits of multimodal networks to design tailored incentives and measures;	MultiModX made use of the SJU communications channels and cooperation arrangements to maximise outreach and further cascade relevant content. MultiModX presented its result during international events, advisory councils, action groups and intermodal committees, e.g. Connecting Europe (Ten-T Days).
Aviation community	Public website Articles in the SJU UIC e-News ARC Channels open access scientific publications	oc1. Airport to improved passenger experience in terms of better understand passenger behaviour, requirements and impact on multimodal journeys and airport access (reliability and predictability); oc.3 Scientific contributions and technical innovations of all MultiModX Solutions are relevant for airports and airlines to assess multimodal solutions and their impact on capacities and access times. oc4. Rail and aviation stakeholders will benefit of integrated and potential multimodal network developments alleviating congestion and reducing the environmental impact of transport.	The ARC members (airport regions, such as Vienna, Berlin, Frankfurt, Madrid, Dublin, Helsinki, Oslo, Prague) were informed about the MultiModX actions.  As part of the ARC annual general assemblies, the ARC members convene once a year during the project lifespan for round-table discussions on the project assumptions, outputs and to support the implementation of the project.





Target	Channel	Message	Activities
Railway community	Public website; UIC e-News UIC, used its network to reach the railway community and stakeholders open access scientific publications	OC1.Role of Airports as multimodal nodes for aviation and improved passenger experience in terms of better assess the impact of improved air-rail journeys.  OC3. Aviation and rail stakeholders will benefit of a better understand coordination of passenger flows between modes; assess door-to-door travel times, predictability, reliability with an integrated transport network crisis management process.  OC4. Rail and aviation stakeholders will benefit of integrated and potential multimodal network developments alleviating congestion and reducing the environmental impact of transport.	UIC ensured communications of MultiModX actions within the main actors in the rail transport domain, including railway undertakings, public authorities and related stakeholders.  Relevant UIC working groups such as Air plus Rail, Customer Experience, High Speed or Accessibility Experts were consulted and informed of MultiModX outcomes regularly.  TUD and UIC reinforced the communication and dissemination of MultiModX key messages within the Rail sector in industry-relevant conferences and communication with advisory councils; open access scientific publications the impact of intermodal integration on airside and landside operations (and other).
Project Partners and SESAR JU Ecosystems	Internal communications and exchanges via the wiki like platform 'Confluence'; organisation of internal meetings; participation on external workshops and conferences proposed by SESAR	OC2.Capacity and Cost Efficiency: SUJ3 integration/ further advancement regarding an integrated performance cockpit; use of advanced multimodal KPIs for relevant stakeholders (e.g. airlines, airports, passengers, rail, environment);	Participation in SESAR events and regular exchanges with SJU members.

**Table 4: Communications target audiences** 





#### 3.3 Branding and acknowledgements

MultiModX's logo has been provided by Sesar SU and will be one of the main elements of the visual identity of the project (Word Template, PPT, Website, Press release ...)

# MultiModX

Figure 2: Project logo

The logo was be displayed in every communication action together with EU emblem and SESAR 3 JU logo to acknowledge EU founding and raise awareness on the importance of European cooperation.





#### 3.4 Communication channels

A wide range of communication channels was used, and corresponding activities were implemented to achieve the communication objectives and reach the identified target groups. These included:

- a coherent visual identity, including the project logo, templates and flyer;
- an online presence through the project website and social media channels (Twitter/X and LinkedIn);
- press releases disseminated via the established communication channels of the consortium partners throughout the project;
- internal communication supported by the project management information system, mailing lists and regular meetings;
- external communication based on a consistent set of key messages about MultiModX, tailored to the different target audiences.

#### 3.4.1 Website

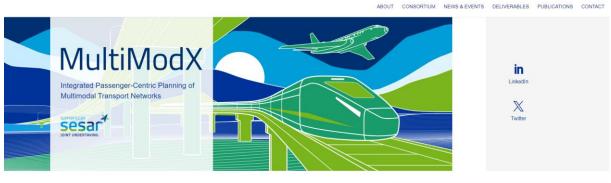
MultiModX web presence is assured by dedicated space project on the SESAR 3 JU website and in a specific MultiModX website. They have been set up at the beginning of the project using the mentioned visual identity and following SJU guidelines. The URL of the website is: https://multimodx.eu /. The website is publicly accessible, mobile friendly and linked to Google Analytics to keep track of visitors.

The public website is as follows:

**Homepage**: this page provides an overview of the project alongside a fact and figures section displaying the main facts about the project (budget, coordinator, timeline etc.). The page also contains a News feed and includes redirects to the social media of the project; The header of this web page also contains SESAR's logo with a link to the site developed by SESAR: https://sesarju.eu/projects/MultiModX







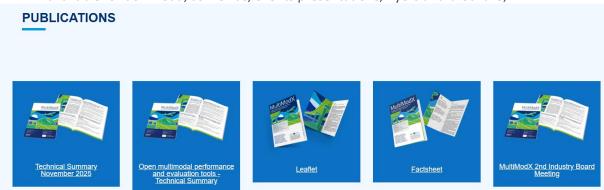




**Overview**: on this page, visitors can find the most relevant information about the project including the context and the objective of the project, as well as the methodology of its implementation. **Consortium**: this section includes the logos, descriptions and links to all project partner websites;



**Publications**: All public deliverables of the project are displayed in this section and are available for download, as well as, events presentations, flyers and brochure;

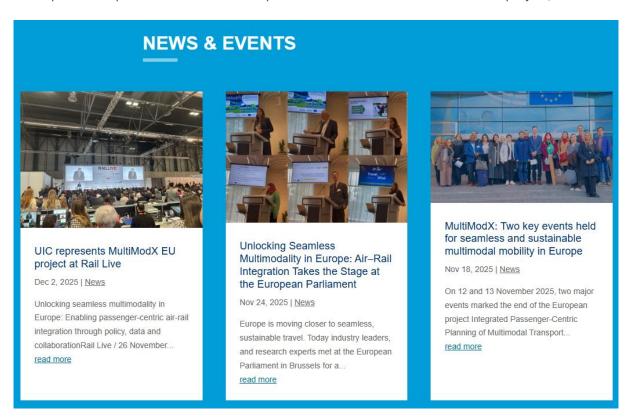






DELIVERABLES	<u>Deliverable</u> number	Deliverable name	<b>*</b>	Work Package	<b>Lead partner ♦</b>	Delivery date <b>♦</b>
	D2.3	DMP final		2	Nommon	M29
	D3.1	Scenario definition		3	BHL	M20
	D4.2	SOL-1 ERR		4	UoW	M21
	D4.3	SOL-1 FRD		4	UoW	M22
	D4.4	SOL-1 OSED		4	UoW	M22
	D4.5	SOL-1 ECO-EVAL		4	UoW	M23
	D5.2	SOL-2 ERR		5	Nommon	M21
	D5.3	SOL-2 FRD		5	Nommon	M22
	D5.4	SOL-2 OSED		5	Nommon	M22
	D5.5	SOL-2 ECO-EVAL		5	Nommon	M23
	D6.2	SOL-3 ERR		6	TUD	M21
		SOL-3 FRD		6	TUD	M22
	D6.4	SOL-3 OSED		6	TUD	M22
	D6.5	SOL-3 ECO-EVAL		6	TUD	M23
	D7.2	White Paper		7	BHL	M28
	D7.3	CDE Plan Update		7	ARC	M13

**News and events**: all events are being displayed here. Press releases are also featured in this section to keep visitors up to date with the developments and activities of the MultiModX project;



**Contact**: this section consists of a contact form that is automatically directed to the project coordinator, the communication manager, as well as the dissemination manager and WP leader.







The **footer** displays the EU flag and the SESAR JU logo, and the Grant Agreement number. It also includes the MultiModX website cookies policy.



The website will remain online after the end of the project for at least three years.



Since the beginning of MultiModX, the project website recorded a total of 4,389 visits. The average visit duration was 2 minutes and 29 seconds. Each visit included 2.3 actions, such as page views, downloads, outlinks, or internal searches, with a maximum of 160 actions recorded in a single visit. The site generated 8,890 pageviews, of which 5,804 were unique. Additionally, there were 7 internal searches using 1 unique keyword, 545 downloads (423 unique), and 579 outlinks (478 unique). All indicators reflect a 100% increase, highlighting a significant rise in user engagement and interaction with the website.

#### 3.4.2 Press and media

Relevant information was published regularly through the usual channels of the different members of the consortium involved in the project, such as:

- UIC e-News: one article in the UIC electronic blog for each MultiModX event, like Kick-off, deliverables and workshops), as well as for any important result achieved by the project partners. The UIC e-News is sent to more than 4000 addresses in the railway community all around the world.
- ARC Newsletter Regions & Airports: bi-monthly newsletter distributed to approximately 5000 subscribers. The database of subscribers includes stakeholders from the aviation community and industry (airports, airlines, civil aviation authorities, and safety agencies),





- transport operators, cities and regions, national and European policymakers, public authorities, environmental NGOs, specialised media. MultiModx updates will be distributed in a dedicated box of the ARC's newsletter. The newsletter is in line with the GDPR rules, opting in of users being voluntary via newsletter and website registration.
- Existing communication and dissemination channels of the partners involved in MultiModX were also used. These include (electronic) newsletters, websites of the project partners and partner related communication or working events as well as LinkedIn.

SESAR channels were also used, for example being highlighted on the LinkedIn, website and newsletter. On top of theses regular communications, two press releases were published and issued in 3 languages (English, French and German) to communicate the main objectives and final results of the MultiModX project. In addition, articles were written about the progress made on the project results as well as updated about the project activities (events, milestones). The project submitted news articles derived from scientific publications and the overall results of the project to pan-European media outlets specialising in transport, rail, and aviation.

Media activity	Date	Link
	Press releases	
Press Release Kick-off	21/07/2023	https://multimodx.eu/wp-content/uploads/2023/09/New-EU-SESAR-project.pdfhttps://multimodx.eu/wp-content/uploads/2023/09/neuen-SESAR-Projektspdfhttps://multimodx.eu/wp-content/uploads/2023/09/nouveau-projet-SESAR.pdf
Press Release UIC	12/09/2023	https://www.uic.org/com/l MG/pdf/cp16_eu_sesar_pro ject_multimodx_en.pdf https://www.uic.org/com/l MG/pdf/cp16_eu_sesar_pro ject_multimodx_de.pdf https://www.uic.org/com/l MG/pdf/cp16_eu_sesar_pro ject_multimodx_fr.pdf
Press Release UIC	27/11/2025	https://uic.org/com/IMG/pd f/cp 17 multimodx final ev ent_en.pdf cp 17 multimodx final eve nt fr.pdf cp 17 multimodx final eve nt de.pdf





	Articles published in the press				
Media activity	Date	Link			
Article – Online English newspaper London Reconnections	May 2024	https://www.londonreconnections.com/202 4/multimodx-workshop-a-milestone-in- seamless-air-rail-integration-uic/			
Transport Industry Analytical News Network	May 2024	https://www.tinn.ir/Section-aviation- 141/273675-multimodx-attends-the-airport- regions-council-spring-conference-in-vantaa- finland			
Accidents.co.za	September 2024	UIC highlights rail's role in sustainable tourism and modal shift on World Tourism Day 2024			
Der Mobilitätsmanager	October 2024	Bahn für nachhaltigen Tourismus und Verkehrsverlagerung- DMM Der Mobilitätsmanager			
EU Tourisme Platform	March 2025	https://transition- pathways.europa.eu/projects/multimodx- integrating-air-and-rail-sustainable- european-transport-system			
IndexBox	July 2025	https://www.indexbox.io/landing/img/Defau lt.webp			
Fer Press	September 2025	https://www.ferpress.it/uic-progetto- multimodx-su-integrazione-tra-reti-aeree-e- ferroviarie-terra-evento-finale-il-13- novembre/			
Via libre (7. 000 subscribers)	September 2025	https://vialibre- ffe.com/noticias.asp?not=44573			
Lok Report	September 2025	https://www.lok- report.de/news/deutschland/industrie/item/ 61543-uic-multimodx-in-multimodalen- innovationen-bevorstehende- abschlussveranstaltung-in-bruessel.html			





Media activity	Date	Link
BB Rail (more than 30. 0000 subscribers)	November 2025	https://www.btobrail.com/multimodxthe- commitment-to-seamless-multimodality- between-aviation-and-rail-at-the-service-of- the-traveler
EPF	November 2025	https://www.epf.eu/wp/lunch-debate- unlocking-seamless-multimodality-in- europe/
Public	November 2025	https://www.publicnow.com/view/3FF126B 384DFA8CAB8DE753A3697E6BBEC8A63DC
Lok Report	December 2025	https://www.lok- report.de/news/deutschland/industrie/item/ 63503-uic-luft-schiene-integration-im- mittelpunkt-der-abschlussveranstaltungen- von-multimodx.html
Explortal-Logistics	December 2025	https://www.explortal- logistics.net/fileadmin/Media Repository/Ex plortal-Logistics/explortal- logistics pressemitteilung.png
Via libre (7. 000 subscribers)	December 2025	https://vialibre- ffe.com/noticias.asp?not=46060
Railway Gazette (around 11.900 subscribers)	December 2025	https://www.railwaygazette.com/research- training-and-skills/air-and-rail-policymakers- seek-action-on-travel- multimodality/70040.article

Table 5: Contribution to external media

#### 3.4.3 Social media

The communication of the project benefited from a strong and effective presence on social media. Twitter/X and LinkedIn were the two primary platforms used for this purpose.

MultiModX established a dedicated LinkedIn company page (<a href="https://www.linkedin.com/company/multimodx-eu">https://www.linkedin.com/company/multimodx-eu</a>), which served as the main social media channel





for professional communication and outreach. LinkedIn was selected due to its relevance for business-to-business communication and its suitability for engaging professional stakeholders across the aviation, rail and policy communities.

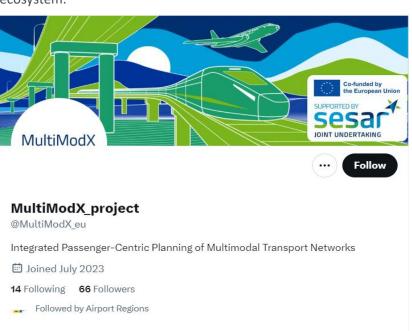


#### MultiModX\_eu

Integrated Passenger-Centric Planning of Multimodal Transport Networks
Transportation Programs - Paris - 266 followers - 11-50 employees

Many consortium partners actively use LinkedIn for their professional communication and supported the project by sharing and amplifying content published on the MultiModX page. Social media posts focused on disseminating project results, promoting workshops and events, and sharing

relevant content from the SESAR Joint Undertaking, the media and other European multimodal projects, thereby fostering synergies and cross-fertilisation within the wider research and innovation ecosystem.



A MultiModX Twitter account <a href="https://twitter.com/MultiModX\_eu">https://twitter.com/MultiModX\_eu</a> (@MultiModX\_eu) was created at the very beginning of the project. It was used to convey messages from the MultiModX project, from the SESAR JU, the partners of the project and from actors of the aviation, railways and from the transportation sector regarding multimodality. To ensure a strong synergy between the Twitter accounts, MultiModX' Twitter account tagged the SESAR JU and ensured that the MultiModX Twitter account constantly re-shares and likes SESAR JU Twitter content as well as other SESAR multimodal projects' contents.

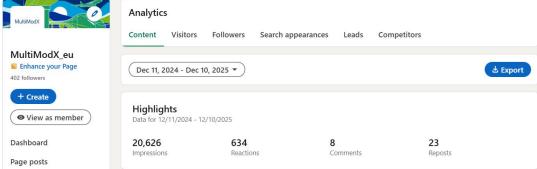
These two social media were used, all along the project life, to disseminate MultiModX results and to enhance the visibility of SESAR JU to the largest audience possible, in the aviation and railways and also in the general public and policy makers. They benefited from the large presence of SJU and the project partners in the social media.





Partners posting on social media sites used the #MultiModX\_eu hashtag so that these posts were easily identified and relayed to other social media platforms and our project website.

# Vou are viewing this page as a member \*\*My Network\*\* Jobs Messaging \*\*Mount important of MultimodX (Integrated Passenger-Centric Planning of Multimodal Transport Networks \*\*Transportation Programs · Paris · 402 followers · 11-50 employees

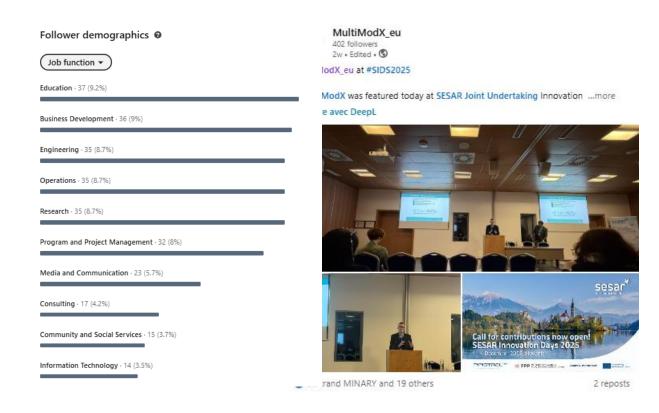


Data from the MultiModX LinkedIn account shows a diverse audience, with strong representation from the education sector (9.2%), business development (9%), engineering (8.7%), operations (8.7%), and research (8.7%). Program and project management also accounts for a significant share (8%), followed by media and communication (5.7%), consulting (4.2%), community and social services (3.7%), and information technology (3.5%).

This distribution indicates that the project is attracting professionals primarily from higher education, applied research, industrial innovation, and project management—sectors that align well with MultiModX's objectives of cross-sector collaboration and targeted dissemination of results to key stakeholders.







LinkedIn (total): 60 posts, 402 followers, 1086 reactions, 54 reposts, 37 580 organic impressions X (Twitter): 43 posts, 66 followers

#### **Twitter**

For Twitter/X, access to detailed analytics is subject to platform-specific conditions. Advanced engagement statistics are available primarily through paid account features, which were not foreseen within the project communication budget. As a result, monitoring for Twitter/X was limited to publicly available indicators (e.g. number of posts, followers and visible interactions), while more detailed analytics were not collected.





#### 3.4.4 Communication events

The following communication events listed in the table 6 were organised in the framework of MultiModX project, under the responsibility of ARC and in cooperation with the project partners. The dissemination events organised in the frame of MultiModX are listed in the table 12.

Event	Date	Place	Information to be shared	Importance for the project
IB+ Stakeholders Workshop	February 2024	Paris	MultiModX objectives, solutions and hypothesis and dynamic exchange with air, rail and decision makers representatives.	Engagement and promotion of hypothesis results.
IB+ Stakeholders Workshop	November 2024	Rome	MultiModX objectives, solutions, first results validation and dynamic exchange with air, rail and decision makers representatives.	Engagement and promotion of first results.
Public policy event on safe and seamless travel and improved traveller experience	November 12, 2025	Brussels	Session with focus on the EU Sustainable and Smart Mobility Strategy and EU Green Deal linked with the MultiModX objectives and its solutions	Opportunity to engage with the target groups and the media, promote the project and engage with policy makers.
Joint communication and dissemination event (final event)	November 13, 2025	Brussels	MultiModX final results	Engagement and promotion of results.
Events with ARC members (airport regions)	Once a year	As part of the ARC General Assemblies	MultiModX objectives, solutions and outcomes. 3 round-table discussions with 20 representatives.	Engagement and feedback from airport regions.

Table 6: Communication events organised by MultiModX







#### 3.4.5 Publications and newsletters

During the project different online and printed materials were published and used to communicate the project main objectives, results, and actions to the main target groups.

Publications/newsletters/p rinted material	Description	Date	Link
Press Release -Kick off-	Official statement issued to media list giving information on the main objectives, consortium, and EU resources allocated to MultiModX project.	September 2023	https://multimodx.eu/wp-content/uploads/2023/09/New-EU-SESAR-project.pdf https://multimodx.eu/wp-content/uploads/2023/09/neuen-SESAR-Projektspdf https://multimodx.eu/wp-content/uploads/2023/09/nouveau-projet-SESAR.pdf
Publication at Fox ATM blog	Weekly Review – Coordinated air and railway networks in the EU	September 2023	https://www.foxatm.com/blog/weekly-review-219-2023-september
News, article	New EU SESAR project, MultiModX, kicks off to enhance multimodal transport networks	September 2023	https://www.publicnow.com/view/BDA9F878000CE6C3755D2CC1DBFD56581657F214
Leaflet	General leaflet about the MultiModX objectives, consortium and results (1 leaflet).	October 2023	https://multimodx.eu/wp- content/uploads/2024/07/Leaflet. pdf
Factsheet	Short document with information about each MultiModX.	October 2023	https://multimodx.eu/wp- content/uploads/2024/07/Factshe et_planches_web.pdf
White paper	Policy recommendations and summary of project results: Integrated Passenger-Centric Planning of Multimodal Networks.	2026	<ul> <li>Will be published on the MMX website after SJU approval.</li> <li>Will be sent to the EU Parliament after SJU approval.</li> </ul>
Press Release -final results-	Official statement issued to media list	November 2025	https://uic.org/com/IMG/pdf/cp 1 7 multimodx final event en.pdf





giving information
on the main results
obtained.

	on the main results obtained.					
	Articles published of	on the project w	ebsite			
	Piece of writing to highlight future or pass events, results or any other communication actions to a large audience after each event or deliverable					
Website articles -Kick Off meeting-		July 2023	https://uic.org/com/enews/article/new-eu-sesar-project-multimodx-kicks-off-to-enhance-multimodal-transport			
-SID 2023-		October 2023	https://multimodx.eu/multimodx-at-sesar-annual-conference/https://multimodx.eu/multimodx-was-present-at-the-sesar-3-joint-undertaking-conference/https://multimodx.eu/multimodx-at-sesar-innovation-days-sids-in-seville-from-27-to-30-november-2023/			
-1st Industry Board meeting		March 2024	https://multimodx.eu/interactive- multimodx-workshop/ https://multimodx.eu/multimodx- workshop-a-milestone-in- seamless-air-rail-integration/			
-ARC spring conference-		May 2024	https://multimodx.eu/multimo dx-at-the-arc-spring- conference-in-vantaa-finland/			
MultiModX First Industry Board Feedback Report		February 2024	https://multimodx.eu/release-of- the-multimodx-first-industry- board-feedback-report/			
Workshop Announcement: Integrated and Coordinated Air-Rail Networks for Seamless Passenger Journeys		October 2024	https://multimodx.eu/workshop- announcement-integrated-and- coordinated-air-rail-networks-for- seamless-passenger-journeys/			
2nd MultiModX Workshop: Advancing Multi-Modal Transport Innovation		November 2024	https://multimodx.eu/2nd- multimodx-workshop- advancing-multi-modal- transport-innovation/			
Multimodal Innovation Explored at SESAR Performance Framework Workshop on Passenger Experience		February 2025	https://multimodx.eu/multimo dal-innovation-explored-at- sesar-performance-framework- workshop-on-passenger- experience/			





Release of the MultiModX 2nd Workshop Report	March 2025	https://multimodx.eu/release- of-the-multimodx-2nd- workshop-report/
MultiModX presents integrated air rail strategy at CASPT & TransitData 2025	July 2025	https://multimodx.eu/multimo dx-presents-integrated-air-rail- strategy-at-caspt-transitdata- 2025/
MultiModX introduces a multimodal journey evaluator at UIC High-Speed Rail Congress in Beijing	July 2025	https://multimodx.eu/multimo dx-introduces-a-multimodal- journey-evaluator-at-uic-high- speed-rail-congress-in-beijing/
MultiModX contributes to passenger-focused sustainability debate at ATRS 2025	July 2025	https://multimodx.eu/multimo dx-contributes-to-passenger- focused-sustainability-debate- at-atrs-2025/
Invitation to MultiModX' final event	August 2025	https://multimodx.eu/multimodx.final-event/
MultiModX featured in multimodality innovations – towards its Final Event in Brussels	September 2025	https://multimodx.eu/multimodx-featured-in-multimodality-innovations-towards-its-final-event-in-brussels/
The Technical Summary of the European MultiModX Project is Now Online	November 2025	https://multimodx.eu/the- technical-summary-of-the- european-multimodx-project-is- now-online/
MultiModX: Two key events held for seamless and sustainable multimodal mobility in Europe	November 2025	https://multimodx.eu/multimo dx-two-key-events-held-for- seamless-and-sustainable- multimodal-mobility-in-europe/
Unlocking Seamless Multimodality in Europe: Air—Rail Integration Takes the Stage at the European Parliament	November 2025	https://multimodx.eu/unlockin g-seamless-multimodality-in- europe-air-rail-integration- takes-the-stage-at-the- european-parliament/
UIC represents MultiModX EU project at Rail Live	December 2025	https://multimodx.eu/uic- represents-multimodx-eu- project-at-rail-live/





Articles published on SESAR's Newsletter				
New EU SESAR project, MultiModX, kicks off to enhance multimodal transport networks	September 2023	https://www.sesarju.eu/news/new-eu-sesar-project- multimodx-kicks-enhance-multimodal-transport- networks		
MultiModX- Integrated Passenger-Centric Planning of Multimodal Transport Networks	April 2023	https://www.sesarju.eu/projects/MultiModX		
How useful is artificial intelligence in air traffic management?	November 2023	https://www.sesarju.eu/news/how-useful- artificial-intelligence-air-traffic-management		
SESAR innovation in the spotlight at FLY AI Forum	May 2024	https://www.sesarju.eu/news/sesar-innovation- spotlight-fly-ai-forum		
PRIAM: Joining the dots to enhance regional transport	August 2025	https://www.sesarju.eu/news/priam-joining-dots- enhance-regional-transport		
MultiModX: Bringing multimodal mobility to life	August 2025	https://www.sesarju.eu/news/multimodx-bringing- multimodal-mobility-life		
Smart airports and innovations in multimodality - CORDIS project info pack	November 2025	https://www.sesarju.eu/sites/default/files/document s/reports/Cordis%20Projects%20Pack- PIP%20on%20Smart%20Airports Brochure EN%20LR .pdf		
Air–rail integration takes the stage at the European Parliament	November 2025	https://www.sesarju.eu/news/air-rail-integration- takes-stage-european-parliament		
Unlocking Seamless Multimodality in Europe	November 2025	https://www.sesarju.eu/node/5218		
Final Event	November 2025	https://www.sesarju.eu/node/5242		

Articles published on ARC's Newsletter				
ARC joins new SESAR project	July 2023	https://www.airportregions.org/post/arc-joins- new-sesar-project		
Interactive MultiModX workshop: enabling seamless passenger journeys through air-rail integration	February 2024	https://www.airportregions.org/post/interactive-multimodx-workshop-enabling-seamless-passenger-journeys-through-air-rail-integration		

**Table 7: Published material** 





#### 3.4.6 Leaflet

To help promote and communicate the project's objectives, a leaflet has been designed and made available for distribution at relevant events in both print and digital formats. The current leaflet is a draft and will be sent for review to the SJU3 communication team.



#### 3.4.7 Factsheet

To effectively promote and communicate the objectives of the MultiModX project, a comprehensive factsheet has been created. This factsheet is based on the elements from the initial leaflet and has been enriched with detailed information about the three innovative solutions developed during the project, as well as the key results achieved so far.

To ensure wide reach and accessibility, the factsheet is available in both print and digital formats. It was distributed at relevant events, allowing stakeholders to easily access and understand the advancements and benefits of the MultiModX project.







#### 3.4.8 Roll-up banners

Roll-up banners have been produced to be used at events for the promotion of the project.



#### **3.4.9** Videos

Digital content, including teaser, video on objectives and solutions, was produced to highlight the benefits of cooperation for the integration of multimodal transport in Europe in an accessible and engaging manner.

Videos	Description	Delivered	Link
Teaser	MultiModX project in a nutshell	SID 2023	https://youtu.be/z1 SU1htJ53Y
MultiModX – Project Objectives	MultiModX project in detail (objectives)	November 2023	https://youtu.be/6C w9ysfyZZ0
MultiModX – Solutions	MultiModX solutions explained in detail. To be used by professional and researchers.	December 2025	https://youtu.be/yT gyn- tPA7Q?si=aFF9O5ec NRKZ4 i
Teaser – Results	Short overview of what has been done in three years	December 2025	https://youtu.be/B VgbWjQVGNM

**Table 8: Videos** 





#### 3.5 Communication key performance indicators (KPIs) and success criteria

The following key performance indicators (KPIs) were defined to monitor the communication objectives of the project across the different target groups and communication channels throughout its duration.

As the project was implemented from July 2023 onwards, the KPIs were monitored and updated over time to reflect the progressive deployment of communication tools and activities and to capture the evolution of their reach and effectiveness.

Action	KPIs	Success criteria	Currently achieved	Last update	Annual growth
Visual Identity	1 MultiModX visual identity kit (logo, templates, roll-up)	Identity kit is prepared, Sesar logo and GA number is mentioned, partners are aware of the rules on how to use it.	2 roll-ups, 1 leaflet, 1 factsheet, social media + website banners	July 2024	Achieved
Web presence	+100 visitors per month (≥1200 visits per year)	Average monthly website traffic reaches or exceeds 100 visitors	1024 visits on 1st year 1778 visits in 2025 Total: 4,389 visits	December 2025	+74% increase compared to previous reporting period and exceeding the KPI success criterion of 1200 annual visits by approximately 48%
Leaflet	+100 leaflets printed and distributed	At least 100 leaflets printed and distributed	100 leaflets during the 1st year 150 leaflets in 2025	December 2025	KPI exceeded by 50%
Press and Media	+5 000 subscribers reached 2 press releases 1 media list comprising up to 30 media contacts 1 communication campaign focused on the	At least 5 000 subscribers reached through press and media activities, including a minimum of 2	13 newsletters (UIC) for a total of 4 971 visits 2 newsletters (ARC) sent to 2500 subscribers	December 2025	Fully achieved





	promotion of the MultiModX solutions	press releases, one consolidated media list (up to 30 contacts), and one dedicated communication campaign promoting MultiModX solutions	1st press release sent to 707 recipients in three languages (EN, DE, FR), number of opens: 156 2 <sup>nd</sup> press release sent to 701 recipients, opens: 105 Communication campaign on the main results consists of: webinar + final event + two publications (printed and available online) — published and promoted via: website, social media and in- person events.		
Social Media	Social media will be set up on LinkedIn and Twitter to share key messages, project news and events +100 posts +300 followers +1000 users reached (social media monitoring via sponsored campaigns)	At least 100 social media posts published, 300 followers reached and a minimum reach of 1 000 users across project social media channels	LinkedIn (total): 60 posts 402 followers 1086 reactions 54 reposts 37 580 organic impressions X (Twitter) 43 posts 66 followers	December 2025	Fully achieved
Video	3 videos +300 views	At least 3 videos produced and a minimum of 300 cumulative views reached	158 views 4 videos produced	December 2025	Partially achieved
Events (the events to which the projects	3 round-table discussions with ARC members, +20 representatives	Successful organisation and participation in the planned	Round-table discussions with ARC members: 61 participants	November 2025	Fully Achieved





intend to	1 public policy event in	events, with a	(Feb 2024, May
participate	Brussels, 50 participants	minimum	2025,
are listed		cumulative	November
in table 10	1 public policy event in	participation of	2025); Public
in	Paris, 50 participants	60 stakeholders	policy event
disseminati			(Paris): 40
on	1 public policy event in		participants
section).	Rome, 50 participants		(Nov 2024);
			Public policy
	1 final joint		events (Rome
	communication and		and Brussels):
	dissemination event in		66 + 50
	Brussels, 150 participants		participants
			over two days
			(Nov 2025)

Table 9: Communication KPIs and success criteria











#### 4 Dissemination

The purpose of the dissemination activities and tools implemented within the framework of MultiModX was to reach the target groups best positioned to make use of the project results, in particular the end users.

Dissemination activities were carried out throughout the project duration in line with the progressive availability of results. The dissemination tools and actions were agreed by the consortium and required contributions from all partners. To maximise impact, the project actively sought opportunities to share its results while respecting the agreed dissemination procedures.

Within MultiModX, ARC acted as the Dissemination Manager and WP7 Leader, coordinating dissemination activities and ensuring coherence across the consortium. Particular attention was given to keeping the SESAR 3 Joint Undertaking informed of dissemination actions and to relaying key messages through SESAR channels.

#### 4.1 Dissemination objectives and strategy

The MultiModX dissemination strategy focused on identifying the relevant target groups (end users) through stakeholder mapping and on aligning these groups with the project's key messages, while highlighting the impacts and benefits of the MultiModX results. It also outlined and applied the tools used to support dissemination and stakeholder engagement throughout the project.

The main objectives of the dissemination activities were to:

- disseminate the project solutions and results to the identified target audiences;
- implement and update dissemination materials to support the progressive roll-out of project outputs and sustained stakeholder engagement;
- organise and participate in key events to share project results;
- ensure cooperation and establish links with related projects and initiatives;
- foster knowledge exchange among project partners and within the SESAR JU ecosystem, in particular with SESAR projects addressing multimodality, as well as with other relevant multimodal platforms, in order to maximise the impact of EU-funded research;
- mobilise experts from different business and industry sectors to contribute to workshops and exchanges, notably through the MultiModX Industry Board;
- disseminate scientific and applied results through publications and conference contributions over the project duration.

The dissemination strategy addressed clearly defined target groups, identified on the basis of the following criteria:

- contribution (value): the extent to which stakeholders could provide relevant expertise, data or insights:
- willingness to engage: the level of interest and readiness to participate in dissemination and feedback activities;
- influence: the stakeholder's ability to shape decisions, practices or uptake of results;





• necessity of involvement: the importance of stakeholder inclusion to ensure legitimacy and avoid gaps in engagement.

Based on these criteria, the main MultiModX target groups included passengers; the aviation community (airports, airlines and industry); the railway community (railway operators, associations and industry); European and national authorities, regulatory bodies and NGOs; cities and regions; the scientific community (academia and researchers); Global Distribution Systems (GDS) organisations; SESAR 3 Joint Undertaking members; and other EU-funded projects. The corresponding engagement channels and expected outcomes are detailed in Section 4.3.

#### 4.2 Dissemination channels

Channel	Objective	Tools	Link	Information to be shared
Abstracts of public deliverables	To increase the accessibility of end-users to the MultiModX results by providing them with user-friendly summaries of the scientific findings.	Summaries of deliverables published on the MultiModX website as well as shared on social media and newsletter.	https://multimodx.e u/#deliverables	Compact, comprehensive and user-friendly summaries about MultiModX results, in particular the solutions.
Zenodo	To publish and store with open access MultiModX research papers, conference papers, posters and presentations.	Zenodo MultiModX community as an online self-archiving repository with open access	https://zenodo.org/ communities/multi modx project/	MultiModX research papers, conference papers, posters and presentations.
Scientific publications	To make MultiModX results available with open access to the end-users.	Possible journals include e.g. Flight International, Transportation Research Part A: Policy and Practice, Transportation Research Part B: Methodological, EURO Journal on Transportation and Logistics, European Transport Research	Available on Zenodo	The targeted topics are (green) multimodality, airports as new sustainable hubs, air-rail links, improvement in multimodality, sustainable transportation, airport operations management.





		Review, Journal of Air Transport Management, Journal of Rail Transport Planning & Management, Transport Policy		
External conferences and events (not organised by MultiModX)	To disseminate MultiModX results to target audiences.	Presentations, posters, flyers, exhibition stands.	https://multimodx.e u/multimodx-at-the- arc-spring- conference-in- vantaa-finland/	MultiModX solutions and impact.
Validation & dissemination workshops (organised by MultiModX)	To foster co- development and to collect feedback from users, including direct dissemination of results.	Presentations of results, flyers, direct discussions.	https://multimodx.e u/multimodx- workshop-a- milestone-in- seamless-air-rail- integration	MultiModX regional archetypes and multimodal solutions.
Joint communication & dissemination final event	To disseminate the final results to the end-users and stimulate take-up.	Presentations of results, access to public deliverables.	https://multimodx.e u/wp- content/uploads/20 25/11/Technical- Summary-web- version-2-003.pdf https://multimodx.e u/wp- content/uploads/20 22/07/Technical Su mmary Open Multi modal Performance Framework and- Evaluation_tools.pdf	MultimodX final outputs and outcomes.
Industry Board	To foster codevelopment and get direct feedback from experts on the project outputs.	Presentations of results, 1 webinar on solutions at M10, live validation & dissemination workshop 2 (M16), 1 webinar at M24 on progress on results, 1 live meeting merged with the final event at M29 for final results.	https://multimodx.e u/multimodx- workshop-a- milestone-in- seamless-air-rail- integration	MultiModX solutions and activities





Links with other EU projects and initiatives	To exchange and work on synergies and joint actions with similar projects.	Presentations of results, exchanges with 30 contact points via 3 webinars (one per year)		MultiModX solutions and activities
Website	To display the MultiModX results and engage with the target groups.	Videos, publications, infographics, summaries of deliverables.	https://multimodx.e u/	MultiModX results, activities (events, milestones)
Social media (Twitter – X, LinkedIn)	To display the MultiModX results and engage with the	Videos, publications, infographics, summaries of deliverables. Tailored	https://www.linkedi n.com/company/mu ltimodx-eu/	MultiModX results, activities (events, milestones)
	target groups.	communication campaigns.	https://twitter.com/ MultiModX eu	

**Table 10: Dissemination channels** 

## 4.3.1 Open access to scientific publications

MultiModX project uses open science practices. The objectives of the open science practice in MultiModX are to:

- Improve scientific research by means of circulation of ideas and knowledge;
- Accelerate innovation & ensure market uptake to overcome the barriers in adopting multimodal solutions;
- Involve citizens and society by making research openly available.

Partners are fully committed to ensure that their research findings and data relevant to topic domains are shared rapidly and openly with the scientific community and stakeholders. In this sense, MultiModX uses both gold and green open access.

The project's open-source tools, Performance Indicators and Scientific Publications are publicly accessible via the MultiModX website.











# MultiModX

MultiModX: Integrated Passenger-Centric Planning of Multimodal Transport Networks

The primary goal of MultiModX is to deliver a set of innovative multimodal solutions and decision support tools for the coordinated planning and management of multimodal transport networks.

The MultiModX project is supported by SESAR3 Joint Undertaking and its members under grant agreement no. 101114815, running from July 2023 to December 2025 with 1.750.380 euros grant amount.

#### Curated by: MultiModX

#### Curation policy:

Open access. Uploads in this community are results related to the research activities performed in the framework of the MultiModX project.

#### Created:

September 26, 2023

#### Harvesting API:

OAL-DMH Interface

A Zenodo community (OpenAIRE) was created to upload bibliographic metadata, related research data linked to each publication, and also to stock other dissemination items (workshop presentations and publications).

MultiModX established a dedicated Zenodo community to support open access dissemination of project outputs.

Zenodo details are as follows: Identifier: multimodx\_project https://zenodo.org/communities/multimodx\_project/

The Dissemination Manager, ARC, coordinated the use of the Zenodo platform and provided guidance to consortium partners to ensure the consistent population of the repository and compliance with open access requirements.

The open access practices implemented within MultiModX were aligned with Deliverable D2.1 (Data Management Plan), in particular with the FAIR principles (findable, accessible, interoperable and reusable), with a specific focus on accessibility.

In addition to Zenodo, the consortium leveraged dissemination services and channels offered by the SESAR 3 Joint Undertaking, and promoted open access publications through the partners' professional and research networks.

Throughout the project, a consolidated overview of open access outputs was maintained, including titles, DOIs and corresponding Zenodo links, together with short descriptive summaries.

Scientific papers/ presentations	Link	Information to be shared
Conference paper. L. Delgado, T. Bolic, A. Cook, E. Zareian, E. Gregori and A. Paul, Modelling passengers in air-rail multimodality. EUROSIM 2023 Congress, Amsterdam, 3-5 July 2023 (published)	https://doi.org/10.5281/ zenodo.8385515	This discussion paper presents the approach defined for MultiModX to evaluate and model multimodal doorto-door solutions.
Multimodal air-rail simulation model for evaluation of tactical disruptions	https://westminsterrese arch.westminster.ac.uk/i tem/wv644/multimodal- air-rail-simulation- model-for-evaluation-of- tactical-disruptions	This paper presents the extension of Mercury, a detailed air transport agent-based model, to include rail network modelling capabilities, enabling the evaluation of multimodal itineraries. New agents are introduced to simulate train operations (arrivals, departures), to handle multimodal transfers, to





		represent airport processes, and to rebook passengers when connections are missed. By modelling transfer times between train stations to airports' gates, solutions, such as expedited airport processes (e.g. security) for delayed passengers, can be evaluated.
Leveraging passengers' mobile network data for an integrated air-rail frequency planning in Spain	https://www.sesarju.eu/sites/default/files/documents/sid/2023/Papers/SIDs 2023 paper 43%2Ofinal.pdf	This study addresses the integrated air-rail frequency planning problem with the goal of estimating jointly flight and long-distance train frequencies while considering potential synchronisation between the two modes and passenger preferences.
Identification and Characterisation of Passenger Archetypes based on annual Long distance Travel Patterns	https://www.sesarju.eu/sites/default/files/documents/sid/2024/papers/SIDs_2024_paper_041%20final.pdf	The European transport policy envisions a multimodal transport system where different networks and services are planned and managed in a coordinated manner to maximize the efficiency, predictability, environmental sustainability, and resilience of the door-to-door passenger journey. To achieve this goal, transport planners need an indepth understanding of the behaviours, preferences and needs of the different types of travellers within Europe.
Vulnerability envelopes for railway transport networks	https://www.airoconference.it/ods2023/schedule?view=article&id=19&catid=2:uncategorised&article=111	In railway networks, multiple disruptions occur causing extreme challenges to both operators and passengers. In these cases, the operators need to significantly cancel and adjust the existing services, while passengers are required to find an alternative, most likely longer, route to their destinations, or even completely cancel their journeys.
Optimizing the routing of wagons during disruptions in single wagonload transport	https://fis.tu- dresden.de/portal/en/p ublications/optimizing- the-routing-of-wagons- during-disruptions-in- single-wagonload- transport(3d192b04- 7e4d-46b1-ba5f-	The proposed model enables to evaluate the impact of disruptions on networks and supports dispatchers to optimize real-time network operation performance.





Evaluation of passenger connections in air-rail multimodal operations	79bdce1457aa).html#:% 7E:text=In%20this%20re search%2C%20we%20m odel%20single%20wago nload%20networks,be https://westminsterrese arch.westminster.ac.uk/i tem/wxx30/evaluation- of-passenger- connections-in-air-rail- multimodal-operations	Efficient cooperation between transport stakeholders (airlines, rail and airport operators) is essential for improved multimodal journey times and passenger experience, ensuring their connectivity, particularly during disruptions. There is a need for a platform where solutions supporting multimodality can be evaluated.
Multimodal passenger-centred network vulnerability assessment using a path-based disruption management model	https://tu- dresden.de/bu/verkehr/ die- fakultaet/veranstaltunge n/raildresden2025/resso urcen/dateien/papers/C ontribution 239 final a. pdf	RailDresden 2025: 11th International Conference on Railway Operations Modelling and Analysis, Dresden, Germany.
Multimodal Network Vulnerability Assessment Using a Path-Based Disruption Management Model with Timetable Sensitive Passenger Routing	https://easychair.org/smart-program/CASPT2025/2025-07-04.html#talk:280072	This paper presents the multimodal vulnerability network model (MVNM), which determines the critical links to assess the effects of multimodality on disruption management. Therefore, we combine a path-based multicommodity approach with timetable sensitive passenger routing to optimally adjust the operating services under disruptions. The resulting MVNM is solved by combining multi-column generation and row generation, to iteratively identify beneficial passenger routes and disruption management measures. The MNVM is applied on the long-distance air-rail network of Spain. The results show, that multimodality increases the survivability of a network. However, multimodal networks appear to be more vulnerable under few disruptions.
Integrating Air and Rail Services with Rerouting Strategy	https://easychair.org/sm art- program/CASPT2025/20	The integration of rail and air services has been attracting increasing attention with the growing emphasis on multimodal transport systems. In





	25-07- 02.html#talk:280049	this paper, we propose an air-rail timetable synchronization model to improve the passenger transfer experience in integrated air-rail transport networks. The model applies the time shift and rerouting strategy to existing rail and air timetables to provide more connections and smoother transfers for multimodal travelers. It also captures the passenger itinerary shifts resulting from timetable adjustments.
MultiModX - An approach for the strategic and tactical evaluation of multimodal networks	https://westminsterrese arch.westminster.ac.uk/i tem/x1x50/multimodx- an-approach-for-the- strategic-and-tactical- evaluation-of- multimodal-networks	The strategic planning of air and rail networks and their management during the day of operations are required to develop successful multimodal networks between air and rail (with a particular focus on high-speed services).
Strategic multimodal evaluation for airrail networks	https://westminsterrese arch.westminster.ac.uk/i tem/x3x53/strategic- multimodal-evaluation- for-air-rail-networks	The Strategic Multimodal Evaluator developed in the MultiModX project, which integrates four core functions: (1) generating possible itineraries across air and rail mobility layers; (2) modelling passenger choice to distribute demand among alternatives; (3) assigning flows to services while respecting capacity constraints; and (4) computing performance indicators to evaluate effectiveness from infrastructure, regional, and passenger perspectives.
Performance framework and multimodal evaluators for the assessment of air-rail networks	https://westminsterrese arch.westminster.ac.uk/i tem/x4637/performance -framework-and- multimodal-evaluators- for-the-assessment-of- air-rail-networks	Achieving a shift from air to rail is key to decarbonising transport, requiring models that capture multimodal behaviour and network performance under different schedules, policies and disruptions. This talk presents the multimodal performance framework and the strategic and tactical evaluators from SESAR's MultiModX project.
Air-rail multimodal disruption management Rail network supporting air disruptions	https://westminsterrese arch.westminster.ac.uk/i tem/x45qz/air-rail- multimodal-disruption- management-rail-	This paper presents the application of MultiModX's Strategic Multimodal Evaluator for assessing an air-rail multimodal mobility network subject to various disruptions (airport closure, industrial action), considering





<u>network-supporting-air-</u> different degrees of flexibility for reaccommodating passengers in their door-to-door journey.

Table 11: Scientific papers, publications and presentations

#### 4.3.2 Dissemination events

MultiModX project, through ARC and based on the collaboration with all partners (especially UIC), organised two validation and dissemination workshops, as explained in the table below. After each workshop, a report compiling feedback and outcomes of the events was produced.

Event	Date	Place	Information to be shared	Importance for the project
1 <sup>st</sup> Validation & Dissemination Workshop	February 20, 2023	Paris, France	MultiModX regional and passenger archetypes	Co-development of project output and direct feedback from end users together with stimulation of take-up of results.
2 <sup>nd</sup> Validation & Dissemination Workshop	November 12, 2024	Rome, Italy	MultiModX multimodal solutions' and tools' 1st prototype	Co-development of project output and direct feedback from end users together with stimulation of take-up of results.

Table 12: MultiModX dissemination events





Table 13 provides an overview of key external dissemination events identified as relevant platforms for promoting MultiModX activities and results. These events target a broad range of audiences, including the research community, transport industry stakeholders, infrastructure managers, and policymakers from both the aviation and rail sectors.

Event	Date	Place	Information to be shared	Importance for the project
EUROSIM 2023 Congress	3-5 July 2023	Amsterdam, the Netherlands	MultiModX approach for evaluation and modelling multimodal door- to-door solutions	Opportunity for establishing a network of end-users and for early dissemination via the Multimodal Transport Simulation track.
ODS2023 International Conference on Optimization and Decision Science	September 4-7, 2023	Ischia, Italy	Vulnerability envelopes for railway transport networks	Early dissemination opportunity via optimisation in green sustainability and ecological transition topics.
SESAR Annual Conference 2023	10 October 2023	Brussels, Belgium	Introducing MultiModX objectives and solutions in the Digital Sky Marketplace Exhibition	Key for dissemination to SESAR members & cross- fertilisation between related projects.
INFORMS (Institute for Operations Research and the Management Sciences) Annual Meeting	October 15-18, 2023	Phoenix, USA	Optimizing the routing of wagons during disruptions in single wagonload transport	Provides a top-tier international platform to disseminate and validate its passenger-centric, multimodal optimization and disruption-management methods within the global operations research and transport science community.
SESAR Innovation Days	27-30 November 2023	Seville, Spain	MultiModX objectives, solutions & expected impact via poster & exhibition	Dissemination to SESAR members, crossfertilisation between related projects, engagement with potential users.
Polis Annual Conference	29-30 November 2023	Leuven, Belgium	MultiModX tools for designing successful air-rail	Polis is the network of EU cities and regions cooperating on transport





			multimodal nodes	solutions. The Polis members are potential end-users of the project outcomes. Also, Polis is a partner in MAIA project, therefore it helps crossfertilisation.
ARC Annual Spring Conference 2023	16 May 2024	Vantaa, Finland	Introducing MultiModX objectives and solutions via presentation	The ARC spring conference focuses on old and new challenges faced by the airport regions including the question of multimodality.
27th World Conference of the Air Transport Research Society (ATRS)	July 1-4, 2024	Lisbon, Portugal	Multimodal airrail simulation model for evaluation of tactical disruptions	The World Conference brings together leading researchers, industry experts, and policymakers, providing a high-impact forum to validate research, exchange knowledge, and influence future developments in air transport and multimodal mobility.
NetMob 2024 (Poster)	7–9 October 2024	Washington D.C., USA	Identification and characterisation of passenger archetypes based on long-distance travel patterns.	Supports behavioural realism in MultiModX passenger-centric demand and routing models.
SESAR Innovation Days 2024	November 12- 15, 2024	Rome, Italy	Identification and characterisation of passenger archetypes based on annual longdistance travel patterns	Core dissemination venue for MultiModX results, ensuring alignment with SESAR priorities and EU policy objectives.
GARS - Benchmarking of Public Utilities VI - Bremen, Germany	26-27 January 2025		Introducing MultiModX objectives and solutions via presentation	GARS is a non-profit, charitable society. It has more than 150 members. GARS produces webinars and organizes multiple conferences and workshops every year taking place all over Europe.





RailDresden 2025 – International Conference on Railway Operations Modelling and Analysis	1–4 April 2025	Dresden, Germany	Passenger- centered multimodal vulnerability assessment	Advances integration of rail operations modelling with air–rail multimodal passenger optimization.
			<ul> <li>Air—rail timetable synchronization with itinerary- based passenger flows</li> </ul>	
UIC Sustainable Week (Poster)	10–13 March 2025	Paris, France	Overview of MultiModX concepts and sustainability-oriented multimodal integration.	Engages rail-sector stakeholders and promotes multimodality as a sustainability lever.
Workshop on Smart Rail- backboned Multimodal Systems	May 2025	Beijing, China	Passenger- centric scheduling for integrated air- rail networks.	International outreach and validation of MultiModX scheduling concepts beyond Europe.
CASPT 2025 / TransitData 2025	1–4 July 2025	Kyoto, Japan	Integration of air and rail services with rerouting strategies	Positions MultiModX within the leading global public transport and network modelling community.
28th ATRS World Conference	1–4 July 2025	Hong Kong	Agile development and prediction of passenger profiles.	Strengthens behavioural and predictive components of MultiModX
High Speed Congress	8–11 July 2025	Beijing, China	MultiModX approach for strategic and tactical evaluation of multimodal networks.	International outreach and validation of MultiModX scheduling concepts beyond Europe.
Euro Working Group on Transportation –	1–3 September 2025	Edinburgh, UK	Strategic multimodal evaluator for	Reinforces the scientific maturity of MultiModX evaluation





27th Annual Conference			air–rail networks.	tools within European transport research.
IEEE ICIRT 2025 (Keynote)	11–12 October 2025	Beijing, China	Rail-centric approaches to the future of multimodal transport.	Positions MultiModX insights within rail-led multimodal innovation discussions
AGIFORS Annual Symposium	16–20 November 2025	London, UK	Performance framework for assessment of air–rail networks.	Engagement with airline operations and performance specialists, supporting industry uptake.
ECAC Research Day (Poster)	10–12 November 2025	Warsaw, Poland	MultiModX project overview and key results	Direct policy-facing dissemination to European civil aviation authorities.
Rail Live! (Round Table)	25–27 November 2025	Madrid, Spain	Policy, data, and collaboration enablers for passenger-centric air-rail integration.	Translates MultiModX findings into actionable policy and governance discussions.
SESAR Innovation Days 2025	1–4 December 2025	Lake Bled, Slovenia	Air-rail multimodal disruption management with rail supporting air disruptions.	Final consolidation of MultiModX results within the SESAR ecosystem, supporting future uptake and exploitation.

Table 13: External dissemination events

In the Grant Agreement, 15 participations in external dissemination events were foreseen at project level. During the implementation of MultiModX, the consortium identified and engaged in 23 relevant external events, thereby significantly exceeding the initially planned dissemination activities.

The events listed in Table 13 reflect this expanded dissemination effort and cover a broad range of scientific conferences, industry fora, policy-oriented events, and stakeholder workshops. These platforms enabled the consortium to disseminate MultiModX results to diverse audiences from the aviation and rail communities, including researchers, transport operators, infrastructure managers, public authorities, and policymakers at European and international level.





Participation was prioritised based on strategic relevance, maturity of project results, resource availability, and alignment with MultiModX objectives. The ability to exceed the originally foreseen number of events demonstrates the high relevance, visibility, and demand for MultiModX results, as well as the consortium's commitment to maximising project impact.







# 4.4 Dissemination target audiences

Target	Channel	Benefits from the project	Expected feedback
Passengers	Abstracts of public deliverables, Website, Social Media, Validation & dissemination workshops, Joint communication & dissemination final event.	Enhanced passenger experience, better accessibility and improved multimodal options for the travellers;	Increased network resilience and the reliability and predictability of journey parameters, enhancing punctuality and passenger experience overall.
Aviation community (airports, airlines, industry)	Abstracts of public deliverables, Scientific publications, External conferences and events, Validation & dissemination workshops, Joint communication & dissemination final event, Industry Board, Links with other EU projects and initiatives, Website, Social Media.	Better understanding of passenger behaviour, requirements and impact on multimodal journeys and airport access (reliability and predictability); Fostering smart, sustainable and multimodal connectivity hubs; Assessment multimodal solutions and their impact on capacities and access times; Better understanding and coordination of passenger flows between modes Assessment of door-to-door travel times, predictability, reliability.	Enhanced collaboration between different modes of transport, and thus contributing to the creation of a truly smart mobility system that allocates capacity efficiently across different modes to avoid a capacity crunch, reduce transport's CO <sub>2</sub> emission while ensuring connectivity, thus contributing to reduce passengers' door-to-door travel times in the future.
Railway community (railway operators, associations, industry)	Abstracts of public deliverables, Scientific publications, External conferences and events, Validation & dissemination workshops, Joint communication & dissemination final event, Industry Board, Links with other EU projects and initiatives, Website, Social Media.	Assessment of impact of improved air-rail journeys; Fostering smart, sustainable and multimodal connectivity hubs; Assessment multimodal solutions and their impact on capacities and access times;  Better understanding and coordination of passenger flows between modes Assessment of door-to-door travel times, predictability, reliability.	Enhanced collaboration between transport modes and the development of a smart mobility system will efficiently allocate capacity, reduce CO2 emissions, and ensure connectivity, ultimately shortening passengers' door-to-door travel times.





Target	Channel	Benefits from the project	Expected feedback
European and national authorities, regulatory bodies and NGOs	Abstracts of public deliverables, Scientific publications, External conferences and events, Validation & dissemination workshops, Joint communication & dissemination final event, Industry Board, Links with other EU projects and initiatives, Website, Social Media.	Support for meeting and integrating passenger requirements and travel behaviour; Better use of existing capacity will have a direct impact on costefficiency, by reducing the need for investment in additional capacity; Use of multimodal performance evaluator to assess policies across the implemented scenarios; Benefits of integrated network and potential multimodal network developments reducing the environmental impact of transport.	Alleviated congestion, enhanced passenger experience, better connectivity and transport resilience based on sustainable and cost-efficient alternatives.
Cities and regions	Abstracts of public deliverables, Scientific publications, External conferences and events, Validation & dissemination workshops, Joint communication & dissemination final event, Industry Board, Links with other EU projects and initiatives, Website, Social Media.	Coordination between modes of transport in a multimodal environment, and the coherence of policies for air and other modes of transport;  Better connectivity and accessibility;  Personalised travel and reconfiguration of journeys;	Enhanced quality of life and passenger experience thanks to sustainable and resilient multimodal network developments.
Scientific community (academia and researchers)	Abstracts of public deliverables, Zenodo, Scientific publications, External conferences and events, Validation & dissemination workshops, Joint communication & dissemination final event, Industry Board, Links with other EU projects and initiatives, Website, Social Media.	Advanced integrated modelling approach and the data science applied across the MultiModX solutions.	Scientific findings supporting the implementation of an optimised European transport system. Advancements on research needs.





Target	Channel	Benefits from the project	Expected feedback
GDS (Global Distribution Systems) organisations)	Abstracts of public deliverables, Scientific publications, External conferences and events, Validation & dissemination workshops, Joint communication & dissemination final event, Industry Board, Links with other EU projects and initiatives, Website, Social Media.	Enhanced connectivity, reduced congestion, lowered transportation costs, minimised environmental impact.	Improved overall logistics and supply chain management.
SJU3 members and other EU projects	Abstracts of public deliverables, Zenodo, Scientific publications, External conferences and events, Validation & dissemination workshops, Joint communication & dissemination final event, Industry Board, Links with other EU projects and initiatives, Website, Social Media.	Integration/further advancement regarding an integrated performance cockpit.	Improved models of travel choice decision-making that can provide a valuable input and a potential future component for an integrated performance framework envisaged by SESAR ATM Master Plan.

Table 14: Dissemination target audiences







# 4.5 Dissemination KPIs and success criteria

Action	KPIs	Success criteria	Currently achieved	Last update	Annual growth
Links with other EU projects and initiatives	30 contact points 3 exchange webinars	Expected KPI value by the end of the maturity gate.	5 contacts (sister projects MAIA, SYNTH-AIR, SIGN- AIR, TRAVELWISE, PRIAM) 2 webinars and one event at the EU Parliament	15.12.2025	Achieved
			Engage in Berlin and Future Engage at Athens		
Videos	3 videos +300 views	Expected KPI value by the end of the maturity gate.	3 videos 158 views (more expected in the following months thanks to validated deliverables communication)	December 2025	Partially achieved
Publications about MultiModX results	publications value by		15 papers published All public deliverables are currently being uploaded on the website. Zenodo community was created. White paper is waiting for SJU approval. 2 rollups produced. 11 presentations	December 2025	Achieved
Events	2 of organised validation and dissemination workshops	Expected KPI value by the	1st and 2nd validation and	December 2025	Achieved





	1 joint communication and dissemination event (final event) 250 total number of attendees of MultiModX events 15 of participation in external events, including exhibitions	end of the maturity gate.	dissemination workshops were organised in 2024 in Paris and in 2024 in Rome Final Event(s) — EU Parliament side event plus Final event (approx 150 attendees just for two events plus AB (approx 60) plus ARC event with regions and cities (61)) 26 conference papers and presentations in total		
Print materials	2 roll-up banners 1 general leaflet 1 general factsheet	Expected KPI value by the end of the maturity gate.	2 roll up banner, and 150 copies of the general leaflet were printed Factsheet – printed and online	December 2025	Achieved
Industry Board	4 meetings (2 webinars and 2 live meetings) 10 Industry Board members	Expected KPI value by the end of the maturity gate.	2 Industry Board meeting were organised in 2024 in Paris and in Rome, as well as 1 Webinar in 2025 and the Final Event in Brussels in 2025	December 2025	Achieved
Website	+100 visitors per month	Expected KPI value by the end of the maturity gate.	137 visits per month on average	December 2025	Achieved





Social media<sup>4</sup> +1000 users reached (social media monitoring via sponsored campaigns)

+1000 users reached (social media 4 +1000 users rea

Table 15: Dissemination KPIs and success criteria

All partners were active in the promotion and dissemination, by joining major events and conferences and presenting objectives, results and achievements of the project.



<sup>&</sup>lt;sup>4</sup> Guidance Social media guide for EU funded R&I projects. Dissemination for social media aims to cover project results only. It happens only once results are available, and is directed towards specialist audiences (groups that my use the results in their own work, including peer groups, industry, professional organisations, policy makers.





# 5 Exploitation

## 5.1 Project exploitable results

**Performance Assessment Solution**: supports the design, implementation and assessment of strategic multimodal solutions, with focus on scheduling and disruption management.

**Schedule Design Solution**: for integrated planning of air and rail networks that optimise the waiting times at transfer nodes to offer more and better options for multimodal passengers.

**Disruption Management Solution**: supports decision-makers' response to disruptive events in real time to minimise impact on the passengers, based on coordinated air and rail schedule adjustments and passengers reallocation.

In line with these three MultiModX Solutions, key exploitable results of the project are:

- Integrated modelling of different transport networks (air, HSR, airport access), including the algorithms for routing multimodal trips;
- Advances in mathematical optimisation models and approaches for multimodal scheduling and disruption management;
- Strategic and tactical mobility evaluators within a multimodal modelling and evaluation framework.

## 5.2 Exploitation strategy and objectives

The exploitation objective is to effectively use project results through scientific, economic, political or societal exploitation routes aiming to turn R&I actions into concrete value and impact for society. The exploitation of MultiModX results will be ensured, especially in using the results beyond the project duration. The exploitation strategy of MultiModX will ensure that the impact of the project outcomes is maximised during the project implementation and especially after the completion of the project activities. Updates of the exploitation strategy, if applicable, will be provided in the final dissemination report at the end of the project.

The objectives of MultiModX' exploitation plan are to:

- ensure outreach of the project outcomes and the transferability of knowledge;
- mobilise leading experts from different business and industry sectors to participate and contribute to exploitation events;
- collect the scientific and practical knowledge from the project deliverables and adapt them into usable recommendations and tools;
- generate user-friendly contents based upon scientific, as well as users' knowledge and experiences;
- increase awareness and dissemination to ensure that end-users are aware of the MultiModX evaluated multimodal solutions, considered guidelines and recommendations;
- expand the base of operations using, among others, strategic partnerships to include all the parties in the value chain;
- motivate project partners into engaging their networks.





## 5.3 Exploitation of results

The results, tools and outcomes gained within the project will be used to derive lessons learned, identify key exploitable results from the project such as a multimodal network model and multimodal performance framework (air, HSR, airport access), including the algorithms for routing multimodal trips; advances in mathematical optimisation models and approaches for multimodal scheduling and disruption management; or strategic and tactical mobility evaluators within a multimodal modelling and evaluation framework. The MultiModX consortium intends to use the results in further research activities (external and internal to the project), and exploit these as policy recommendations, including how policy makers can be reached.

All the partners will increase their expertise and knowledge on the topics covered by the project and will take measures aiming to ensure effective exploitation and to maximise impact of the project outcomes during the project implementation and especially regarding future activities. Based on the exploitation strategy, it will be ensured that the MultiModX set of innovative Solutions and decision support tools for coordinated planning and management of multimodal transport networks shall be rolled-out to the target groups, both at national and European levels.

The MultiModX consortium intends to use the results in further research activities (external and internal to the project), and exploit these as policy recommendations, including how policy makers can be reached. The academic partners expect to create new scientific knowledge, which will mainly be exploited in the form of peer-reviewed publications and conference participation. This would create opportunities for third parties to benchmark and evaluate their multimodal scheduling models and algorithms beyond the project duration. Moreover, the advancement of the state-of-the art will be exploited as capabilities for further research opportunities.

Finally, the results and experiences from MultiModX will be incorporated into teaching activities, by presenting them as part of the Air Transport Planning and Management MSc which is delivered by UoW, or by initiating special sessions and streams on multimodal transport planning and propose setting up new working groups within transport communities like INFORMS, IAROR to foster further research in multimodal directions. Both UIC and ARC will exploit the MultiModX results with its members, including local and regional public authorities, local communities, airports and rail services.

#### **Target groups**

(1) Aviation community; (2) Railway community; (3) European and national authorities, regulatory bodies, NGOs; (4) GDS (Global Distribution Systems) organisations; (5) Scientific community; (6) General public; (7) Cities and regions; (8) Project Partners and SESAR JU Ecosystems

#### **Examples**

(1) Airlines, airports; (2) Railway operators (including rail multimodal actors, high-speed railway operators), infrastructure managers; (3) Amadeus; (4) National and regional governments, European Commission, other decision makers, ERA (European Union Railway Agency), EU Joint Research Centre, OECD; (5) ANSP, EUROCONTROL, SESAR JU, researchers, academics, conference chairs, coordinators of ongoing and former relevant projects; (7) ARC regional council members; (8) Partners of the consortium, related EU projects

#### Specific objectives

Raise awareness about project objectives and development, especially regarding the characterisation of the impact of multimodal transport systems and multimodal solutions, and the conditions for the transfer of the MultiModX Solutions to the subsequent stages of the R&I cycle, and related policy requirements and implementation; Support networking of decision makers with industry, academia and the MultiModX consortium; Support policy makers and the European Commission in informed decision making regarding





future alignment between transport modes; Support aviation and rail stakeholders in informed decision making regarding future alignment between transport modes; Raise awareness for gaps and barriers within an multimodal transport system; Identify most impactful gaps and potential solutions; Demonstrate priority on research results, support excellence in science and maintain European scientific leadership with peer-reviewed published results; Raise awareness for state-of-the-art, recent advances and challenges in a multimodal transport system; Support networking of academia with peer group scientist, decision makers, industry and the MultiModX consortium; Provide media, social networks and multipliers with up-to-date, transparent, easy-to-use information on advances in Multimodal transport and future solutions to close gaps; Foster knowledge among all project partners and the SESAR JU ecosystem

#### Means of dissemination, exploitation and communication

Scientific findings are translated into potential courses of action regarding the implementation of an optimised European transport system, and the role air plus rail actions may play within this. The results will be provided, both in the form of reports (deliverables) as well as scientific publications. This includes the assessment and discussion of how key performance indicators from the ATM sector are being affected, and the provision of quantitative results in terms of e.g. effects on airport capacities resulting from a different multimodal alignment, or effects on the development of trans-European rail network based on a different multimodal alignment. Policy makers will be integrated in the project from an early stage of the project; e.g. in form of participating in the MultiModX workshops and activities, ensuring early feedback in terms of how policy recommendations are best formulated in order to provide MultiModX results and recommendations in a usable format. Policy makers and wider stakeholders will also be reached by engaging in relevant events and initiatives such as: benefitting from support of SESAR JU for various events and conferences, or other events organised by European platforms such as the Committee on Transport and Tourism (TRAN); SESAR 3 KTN indeed being tasked with carrying out "actions aimed at the dissemination and sharing of SESAR exploratory research" and the "cross-fertilisation of knowledge from other disciplines that will encourage the exploration of innovative and unconventional ideas and research directions in ATM" and is thus wellaligned with the engagement and integration of MultiModX into the rail domain; engaging in the EC initiative "Projects for Policy (P4P)".

**Table 16: Project external exploitation of results** 

A more detailed outline of exploitation results and alignment with specific target groups will be provided in the updated versions of the CDE plan, including more specific project results and modelling approaches.





## 5.4 Data protection strategy

The consortium will comply with the Grant Agreement (Article 15), and the respective EU, international and national law on data protection (in particular, Regulation 2016/67916), regarding the data protection and processing. A detailed outline of the data protection strategy is addressed in Deliverable D2.1, the MultiModX Data Management Plan. Furthermore, (personal) data protection aspects are outlined in the MultiModX Consortium Agreement.

#### 5.5 IPR management

In the MultiModX Consortium Agreement access rights for use of both results and background (necessary for project implementation and/or use of results) during and after the project are specified. Innovation-related activities will include protection of knowledge resulting from the project, which will be collected and organised in a knowledge portfolio (included in Task 7.4), constituting the basis for the definition of the final plan for dissemination, communication and exploitation of project results.

All know-how, data and patents resulting from this project will belong to the members of the consortium. Transfer of rights will be regulated by contracts according to existing European and national guidelines. Special attention will be given to knowledge management and protection issues from the beginning, and during the whole lifetime of the project, and are specified in the Consortium Agreement. This includes, inter alia, confidentiality of the information disclosed by partners during the project, pre-existing partner knowledge, ownership of results resulting from the execution of the project, legal protection of results resulting from the execution of the project through patent rights, commercial utilisation of results, also taking into account joint ownership of the results, patents, knowhow and information related to the use of knowledge owned by one of the partners, resulting from work carried out prior to the agreement, and sub-licences to third parties within clearly defined limits.

The dissemination procedure is also specified in the Consortium Agreement. An IPR Repository with all software licences used will be created to aid partners in identifying possible licensing issues, and ensuring on the one hand that no IPR issues hinder the exploitation potential of the software assets produced during MultiModX, on the other hand that IPR is fully honoured. In addition, the project will actively manage the innovations derived from the project and introduce other innovation into the project on opportunity, if applicable.





# 6 Overview of communication and dissemination activities

Activity	Channel	Tool	Objective	Target audience	KPIs	Success criteria	Frequency/ date
Communication	Visual Identity	Branding	Inform relevant stakeholders, end-users and the media about the project results and their impact	General public, media + disseminati on target groups	1 MultiModX visual identity kit (logo, templates, roll-up)	A complete MultiModX visual identity kit (logo, templates, roll-up) developed and consistently applied across all project communicatio n and dissemination materials	Beginning of project
Communication	Web	Website, social media, newsletters, online articles, videos	Inform relevant stakeholders, end-users and the media about the project results and their impact; Raise public awareness about the MultiModX solutions.	General public, media + disseminati on target groups	+100 visitors per month for website +100 leaflets printed and distributed +100 factsheets downloads 3 videos, +300 views +5000 subscribers reached	All web-based and communication channels operational and delivering measurable outreach, with individual channel KPIs met or exceeded	Based on progress made on project
Communication	Publicati ons	Leaflet, factsheet	Inform relevant stakeholders, end-users and the media about the project results and their impact; Raise public awareness about the MultiModX solutions.	General public, media + disseminati on target groups	1 leaflet 1 factsheet	At least one project leaflet and one factsheet produced and made publicly available	October 2023 After Maturity Gate





Communication	Media	Press releases	Inform relevant stakeholders, end-users and the media about the project results and their impact; Raise public awareness about the MultiModX solutions.	General public, media + disseminati on target groups	2 press releases 1 media list comprising up to 30 media contacts	At least two press releases issued and one consolidated media list (up to 30 media contacts) established and used for dissemination	Kick-off meeting Final event
Communication	Social media	Twitter – X, LinkedIn	Inform relevant stakeholders, end-users and the media about the project results and their impact; Raise public awareness about the MultiModX solutions.	General public, media + disseminati on target groups	1 communicati on campaign focused on the promotion of the MultiModX solutions +100 posts +300 followers +1000 users reached (social media monitoring via sponsored campaigns)	At least one dedicated social media communicatio n campaign implemented, with a minimum of 100 posts published, 300 followers reached and 1 000 users reached across project social media channels	Based on progress made on project
Communication	Events	Events organised by MultiModX	Inform relevant stakeholders, end-users and the media about the project results and their impact; Raise public awareness about the MultiModX solutions.	General public, media + disseminati on target groups	3 round-table discussions with ARC members, +20 representatives 1 public policy event in Brussels, 50 participants 1 final joint communicati	Expected KPI value by the end of the maturity gate.	Roundtables once a year Public policy event in November 2025 Final event November 2025





					on and disseminatio n event in Brussels, 150 participants		
Dissemination	Abstracts of public deliverab les	Summaries of deliverables published on the MultiModX website as well as shared on social media and newsletter.	To increase the accessibility of end-users to the MultiModX results by providing them with user-friendly summaries of the scientific findings.	Passengers , Aviation community , Railway community , Scientific community , EU and national authorities, regulatory bodies and NGOs, cities and regions, GDS, SJU3 members and other EU projects.	15 of published deliverables abstracts	At least 15 public deliverable abstracts produced and published on the MultiModX website and disseminated through project communicatio n channels	Based on progress made on deliverables .
Dissemination	Zenodo	Zenodo MultiModX community as an online self- archiving repository with open access.	To publish and store with open access MultiModX research papers, conference papers, posters and presentations.	Aviation community , Railway community , Scientific community , EU and national authorities, regulatory bodies and NGOs, GDS, SJU3 members and other EU projects.	1 Zenodo community	A dedicated MultiModX Zenodo community established and actively used to publish open- access project outputs	Based on progress made on deliverables
Dissemination	Scientific publicati ons	Possible journals include e.g. Flight International, Transportation	To make MultiModX results available with open access to the end-users.	Aviation community , Railway community , Scientific community	5 of published scientific publications 1 poster	At least five scientific publications published with open access,	Based on progress made on deliverables





		Research Part A: Policy and Practice, Transportation Research Part B: Methodologic al, etc.		, EU and national authorities, regulatory bodies and NGOs, GDS, SJU3 members and other EU projects.	10 presentations	complemente d by a minimum of one scientific poster and ten conference presentations disseminating MultiModX results	
Dissemination	External conferen ces and events (not organise d by MultiMo dX)	Presentations, posters, flyers, exhibition stands.	To disseminate MultiModX results to target audiences.	Passengers , Aviation community , Railway community , Scientific community , EU and national authorities, regulatory bodies and NGOs, cities and regions, GDS, SJU3 members and other EU projects.	15 of participation in external events, including exhibitions	At least 15 conferences attended	Based on progress made on deliverables
Dissemination	Validation & dissemin ation workshops (organise d by MultiModX)	Presentations of results, flyers, direct discussions.	To foster co- development and to collect feedback from users, including direct dissemination of results.	Passengers , Aviation community , Railway community , Scientific community , EU and national authorities, regulatory bodies and NGOs, cities and regions, GDS, SJU3 members and other	2 of organised validation and dissemination workshops 50 participants/ workshop	At least two workshops are organised, number of participants is equal or more than 50.	M6, M16





				EU projects.			
Dissemination	Joint communi cation & dissemin ation final event	Presentations of results, access to public deliverables.	To disseminate the final results to the endusers and stimulate takeup.	Passengers , Aviation community , Railway community , Scientific community , EU and national authorities, regulatory bodies and NGOs, cities and regions, GDS, SJU3 members and other EU projects.	1 joint communicati on and disseminatio n event (final event) 150 participants	Final event is organised with at least 150 attendees.	M29
Dissemination	Industry Board	Presentations of results, 1 webinar on solutions at M10, live validation & dissemination workshop 2 (M16), 1 webinar at M24 on progress on results, 1 live meeting merged with the final event at M29 for final results.	To foster co- development and get direct feedback from experts on the project outputs.	Aviation community , Railway community , Scientific community	4 meetings (2 webinars and 2 live meetings) 10 Industry Board members	Four meetings are organised.	M10, M16, M24, M29
Dissemination	Links with other EU projects and initiative s	To exchange and work on synergies and joint actions with similar projects.	Presentations of results, exchanges with 30 contact points via 3 webinars (one per year)	SJU3 members and other EU projects.	30 contact points 3 exchange webinars	At least three webinars are organised. 30 contact points.	1 per year

Table 17: Overview of communication and dissemination activities





# 7 List of acronyms

Acronym	Description			
ARC	Short name of MultiModX partner: Airport Regions Council			
ATM	Air Traffic Management			
BHL	Short name of MultiModX Coordinator: Bauhaus Luftfahrt e.V.			
DG MOVE	European Commission's Directorate-General for Mobility and Transport			
EU	European Union			
GDS	Global Distribution System			
IB	Industry Board			
IP	Intellectual Property			
MIS	Management Information System			
NOMMON	Short name of MultiModX partner: Nommon solutions and technologies SL			
OECD	Organisation for Economic Co-operation and Development			
OGC	Open Geospatial Consortium			
R&D	Research and development			
R&I	Research and innovation			
SJU	SESAR Joint Undertaking			
TUD	Short name of MultiModX partner: Technische Universitaet Dresden			
UIC	Short name of MultiModX partner: Union International des Chemins de Fer			
UoW	Short name of MultiModX partner: University of Westminster			
WP	Work Package			

Table 18: List of acronyms

