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## Abstract

This document is the Regulatory Deliverable (REG) of the SIGN-AIR SESAR Solution dealing with the development and piloting of a new platform, the SIGN-AIR platform, for an orchestrated sharing of data in multimodal traveling. D2.6 “Regulation (REG) – Intermediate” is the second iteration of a series of reports aiming to capture the regulatory needs of the SIGN-AIR SESAR solution (first one was Deliverable D2.3 “Regulation (REG)-initial”). An update will follow on M32. The purpose of this REG Deliverable is to provide a comprehensive overview of the key European regulations in the fields of 1) Data law, 2) Contract law, 3) Passenger rights law and 4) Aviation (safety) law. The aim of such an overview is to understand the scope of application of each of the applicable regulations and to clarify the legal impact that must be taken into account while developing the SIGN-AIR solution.

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# SIGN-AIR

[IMPLEMENTED SYNERGIES, DATA SHARING CONTRACTS AND GOALS BETWEEN TRANSPORT MODES  
AND AIR TRANSPORTATION]

## SIGN-AIR

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# 1. Executive summary

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This document is the Regulatory Deliverable (REG) of the SIGN-AIR SESAR Solution dealing with the development and piloting of a new platform, the SIGN-AIR platform, for an orchestrated sharing of data in multimodal traveling. D2.6 “Regulation (REG) – Intermediate” is the second iteration of a series of reports aiming to capture the regulatory needs of the SIGN-AIR SESAR solution (first one was Deliverable D2.3 “Regulation (REG)-initial”). An update will follow on M32. This Deliverable provides regulatory information to support the industrialisation activities and assist the entry into operations of the corresponding SESAR solution, namely the SIGN-AIR platform. The REG deliverables, altogether will cover all regulatory contextual information that is considered relevant for SIGN-AIR existing at the beginning of the SIGN-AIR project and during its development activities. In addition, when applicable these documents will also identify the needs for amendments of the existing regulations to support the scope of the new SESAR solution.

The SIGN-AIR platform will provide the means for Transport Service Providers (TSPs) to register, reach Data Sharing Agreements and Smart Contracts with other TSPs and manage their contractual relationships. The SIGN-AIR platform will only manage the contractual aspects through the types of data offered by the TSPs. As an added value, the SIGN-AIR platform will provide a number of services to the stakeholders of multimodal travel through the analysis and exploitation of the contracts: (i) templates for contracts to simplify the legal management, (ii) electronic management and information provision about each specific contract, (iii) routing information for Travel Companions (TCs) with enriched information about the specific contracts for their traveller customers, and (iv) facilitation of single ticketing through the comprehensive understanding of the contracts and the data managed, among others.

To enable the regulatory compliant development of the SIGN-AIR platform and its components, as well as to ensure the legality of the templates of Data sharing agreements (DSAs) and Smart contacts (SCs), it is essential to have a comprehensive overview of the key European regulations in the fields of 1) Data law, 2) Contract law, 3) Passenger rights law and 4) Aviation (safety) law. The aim of such an overview is to understand the scope of application of each of the applicable regulations and to clarify the legal impact that must be considered while developing the SIGN-AIR solution.

At this stage of the development of the SIGN-AIR solution, it is however too early to clearly envision the need for amendments to existing rules or to propose entirely new regulations.

## 2. Introduction

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### 2.1 Purpose of the document

The purpose of this REG Deliverable is to provide a comprehensive overview of the key European regulations in the fields of:

- 1) Data law,
- 2) Contract law,
- 3) Passenger rights law and
- 4) Aviation (safety) law.

The aim of such an overview is to understand the scope of application of each of the applicable regulations and to clarify the legal impact that must be taken into account while developing the SIGN-AIR solution. When applicable, this document will also indicate any need to amend the existing regulations or to introduce a completely new regulation regarding SIGN-AIR's Solution. However, it should be noted that at this stage of the development activities of the SIGN-AIR Solution (M22), the consortium is prioritizing the compliance of the SIGN-AIR solution with the existing regulations rather than to propose amendments of amendments or new regulations.

As the SIGN-AIR project will result in one SESAR technological solution (the SIGN-AIR platform), it should be emphasised that the platform will simplify the process of negotiating and managing Data Sharing Agreements (DSAs) and Smart Contracts (SCs) between transport service providers (TSPs). Since the foundation of the project are the research outputs of the previous SYN+AIR project, the development of the platform starts with the TRL2 and at the end the technology that we will develop will reach the TRL7. To show the progress of the technology from TRL5 to TRL7, a large amount of synthetic data will be created to test the technology in a controlled environment. In the end, to show that this technology reaches TRL7, the proposed use cases will be used to test the platform in an operational environment.

All innovations that the SIGN-AIR platform will bring into the TSPs' everyday operations should be compliant with the applicable regulations to **enable safe, secure, reliable and smooth data exchange**. The contractual relationships between TSPs should also respect data law, general contract law, passenger rights law as well as sectoral mobility and aviation law. Therefore, in this REG deliverable, we will refer to all regulations which are currently applicable/being discussed and have an impact on the SIGN-AIR Solution. Moreover, if a need for an amendment or a new type of regulation would be observed, we will suggest it, indicating its purpose. However, at this stage of the development of the SIGN-AIR solution, it is too early to clearly envision the need for amendments to existing rules or to propose entirely new regulations.

## 2.2 Intended readership

Regarding readership who will be directly or indirectly involved in regulation activities, we can divide them in several categories:

All stakeholders/subjects connected to SIGN-AIR platform (core, direct and indirect stakeholders)

- Transport Service Providers (TSPs) who are registered and use SIGN-AIR platform to establish new collaborations, generate and manage data sharing agreements (DSAs) and smart contracts (SCs).
- Travel Companions (TCs) companies connected to SIGN-AIR platform, to show the results of the data sharing agreements to the passengers.
- All stakeholders/subjects indirectly connected to SIGN-AIR platform:
  - Travellers, who are indirectly connected to SIGN-AIR platform through the TCs,
  - Local authorities such as Public transport authorities (PTAs), indirectly support multimodality.
  - Regulatory bodies (EASA, etc.).
- Other projects under the multimodality flagship such as MultiModX and Travel Wise.

Moreover, this REG deliverable could help those who are interested to understand the new concept of cooperation and to make the decision to join the SIGN-AIR platform.

## 2.3 Background

As it has already been mentioned, the SIGN-AIR project will result in **one** SESAR technological solution, the SIGN-AIR platform. The SIGN-AIR platform consists of various components/enablers that will be developed or extended from an existing mature level. It is important to mention that the components per se might not affect existing regulation, but the content of the data sharing agreements and/or smart contracts might.

The main components of the SIGN-AIR Solution are the following:

**Contract Templates.** At the core of the SIGN-AIR project are the contracts signed between two TSPs. The SIGN-AIR platform will provide templates for both Data Sharing Agreements (DSA) and Smart Contracts (SC). Since the DSAs and the SCs should be signed, it implies the need for compliance with legal requirements to secure all these documents from missuses. By signing a DSA, the datasets (what) and the objective of sharing them (why) will be clear, while by signing an SC, the way operational obligations (actions) (how) and when to execute them (when) will be clear and continuity of data sharing will be secured with a proof statement.

**SIGN-AIR platform.** The SIGN-AIR platform brings innovation which lies in the fact that it will digitize a process that is dominantly manual up to today. Many regulations in the field of data law have an impact on the development of such a platform.

**Standardisation Algorithms.** The data exchange should be executed with standardised datasets. The SIGN-AIR will develop algorithms and processes to facilitate and execute standardisation, to assist



operators who may have non-standardised data to share, which further must be in accordance with the law.

**Optimization Algorithms.** Both the Intermodal Timetable Synchronisation solution and the Intermodal Disruption Management Tool (please refer at TRANSIT project) have variables related to the time schedule. The aim of these algorithms is to facilitate the decision-making process of airlines or train operators.

**Monitoring Dashboard.** The Monitoring Dashboard aims to monitor the contracts signed in SIGN-AIR. To achieve this, the contracts are fully digitized, and each contract defines quantifiable triggers and actions that the Monitoring Dashboard will use. And again, legal background should be provided.

Apart of these components SIGN-AIR has a legal layer which is presented briefly in the following table (**¡Error! No se encuentra el origen de la referencia.**). This legal layer will consider all existing and proposed regulations applicable to each developed component as well as to the content of the DSAs et the SCs. Hence the following version of REG might contain suggestions of amendments to some particular pieces of legislation. To tackle this challenging process, SIGN-AIR has two dedicated tasks that aim to identify applicable regulations: T2.7 Legal drafting of Contracts and T2.17 Conclusions about the pilots and Policy recommendations.

Therefore, we will be able to propose suggestions for amending existing regulations after the finalization of the contacts templates (data sharing agreements and smart contracts) and the small-scale pilots of SIGN-AIR.

Table 1 - SIGN-AIR's platform legal layer

Terms & Conditions	User agreement	Data Sharing Agreements	Smart Contracts
<p><b>The provision of the SIGN-AIR platform</b></p> <ul style="list-style-type: none"> <li>Rules between platform and TSPs</li> <li>The obligations, warranties, rights of the platform operator vis a vis the users (TSPs)</li> <li>The obligations, warranties, rights of the TSPs vis a vis the platform operator</li> <li>Framework for Data Sharing Agreements and Smart Contracts</li> </ul> <p><b>Rules between the TSPs</b></p> <ul style="list-style-type: none"> <li>Default rights and obligations concerning data processing.</li> <li>Essential rights and obligations concerning Smart Contracts</li> <li>These contracts will incorporate the T&amp;Cs</li> <li>Rules of precedence between documents in case of contradictions</li> </ul>	<p><b>Identification of the authorized users of the TSP</b></p> <ul style="list-style-type: none"> <li>Signing representative, administrative (negotiator), technical (data catalogues)</li> <li>Privacy policy will protect their personal data.</li> <li>Acknowledgement of application of T&amp;Cs</li> </ul>	<p><b>Between Data Provider TSP and Data Consumer TSP</b></p> <ul style="list-style-type: none"> <li>Terms and conditions for the allowed use of data</li> <li>Set out a Multimodal Transport Objective for the data sharing (e.g., Single Ticketing, Synchronization of timetables etc.)</li> <li>The objective determines the required datasets.</li> <li>The objective determines the Triggers and Actions of the Smart Contract and the issues of Revenue Sharing and Responsibility Sharing</li> <li>Legal principles already included in Terms &amp; Conditions (incorporated)</li> <li>Specific obligations of DSA will prevail (negotiation and drafting)</li> <li>Mandatory law must be taken into consideration</li> </ul>	<p><b>Based on “external smarter contract model”</b></p> <p><b>Operational contract that details the Objective of the DSA</b></p> <ul style="list-style-type: none"> <li>Will define specific Triggers and Actions</li> <li>Trigger: a certain condition, event, choice</li> <li>Action: obligation that must be fulfilled in case a Trigger is realized</li> <li>Contains terms of Revenue Sharing and Responsibility Sharing</li> <li>Revenue Sharing: how the revenue or benefit of Actions are shared between TSPs</li> <li>Responsibility Sharing: how liability is shared (e.g., who will pay delay/cancellation compensation to a traveller in case of certain Triggers)</li> </ul>

## 2.4 Structure of the document

The structure of this document is as follows:

- Chapter 1 contains an executive summary of this document.
- Chapter 2 introduces the purpose of the REG deliverable, indicates the intended readership, reminds the background of the SIGN-AIR solution and clarifies the acronyms being used throughout the document
- Chapter 3 provides a comprehensive overview of the **key European regulations** in the fields of 1) Data law, 2) Contract law, 3) Passenger rights law and 4) Aviation (safety) law. The aim of such an overview is to understand the scope of application of each of the applicable regulations and to clarify the legal impact that must be taken into account while developing the SIGN-AIR solution.

## 2.5 Glossary of terms

This section identifies terms and their definition and includes a reference to the source of the definition. For this intermediate version of REG, there are no specific glossary terms that need to be mentioned.

## 2.6 List of acronyms

Table 2: List of acronyms

Acronym	Definition
ATM	Air Traffic Management
FTI&U	Fast Track Innovation and Uptake
KPA	Key Performance Area
REG	Regulatory deliverable
SESAR 3 JU	SESAR 3 Joint Undertaking
TRL	Technology Readiness Level
TSPs	Transport Service Providers
TC	Travel Companion
DSA	Data Sharing Agreement
SC	Smart Contract
EASA	European Union Aviation Safety Agency
T&Cs	Terms and conditions

AI Act	Artificial Intelligence Act
GDPR	General Data Protection Regulation
NIS2 Directive	Update Directive on network and information systems
Copyright Directive DSM	Directive on copyright and related rights in the Digital Single Market
Updated ITS Directive	Updated Directive on the framework for the deployment of Intelligent Transport Systems
MMTIS Delegated Regulation	Commission Delegated Regulation with regard to the provision of EU-wide multimodal travel information services
eIDAS Regulation	Regulation on electronic identification and trust services for electronic transactions
QES	Qualified electronic signature
QTSP	Qualified Trust Service Provider
CRD	Consumer Rights Directive
UCTD	Unfair Contract Terms Directive
PRM	Person with reduced mobility
PTD	Package Travel Directive
MDMS and SDBTR	Multimodal Digital Mobility Services & Single Digital Booking and Ticketing Regulation
CRS	Computerised reservation systems
DGA	Data Governance Act
DIS	Data Intermediation Service
DISP	Data Intermediation Service Provider

## 3 Regulation needs capture

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### 3.1 Need for a new or amended rule(s)

The purpose of this section is to provide a comprehensive overview of the key European regulations in the fields of 1) Data law, 2) Contract law, 3) Passenger rights law and 4) Aviation (safety) law. The aim of such an overview is to understand the scope of application of each of the **applicable regulations and to clarify the legal impact** that must be considered while developing the SIGN-AIR solution.

The listing of the applicable regulations and their impact on the development of the SIGN-AIR solution is of utter importance since that all innovations that the SIGN-AIR platform will bring into the TSPs' everyday operations should be compliant with the applicable regulations to enable safe, secure, reliable and smooth data exchange. The contractual relationships between TSPs should also respect data law, general contract law, passenger rights law as well as sectoral mobility and aviation law.

### 3.1.1. Data Law

N°	Regulation	Article	Application and impact on SIGN-AIR	Need for new or amended rules
1	<b>Data Act</b> Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828	Article 36	<p>The SIGN-AIR platform facilitates the generation and monitoring of data sharing agreements and smart contracts between multimodal transport service providers (TSPs). This article implicitly recognizes the validity of smart contracts. Furthermore, it describes essential requirements regarding smart contracts for executing data sharing agreements.</p> <p>Such smart contracts executing data sharing agreements must comply with essential requirements listed in article 36 of the Data Act such as: robustness and access control, safe termination and interruption, data archiving and continuity and consistency. A conformity assessment with a view to fulfilling these essential requirements should be carried out before the deployment of smart contracts.</p>	N/A
		Article 33	<p>The TSPs that participate to the SIGN-AIR platform must comply with essential requirements listed in article 33 to facilitate the interoperability of data, of data sharing mechanisms and services. The data sharing agreements of the TSPs should comply with these interoperability requirements.</p>	
		Article 13	<p>The data sharing agreements and the smart contract between TSPs should not contain unfair contractual terms unilaterally imposed. Article 13 of the Data Act establishes a non-exhaustive list of terms that are always considered to be unfair and a list of terms that are presumed to be unfair.</p>	

		Article 10	<p>TSPs should have access to a certified dispute settlement body to settle disputes relating to the fair, reasonable and non-discriminatory terms and conditions for, and transparent manner of, making data available.</p> <p>The fees, or the mechanisms used to determine the fees of the dispute settlement body must be known to the TSPs before they request a decision.</p>	
2	<b>Data Governance Act</b> Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724	Article 11	<p>The SIGN-AIR platform should not be considered as a “data intermediation service” in the sense of article 10, a) of the Data Governance Act. Therefore, in real-world circumstances, the SIGN-AIR platform provider who intends to provide the data intermediation service does not have to submit a notification to the competent authority.</p>	N/A
3	<b>Artificial Intelligence Act</b> Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives	Not yet identified	<p>In several of its components and modules, the SIGN-AIR platform might be using algorithms that could qualify as “AI systems” in the sense of article 3, 1) of the AI Act. For example, algorithms might be used for discovery of matching TSPs, analytics and optimization of operations, connectivity and disruption management.</p> <p>As technical descriptions of these different algorithms are not yet available, it is too early to analyse the impact of the AI Act on these algorithms.</p>	N/A

	2014/90/EU, (EU) 2016/797 and (EU) 2020/1828			
4	<b>GDPR</b>  Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC	Chapter II, Chapter III and Chapter IV.	The SIGN-AIR platform will register users (legal and technical representatives) of TSPs willing to negotiate data sharing agreements and smart contracts. Therefore, the platform will process “personal data” of these users in the sense of article 4(1) of the GDPR. The processing of such personal data will comply with the principles of lawfulness, fairness and transparency; purpose limitation; data minimisation; accuracy; storage limitation; security and accountability. Moreover, an appropriate basis of lawfulness will be identified, and rights of the data subjects will be fully respected. Data protection by design and by default will be implemented during all phases of the development and deployment of the SIGN-AIR platform.	N/A
		Chapter II, Chapter III and Chapter IV.	The SIGN-AIR platform (or a related Traveller Companion app) might potentially process personal data of travellers. Such personal data related to travellers might also be the object of data sharing agreements negotiated between TSPs. The processing of such personal data will comply with the principles of lawfulness, fairness and transparency; purpose limitation; data minimisation; accuracy; storage limitation; security and accountability. With regard to lawfulness, as a general rule, when a TSP requires personal data related to a traveller for realizing an action specified in a smart contract, that TSP will need to obtain the appropriate consent in the sense of the GDPR. Furthermore, rights of the data subjects will be fully respected. Data protection by design and by default will be implemented during all phases of the development and deployment of the SIGN-AIR platform.	



5	<b>NIS 2 Directive</b>  Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148	Article 21.5	<p>The provider of the SIGN-AIR platform will qualify as a “cloud computing service provider” in the sense of article 6, 30) of the NIS2 Directive. Therefore, appropriate and proportionate technical, operational and organisational measures must be taken to manage the risks posed to the security of network and information systems to prevent or minimise the impact of incidents on recipients of the services and on other services.</p> <p>With regard to the applicable security requirements, specific attention must be drawn to art. 28.5 of the NIS 2 Directive and to the related Commission Implementing Regulation (EU) 2024/2690 of 17 October 2024 which lays down rules as regards technical and methodological requirements of cybersecurity risk-management measures applicable to cloud computing service providers.</p>	N/A
		Article 21.3	<p>TSPs that are covered by NIS 2 obligations (Air carriers, Airports, Railway operators) must ensure a level of security of network and information systems appropriate to the risks posed. These cybersecurity measures must be based on an all-hazards approach that aims to protect network and information systems and the physical environment of those systems from incidents. Amongst others, they must include supply chain security, including security-related aspects concerning the relationships between each entity and its direct suppliers or service providers. As a supplier (or service provider) of TSPs, the SIGN-AIR platform should adhere to NIS2 security standards and be accountable (transparent) for it.</p>	
6	<b>Copyright DSM Directive</b>  Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and	Articles 3 and 4	<p>Data sharing agreements between TSPs might contain clauses related to the use of text and data mining techniques by the parties. However, the protection of the Copyright DSM Directive only applies to work, as long as it is original and expressed in a concrete form. In the context of mobility data sharing, only few instances of analysis through text and data mining</p>	N/A

	related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC		will relate to copyright protected works. Mining data that is not part of a copyright protected work will not result in a copyright restricted reproduction and will thus not have to rely on the exception on the exclusive rights of right holders for text and data mining purposes.	
7	<b>Trade Secrets Directive</b> Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure	Article 4	Data sharing agreements between TSPs might contain clauses related to information which is commercially valuable, undisclosed and intended to remain confidential. The Trade Secrets Directive prevents business partners from sharing data that was passed to them by the trade secret holder. However, for information to qualify as a trade secret, it must comply with the rather strict requirements of the Directive. In addition, it should be stressed that protection only exists where a dishonest behaviour takes place.	N/A
8	<b>Database Directive</b> Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases	All articles	Data sharing agreements between TSPs might contain clauses related to the legal protection of databases. The Database Directive grants copyright-like rights, known as the "sui generis database right," to creators that have made "qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents". The database right provides the maker with the right to prevent unauthorised extraction or re-utilisation of the whole or a substantial part of the database contents.	N/A
9	<b>Updated ITS Directive</b> Directive (EU) 2023/2661 of the European Parliament and of the Council of 22	All articles and annexes	Directive 2010/40/EU, known as the ITS Directive, was established to facilitate the coordinated and coherent deployment and use of Intelligent Transport Systems (ITS) in road transport and its connections to other modes of transportation. The ITS Directive is a fundamental legal instrument for the European Mobility Data Space, as "it provides for the	N/A

	November 2023 amending Directive 2010/40/EU on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport		<p>availability and accessibility of multimodal traffic and travel data on National Access Points (NAPs)".</p> <p>The updated ITS Directive on real-time traffic information will enter into force gradually between 2025 and 2028. The obligations regarding the publication of information in digital, machine-readable format will expand to concern the entire road network and new stakeholders, such as municipalities, service providers, holders of vehicle-generated data and stakeholders in the charging and refuelling sector. The updated ITS Directive will extend the obligations further to cover "underlying data" starting from the end of 2025. This data must be digitised when the data holder deems the data to be relevant to the road users.</p> <p>The main impact of the Updated ITS Directive on the SIGN-AIR solution is the obligation to take into account the data standards being detailed in its implementing regulations.</p>	
10	<p><b>MMTIS Delegated Regulation</b></p> <p>Commission Delegated Regulation (EU) 2017/1926 of 31 May 2017 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services</p>	All articles and annex	<p>The Multimodal Travel Information Services (MMTIS) Regulation requires i.a. that the data holders shall provide, via the national access points access to the static, historic and observed travel and traffic data listed the Annex of the Regulation, of the public transport modes using one of the following standards and technical specifications, or any digital machine-readable format that can be proven fully compatible and interoperable with those standards and technical specifications</p> <p>The main impact of the MMTIS Delegated Regulation on the SIGN-AIR solution is the obligation to take into account the data standards being defined in the Annex of the Regulation.</p>	N/A

### 3.1.2. Contract Law

N°	Regulation	Article	Application and impact on SIGN-AIR	Need for new or amended rules
11	<b>E-commerce Directive</b>  Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce).	Article 9	The SIGN-AIR platform is based on binding electronic contracts made between TSPs (digital data sharing agreements and smart legal contracts). The validity of such electronic contracts must be warranted. Article 9 states that contracts concluded by electronic means cannot be denied legal effectiveness and validity.	N/A
		Article 10-11	The SIGN-AIR platform provides an “Information Society Service” that offers a remote electronic service to TSPs. SIGN-AIR must provide certain precontractual information to a TSP before entering into a contract with the TSP, and should confirm the registration by e-mail.	
12	<b>eIDAS Regulation</b>  Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.	Article 25	The SIGN-AIR system is based on binding electronic data sharing agreements and smart legal contracts that are signed electronically to prove the consent of the TSPs that make the contract. The electronic contracts made in the SIGN-AIR platform must be signed with a qualified electronic signature (QES) in order to ensure that a binding contract is made and agreed, and that the signature is recognized as equivalent to a traditional signature in all member States. The SIGN-AIR platform will require the use of a QES.	N/A

13	<b>Rome I Regulation</b>  Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations.	Article 3	The SIGN-AIR contracting system allows the TSPs to choose their applicable law when they negotiate and agree a contract.	N/A
14	<b>Brussels Ibis Regulation</b>  Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters	Article 25	The SIGN-AIR contracting system allows the TSPs to choose their jurisdiction (or arbitration system) in case of conflicts concerning the contracts negotiated and agreed between the TSPs.	N/A
15	<b>Consumer Rights Directive (CRD)</b>  Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on Consumer Rights.	Not yet identified.	May apply if there will be a strong link with consumers that order a ticket (front-office). The system shall then take the necessary precontractual information obligations and the possible right to withdraw from a consumer contract during 14 days (with exceptions) into consideration. E.g. if SIGN-AIR provides a Travel Companion where consumers can order tickets.	N/A

16	<b>Unfair Contract Terms Directive (UCTD)</b>  Council Directive 93/13/EEC of 5 April 1993 on Unfair Terms in Consumer Contracts	Not yet identified.	May apply if there is a direct link between SIGN-AIR and consumers that order a ticket (front-office). E.g. if Sign-Air provides a Travel Companion where consumers can order tickets.	N/A
17	<b>Platform-2-Business Regulation</b>  Regulation (EU) 2019/1150 of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services	Not yet identified	May apply if the SIGN-AIR platform is considered an online intermediation service between businesses and consumers	N/A

### 3.1.3. Passengers' rights law

N°	Regulation	Article	Application and impact on SIGN-AIR	Need for new or amended rules
18	<b>Air Passenger Rights</b>  Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing	§2 – Definitions	Definitions included in the Regulation may feed into the SIGN-AIR glossary. Likewise, some terms used in the 2024 Interpretative Guidelines should also be considered, e.g. 'extraordinary circumstances', 'internal' & 'external' events, 'comparable transport conditions' or 'at the earliest opportunity'.	SIGN-AIR might identify missing terms or suggest harmonising existing ones.

	common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91	<p>§3 – Scope</p> <p>§15 – Exclusion of waiver</p>	<p>The Regulation applies to flights departing from any airport situated in the EU, and to flights from a third country to an EU airport, if operated by an EU carrier.</p> <p>Any agreements/ contracts, that cover transport services falling within the scope of the Regulation, need to comply with its provisions, which cannot be waived.</p> <p>For SIGN-AIR, this means that any DSA and SC, signed by parties whose activities fall under the scope of the Regulation, may not derogate from the rules set in the Regulation.</p>	<p>The scope of the existing passenger rights’ framework needs to be extended to multimodal travel (a legislative proposal on this has been published in November 2023, but it is not yet in force).</p> <p>2024 Interpretative Guidelines on Reg. (EC) 261/2004 have clarified a number of aspects related to ‘scope’, which should be considered jointly with the text of the original Regulation.</p>
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		<p>§ 4 – Denied boarding</p> <p>§5 – Cancellation</p> <p>§6 – Delay</p> <p>§7 – Right to compensation</p> <p>§8 – Right to reimbursement or re-routing</p> <p>§9 – Right to care</p> <p>§10 – Upgrading and downgrading</p> <p>§14 – Obligation to inform passengers of their rights</p> <p>§16 – Infringements</p>	<p>These articles define minimum rights for passengers in case of denied boarding, cancellation, delay, or downgrading: the right to compensation, to reimbursement or re-routing, to care, to be informed about their rights, and to submit a complaint.</p> <p>To facilitate compliance, it may be possible to codify and publish the rules as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a cancellation) &amp; ‘actions’ (e.g., information about the disruption and about alternative connections).</p> <p>These articles are relevant for the SIGN-AIR goals <i>Disruption Management</i> and <i>Mobility Packages</i>.</p> <ul style="list-style-type: none"> <li>• <i>Disruption Management</i> clauses, included in SIGN-AIR DSA and SC, should take due care to align with the provisions in this Regulation.</li> <li>• When two parties decide to create a <i>Mobility Package</i>, the provisions included in the Regulation apply to those parts of the journey that are done by air (all types of tickets: single, combined, seasonal).</li> <li>• For <i>multimodal journeys</i>, signees to SIGN-AIR DSA and SC may decide – awaiting the entry into force of new EU legislation on this matter, on a voluntary basis – to offer similar passenger protection, with re-routing/ reimbursement and assistance (practical information, advice and support) as passengers’ main priorities.</li> </ul>	<p>The 2024 Interpretative Guidelines on Reg. (EC) 261/2004 have clarified a number of issues, based on ECJ rulings that have had a decisive impact on the Regulation’s interpretation.</p> <p>A proposal to amend the Air Passenger Rights’ Regulation is ‘pending’ since 2013. Added to this, two further legislative proposals, published in November 2023, introduce new rules on enforcement, but also on the role of intermediaries, and on multimodal passenger rights.</p> <p>While these proposals are not yet in force, it is relevant to bear in mind the</p>
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				<p>amendments or new rules they seek to introduce, as these reflect both EC concerns and improvements to passengers' experience. SIGN-AIR should therefore follow-up on their adoption and proactively consider integrating certain aspects in the DSA and SC templates, to present for acceptance (for now, on a voluntary basis) by signees.</p>
19	<p><b>PRM rights when travelling by air</b></p> <p>Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5 July</p>	§2 – Definitions	Definitions included in the Regulation may feed into the SIGN-AIR glossary.	<p>SIGN-AIR might identify missing terms or suggest harmonising existing ones.</p>

	2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air	<p>§1 – Purpose and scope</p> <p>§13 – Exclusion of waiver</p>	<p>The Regulation applies to flights from and within the EU, as well as to flights from a third country to the EU, if operated by an EU carrier.</p> <p>Any agreements/ contracts, that cover transport services falling within the scope of the Regulation, need to comply with its provisions, which cannot be waived.</p> <p>For SIGN-AIR, this means that any DSA and SC, signed by parties whose activities fall under the scope of the Regulation, may not derogate from the rules set in the Regulation.</p>	<p>The scope of the existing passenger rights' framework needs to be extended to multimodal travel (a legislative proposal on this has been published in November 2023, but it is not yet in force).</p>
		<p>§3 – Prevention of refusal of carriage</p> <p>§4 – Derogations, special conditions and information</p> <p>§6 – Transmission of information</p> <p>§7 – Assistance at airports</p>	<p>These articles define minimum rights for passengers with a disability or with reduced mobility when travelling by air, to protect them against discrimination and to ensure that they receive assistance. Tickets and reservations shall not be refused to disabled persons and PRM and no extra cost may be charged. Air carriers, their agents and tour operators shall take all measures to receive notifications of the need for assistance, and they shall pass these on to the involved carriers and airport managing bodies.</p> <p>To facilitate compliance, it may be possible to codify and publish the rules as part of the 'standard' data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of 'triggers' (e.g., a notification of the need for assistance) &amp; 'actions' (e.g., passing on this information to those stakeholders that need to provide this assistance, ensuring a seamless passenger experience).</p> <p>These articles are relevant for the SIGN-AIR goals <i>Mobility Packages</i> and <i>Disruption Management</i>.</p>	<p>The 2024 Interpretative Guidelines on Reg. (EC) 1107/2006 address a number of practical problems and uncertainties that remained for both air carriers and passengers.</p> <p>A recent Proposal for a Regulation on passenger rights in the context of multimodal journeys (11/2023) amongst others, introduces</p>

		<p>§10 Assistance – by air carriers</p>	<ul style="list-style-type: none"> <li>When creating a <i>Mobility Package</i>, SIGN-AIR should consider the situation whereby PRM/ persons with a disability wish to purchase it. By law, tickets and reservations may not be refused to PRM or people with disabilities, and assistance should be provided. This means that the possibility should be foreseen to allow for a notification of the need for assistance, and for this notification to be passed on to any relevant actors that need to provide the assistance throughout the journey.</li> <li>Added to this, SIGN-AIR should explore the issue of PRM assistance in the context of <i>Disruption Management</i> clauses, included in DSA and SC. If passengers that need assistance miss a connection, their assistance needs should be updated accordingly, which in turn requires smooth information exchange between all entities involved (ticket seller, TSPs, infrastructure managers).</li> </ul>	<p>seamless PRM assistance through a single notification mechanism, also for multimodal trips, in case of a single contract.</p> <p>A recent Proposal for a Regulation amending existing passenger rights as regards enforcement (11/2023) introduces a number of changes to Reg. (EC) 1107/2006, amongst others, adding that if a carrier requires a person with disability or reduced mobility to be accompanied, the accompanying person should travel free of charge.</p> <p>While these proposals are not yet in force, it is relevant to bear in mind the amendments or new</p>
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				rules they seek to introduce, as these reflect both EC concerns and improvements to passengers' experience. SIGN-AIR should therefore follow-up on their adoption and proactively consider integrating certain aspects in the DSA and SC templates, to present for acceptance (for now, on a voluntary basis) by signees.
<b>20</b>	<b>Rail Passenger Rights</b> Regulation (EU) 2021/782 of the European Parliament and of the Council of 29 April 2021 on rail passengers' rights and obligations (recast)	§3 – Definitions	Definitions included in the Regulation may feed into the SIGN-AIR glossary.	SIGN-AIR might identify missing terms or suggest harmonising existing ones.
		§2 – Scope §7 – Exclusion of waiver and	In principle, the Regulation applies to all rail passenger services in the EU. Member States can decide to exempt domestic (regional, urban, suburban) services and international services that start or finish	The scope of the existing passenger rights' framework needs to be extended to multimodal travel

	stipulation of limits	<p>outside the EU. Nevertheless, certain provisions are mandatory for all types of railway services.</p> <p>Any agreements/ contracts, that cover transport services falling within the scope of the Regulation, need to comply with its provisions, which cannot be waived.</p> <p>For SIGN-AIR, this means that any DSA and SC, signed by parties whose activities fall under the scope of the Regulation, may not derogate from the rules set in the Regulation.</p>	(a legislative proposal on this has been published in November 2023, but it is not yet in force).
	<p>§5 – Non-discriminatory contract conditions and tariffs</p> <p>§9 – Travel information</p> <p>§6 – Bicycles</p> <p>§22 – Information to persons with disabilities and persons with disabilities</p> <p>§30 – Information to passengers</p>	<p>These articles set out rules regarding the provision of information and tickets to end-users (B2C), complemented by an obligation (B2B) for infrastructure managers, railway undertakings, ticket vendors and tour operators to exchange data on FRAND (fair, reasonable, and non-discriminatory) terms, using appropriate technical means such as APIs.</p> <p>For SIGN-AIR, this entails that <i>Mobility Packages</i> must be offered under non-discriminatory contract tariffs and conditions and that passengers have the right to adequate travel information, both when planning and during the journey. This includes information about taking bikes on trains (availability, conditions, reservations), information on (non-discriminatory) conditions of access for PRM and disabled persons, and information on passenger rights. Standardisation &amp; harmonisation efforts in the context of SIGN-AIR (<i>TransiTool</i>) should consider the data fields in Annex II to the Regulation, which lists the minimum information to be provided by railway undertakings and ticket vendors.</p> <p>Data sharing is at the core of SIGN-AIR, and a crucial enabler for all of SIGN-AIR's main goals (<i>Mobility Packages, Synchronisation of Timetables, Disruption Management</i>). SIGN-AIR might contribute to overcoming technical hurdles (e.g., by supporting standardisation and</p>	<p>Exemptions to the application of the data sharing obligation are possible until 7. June 2030, but only in case it is <i>not technically feasible</i> to exchange real-time data. The SIGN-AIR platform can help surpass any such technical difficulties.</p> <p>In addition, to address commercial rather than technical barriers, the notion of FRAND contractual terms in the context of multimodal</p>

	<p>about their rights</p> <p>Annex II</p> <p>§10 – Access to traffic and travel information</p>	<p>harmonisation of data to enable their exchange) and potentially even commercial ones – by contributing to a definition or inventory of what could constitute FRAND commercial terms, in various scenarios.</p>	<p>journeys needs to be further explored and made more concrete.</p> <p>Information sharing obligations should be considered together with other relevant legislation on this topic, notably the MMTIS Delegated Regulation, and standards (for this, please refer to the SIGN-AIR STAND).</p>
	<p>§18 – Reimbursement and re-routing</p> <p>§19 – Compensation</p> <p>§20 – Assistance</p> <p>§28 – Complaints</p> <p>§30 – Information to passengers</p>	<p>These articles define minimum rights for passengers in case of cancellations or delays: the right to compensation, to reimbursement or re-routing, to care, to be informed about their rights, and to submit a complaint. Through-tickets (i.e., single tickets) need to be offered where possible – and in some cases this is mandatory.</p> <p>To facilitate compliance, it may be possible to codify and publish the rules as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a cancellation) &amp; ‘actions’ (e.g., information about the disruption and about alternative connections).</p> <p>These articles are relevant for the SIGN-AIR goals <i>Disruption Management</i> and <i>Mobility Packages</i>.</p>	<p><i>Within rail</i>, sectoral agreements (HOTNAT, AJC) complement currently existing Regulation, allowing international passengers that missed their rail connection (also in case of separately bought tickets with different operators)</p>

		<p>about their rights</p> <p>§33 – Complaint handling by national enforcement bodies and other bodies</p> <p>§12 – Through-tickets</p>	<ul style="list-style-type: none"> <li>• <i>Disruption Management</i> clauses, included in SIGN-AIR DSA and SC, should take due care to align with the provisions in this Regulation.</li> <li>• When two parties decide to create a <i>Mobility Package</i>, the provisions included in the Regulation apply to those parts of the journey that are done by rail (all types of tickets: single, combined, seasonal).</li> <li>• For <i>multimodal journeys</i>, signees to SIGN-AIR DSA and SC may decide – awaiting the entry into force of new EU legislation on this matter, on a voluntary basis – to offer similar passenger protection, with re-routing/ reimbursement and assistance (practical information, advice and support) as passengers' main priorities.</li> </ul>	<p>to hop on the next train.</p> <p>A new legislative proposal on Single Digital Booking and Ticketing (focus on rail) is expected to be published by end of 2025, to be accompanied by strengthened rail passenger rights, expanding the concept of (mandatory) 'through-ticketing' to all multi-operator rail journeys.</p> <p>Finally, the scope of the existing passenger rights' framework needs to be extended to multimodal travel (a legislative proposal on this has been published in</p>
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				<p>November 2023, but it is not yet in force).</p> <p>SIGN-AIR should follow-up on the above initiatives and proactively consider integrating certain aspects in the DSA and SC templates, to present for acceptance (for now, on a voluntary basis) by signees.</p>
		<p>§21 – Right to transport</p> <p>§23 – Assistance at railway stations and on board</p> <p>§24 – Conditions under which assistance is provided</p>	<p>These articles define minimum rights for passengers with a disability or with reduced mobility when travelling by rail, to protect them against discrimination and to ensure that they receive assistance. Tickets and reservations shall not be refused to disabled persons and PRM and no extra cost may be charged. Accompanying persons, if required, travel for free. A single notification of the need for assistance shall be sufficient, requiring all actors involved to exchange information and collaborate in order to provide a seamless experience, possibly through ‘Single Points of Contact’ set up at MS level.</p> <p>To facilitate compliance, it may be possible to codify and publish the rules as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a notification of the need for assistance) &amp; ‘actions’ (e.g., passing on this information to those stakeholders that need to provide this assistance, ensuring a seamless passenger experience).</p>	<p>A recent Proposal for a Regulation on passenger rights in the context of multimodal journeys (11/2023) amongst others, introduces seamless PRM assistance through a single notification mechanism, also for multimodal trips, in case of a single contract.</p>



			<p>These articles are relevant for the SIGN-AIR goals <i>Mobility Packages</i> and <i>Disruption Management</i>.</p> <ul style="list-style-type: none"> <li>When creating a <i>Mobility Package</i>, SIGN-AIR should consider the situation whereby PRM/ persons with a disability wish to purchase it. By law, tickets and reservations may not be refused to PRM or people with disabilities, and assistance should be provided. This means that the possibility should be foreseen to allow for a notification of the need for assistance, and for this notification to be passed on to any relevant actors that need to provide the assistance throughout the journey.</li> <li>Added to this, SIGN-AIR should explore the issue of PRM assistance in the context of <i>Disruption Management</i> clauses, included in DSA and SC. If passengers that need assistance miss a connection, their assistance needs should be updated accordingly, which in turn requires smooth information exchange between all entities involved (ticket seller, TSPs, infrastructure managers).</li> </ul>	
21	<b>Bus &amp; Coach Passenger Rights</b> Regulation (EU) No 181/2011 of the European Parliament and of the Council of 16 February 2011 concerning the rights of passengers in bus and coach transport and amending Regulation (EC) No 2006/2004	Not identified yet	<p>The Regulation mainly applies to regular, long-distance bus &amp; coach services. It sets out rules related to: non-discriminatory contract conditions; liability in case of accidents; non-discrimination and assistance for disabled persons and PRM; passenger rights in case of cancellation or delay; minimum information to be provided to passengers; complaint handling; enforcement.</p> <p>In case SIGN-AIR would consider use cases that involve bus &amp; coach transport services, the same elements would be relevant as identified for the Air &amp; Rail Passenger Rights.</p>	N/A

22	<b>Maritime &amp; Inland Waterways Passenger Rights</b>  Regulation (EU) No 1177/2010 of the European Parliament and of the Council of 24 November 2010 concerning the rights of passengers when travelling by sea and inland waterway and amending Regulation (EC) No 2006/2004	Not identified	yet	<p>The Regulation mainly applies to passenger services departing from an EU port, or departing from a port in a third country to an EU port if operated by an EU carrier, and cruise services (to some extent) with a port of embarkation in the EU. It sets out rules related to non-discriminatory contract conditions; non-discrimination and assistance for disabled persons and PRM; passenger rights in case of cancellation or delay; minimum information to be provided to passengers; complaint handling; enforcement.</p> <p>In case SIGN-AIR would consider use cases that involve waterborne transport services, the same elements would be relevant as identified for the Air &amp; Rail Passenger Rights.</p>	N/A
23	<b>Multimodal Passenger Rights</b>  COM(2023) 752 final – Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on passenger rights in the context of multimodal journeys	Not identified	yet	<p>The Proposal – not yet a Regulation – intends to extend existing passenger rights to multimodal journeys. It covers the following topics: non-discriminatory contract conditions; minimum information to be provided to passengers; passenger rights in case of cancellation or delay; non-discrimination and assistance for disabled persons and PRM; service quality standards; complaint handling; enforcement; penalties.</p> <p>Awaiting the entry into force of this proposal, it is as of yet not mandatory to comply with the provisions included therein. However, the proposal may inspire SIGN-AIR to think ahead, and propose/ codify, as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, a number of ‘triggers’ (a missed connection in different scenarios) and ‘actions’ (information about the real-time status and impact on the rest of the journey, offering re-routing alternatives, informing about passenger rights and where to submit complaints).</p>	N/A

			<p>The content of the Regulation is particularly relevant in the context of SIGN-AIR's goal to create <i>Mobility Packages</i>, differentiating between 'single' and 'combined' tickets, with different associated rights, notably in terms of <i>Disruption Management</i>. Another use case to consider is the right of PRM and persons with a disability to request and receive assistance, through a <i>single notification mechanism</i> which requires all actors involved to exchange information and collaborate in order to provide a seamless experience.</p>	
24	<p><b>Package Travel Directive</b></p> <p>Directive (EU) 2015/2302 of the European Parliament and of the Council of 25 November 2015 on package travel and linked travel arrangements, amending Regulation (EC) No 2006/2004 and Directive 2011/83/EU of the European Parliament and of the Council and repealing Council Directive 90/314/EEC</p>	Tbd	<p>The Package Travel Directive (PTD) introduced rules in relation to contracts for travel packages and linked travel arrangements. Both are combinations of at least two types of travel services (transport, accommodation, car rental or other services, for example guided tours), but 'packages' are generally purchased from a single point of sale, whereas 'linked travel arrangements' occur, for instance, when the traveller purchases travel services at one point of sale, but through separate booking processes, or, after having booked one travel service on one website, is invited to book another service on a different website, within 24 hours. It introduces strong passenger protection esp. for packages: clear information; money-back and repatriation in case of bankruptcy; liability; strong cancellation rights; accommodation if the return journey cannot be carried out; assistance to travellers.</p> <p>In case the SIGN-AIR platform would facilitate contracts that involve different parties offering a combination of at least two types of travel services (transport and another one) – which is currently not foreseen, but could perhaps be envisioned in the future (?) –, then these parties would need to take into account the rules as defined by the PTD and transposed in national law. A multimodal transport service (e.g., an air-</p>	<p>A proposal to amend the Directive was published in Nov. 2023, aiming to further strengthen passenger protection (e.g., rules on vouchers, strengthened insolvency protection, limitation of downpayments; and clarify certain aspects (e.g., the term 'Linked Travel Arrangement', roles of intermediaries).</p> <p>Efforts are ongoing to align passenger rights under the PTD and</p>

			<p>rail journey, as foreseen in SIGN-AIR goal: <i>Mobility Packages</i>), may itself also constitute part of a package in the meaning of the PTD, in case it is offered jointly with another service, e.g. accommodation.</p>	<p>the Air Passenger Rights Regulation, some aspects of which may be addressed in the revision of the Air Services Regulation (1008/2008).</p> <p>For packages that include transport services, both the PTD and passenger rights regulations apply (to be clarified in this case which party has to pay – as compensation received under both need to be deducted from each other to avoid overcompensation). For disruptions occurring during multimodal journeys that form part of a ‘package’, awaiting the entry into force of regulatory</p>
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				protection, the package organiser concerned may be liable.
25	<b>MDMS and SDBTR</b>  Multimodal Digital Mobility Services & Single Digital Booking and Ticketing Regulation (upcoming)		<p>The MDMS initiative aims to address market challenges currently hampering the development of Multimodal Digital Mobility Services (MDMS). In parallel, the Single Digital Booking and Ticketing Regulation (SDBTR) will focus on rail, making it easier for passengers to buy a ticket in a one-stop-shop, accompanied by passenger protection throughout the trip.</p> <p>Considering the identified problem drivers, SIGN-AIR might contribute to overcoming some of the technical hurdles (e.g., by supporting standardisation and harmonisation of data to enable their exchange) and potentially even commercial ones, – by contributing to a definition or inventory of what could constitute FRAND commercial terms, in various scenarios.</p>	<p>The MDMS initiative was launched in 2021, shelved, and now taken up again by the New Commission in the form of two separate, but interlinked, work streams. SIGN-AIR will closely follow-up on these developments.</p>

### 3.1.4. Aviation (safety) law

N°	Regulation	Article	Application and impact on SIGN-AIR	Need for new or amended rules
26	Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a <b>Code of Conduct</b>	Article 1	The impact on the SIGN-AIR solution can be observed in the fact that the project envisioned signing the SC and DSA between air and rail	N/A

	<b>for computerised reservation systems and repealing Council Regulation (EEC) No 2299/89</b>		transport modes, and this Regulation shall apply to both air and rail transport products.	
		Article 3	The SC and DSA in the SIGN-AIR solution should be aligned with Article 3 that defines relationships with transport providers.	
		Article 7	The SC and DSA in the SIGN-AIR solution should be aligned with Article 7 (Marketing Information Data Tapes ('MIDT')).  “Any marketing, booking and sales data may be made available by system vendors provided that such data are offered with equal timeliness and on a non-discriminatory basis to all participating carriers, including parent carriers.” This part should apply to the negotiation part, to provide non-discriminatory appearance of all possible signees on the SIGN-AIR platform.	
<b>27</b>	Regulation (EC) No 1008/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 September 2008 on <b>common rules for the operation of air services in the Community</b>	Article 16	Article 16 (Consideration of other modes of transport; encourage integrated transport and infrastructure development; ensure connectivity for remote regions). Encourages coordination and schedule synchronisation between air and rail networks, in order to reduce air services on short-haul routes where high-speed rail is an alternative. This facilitates agreements between TSP and fulfilment of the SIGN-AIR solution goal - Timetables synchronisation.	N/A
		Article 19	Article 19 (Traffic distribution between airports and exercise of traffic rights). This article supports the development of multimodal hubs where air passengers can easily switch to rail or road transport. Encourages the use of rail as a feeder service for airports, reducing	

			short-haul flights. This facilitates agreements between TSP and fulfilment of the SIGN-AIR solution goal - Timetables Synchronisation.	
		Article 20	Article 20 (Allows restrictions on air traffic if alternative modes of transport provide an appropriate level of service); Article 20 supports the strategic shift towards more sustainable and efficient multimodal transport networks by encouraging the coordination and synchronization of air and rail schedules. By facilitating agreements between transport service providers (TSPs), Article 20 directly contributes to the SIGN-AIR solution goal—Timetables Synchronization.	
		Article 22	Article 22 (Pricing freedom- enables dynamic pricing across transport modes); Article 22 allows airlines and railway (or bus) operators engaged in multimodal agreements to implement integrated pricing models, fostering greater flexibility in passenger travel. By facilitating cooperation between TSPs, this article might have an impact on achieving the SIGN-AIR solution goal—Single-Ticketing. A unified ticketing system streamlines passenger journeys, reducing complexity and enhancing the efficiency of air-rail connectivity.	
		Article 3	The impact on the SIGN-AIR solution can be observed in the fact that the project envisioned signing the SC and DSA between different transport modes, and this Regulation shall apply to multimodal passengers who bought the single ticket, seasonal ticket or combined ticket.	
		Article 5	Defines passenger rights in the case of flight cancellations and the SC and DSA in the SIGN-AIR solution should be aligned with Article 5.	

		Article 6	Defines passenger rights in the case of flight delays and the SC and DSA in the SIGN-AIR solution should be aligned with Article 6.	
		Article 7	Defines passenger rights to compensation and the SC and DSA in the SIGN-AIR solution should be aligned with Article 7.	
28	COUNCIL REGULATION (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports	Article 3	Article 3 - Conditions for Airport Coordination might have implications for synchronization between air and rail services. Efficient slot allocation ensures better synchronization between air and rail services, allowing passengers to seamlessly transfer between different transport modes. The impact of this article can be reflected in better achievement of the SIGN-AIR solution goal—Timetables Synchronization.	This Regulation has an indirect impact on SIGN-AIR platform implementation. It requires new amended rules that will cover multimodal service.
		Article 6	Article 6 - Airport Capacity Determination, requires authorities to assess airport capacity, considering different types of traffic. This can encourage improved infrastructure planning, ensuring that airports have integrated other transport modes (rail, bus, metro connections). Article 6 contributes to the SIGN-AIR solution goal—Timetables Synchronization.	
		Article 9	Article 9: Allows Member States to reserve slots at fully coordinated airports for domestic scheduled services to ensure regional connectivity. This provision supports coordination between air and rail/bus services to ensure regional connectivity and it could impact air-rail agreements, especially if a high-speed rail alternative is available. Article 6 contributes to the SIGN-AIR solution goal—Timetables Synchronization.	
29	REGULATION (EC) No 550/2004 of the European Parliament and of the Council	Article 6	Article 6 ensures standardization of procedures across different transport modes and could facilitate the development of single	N/A



	of 10 March 2004 on the <b>provision of air navigation services in the single European sky (the service provision Regulation)</b>		European transport hubs. It aligns with the SIGN-AIR solution goal—Timetables Synchronization, ensuring that timetables are effectively coordinated to enhance efficiency and sustainability.	
		Article 10	Article 10 allows air navigation service providers to collaborate by formalizing agreements and exchanging operational data and enables better coordination between airports, rail networks, and public transport operators by facilitating data sharing on schedules, delays, and service disruptions. It aligns with the SIGN-AIR solution goals—Timetables Synchronization and Disruption management.	
		Article 13	Article 13 requires real-time operational data exchange between air navigation service providers, airspace users, and airports. This improves passenger information systems and enables different transport providers (air, rail, road) to synchronize services more effectively. It aligns with the SIGN-AIR solution goal—Timetables Synchronization and Disruption management.	
30	REGULATION (EU) 2020/469 amending Regulation (EU) No 923/2012, Regulation (EU) No 139/2014 and Regulation (EU) 2017/373 as regards <b>requirements for air traffic management/air navigation services, design of airspace structures and data</b>	SECTION 2	This regulation does not explicitly address the SIGN-AIR platform, its provisions on airspace planning, aerodrome management, digitalization, and data sharing can impact the integration of air transport with rail and other modes.	The extension to multimodality might be needed.
		SECTION 3 (Chapter 1 and Chapter 2)	Section 3 focuses on standardized data presentation and digital data sets. These provisions are important for multimodal transport integration, ensuring that air, rail and road operators have accurate, up-to-date information for seamless coordination.	

	<b>quality, runway safety</b> and repealing Regulation (EC) No 73/2010		<p>Chapter 1 – main impact will be on ensuring real-time updates for multimodal transport systems, allowing railway and road transport operators to adjust schedules based on flight information.</p> <p>Chapter 2 requires that aeronautical information must be provided as structured digital data sets and each data set must include metadata that enables digital integration between aviation and other transport networks and it is aligned with the requirements of the SIGN-AIR platform.</p>	
		Annex 3 (ATM/ANS .OR.A.080 and ATM/ANS. OR.A.085)	<p>ATM/ANS.OR.A.080 - enhances predictability for multimodal journey planners, allowing passengers to receive up-to-date flight and ground transport schedules.</p> <p>ATM/ANS.OR.A.085 - Strengthens real-time information sharing and sets high accuracy and integrity standards for aeronautical data. This will enhance digital synchronization between aviation, rail, and road TSPs, reducing information mismatches.</p>	
		Appendix 1	Aeronautical Data Catalogue - this should be taken into account when developing the SING-AIR platform. It will enable seamless data exchange between airlines and other TSPs.	
		Article 2	Article 2 lists the definition used in the Regulation, and all terminology shall apply in the SIGN-AIR solution, or amended if needed.	
		Article 4	Article 4 refers to accessibility, exchange and reuse of static, historic and observed travel and traffic data including traffic and travel data specified by the DSA and SC to be shared between the two signees.	

		Article 5	Article 5 refers to accessibility, exchange and reuse of dynamic travel and traffic data including traffic and travel data specified by the DSA and SC to be shared between the two signees.	
		Article 6	Article 6 refers to updates of static and dynamic data including data specified by the DSA and SC to be shared between the two signees.	
		Article 7	Article 7 refers to linking travel information services, and it shall be considered in the SC and DSA.	
		Article 8	Article 8 refers to requirements for service provisions reuse of travel and traffic data and linking of travel information services and shall be considered in the SC and DSA.	
31	REGULATION (EU) 2023/203 of 27 October 2022 laying down rules for the application of Regulation (EU) 2018/1139 of the European Parliament and of the Council, as regards <b>requirements for the management of information security risks with a potential impact on aviation safety for organisations</b>	Article 1	Article 1 - Subject Matter- It sets out requirements for managing information security risks in aviation safety, including risks affecting information and communication technology systems and data used in civil aviation. Since SIGN-AIR agreements include digital integration (e.g., real-time data exchange between air, rail, and road transport), aviation's cybersecurity standards could set a precedent for securing these interconnected systems.	N/A
		Article 2	Article 2 - Scope - applies to aviation stakeholders, including air traffic management (ATM), air navigation service providers (ANSPs), and U-space service providers. SIGN-AIR agreements rely on real-time air traffic data to coordinate with ground transport modes.	
		Article 4	Article 4 - Requirements for Organisations and Competent Authorities - o Organizations must implement an Information Security Management System (ISMS) to detect and respond to cybersecurity threats. If SIGN-AIR agreements include one	

			stakeholder from aviation, TSP from other transport sectors might need to align their security policies with aviation's standards.	
		Article 5	Article 5 - Requirements Arising from Other Union Legislation - o Recognizes compliance with cybersecurity laws like Directive (EU) 2016/1148 (NIS Directive) and Regulation (EU) 2021/696 (Union Space Programme) as equivalent to aviation cybersecurity standards.	
		Article 6	Article 6 - Competent Authority Responsibilities - designates aviation cybersecurity oversight responsibilities and allows Member States to coordinate with other security agencies.	

32	COMMISSION DELEGATED REGULATION (EU) 2022/1645 of 14 July 2022 laying down rules for the application of Regulation (EU) 2018/1139 of the European Parliament and of the Council, as regards <b>requirements for the management of information security risks with a potential impact on aviation safety for organisations</b> covered by Commission Regulations (EU) No 748/2012 and (EU) No 139/2014 and amending Commission Regulations (EU) No 748/2012 and (EU) No 139/2014	Article 3	The SIGN-AIR platform must adhere to the definitions outlined in this article, including information security, information security risk, information security event, incident response, threat, vulnerability and risk assessment.	N/A
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		Article 6 (Annex IS.D.OR.20 0; Annex IS.D.OR.20 5 and IS.D.OR.21 0; Annex IS.D.OR.23 0; Annex IS.D.OR.23 5)	<p>If an air-rail agreement is signed and supported by the SIGN-AIR platform and it includes sharing real-time passenger data with airlines/airports, it may need to comply with aviation security protocols.</p> <p>IS.D.OR.205 requires that parties involved must identify interfaces where they exchange data with other entities.</p> <p>IS.D.OR.210 requires that parties involved must develop security protocols for external connections, thus it includes those with multimodal platforms.</p> <p>IS.D.OR.230 requires that if any information security incident or vulnerability in a multimodal system affects aviation operations, it must be reported to aviation authorities.</p> <p>IS.D.OR.235 requires any operator, that is not from the aviation sector, that contracts IT services that interact with airport operations, they must ensure compliance with aviation cybersecurity regulations.</p>	
33	REGULATION (EU) 2024/2803 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2024 on <b>the implementation of the Single European Sky</b>	<p>Article 2</p> <p>Article 47</p>	<p>The specific impact of the Regulation has not been identified, but it is important to be aware of the Regulation since it refers to SESAR, SESAR solution and project, and in that sense, the SIGN-AIR definitions and SIGN-AIR solution shall be aligned with this Regulation.</p> <p>Article 47 states that the Commission may establish common projects based on the need for synchronisation among stakeholders, aiming to implement essential operational changes given in the European ATM Master Plan. The SIGN-AIR solution shall contribute to the implementation of the European ATM Master Plan, and it will</p>	N/A

			contribute in the part related to the multimodality implementation, as well as by improving passenger experience, through the SIGN-AIR platform	
		Article 93 (point c)	Article 93 refers to the Single European Sky (SES) implementation, and point c) states that EASA shall provide technical assistance to the Commission, in the SES implementation contributing to the implementation of the European ATM Master Plan, including the development and deployment of the SESAR project.	

## 3.2 Objectives to be achieved

For two TSPs to collaborate, three key incentives have been identified, which are the attraction of more customers (passengers), the enhancement of customer satisfaction and fostering positive network effects. These are the three main goals for the TSP and consequently for SIGN-AIR and its use cases to achieve. The list of overachieving goals has been further refined and enriched, and they are the following 7, which served as a foundation for SIGN-AIR's contract templates and use cases, guiding collaboration across all stages. In this section we number the goals in accordance with the Description of The Action (DoA) of the project, section 1.2.1.3, to be aligned with the said official document.

G1. Single Ticketing refers to a system implemented at different geographical levels, such as city or metropolitan areas (for instance, T-Mobilitat in Barcelona, ATHENA in Athens, MOBIB in Brussels, and VIVA VIAGEM in Lisbon). It can also be established at the country level, like the OV-Chipkaart in the Netherlands or the Ovpay ticketing system. Moreover, certain implementations extend this idea to an international level, for example, SNCF-Air France, Austrian Airlines-ÖBB, and Lufthansa-DB. The objective of SIGN-AIR is to expand this concept to include various transportation modes, encouraging a greater shift towards using public transport options. In order to answer to the requirement of single ticketing, clear understanding of how existing operators handle the ticketing part in terms of technologies, standards are required. Steps towards the direction of connecting a passenger ticket to other services is being achieved with the use of NDC regarding air travel. With a correct implementation mechanism, other modes of travel could possibly be merged inside the NDC exchange standard therefore allowing the single ticketing goal.

G2. Coordinated timetables have been partially achieved through pairing different transportation modes, but full and comprehensive coordination is still lacking. The SIGN-AIR initiative seeks to address this by extending coordinated timetables to include multiple transportation modes, thereby reducing passengers' waiting times during mode transitions. This improvement will also have an indirect impact on the capacity and throughput of the overall transportation system. To achieve the Coordination and synchronisation of different modes of travel, three vital sources of information must be identified: (1) the provision of all the required and validated timetabled data, (2) the real time updates of each operating vehicle – in order to correct if needed an unplanned delay and finally (3) the collection and storage of historic data, which will then provide insight regarding the final “fine tuning” of the original timetables, focusing in the best passenger information possible.

G3. To enhance the operation of hubs like airports and train stations, managers currently make decisions about the number of check-in and luggage drop-off counters based on predetermined timetables. However, if real-time information about the exact arrival of passengers from public transportation (PT) is exchanged, these decisions could be more precise. Conversely, PT operators rely on frequency schedules and lack knowledge about when passengers are ready to leave the airport after claiming their luggage. SIGN-AIR aims to bridge this gap by facilitating the exchange of data, allowing both parties to access timely and relevant information for better resource optimization. As seen previously in the brief analysis of data standards in aviation, the capability to exchange data required to tackle the issue of optimization of resources at an airport. The main problem that needs to be addressed is the specification of a flow of data that will make this information available to the target airport so that it can then correct allocate the needed resources.



G4. To enhance passenger on-demand services at airports, the current taxi system relies on on-site and situational factors. For example, if there is a queue, the airport staff may call for more taxis to meet the demand. The SIGN-AIR initiative aims to improve these services by providing transport-on-demand providers with more accurate information about the number of arriving passengers. It will also enable the combination of rides for passengers heading to the same or similar destinations. Moreover, a similar approach could be applied to transport passengers to the airport. This could potentially lead to a reduction in the number of cars congesting the access roads to the airport. In the conducted research so far, no data standard was identified regarding the automatic exchange of information required in order to coordinate the taxi system of the arriving airport in a passenger's journey. This implies the possibility that there is room for improvement in the task at hand. The SIGN-AIR platform can be designed in a manner so that the correct handle of such information would be possible. A platform where passengers via the single ticket they have purchased, notify, and allocate the correct cab driver in order to collect them.

G5. Another objective of SIGN-AIR's contracts is to enhance accessibility for passengers with reduced mobility (PRMs). While airlines currently have established protocols to assist PRMs, transitioning between different modes of transport remains challenging, and sometimes even impossible for them. SIGN-AIR seeks to address this issue by promoting the exchange of information, enabling PRMs to have a more seamless and accommodating transportation experience. Passengers with mobility limitation must be considered very seriously. A vital role to achieve an enhancement in the accessibility for such passengers lies in the recent advancements in indoor mapping technology. A fully mapped airport layout containing all the source data needed in order to capture the passenger walking travel times, routes to follow, audio – visual information that is also updated dynamically via changes in the initial location of arriving and departing gates will provide a good starting point, which can then be extended further by other data standards such as NeTEx which are able to handle the different passenger limitations.

G6. Disruption management and passenger rights are well-addressed by full-service airlines and, in some cases, intercity railways with their respective recommendations in the event of disruptions. However, the challenge arises in multimodal trips, where the lack of agreements between various parties and cross-data integration makes it more difficult to provide seamless solutions. To tackle this issue, SIGN-AIR aims to thoroughly analyse and improve passengers' rights within multimodal chains, specifically focusing on the case of disruptions. By doing so, the initiative aims to ensure that passengers' rights are upheld and enhanced throughout their entire journey. Via the Smart contracts framework proposed in the SIGN AIR project, disruption management will be possible since each party has to agree to that in order to finalize the contract.

G7. The process of digitalization, harmonization, and standardization of data presents challenges as numerous Transportation Service Providers (TSPs) lack data in suitable formats or standards that can be easily shared. In response to this issue, SIGN-AIR seeks to offer guidelines and establish connections with crucial tools. These measures enable TSPs to facilitate data exchange beyond the SIGN-AIR platform while considering existing standards and European policies. The SESAR solution should be able to handle via TransiTool the generation of data of operators who do not have the technical knowledge to implement the data standards internally, so that they can finally be standardized and harmonized.

### 3.3 Expected benefits

The benefits of implementing the SIGN-AIR Solution are the following goals (G1-7). Of course, all of the achievement of each of these goals must be pursued in compliance with applicable European regulations in the fields of 1) Data law, 2) Contract law, 3) Passenger rights law and 4) Aviation (safety) law:

#### G1. Single Ticketing:

- **Simplified Travel:** Implementing a single ticketing system allows passengers to use various transportation modes seamlessly, eliminating the need for separate tickets and payments for each leg of the journey.
- **Increased Public Transport Use:** By encouraging a shift towards public transport options, single ticketing can lead to reduced reliance on private vehicles and, consequently, reduced traffic congestion and emissions.
- **Interoperability:** The integration of different transportation modes under a single ticketing system requires standardization and interoperability, which can lead to improved coordination and efficiency across the entire transportation network.

#### G2. Coordinated Timetables:

- **Reduced Waiting Times:** Coordinating timetables across different transportation modes can minimize waiting times during mode transitions, providing a more convenient and efficient travel experience for passengers.
- **Increased Capacity and Throughput:** Better coordination can optimize the use of infrastructure and resources, leading to increased capacity and throughput of the overall transportation system.
- **Improved Passenger Information:** Timely and accurate timetabled data, real-time updates, and historical data help provide passengers with reliable and up-to-date information, leading to better travel planning.

#### G3. Optimization of Hubs (Airports and Train Stations):

- **Precise Resource Allocation:** Real-time data exchange between public transportation operators and airport/train station managers enables better decision-making for resource allocation, leading to more efficient operations and enhanced passenger services.
- **Streamlined Passenger Flow:** By coordinating public transportation schedules with the arrival and departure times at hubs, passenger flow can be better managed, reducing congestion and delays.

#### G4. Enhanced Passenger On-Demand Services:

**Improved Taxi Services:** Providing transport-on-demand providers with accurate information about the number of arriving passengers allows for better taxi dispatching, reducing wait times and improving the overall passenger experience.

**Reduced Congestion:** Combining rides for passengers heading to similar destinations can lead to fewer individual taxi trips, reducing congestion on access roads to the airport.

**Environmental Benefits:** Reduced congestion and more efficient taxi services can contribute to lower emissions and a greener transportation system.

#### G5. Accessibility for Passengers with Reduced Mobility (PRMs):

- **Seamless Travel Experience:** The exchange of information between different transportation modes and the use of indoor mapping technology can make travel more accessible and accommodating for passengers with reduced mobility.
- **Inclusive Transportation:** By addressing the challenges faced by PRMs during mode transitions, SIGN-AIR promotes inclusive transportation, ensuring that all passengers can use the transportation network with ease.

#### G6. Disruption Management and Passenger Rights:

- **Consistent Passenger Rights:** Thoroughly analysing and improving passengers' rights within multimodal chains ensures that passengers are informed about their rights and receive appropriate assistance in the event of disruptions.
- **Seamless Solutions:** By addressing the lack of agreements and cross-data integration between various transportation parties, SIGN-AIR aims to provide seamless solutions for passengers facing disruptions during their journeys.

#### G7. Digitalization, Harmonization, and Standardization of Data:

- **Improved Data Sharing:** By offering guidelines and establishing connections with crucial tools, SIGN-AIR facilitates data exchange between Transportation Service Providers (TSPs) beyond the platform, leading to improved collaboration and efficiency.
- **Adherence to Standards:** Encouraging TSPs to adhere to existing standards and European policies ensures data compatibility and consistency, promoting a more unified and interconnected transportation network.

Overall, the implementation of these initiatives as part of the SIGN-AIR project can lead to a more efficient, seamless, and user-friendly multimodal transportation system, benefiting both passengers and transportation service providers.

## 3.4 Identify new or amended regulatory material

### 3.4.1. Data Law

#### 1. Data Act

##### a) Description

The Data Act (Regulation (EU) 2023/2854) is a regulation designed to enhance the EU's data economy and foster a competitive data market by making data (in particular industrial data) more accessible and usable, encouraging data-driven innovation and increasing data availability.

Several provisions of the Data Act must be taken into account in the context of the SIGN-AIR project.

**Article 36** - "Smart contract" is defined in article 2(39) as *"a computer program used for the automated execution of an agreement or part thereof, using a sequence of electronic data records and ensuring their integrity and the accuracy of their chronological ordering"*.

An organisation that has a business of deploying smart contracts for others in the context of executing an agreement or part of it, to make data available, must ensure that the smart contracts comply with certain essential requirements of:

- (a) Robustness and access control to avoid functional errors and to withstand manipulation by third parties;
- (b) Safe termination and interruption, to ensure that a mechanism exists to terminate the continued execution of transactions and that the smart contract includes internal functions which can reset or instruct the contract to stop or interrupt the operation, in particular to avoid future accidental executions;
- (c) Data archiving and continuity, to ensure, in circumstances in which a smart contract must be terminated or deactivated, there is a possibility to archive the transactional data, smart contract logic and code in order to keep the record of operations performed on the data in the past (auditability).
- (d) Consistency with the terms of the data sharing agreement that the smart contract executes.

The EU Commission shall further specify the essential requirements through harmonised standards. Such standards have not been issued yet.

In the meantime, an organisation that deploys smart contracts for others in the context of data sharing must assess whether it is in conformity with the essential requirements through self-assessment and issue an EU declaration of conformity (article 36 (2)).

**Article 33** – Participants in data spaces that offer data or data services to other participants must comply with the following essential requirements listed in article 33 to facilitate the interoperability of data, of data sharing mechanisms and services:

- (a) the dataset content, use restrictions, licenses, data collection methodology, data quality and uncertainty must be sufficiently described, where applicable, in a machine-readable format, to allow the recipient to find, access and use the data;
- (b) the data structures, data formats, vocabularies, classification schemes, taxonomies and code lists, where available, must be described in a publicly available and consistent manner;
- (c) the technical means to access the data, such as application programming interfaces, and their terms of use and quality of service must be sufficiently described to enable automatic access and transmission of data between parties;
- (d) the means to enable the interoperability of tools for automating the execution of data sharing agreements, such as smart contracts must be provided.

**Article 13** – This article of the Data Act establishes a non-exhaustive list of terms that are always considered to be unfair (e.g. that would exclude or limit the liability of the party that unilaterally imposed the term for intentional acts or gross negligence) and of terms that are presumed to be unfair (e.g. that would inappropriately limit remedies in the case of non-performance of contractual obligations or liability in the case of a breach of those obligations, or extend the liability of the enterprise upon whom the term has been unilaterally imposed). If a term is considered to be unfair, it is no longer valid – where possible, it is simply severed from the contract. If it is presumed to be unfair, the entity that imposed the term can try to demonstrate that the term is not unfair.

**Article 10** - Users, data holders and data recipients can refer their disputes to the dispute settlement bodies designated by Member States in accordance with the Data Act, which can help them to conclude a contract on data sharing or settle disputes arising after the conclusion of the contract. These dispute settlement bodies will be competent for disputes relating to the fair, reasonable and non-discriminatory terms and conditions for, and transparent manner of, making data available in business-to-business relations. A decision to have recourse to a dispute settlement body is voluntary and should be agreed by both parties to the dispute. In addition, a decision of a dispute settlement body binds the parties only if they have explicitly consented to its binding nature prior to the start of the dispute settlement proceedings. A dispute settlement body may not be tasked with resolving a dispute if it has already been brought before another dispute settlement body or before a court or tribunal of a Member State.

#### **b) Impact**

The SIGN-AIR platform shall register the data sharing agreements and smart contracts on the blockchain and will thus provide immutable records and an audit trail: Blockchain technology ensures that once a contract is recorded, it cannot be altered or tampered with. This immutability guarantees the integrity of the contract. Blockchain provides a transparent and verifiable audit trail of all contract actions, including signatures and amendments. This transparency builds trust among all parties involved.

Furthermore, the method provides cryptographic security: E-contracts registered on a blockchain are secured using advanced cryptographic techniques, making them highly resistant to hacking and unauthorized access.

The immutable and transparent nature of blockchain records provides clear evidence in case of disputes, making it easier to resolve conflicts.

The data sharing agreements negotiated between TSPs on the SIGN-AIR platform will take into account the essential requirements for interoperability listed in article 33 of the Data Act. Datasets, data formats, taxonomies and APIs will be sufficiently described.

The SIGN-AIR Terms and Conditions and/or data sharing agreements between TSPs will allow the parties and users to have access to a certified dispute settlement body for disputes relating to fair, reasonable and non-discriminatory terms and conditions for, and transparent manner of, making data available in business-to-business relations.

## **2. Data Governance Act**

### **a) Description**

The Data Governance Act<sup>1</sup> (DGA) regulates – amongst other issues – the activity that is defined as a “data intermediation service” (DIS). An organization that is qualified as a data intermediation service provider (DISP) must comply with strict rules that have a very strong and restrictive impact on its organization and its activity. Therefore, it is important to examine the definition of a data intermediation service. Unfortunately, several crucial notions are not well defined nor explained in this Regulation and there is much legal uncertainty about this definition.

A ‘data intermediation service’ means a service which aims to establish commercial relationships for the purposes of data sharing between an undetermined number of data subjects and data holders on the one hand and data users on the other hand, through technical, legal or other means, including for the purpose of exercising the rights of data subjects in relation to personal data, excluding at least the following:

- (a) services that obtain data from data holders and aggregate, enrich or transform the data for the purpose of adding substantial value to it and license the use of the resulting data to data users, without establishing a commercial relationship between data holders and data users;
- (b) (...)
- (d) data sharing services offered by public sector bodies that do not aim to establish commercial relationships”. (definition of article 2 (11) DGA).

De DGA provides in fact an additional definition in article 10 a DGA, where it is stated:

“The provision of the following data intermediation services shall comply with Article 12 and shall be subject to a notification procedure:

- (a) intermediation services between data holders and potential data users, including making available the technical or other means to enable such services; those services may include bilateral or multilateral exchanges of data or the creation of platforms or databases enabling

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<sup>1</sup> Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act)

the exchange or joint use of data, as well as the establishment of other specific infrastructure for the interconnection of data holders with data users; (...)."

A data intermediation service provider (DISP) aims to establish commercial relationships between data subjects and data holders on one hand and data users on the other hand. It is an intermediary between two parties, one party that holds data and one party that wants to use data. The party that holds data can be a data subject (this is a natural person who wants to share his/her personal data with data users, e.g. in a data space such as healthcare or mobility) or a business that is a data holder.

The DISP aims to establish commercial relationships between these parties. The DGA does not explain what is meant by a "commercial" relationship, although it is a crucial notion of the definition, and this notion has not been used before in existing EU law. It is clear that the relationship between the data holder and data user must be regarded as some kind of trading relationship. In a limitative interpretation, it is possible to state that a data user must pay a price to the data holder. However, this is possibly too strict. It could be that a commercial relationship exists when both parties can obtain some kind of advantage from their data trading. If the DISP would act as an intermediary between data holders and data users that act gratis, the intermediary would be regarded as a data altruism organization (article 16 and following DGA). The Sign-Air platform aims to establish commercial relationships between TSPs that act as data holders and data users.

However, the definition of a DISP is more specific about the commercial relationship between data holders and data users: the definition requires that the DISP aims to establish commercial relationships between data holders and data users for the purposes of data sharing. Data sharing is defined as "the provision of data by a data subject or a data holder to a data user for the purposes of the joint or individual use of such data, based on voluntary agreements or EU or national law, directly or through an intermediary, for example under open or commercial licenses subject to a fee or free of charge." The expression "for the purpose of data sharing" is important. According to legal literature, this should always be included as an additional criterion for determining whether a commercial relationship exists. The trading activities between data holders and data users must have the purpose of data sharing clearly at their core.

The DGA is limited to data sharing in a very strict sense. It wants to stimulate the creation of data spaces and the sharing of data, and does not refer to any further use of the data. Recital 28 gives examples of data intermediation services: "data marketplaces in which undertakings could make data available to others, orchestrators of data sharing ecosystems that are open to all interested parties, for instance in the context of common European data spaces, as well as data pools established jointly by several legal or natural persons with the intention to license the use of such data pools established jointly by several legal or natural persons with the intention to license the use of such data pools to all interested parties in a manner that all participants that contribute to the data pools would receive a rewards for their contribution". These examples are focused on the activity of data sharing as such, and not on subsequent or additional activities that make use of the shared data, and that provide added value. In other words, activities for which the sharing of data is a prerequisite, but not necessarily the core activity.

The SIGN-AIR platform is an example of a platform designed to establish commercial relationships between TSPs as data holders and data users for the purposes of data sharing, but it is also a platform that aims at establishing commercial relationships between the TSPs for operational cooperation (the



provision of combined and single tickets, the synchronization of timetables, the management of disruption etc.), for which the data sharing is a prerequisite. Furthermore, the Sign-Air platform may use the data provided by the data holders for its own purposes (e.g. the creation and operation of the synchronization module).

Several articles of the DGA confirm that the DGA is focused on data sharing in a strict sense. For instance, the data intermediary is not allowed to use the data, for which it provides data intermediation services, for purposes other than to put them at the disposal of data users (article 12a). This means that if SIGN-AIR would be considered as a DISP, it would not be allowed to use the data in smart contracts, nor in the synchronization module etc. It would only be allowed to share the data with data users. Furthermore, if a DISP provides other services, it must provide data intermediation services through a separate legal person (article 12a). Recital 33 is very strict on this requirement: “This will also require structural separation between the data intermediation service and any other services provided, so as to avoid conflicts of interest. This means that the data intermediation service should be provided through a legal person that is separate from the other activities of that data intermediation services provider. However, the data intermediation services providers should be able to use the data provided by the data holder for the improvement of their data intermediation services”.

This unbundling requirement would mean for Sign-Air that the intermediation services focused on data sharing (with the provision of data sharing agreements) should be separated from the other activities (e.g. the enabling of operational cooperation with smart contracts, the synchronization module, the activities in relation to the Travel Companion etc.) and should be provided in a separate legal entity. This would considerably complicate all activities.

The reason for the restrictive attitude of the EU towards the data intermediation service, is that the EU wants to ensure that the DIS activity remains neutral, and that it would not abuse the data provided by data holders for its own interests. Again, this indicates that the DGA is focused on a limitative view of data sharing, and that an activity such as Sign-Air’s activity, whereby data sharing as such is not the core business, but the operational use of data is the core activity, and data sharing is rather a precondition for added value services on the basis thereof, would not fall under the scope of the DGA. Important legal literature states that an intermediary is only a DISP under the DGA if it aims to create commercial relationships (trading activities) between data holders and data users which have the purpose of data sharing at their core, and no other trading activities that are facilitated by data sharing. Sign-Air is not a data marketplace where TSPs can come to obtain data from other TSPs. It is a platform that provides operational added value on the basis of shared data. Nevertheless, this is still argumentation, which is not 100% certain and which is at present not clearly confirmed by EU guidance.

Furthermore, the DGA states that the DISP intends to create commercial relationships between an undetermined number of data holders on the one hand and data users on the other hand. Services that are used by multiple legal persons in a closed group, including collaborations established by contract, are not envisaged by the DGA (definition of article 2 (11 c) DGA). Unfortunately, it is not entirely clear what is meant by a closed group. However, we believe that the Sign-Air platform serves a closed group of TSPs that intend to collaborate and that make agreements for this purpose, and that it does not serve an unlimited group of data holders and data users that are merely searching for usable



data in a data marketplace or data pool. This paragraph reinforces our assessment that Sign-Air should not be regarded as a DISP.

For the sake of clarity, it is important to note that public sector bodies that offer data sharing services are considered DISPs if they aim to establish commercial relationships (article 2 (11 d)).

DISPs are obliged to perform notification of their activity to a national authority (article 11 DGA). Remarkably, only about 20 organizations are registered in Europe as DISP at present. Many of these organizations act as an intermediary for natural persons (data subjects) that want to provide their personal data to organizations (one of these is Themis X of France, acting in the mobility/travel/tourism data space EONA-X, but only in relation to personal data). It is clear that in a B2B context, very few organizations consider themselves as being a DISP. Given this poor outcome, and the uncertainty that can be found in legal literature, additional guidance from the EU Commission is highly welcomed.

#### **b) Impact**

According to our legal assessment, we believe that SIGN-AIR should not be regarded as a DISP, because it mainly aims to create commercial relationships between TSPs that are operational and that provide added value, based on a system of data sharing that is a prerequisite for the cooperation activities that are the core purpose of the system. Although the enabling of data sharing is a core function of Sign-Air, it is not the main purpose of the platform as such. It is not a data marketplace or data pool where TSPs searching for usable data would browse through databases provided by data holders. Furthermore, we believe that Sign-Air must be regarded as a closed system and not as an open marketplace for data.

Furthermore, there is a clear indication that there are almost no organizations in Europe that consider themselves as being a DISP under the current definition.

Still, the legal provisions are unclear, and our assessment cannot be regarded as 100% certain. Further guidance by the EU Commission would be highly welcomed.

If SIGN-AIR would be regarded as a DISP, it would have to perform a notification to a national authority with a model form (article 11 DGA), and it would have to unbundle its data intermediation activity from its other activities. That would mean in practice that the platforms for the DSA agreements (intended for data sharing) and for the smart contracts (intended for operational cooperation) should be separated and provided by different legal entities. Furthermore, all other development and service activities (such as the operation of the synchronization module, activities in relation to the Travel Companion etc.) should be separated from the data sharing activities. This seems useless and unnecessary and would have dramatic consequences for the smooth operation of SIGN-AIR.

Furthermore, the separate SIGN-AIR entity that would act as a DISP would have to fulfill specific requirements concerning storage, conversion, security of data, insolvency etc. as stipulated in article 12.

### **3. Artificial Intelligence Act**

#### **a) Description**

The Artificial Intelligence Act<sup>2</sup> (AI Act) sets out a clear set of risk-based rules for AI developers and deployers regarding specific uses of AI. While most AI systems pose limited to no risk and can contribute to solving many societal challenges, certain AI systems create risks that we must address to avoid undesirable outcomes. Therefore, the AI Act establishes a risk-based AI classification system. AI systems that can be used in different applications are analysed and classified according to the risk they pose to users. The different risk levels mean more or less AI compliance requirements.

#### **b) Impact**

In several of its components and modules, the SIGN-AIR platform might be using algorithms that could qualify as “AI systems” in the sense of article 3, 1) of the AI Act. For example, algorithms might be used for discovery of matching TSPs, analytics and optimization of operations, connectivity and disruption management.

As technical descriptions of these different algorithms are not yet available, it is too early to analyse the impact of the AI Act on these algorithms.

### **4. GDPR**

#### **a) Description**

The General Data Protection Regulation<sup>3</sup> (GDPR) represents the general legal framework (‘lex generalis’) on the processing of personal data and the free movement of such data in the EU. The Regulation repeals as of 25 May 2018 the Data Protection Directive 1995/46/EC which aimed to harmonize data protection legislations in the Member States since its adoption in 1995. The General Data Protection Regulation imposes several overall principles which need to be respected at all times when collecting and processing personal data. It also requires that personal data is only be processed if the data subject has given her or his consent or when such processing is necessary for one or more of the five other defined and limited specific legal grounds. The GDPR also contains provisions regarding the information that needs to be provided to the data subject, the rights of the data subject, sensitive data and the national data protection authorities.

#### **b) Impact**

The SIGN-AIR platform will register users (legal and technical representatives) of TSPs willing to negotiate data sharing agreements and smart contracts. Therefore, the platform will process “personal

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<sup>2</sup> Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act)

<sup>3</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

data” of these users in the sense of article 4(1) of the GDPR. The processing of such personal data will comply with the principles of lawfulness, fairness and transparency; purpose limitation; data minimisation; accuracy; storage limitation; security and accountability. Moreover, an appropriate basis of lawfulness will be identified, and rights of the data subjects will be fully respected. Data protection by design and by default will be implemented during all phases of the development and deployment of the SIGN-AIR platform.

Furthermore, the SIGN-AIR platform (or a related Traveller Companion app) might potentially process personal data of travellers. Such personal data related to travellers might also be the object of data sharing agreements negotiated between TSPs. The processing of such personal data will comply with the principles of lawfulness, fairness and transparency; purpose limitation; data minimisation; accuracy; storage limitation; security and accountability. With regard to lawfulness, as a general rule, when a TSP requires personal data related to a traveller for realizing an action specified in a smart contract, that TSP will need to obtain the appropriate consent in the sense of the GDPR. Furthermore, rights of the data subjects will be fully respected. Data protection by design and by default will be implemented during all phases of the development and deployment of the SIGN-AIR platform.

Finally, mobility data could qualify as personal data necessitating the application of the rules and principles established by the GDPR. Especially geolocation data can reveal details about personal routines, workplaces, family residence, political affiliation, and more. If not immediately identified, individuals can become identifiable through journey data, as these are often unique and consistent over time. The European Data Protection Board draws specific focus to geolocation data as a category that warrants special attention as it can be particularly revealing of one’s lifestyle and habits. Other types of data may also potentially qualify as personal data such as real-time traffic data, vehicle data, and public transport data. Therefore, it is crucial to exercise caution and refrain from collecting location data unless necessary for specific processing purposes.

## **5. NIS 2 Directive**

### **a) Description**

The NIS2 Directive<sup>4</sup> establishes a unified legal framework to uphold cybersecurity in 18 critical sectors across the EU. It also calls on Member States to define national cybersecurity strategies and collaborate with the EU for cross-border reaction and enforcement. To respond to the increased exposure of Europe to cyber threats, the NIS2 Directive, replaced its predecessor, Directive 2016/1148 or NIS1.

In addition to the sectors already covered by NIS 1, such as energy, transport, healthcare, finance, water management and digital infrastructure, these rules apply to providers of public electronic communications services, more digital services such as social platforms, wastewater and waste management, manufacturing of critical products, postal and courier services, public administration, both at central and regional level or space. As a rule, medium-sized and large entities in these critical sectors, will have to take appropriate cybersecurity risk-management measures and notify relevant

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<sup>4</sup> Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1772, and repealing Directive (EU) 2016/1148 (NIS 2 Directive)

national authorities of significant incidents. These are incidents that could cause significant disruption or damage.

Article 6(30) of the NIS2 Directive defines the “cloud computing service” as *“a digital service that enables on-demand administration and broad remote access to a scalable and elastic pool of shareable computing resources, including where such resources are distributed across several locations”*. Recital 33 of the NIS2 directive clarifies this further: *“Cloud computing services should cover digital services that enable on-demand administration and broad remote access to a scalable and elastic pool of shareable computing resources, including where such resources are distributed across several locations. Computing resources include resources such as networks, servers or other infrastructure, operating systems, software, storage, applications, and services”*.

The term ‘broad remote access’ is used to describe that the cloud capabilities are provided over the network and accessed through mechanisms promoting use of heterogeneous thin or thick client platforms, including mobile phones, tablets, laptops and workstations. The term ‘scalable’ refers to computing resources that are flexibly allocated by the cloud service provider, irrespective of the geographical location of the resources, in order to handle fluctuations in demand. The term ‘elastic pool’ is used to describe computing resources that are provided and released according to demand in order to rapidly increase and decrease resources available depending on workload. The term ‘shareable’ is used to describe computing resources that are provided to multiple users who share a common access to the service, but where the processing is carried out separately for each user, although the service is provided from the same electronic equipment. The term ‘distributed’ is used to describe computing resources that are located on different networked computers or devices and whi

The service models of cloud computing include, inter alia, Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS) and Network as a Service (NaaS). The deployment models of cloud computing should include private, community, public and hybrid cloud. The cloud computing service and deployment models have the same meaning as the terms of service and deployment models defined under ISO/IEC 17788:2014 standard.

Additionally, the NIS2 Directive indicates that those covered by NIS2 obligations should consider the vulnerabilities specific to each direct supplier and service provider and the overall quality of their suppliers' and service providers' cybersecurity products and practices, including their secure development procedures. Supply chain issues are regulated in the Article 21(2)(d) of the NIS2 Directive. According to this provision, one of the responsibilities of key and important entities will be to put in place appropriate and proportionate technical, operational and organizational measures to ensure supply chain security.

#### **b) Impact**

The provider of the SIGN-AIR platform will qualify as a “cloud computing service provider” in the sense of article 6, 30) of the NIS2 Directive. Therefore, appropriate and proportionate technical, operational and organisational measures must be taken to manage the risks posed to the security of network and information systems to prevent or minimise the impact of incidents on recipients of the services and on other services. With regard to the applicable security requirements, specific attention must be drawn to art. 28.5 of the NIS 2 Directive and to the related Commission Implementing Regulation (EU) 2024/2690 of 17 October 2024 which lays down rules as regards technical and methodological

requirements of cybersecurity risk-management measures applicable to cloud computing service providers

Additionally, TSPs that are covered by NIS 2 obligations (Air carriers, Airports, Railway operators) must ensure a level of security of network and information systems appropriate to the risks posed. These cybersecurity measures must be based on an all-hazards approach that aims to protect network and information systems and the physical environment of those systems from incidents. Amongst others, they must include supply chain security, including security-related aspects concerning the relationships between each entity and its direct suppliers or service providers. As a supplier (or service provider) of TSPs, the SIGN-AIR platform should adhere to NIS2 security standards and be accountable (transparent) for it.

## **6. Copyright DSM Directive**

### **a) Description**

The Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (“Copyright DSM Directive”) aims to modernize copyright law for the digital environment. For the purposes of the SIGN-AIR project, this Directive is principally relevant in regard to the copyright exceptions for text and data mining.

Text and data mining are broadly defined in the Directive as *“any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations”*. This functional description aims to encompass a broad range of existing and future analysis techniques.

Given that text and data mining can in certain instances involve acts in relation to works protected

by copyright, by the sui generis database right or by both (such as the reproduction of works or other subject matter or the extraction of contents from a database), the Copyright DSM Directive provides for new exceptions to the exclusive right of reproduction and to the right to prevent extraction from a database for the purposes of text and data mining.

The Copyright DSM Directive distinguishes between text and data mining for the purposes of scientific research (Article 3) and text and data mining for other purposes (Article 4). Under Article 4 of the Directive Member States are obliged to implement exceptions to the copyright and database right for reproductions and extractions of lawfully accessible works and other subject matter for the purposes of text and data mining, on the condition that this use for text and data mining purposes has not been expressly reserved by the rightsholders in an appropriate manner, such as machine-readable means in the case of content made publicly available online. In other words, the Directive appears to allow rightsholders to unilaterally opt-out of this exception. From a data sharing/data access perspective, the principal beneficial impact is that this requires a conscious action (‘expressly reserved’) from the rightsholder; i.e. the default status is that text and data mining are permitted if the rightsholder takes no action.

However, it should be recalled that Copyright protection applies to every work, as long as it is original and expressed in a concrete form. In the context of mobility, only few instances of analysis through

text and data mining will relate to copyright protected works (such as photographs, scientific articles, newspaper publications etc.). Mining other data that is not part of a copyright protected work will not result in a copyright restricted reproduction and will thus not have to rely on the exception on the exclusive rights of the author (or rightsholders) for text and data mining purposes.

This does not mean, however, that individual dataset which are not creative and are therefore not subject to copyrights cannot gain originality once they relate to other information or once they are presented in an original way. But it should be emphasized that non-original sets of data or non-original combinations of such data are not copyright protected and can be mined without relying on the exceptions for text and data mining. More so, copyright protection does not extend to the data incorporated in original works. Only when (sets of) copyright protected works are mined, reproductions may run counter to the rights of the author (or rightsholders) and text and data mining will be conditional upon the fulfilling of the provision of Article 3 and 4 of the Copyright DSM Directive.

#### **b) Impact**

Data sharing agreements between TSPs might contain clauses related to the use of text and data mining techniques by the parties. However, the protection of the Copyright DSM Directive only applies to work, as long as it is original and expressed in a concrete form. In the context of mobility data sharing, only few instances of analysis through text and data mining will relate to copyright protected works. Mining data that is not part of a copyright protected work will not result in a copyright restricted reproduction and will thus not have to rely on the exception on the exclusive rights of right holders for text and data mining purposes.

### **7. Trade Secrets Directive**

#### **a) Description**

Directive 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure (Trade Secrets Directive) sets out rules on the protection against unlawful conduct pertaining to the “unlawful acquisition, use and disclosure of trade secrets” (Article 1).

Article 2 of the Directive defines a trade secret as information which meets all of the following requirements:

- (a) it is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
- (b) it has commercial value because it is secret;
- (c) it has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret;

The purpose of the Trade Secrets Directive is to promote the creation and sharing of information and knowledge, by protecting those who invest in research against dishonest acts such as spying and contract breaching. This allows a trade secret holder to share this type of information while offering him legal protection against the unlawful sharing of information.

#### **b) Impact**

Data sharing agreements between TSPs might contain clauses related to information which is commercially valuable, undisclosed and intended to remain confidential. The Trade Secrets Directive prevents business partners from sharing data that was passed to them by the trade secret holder. However, for information to qualify as a trade secret, it must comply with the rather strict requirements of the Directive. In addition, it should be stressed that protection only exists where dishonest behavior takes place.

### **8. Database Directive**

#### **a) Description**

The Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases (Database Directive) establishes a legal framework for two types of intellectual property rights relating to databases. Firstly, it clarifies that databases can qualify for copyright protection if they satisfy the creativity criterion that applies to any other copyright protected work, i.e. if the databases “by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation” (Article 3.1 of the Directive). Secondly, it creates an entirely new type of intellectual property right, a so called *sui generis* right, which applies to any database “which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database” (Article 7.1).

The regimes can apply cumulatively – a single database may therefore be covered by both rights – and the protection of the database as a whole is unrelated to any protections of individual works included in a database – e.g. a database of photos may fall under copyright and *sui generis* rights, while the individual photos each are covered by copyright.

#### **b) Impact**

Data sharing agreements between TSPs might contain clauses related to the legal protection of databases. The Database Directive grants copyright-like rights, known as the “*sui generis* database right,” to creators that have made “qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents”. The database right provides the maker with the right to prevent unauthorized extraction or re-utilization of the whole or a substantial part of the database contents.

### **9. Updated ITS Directive**

#### **a) Description**



The objective of the Intelligent Transport Systems Directive<sup>5</sup> was to put in place the necessary mechanisms to foster the uptake of ITS services and applications for road transport. Under this Directive the European Commission adopted common European specifications (i.e. functional, technical, organizational or services provisions) to address the compatibility, interoperability and continuity of ITS solutions across the EU. The first priorities were traffic and travel information, the eCall emergency system and intelligent truck parking, followed by real-time traffic information and multimodal travel information.

ITS is defined as “*systems in which information and communication technologies are applied in the field of road transport, including infrastructure, vehicles and users, and in traffic management and mobility management, as well as for interfaces with other modes of transport*”. ITS applications and services are varied and include journey planners, travel information services, intelligent traffic lights, real-time traffic information, traffic management as well as vehicle safety applications such as the automatic 112 call and advanced cruise control.

A new Directive (Updated ITS Directive<sup>6</sup>) amending the ITS Directive was adopted on 22 November 2023, with the aim to adapt to the emergence of new road mobility options, mobility apps and connected and automated mobility.

#### **b) Impact**

The main impact of the Updated ITS Directive on the SIGN-AIR solution is the obligation to take into account the data standards being detailed in its implementing regulations.

### **10. MMTIS Delegated Regulation**

#### **a) Description**

The Delegated Regulation (EU) 2017/1926 supplementing the Intelligent Transport Systems (ITS) Directive for the provision of EU-wide multimodal travel information services (MMTIS) provides the necessary requirements to make EU-wide multimodal travel information services accurate and available across borders. It establishes the specifications needed to ensure the accessibility, exchange and update of standardised travel and traffic data, as well as for distributed journey planning within the EU. The MMTIS Delegated Regulation aims to create appropriate conditions for cooperation of all the relevant stakeholders along the travel information value chain, including transport authorities, transport operators, travel information service providers, infrastructure managers and transport on demand service providers among others.

Commission Delegated Regulation (EU) 2024/490 of 29 November 2023 amending Delegated Regulation (EU) 2017/1926 introduced some changes. The main change introduced by this revision is

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<sup>5</sup> Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport

<sup>6</sup> Directive (EU) 2023/2661 of the European Parliament and of the Council of 22 November 2023 amending Directive 2010/40/EU on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport



to mandate the accessibility via the national access points (NAPs) of the multimodal dynamic travel and traffic data types. Additionally, the revision aligned the reporting obligation with the ITS Directive and increased consistency with other Delegated Regulations under the ITS Directive, such as the Delegated Regulation (EU) 2022/670 with regard to the provision of EU-wide real-time traffic information services (RTTI). Finally, new data types were added in the Annex, including static, historic and observed travel and traffic data types.

The Multimodal Travel Information Services (MMTIS) Regulation requires i.a. that the data holders shall provide, via the national access points access to the static, historic and observed travel and traffic data listed the Annex of the Regulation, of the public transport modes using one of the following standards and technical specifications, or any digital machine-readable format that can be proven fully compatible and interoperable with those standards and technical specifications, including for example through automatic converters and validators:

- NeTEx CEN/TS 16614 and subsequent versions;
- the technical specifications set out in Regulation (EU) No 454/2011 (dedicated to the trans-European rail)
- the technical documents published under the authority of the IATA Passenger Services Conference (air)
- Transmodel EN 12896 where there is no reference exchange protocol.

#### **b) Impact**

The main impact of the MMTIS Delegated Regulation on the SIGN-AIR solution is the obligation to take into account the data standards being defined in the Annex of the Regulation.

### **3.4.2. Contract Law**

#### **11. E-commerce directive (2000/31/EC)**

##### **a) Description**

The Electronic Commerce Directive (2000/31/EC) sets up an Internal Market framework for online services.

**Article 9** – This article of the e-commerce directive states an important principle of equivalence of contracts made on paper and electronic contracts. This principle must be respected in all EU member states. Article 9 states that contracts concluded electronically cannot be denied legal effect or enforceability solely because they are formed electronically. This article recognizes the validity of electronic contracts as such.

**Article 10 and 11** - According to Article 10 e-commerce directive, a service provider that provides an Information Society Service, must provide certain precontractual information prior to the placing of an order by a customer, notably:

- (a) The different steps to follow to conclude the contract;

- (b) Whether or not the concluded contract will be filed by the service provider and whether it will be accessible;
- (c) The technical means for identifying and correcting input errors prior to the placing of the order;
- (d) The languages offered for the conclusion of the contract (article 10 e-commerce directive).

Contract terms and conditions provided to the party that places an order, must be made available in a way that allows him to store and reproduce them (article 10 (3)).

According to Article 11 e-commerce directive, in case the recipient of an Information Society Service places an order through technological means, the following principles apply:

- The service provider has to acknowledge the receipt of the recipient's order without undue delay and by electronic means;
- The order and the acknowledgement of receipt are deemed to be received when the parties to whom they are addressed are able to access them.

Furthermore, the service provider provides appropriate; effective and accessible technical means allowing the party that wants to make an order to identify and correct input errors, prior to the placing of the order.

Articles 10 and 11 apply vis-a-vis consumers as well as business customers. However, vis-a-vis business customers the parties may agree that these rules do not apply.

## **b) Impact**

The SIGN-AIR platform enables TSPs to conclude data sharing agreements and smart legal contracts (following the external smart contract model) as electronic contracts. It offers a platform that enables the TSPs to conclude such agreements for specific goals and use cases. It is important to ascertain that these electronic contracts are considered as valid and binding in all countries that are part of the Sign-Air ecosystem.

Article 9 e-commerce directive merely states a high-level principle. It has only a partial impact on the binding nature of the data sharing agreements and the smart legal contracts. This principle still requires that all legal conditions for the formation of a contract must be fulfilled in order to form a binding contract. These general principles of contract law are still national law of the EU Member States. Most legal systems require *human consent* to enter into a contract. Traditionally, human consent is typically proven by a signature under a text written on a paper document. The signature is (a) the formal expression of the consent of the natural person or the representative of an organization who will be bound by the written text, it proves (b) the identity of this person (authentication) and it proves (3) the fixed content of the text that is agreed. The text can only be amended by a similar document with a similar signature. For centuries, the handwritten signature on a document has been the most important evidence in court of the consent to, and the content of, a contract. The digital equivalent is the digital signature governed by the eIDAS Regulation (see further below).

The requirement of *human consent* can be fulfilled by smart legal contracts. Smart contracts are self-executing contracts, that are automatically performed when software code is triggered. The self-executing part of the contract is written in software code. The conditions for such automatic performance by self-executing software code are agreed between the parties in a framework agreement or in a classical 'legal' part of the contract that is written in natural language, so that the parties can write and read clearly what is agreed between them. The classical agreement is an electronic contract written on the SIGN-AIR platform in natural language and confirmed by a digital signature. This contract is linked, by reference, to a smart contract written in software code that will automatically execute the individual case by case applications of the classical agreement. The subsequent automatic executions of the deployed contract occur automatically by the system without explicit human intervention or consent. The actions performed by the technical smart contract can be considered as separate individual contracts, that will each form an application of the principles that the parties agreed to in their contract. These individual contracts are performed without explicit human intervention or human consent. However, the absence of explicit human consent does not prevent the validity and binding nature of the individual contracts and of the actions undertaken automatically by the software code. The legal systems of European countries generally accept that certain "technical actions" can be *attributed* to humans if these actions are considered as an expression of the general intention of these humans to be bound. This principle is not explicitly set forth in EU law, but has been generally accepted and was recently confirmed in the UNCITRAL Model Law on Automated Contracts, articles 5 to 7 (UNCITRAL Resolution 79/119 of 4 December 2024). For instance, it is accepted for more than 50 years that the actions of a vending machine (automatically providing drinks after receiving coins) constitute a valid contract, because the technical system is an emanation of the intention of the company to be bound by these actions. The actions of the machine (distributing a drink) and of a human purchaser (throwing coins) are attributed to the persons that have accepted to be bound by this technical set-up, and thus the actions result in valid purchase contracts. Similarly, EDI communication tools have created and executed binding contracts for decades. The same principle applies to smart contracts if their deployment proves that the users of the smart contract had the intention to create binding contracts with this system. The consent is inferred from the written agreement, and from the demonstrated will of the parties to draft and execute the software code.

European Union law has implicitly recognized the existence and validity of smart contracts, inter alia in article 36 of the Data Act.

Since software code may contain errors and programming language can usually not be understood by the representatives of the TSPs who have the authority to sign contracts, it is important to ensure that in case of discrepancies between the software code and the agreed clauses in natural language, the latter will prevail. The text written in natural language will ultimately prove the intentions of the parties, and can be interpreted in court, if necessary, whereas the software code may contain errors that were not noticed by the persons who signed the contract. In case of erroneous actions of the software code, the errors must be corrected and the actions must be undone. The legal smart contracts created on the SIGN-AIR platform will always contain a mandatory clause that states that the contract written in natural language will take precedence in case of anomalies or interpretation issues.

The service provided by the SIGN-AIR platform is an "Information Society Service" as defined by Article 1(1)(b) of Directive 2015/1535 (which is referred by article 10 of the e-commerce directive), meaning: a service provided in exchange of remuneration (even if this is rather an indirect monetization), which is provided remotely and electronically, and is provided at the individual request of a recipient (in other

words, which is interactive and not a one-way broadcast). This means that the Articles 10 and 11 e-commerce directive apply to SIGN-AIR.

- Vis-a-vis the TSPs

Prior to the registration of a TSP on the SIGN-AIR platform (which must be regarded as the creation of a contract between SIGN-AIR and the TSP), SIGN-AIR should in principle give precontractual information about:

- (a) The different steps to follow to conclude the contract;
- (b) Whether or not the concluded contract will be filed by SIGN-AIR and whether it will be accessible;
- (c) The technical means for identifying and correcting input errors prior to the placing of the order;
- (d) The languages offered for the conclusion of the contract (article 10 e-commerce directive).

The e-commerce directive applies vis-a-vis consumers as well as in a B2B context. However, in a B2B context, the parties may agree that such information must not be given (article 10 (1)). The requirement under (c) is based on a typical internet e-commerce order, where a consumer or a business customer places an online order and may have to correct a mistake that was provided accidentally as input (and where customers can typically “go back” to previous web pages to correct any erroneous input). The contract between a TSP and SIGN-AIR is not such order.

The requirements under (a), (b) and (d) can be easily fulfilled.

It is important that the registration of the TSP implies an automatic acceptance of SIGN-AIR’s terms and conditions, and it is important to file the information that proves that a contract was made with the TSP. Furthermore, the terms and general conditions that are provided to the TSP must be made available in a way that allows the TSP to store and reproduce them (which is typically done by providing a downloadable Acrobat pdf file) (article 10(3) e-commerce directive). SIGN-AIR’s terms and conditions must be explicitly signed by the TSP before registration takes place.

SIGN-AIR should confirm the registration of a TSP by e-mail, in conformity with article 11. Article 11 states that in a B2B context, the parties may agree otherwise (which is a somewhat strange rule). It would be normal practice to send a confirmation e-mail in order to assure the registrant that the registration is accepted and to provide the registrant some kind of evidence of his registration, via a confirmation e-mail.

- Vis-a-vis passengers (consumers)

If the SIGN-AIR system will provide a Travel Companion to passengers (consumers) that enables the passengers to place bookings via this Travel Companion, the rules of Article 10 and 11 must be respected. This means that the required precontractual information listed in article 10 must be provided to the passenger, that SIGN-AIR (or an agent responsible for such booking service via the Travel Companion) must indicate whether it files the electronic contract (booking) and how it is

accessible, that the booking is confirmed and that the applicable terms and conditions are provided to the passenger in a downloadable format.

## **12. eIDAS Regulation**

### **a) Description**

The eIDAS regulation (Regulation (EU) No 910/2014) facilitates secure cross-border transactions by establishing a framework for digital identity and authentication.

**Article 25** - Article 25(1) states that an electronic signature cannot be denied legal effect just because it is in electronic form. Article 25(2) states that a qualified electronic signature (QES) has the same legal effect as a handwritten signature. Article 25(3) states that a QES based on a qualified certificate issued in one Member State shall be recognised as a QES in all Member States.

As stated above, electronic contracts cannot be denied legal effect solely on the ground that they are in an electronic format (principle of article 9 e-commerce directive). In addition to this principle, the contract must still comply with the basic requirements of a valid contract: the contract requires the *human consent* of a person, acting as an individual or as a representative of an organisation, to be bound by the contract. Traditionally, the human consent is proven by a handwritten signature that is deemed to be a unique expression of the human who declares to be bound by the agreement, either as an individual contractor, either as the representative of an organisation. The signature is (a) the formal expression of the consent of the natural person or the representative of an organization who will be bound by the written text, it proves (b) the identity of this person (authentication) and it proves (3) the fixed and unchanged content of the text that is agreed. The text can only be amended by a similar document with a similar signature. For centuries, the handwritten signature on a document has been the most important evidence in court of the consent to, and the content of, a contract.

The mentioned articles of the eIDAS Regulation provide an electronic equivalent for the handwritten signature, as a unique identifier of the person who declares to be bound by an electronic contract.

### **b) Impact**

In the context of the SIGN-AIR platform, electronic contracts are made:

- Between SIGN-AIR and TSPs that are onboarding on the SIGN-AIR platform;
- Between TSPs, as data sharing agreements and smart legal contracts.

Valid and binding electronic contracts, that cannot be repudiated, are a cornerstone to create legally secure and smooth transactional processes within the SIGN-AIR platform. Although in a B2B context, most legal systems accept that the existence and the content of a binding contract can be proven by several means, there is only one method that is sufficiently secure to be applied as a standard mechanism: the qualified electronic signature (QES).

According to Article 25 (2) of the eIDAS Regulation, a qualified electronic signature has the equivalent legal effect of a classic handwritten signature.

A qualified electronic signature (QES) is a set of electronic data:

- (a) that is uniquely linked to the signatory;
- (b) that is capable of identifying the signatory;
- (c) that is created using electronic signature creation data that the signatory can, with a high level of confidence, use under his sole control;
- (d) that is linked to the data signed therewith in such a way that any subsequent change in the data is detectable (this refers to the technique of encryption and hash);
- (e) that is created by a qualified electronic signature device (further specified in Annex II of the Regulation);
- (f) and that is based on a qualified certificate for electronic signatures, which is issued by a qualified trust service provider (QTSP) (further specified in Annex I of the Regulation).

This definition is derived from a combination of Article 3 (12), Article 26 and the Annexes I and II of the Regulation, that cross-refer to each other.

A QES is based on a qualified certificate issued in a EU Member State. Such QES must be recognised as a valid QES in all other Member States (article 25 (3)).

When a service provider such as GlobalSign or DocuSign provides a *standard* electronic signature service (SES) or an *advanced* electronic signature service (AES, where an additional check of the signatory is done via e.g. SMS), such signatures are not as such QES compliant. They may constitute “some” kind of proof of identity, but are not considered fully equivalent to a handwritten signature.

When a QES is produced, the signatory makes use of a secure hardware or software system that is certified under the Regulation to generate QES signatures. Such system is a qualified signature creation device (QSCD) that ensures that a private signing key used by the signatory to create the signature is securely stored and used in a way that prevents tampering or unauthorized access. It could be a physical device such as a smart card with a chip or a USB key with a token, that stores the private key securely and that requires a PIN entry to sign (e.g. certain eID cards). Or it could be a cloud-based remote software system, managed by a Qualified Trust Service Provider (QTSP), who keeps the private key of the signatory in hardware security modules. In this case, signing is performed using a strong authentication mechanism (e.g. two-factor authentication via SMS or otherwise, or a biometric verification, e.g. via a fingerprint on a mobile device).

In the case of a QES, a certificate is attached to the signature. This certificate proves the identity of the signatory and is issued by a QTSP, who is an accredited, recognized, trusted provider (such as the government of a EU Member State that issues eIDs, or service providers that are accredited to provide such trust services).

In practice, when a person signs an electronic contract with a QES service (such as GlobalSign’s QES service):

- The identity of the person is verified, e.g. through the national eID;

- A unique signing key is generated and stored in a hardware module (e.g. smart card) or a cloud-based service;
- The contract can be signed by the person, applying the signing key of the QES;
- The certificate is embedded in the signature, proving the validity and the identity of the related person.

The electronic signature also includes a cryptographic hash, which ensures the integrity of the document. Before an electronic document is signed, it is processed through a hash function. This means that a calculation is made on the digital content of the document, which results in a hash value (a string of letters and figures which is the outcome of the calculation). If the document changes, the hash value will be entirely different. In practice, the hash value is encrypted with the private key of the user (and not the entire document). The encrypted hash is the electronic signature. In other words, the electronic signature will ensure the authenticity of a document and of the identity of the signatory of the document, as well as the authenticity of the content of a document. It will ensure non-repudiation: the signatory cannot reject the validity, the binding nature or the content of the contract.

It is possible to integrate cloud-based QES services in workflows via REST APIs.

### **13. Rome I Regulation**

#### **a) Description**

The Rome I Regulation (Regulation (EC) No 593/2008 ) governs the international private law system in relation to contractual obligations between EEA member states. In other words, it states which law is applicable to a contractual situation involving parties of different member states

**Article 3** - Article 3 (1) of the Rome I Regulation states that a contract shall be governed by the law chosen by the parties. The choice shall be made expressly or clearly demonstrated by the terms of the contract or the circumstances of the case. By their choice the parties can select the law applicable to the whole or to part only of the contract.

#### **b) Impact**

Data sharing agreements and smart legal contracts will be negotiated and agreed on the SIGN-AIR platform. In many cases there contracts will be made between TSPs of different EEA member states. It is important that the contract is clear about the law that applies to their contract. Therefore, the templates that will be presented to the TSPs will contain a mandatory clause about the law applicable to their contract. In accordance with Article 3 (1) of the Rome I regulation, the Parties can negotiate and freely choose the applicable law.

### **14. Brussels I bis Regulation**

#### **a) Description**

The Brussels I bis Regulation (Regulation (EU) No 1215/2012) contains the rules concerning international jurisdiction in case of disputes between parties of different EEA member states. The competent court will be indicated in accordance with the rules of this Regulation



**Article 25** - Article 25 (1) states that if the parties, regardless of their domicile, have agreed that a court or the courts of a Member State are to have jurisdiction to settle any disputes which have arisen or which may arise in connection with a particular legal relationship, that court or those courts shall have jurisdiction, unless the agreement is null and void as to its substantive validity under the law of that Member State. Such jurisdiction shall be exclusive unless the parties have agreed otherwise. The agreement conferring jurisdiction shall be either: (a) in writing or evidenced in writing; (b) in a form which accords with practices which the parties have established between themselves; or (c) in international trade or commerce, in a form which accords with a usage of which the parties are or ought to have been aware and which in such trade or commerce is widely known to, and regularly observed by, parties to contracts of the type involved in the particular trade or commerce concerned.

Article 25 (2) states that any communication by electronic means which provides a durable record of the agreement shall be equivalent to 'writing'.

**b) Impact**

Article 25 of the Brussels I bis regulation states that contracting parties can freely choose and stipulate in a contract clause which competent court will have jurisdiction over any claims and disputes in relation to their agreement. The Regulation does not contain a rule in relation to a choice for arbitration. However, it does not exclude arbitration, and the parties can negotiate an arbitration clause.

It is important that the contracts that are to be made on the SIGN-AIR platform, the data sharing agreements and the smart legal contracts, contain a clear clause on jurisdiction. The templates will provide such clause, but will also provide a possibility for the TSPs to opt for arbitration. In the context of transportation, it could be useful to refer to specific arbitration systems. Article 25 of the Regulation states explicitly that an electronic contract can be regarded as a valid contract that contains a valid, enforceable jurisdiction clause.

**15. Consumer Rights Directive (CRD)**

**a) Description**

The Consumer Rights Directive (CRD) (Directive 2011/83/EU) contains rules concerning mandatory precontractual information vis-a-vis consumers, and contains the right of consumers to withdraw from a contract within a period of 14 days ("cool-off period").

**b) Impact**

This Directive may be important if the SIGN-AIR platform will have a direct link with consumers, in other words when the SIGN-AIR system will provide a frontend with which consumers (passengers) will communicate for the conclusion of a consumer contract. For instance, if the Travel Companion provides a possibility to passengers to order and book a travel journey, SIGN-AIR will have to take care that clear precontractual information is provided to the passengers (unless this is outsourced to a specific services provider, or unless a TSP will provide the ordering system directly to the consumer, in which case these services providers will have to respect the rules.

The mandatory precontractual information includes, amongst other topics, the presentation of a full, all-included price.



The CRD provides a cooling-off period of 14 days to consumers. In principle, consumers have the right to withdraw from the contract during this period, without any justification. Their payment is then refunded. However, where a service is provided to the consumer, the consumer can no longer withdraw when the service has been provided. This exception to the rule applies e.g. where a ticket is issued to a consumer who has used the ticket. The rule will be replaced by the cancellation rules of the SP. However, the exception must be mentioned to the consumer as part of the precontractual information.

In general, if SIGN-AIR would be considered responsible for providing the ordering possibility to the consumer, it will be important to assess which party must provide the precontractual information.

## **16. Unfair Contract Terms Directive (UCTD)**

### **a) Description**

The UCTD (Council Directive 93/13/EEC) applies when a trader presents a contract to a consumer, which is usually based on unilateral terms and conditions.

The UCTD protects a consumer against unfair terms. A contract terms is considered unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer. The Directive contains an Annex with a blacklist of prohibited contract clauses, that protect a trader too much and are thus considered unfair, to the detriment of a consumer.

### **b) Impact**

The UCTD may have an impact on the SIGN-AIR platform if SIGN-AIR will make a direct contract with a consumer. If a consumer makes a contract with a different party, that party will be responsible for the provision of correct terms and conditions to consumers.

## **17. Platform-to-Business Regulation (P2B)**

### **a) Description**

The P2B Regulation (Regulation (EU) 2019/1150) applies if SIGN-AIR would be considered a provider of online intermediation services.

According to the definition of Article 2 (2) of the P2B Regulation, the term '**online intermediation services**' means services which meet all of the following requirements: (a) they constitute information society services within the meaning of point (b) of Article 1(1) of Directive (EU) 2015/1535 of the European Parliament and of the Council; (b) they allow business users to offer goods or services to consumers, with a view to facilitating the initiating of direct transactions between those business users and consumers, irrespective of where those transactions are ultimately concluded; (c) they are provided to business users on the basis of contractual relationships between the provider of those services and business users which offer goods or services to consumers.

The notion '**provider of online intermediation services**' means any natural or legal person which provides, or which offers to provide, online intermediation services to business users (article 2 (3)).

## **b) Impact**

If the SIGN-AIR system provides a Travel Companion to consumers (passengers) and facilitates the creation of a transaction between consumers and the TSPs, there is a possibility that SIGN-AIR would be considered as an online intermediation service. We believe that this is the case when a consumer may search a travel option for a certain trajectory requested by him, and SIGN-AIR displays the possible options, with one or more TSPs involved. Especially if the Travel Companion would provide a listing of the different options, of which the passenger can choose one. The P2B Regulation states explicitly that an online intermediary service provider (OIS provider) facilitates direct transactions between TSPs and passengers (which is a broad concept), irrespective of where those transactions are ultimately concluded. The transactions (ordering of tickets) can be concluded on different websites or even offline.

The typical examples of OIS providers are platforms like eBay, Amazon (in relation to the third-party vendors on their platform), booking.com, social media, app stores and search engines. But also a service like Rome2Rio can be considered an OIS if it (1) facilitates transactions between businesses and passengers and (2) has contracts in place with businesses in order to use their information and to promote them.

If the SIGN-AIR system would be considered as merely a backoffice system between TSPs without a sufficient link with consumers, it would not fall under the P2B regulation.

Key requirements of the P2B Regulation if it applies to the SIGN-AIR platform:

### *1. Transparency in terms and conditions*

SIGN-AIR must provide clear and easily accessible terms and conditions to business users (TSPs) (Article 3).

Changes to terms must be notified at least 15 days in advance (longer for major changes) (Article 3 (2)).

If the SIGN-AIR platform suspends or terminates a TSP's account, it must provide clear reasons (Article 4). If a platform restricts, suspends, or delists a business user, it must provide a clear explanation and a chance to appeal.

### *2. Transparency in ranking systems*

If SIGN-AIR provides a list of travel routes to a passenger, it must disclose in its terms and conditions the main parameters that determine the ranking of the different options in the list (e.g., relevance, connection times, duration of the journey) (Article 5). The question is, whether SIGN-AIR would be able (or willing) to show the price of the journey to the consumer. If that would be the case, the price could be a parameter.

If platforms allow paid rankings or promotions, they must clearly disclose this (Article 5 (3)). We assume that SIGN-AIR will not engage in such activity.

### *3. Equal treatment in differentiation*

If a platform offers its own competing products/services alongside those of third-party businesses (e.g., Amazon selling its own products), it must explain any preferential treatment (Article 7). This does not seem an issue of relevance for SIGN-AIR.

#### 4. *Transparency in data access and use*

Platforms must clarify what business user data or consumer data is collected (personal or business data), how it is used, and whether third parties receive access (Article 9).

#### 5. *Fair dispute resolution mechanisms*

Platforms must set up an internal complaint-handling system (Article 11). However, this rule is not applicable to platforms with fewer than 50 employees and less than €10 million in annual turnover (Article 11 (5)).

Platforms must provide business users with access to mediation services to resolve disputes (Article 12). Also, this rule is not applicable to platforms with fewer than 50 employees and less than €10 million in annual turnover (Article 12 (7)).

### 3.4.3. Passengers' rights law

#### 18. Air Passenger Rights

##### a) Description

Regulation (EC) 261/2004<sup>7</sup> establishes minimum rights for passengers when travelling by air. It entered into force on 17. February 2005. The information below is based on the text of the Regulation, complemented by the revised Interpretative Guidelines issued by the EC in September 2024<sup>8</sup> and the information provided on the YourEurope website, advising air passengers of their rights<sup>9</sup>.

The Regulation establishes (§1 – **Subject**) minimum rights for passengers when they are denied boarding against their will, when their flight is cancelled or when their flight is delayed.

Definitions (§2 – **Definitions**) refer to the main terms important for the purpose of the Regulation, covering a.o. stakeholders involved (*air carrier, operating carrier, Community carrier, tour operator*<sup>10</sup>), contractual terms related to ticketing (*package, ticket, reservation*), types of disruptions (*denied boarding, cancellation*). It also includes a definition of 'person with reduced mobility'.

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<sup>7</sup> Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91

<sup>8</sup> <https://eur-lex.europa.eu/eli/C/2024/5687/oj>, see also below: Context and state-of-play

<sup>9</sup> [https://europa.eu/youreurope/citizens/travel/passenger-rights/air/index\\_en.htm](https://europa.eu/youreurope/citizens/travel/passenger-rights/air/index_en.htm)

<sup>10</sup> The 2023 proposal to amend Regulation (EC) 261/2004 adds 'intermediary' to the list of definitions.

The Regulation applies to (**§3 – Scope**) flights departing from any airport situated in the EU, and to flights from a third country to an EU airport, if operated by an EU carrier. Passengers must hold a confirmed reservation and (except in the case of cancellation) present themselves on time for check-in. The Regulation also applies if passengers are transferred by the carrier or tour operator from their original flight to another flight, irrespective of the reason. The Regulation does not apply to passengers that travel for free or at a reduced fare not (in)directly available to the public; or if passengers have already received benefits (compensation, re-routing, assistance) under relevant law of a non-EU country. *The 2024 Interpretative Guidelines have clarified a number of aspects related to ‘Scope’, a.o. that the Regulation applies also to connecting flights, unless both the departure and arrival airport are outside of the EU.*

As transport contracts (i.e., tickets) may not include any clauses that deviate from this Regulation (**§15 – Exclusion of waiver**), it is considered relevant for SIGN-AIR to take into account the following rules, presented per main topic or ‘core passenger right’.

**Non-discrimination:** The right to non-discriminatory contract conditions and tariffs is included in all other passenger rights’ regulations, but not in Regulation (EC) 261/2004. Non-discriminatory access to air fares is, however, mentioned in the Air Services Regulation (Regulation (EC) 1008/2008, see sub-section 27 of this Chapter)<sup>11</sup>.

**Access and assistance for disabled passengers and passengers with reduced mobility:** While **§11 – Persons with reduced mobility or special needs** mentions that operating carriers shall ‘give priority’ to PRM and unaccompanied children, Regulation (EC) 261/2004 does not cover PRM rights in further detail. Instead, these rights are enshrined in Regulation (EC) 1107/2006 (see sub-section 19 of this Chapter).

**Information:** On the topic of information, Regulation (EC) 261/2004 only states that passengers must be informed of their rights, including contact details of the NEBs (**§14 – Obligation to inform passengers of their rights**). *The 2013 proposal to amend Regulation (EC) 261/2004 adds that “passengers should have a right to information about the flight disruption as soon as the information is available”.*

**Disruptions (delays, cancellations, denied boarding):** In case of denied boarding (**§4 – Denied boarding**), the air carrier shall first ask for volunteers to give up their reservations, in exchange for benefits. If there are no(t enough) volunteers and passengers are denied boarding against their will, they are entitled to compensation, care and assistance, and must be offered the choice between reimbursement or re-routing. In case of cancellation (**§5 – Cancellation**), passengers must be offered the choice between reimbursement or re-routing and they are entitled to care and assistance, and compensation. No compensation is due if the cancellation is caused by extraordinary circumstances (e.g., bad weather), if passengers were informed at least 2 weeks beforehand or if the carrier offered them an alternative flight with a similar schedule. In case of long delays (**§6 – Delay**) (thresholds depend on the length of the flight), passengers are entitled to care and assistance and, if the delay is more than 5 hours, must be offered the option to choose reimbursement and if needed a return flight

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<sup>11</sup> <https://eur-lex.europa.eu/eli/reg/2008/1008/oj/eng>, preamble, recitals 15-16: “Customers should have access to all air fares and air rates irrespective of their place of residence within the Community or their nationality and irrespective of the place of establishment of the travel agents within the Community”.

to the point of departure. *Added to this, the 2024 Interpretative Guidelines confirm that a delay of at least 3 hours gives the same rights in terms of compensation as a cancellation.*

**§7 – Right to compensation** defines the amount of money passengers shall receive in the specified cases, which depends on the length of the flight and the length of the delay. When passengers are offered re-routing, compensation may be reduced. *Added to this, the 2024 Interpretative Guidelines confirm that compensation is also due in case of a missed connecting flight, if booked as part of a single reservation.* **§8 – Right to reimbursement or re-routing** specifies the right to reimbursement – which must be paid within 7 days and, where relevant, includes a free journey back to the initial departure point – or re-routing – which should be offered under ‘comparable transport conditions’, at the earliest opportunity or at a later date of the passenger’s convenience. **§9 – Right to care** specifies the care and assistance to be given to passengers, such as meals and refreshments, access to communication (two free phone calls, telex or fax messages, or e-mails) and, if necessary, accommodation. **§10 – Upgrading and downgrading** defines that, if a passenger is placed in a higher class, no supplementary payment may be asked and that, if put in a lower class, the passenger is entitled to reimbursement of part of the ticket price.

**Complaints:** On the topic of complaint handling, the Regulation only states that passengers may address NEBs (**§16 – Infringements**). *The YourEurope website explains that passengers should always send their complaint to the airline first, and that in addition, they can complain with the NEB, or pursue the matter through alternative dispute resolution or in court.*

## **b) Impact**

Definitions included in the Regulation (§2) may feed into the **SIGN-AIR glossary**. Likewise, some terms used in the 2024 Interpretative Guidelines should also be considered, e.g. ‘extraordinary circumstances’, ‘internal’ & ‘external’ events, ‘comparable transport conditions’ or ‘at the earliest opportunity’.

Any **agreements/ contracts**, that cover transport services falling within the scope of the Regulation (§3), need to comply with its provisions, which cannot be waived (§15). It may be possible to codify and publish the rules as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a cancellation) & ‘actions’ (e.g., information about the disruption and about alternative connections).

*Disruption Management* clauses, included in SIGN-AIR DSA and SC, should take due care to align with the provisions in this Regulation, which determine that in case of disruptions – denied boarding (§4), cancellation (§5), delay (§6) –, passengers have the right to compensation (§7) (with certain exceptions), reimbursement or re-routing (§8), and care and assistance (§9).

When two parties decide to create a *Mobility Package*, the provisions included in the Regulation apply to those parts of the journey that are done by air (all types of tickets: single, combined, seasonal). Only a limited amount of air-rail integrated tickets are currently offered for purchase to passengers, relying on voluntary agreements between TSPs. By facilitating the conclusion of DSA and SC, SIGN-AIR could help achieve a greater market share and uptake of such multimodal tickets.

Currently, while mode-specific passenger rights continue to apply to each leg of the journey separately, there is no legal protection for passengers that miss a connection as part of a multimodal journey.

Signees to SIGN-AIR DSA and SC may however decide – awaiting the entry into force of new EU legislation on this matter (see sub-section 23 of this Chapter), on a voluntary basis – to offer passenger protection also in the case of multimodal journeys, with re-routing/ reimbursement and assistance (practical information, advice and support) as passengers' main priorities.

### Context and state-of-play

A **Commission Communication of 11 April 2011**<sup>12</sup> showed how the provisions of Regulation (EC) 261/2004 were being interpreted in various ways, due to grey zones and gaps in the text, that enforcement varied between Member States, and that it is difficult for passengers to assert their individual rights. A **European Parliament Resolution of 29 March 2012**<sup>13</sup> highlighted the measures it considered necessary to regain passengers' trust and ensure proper enforcement.

Following these steps, the Commission presented a **proposal to amend Regulation (EC) 261/2004 in 2013**<sup>14</sup> which is currently still being examined by the EU legislature and thus 'pending'.<sup>15</sup> The 2013 proposal introduced the following changes:

- Better definition of 'extraordinary circumstances'
- Right to compensation in case of long delays
- Time threshold for compensation (cancellation or long delay) increased to 5 hours for intra-EU flights and to 5/9/12 hours depending on the distance for extra-EU journeys
- Right to re-routing (after a delay of 12 hours) on other carriers or transport modes, if needed
- Single time threshold for the right to care (2 hours for flights of all distances)
- Missed connecting flight: right to care and (in case of a single contract) compensation
- Rescheduling with a notice of less than 2 weeks: similar rights to delayed passengers

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<sup>12</sup> Communication from the Commission to the European Parliament and the Council on the application of Regulation 261/2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights (COM(2011) 174 final) (<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0174:FIN:EN:PDF>).

<sup>13</sup> European Parliament resolution on the functioning and application of established rights of people travelling by air (2011/2150(INI)) (<http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P7-TA-2012-99>)

<sup>14</sup> Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EC) No 261/2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights and Regulation (EC) No 2027/97 on air carrier liability in respect of the carriage of passengers and their baggage by air (COM(2013) 130 final) [https://www.europarl.europa.eu/registre/docs\\_autres\\_institutions/commission\\_europeenne/com/2013/0130/COM\\_COM\(2013\)0130\\_EN.pdf](https://www.europarl.europa.eu/registre/docs_autres_institutions/commission_europeenne/com/2013/0130/COM_COM(2013)0130_EN.pdf)

<sup>15</sup> [https://oeil.secure.europarl.europa.eu/oeil/en/procedure-file?reference=2013/0072\(COD\)](https://oeil.secure.europarl.europa.eu/oeil/en/procedure-file?reference=2013/0072(COD))

- Right to disembark after 5 hours of tarmac delay
- Partial ban of the 'no show' policy (denied boarding to passengers who do not take the outward journey of a return flight)
- Right to information about a disruption as soon as that information is available
- Promotion of out-of-court complaint handling (ADR)
- Extension of the role of NEBs to monitor compliance with Regulation 2027/97 (and the Montreal Convention): claims for delayed, lost or damaged baggage
- Enhanced coordination and exchange of information between NEBs
- Right to information, at reservation, about the airline's complaint handling procedures
- Promotion of electronic means to submit complaints
- Deadline for airlines to respond to complaints set at 2 months
- Airlines may limit the cost of accommodation in case of major disruptions to three nights and 100€/ night per passenger – except for PRM
- No obligation to provide accommodation in case of flights of less than 250km on aircrafts with max. 80 seats (other than connecting flights) – except for PRM
- Obligation for airports and airlines to set up contingency plans to optimise care and assistance to stranded passengers
- Obligation for airlines to correct spelling mistakes free of charge up to 48h before departure
- Right to full compensation for loss of or damage to mobility equipment (by compelling air carriers to automatically offer the option to make a special declaration of interest – for free)
- More transparency with regard to baggage allowances (at booking and at the airport)
- Measures with regard to the carriage of musical instruments
- Liability limits are adapted in accordance to general price inflation.

In the meantime, the Commission issued **Interpretative Guidelines** in 2016 to facilitate and improve the application of the Regulation in the short term and to promote best practices, taking into account case-law that has had a decisive impact on the interpretation of the Regulation. An **updated version of the Interpretative Guidelines** was published in September 2024.<sup>16</sup> It notably takes into account

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<sup>16</sup> Commission Notice – Interpretative Guidelines on Regulation (EC) No 261/2004 of the European Parliament and of the Council establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights and on Council Regulation (EC) No 2027/97 on air carrier liability in the event of accidents, <https://eur-lex.europa.eu/eli/C/2024/5687/oj>



rulings by the Court of Justice since 2016 that clarify certain provisions. For example, it expands on the concept of ‘flight’, defines whether certain specific situations should be seen as a ‘delay’ or a ‘cancellation’, confirms that long delays (> 3 hours) should give a right to compensation, similar to cancellations, and elaborates on what constitutes ‘extraordinary circumstances’, ‘comparable circumstances’, or ‘at the earliest opportunity’. A new section on massive travel disruptions has also been added.

The 2024 Interpretative Guidelines clearly state that *“Multimodal journeys involving more than one mode of transport under a single transport contract (e.g. a journey by rail and air sold as a single journey) are not covered as such by Regulation (EC) No 261/2004, nor are they covered by any EU legislation [...] If a passenger misses a flight because of a delayed train, they would only benefit from the assistance to be granted under Regulation (EU) 2021/782 [...] if they were delayed by 60 minutes or more at the destination. By the same token, other provisions would apply in the case of a flight missed following a delayed ship or coach journey in the context of a single contract of carriage. However, if the multimodal journey forms part of a combination with other travel services (e.g. accommodation) the package organiser concerned may be liable under Directive (EU) 2015/2302”* (i.e., Package Travel Directive, see sub-section 24 of this Chapter)<sup>17</sup>.

However, this situation may be about to change. As part of the ‘Passenger Mobility Package’ (29. November 2023)<sup>18</sup>, the European Commission published a **Proposal for a Regulation on passenger rights in the context of multimodal journeys**.<sup>19</sup> As this proposal is considered of crucial relevance to SIGN-AIR, it is discussed separately (see sub-section 23 of this Chapter). The ‘Passenger Mobility Package’ also included a **Proposal for a Regulation amending existing passenger rights’ as regards enforcement**<sup>20</sup>, which includes the following amendments/ additions to Regulation (EU) 261/2004: reimbursement when ticket was booked via an intermediary; improving information to passengers on their rights at the time of booking and during journey disruptions; service quality standards; common form for reimbursement and compensation requests; risk-based approach to the monitoring of compliance; sharing of information with national enforcement bodies and information about alternative dispute resolution (ADR) by national enforcement bodies. For SIGN-AIR, the following new articles are most relevant:

- **‘Reimbursement when the ticket was booked through an intermediary’**: Intermediary and carrier shall inform the passenger about the reimbursement process; reimbursement through the intermediary shall be free of charge; in case the intermediary paid the carrier from its own account (‘Merchant of Record), the following deadlines shall be applied: the air carrier reimburses the intermediary within 7 days; the intermediary reimburses the passenger within a further 7 days; if the passenger has still not received the reimbursement after 14 days, the carrier shall contact the passenger and reimburse them within 7 days .

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<sup>17</sup> 2024 Interpretative Guidelines (ibid.), chapter 7 – p.31

<sup>18</sup> [https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29\\_en](https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29_en)

<sup>19</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A752%3AFIN>

<sup>20</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0753>



- **‘Transfer of information’:** Intermediaries shall inform the air carrier that they booked a ticket as an intermediary, and provide the passenger’s contact details and booking details to the carrier, who shall delete the contact details within 72 hours.

It is to note that the above mentioned proposals are currently being discussed in the Council and the European Parliament and as such not yet in force; nevertheless it is relevant to bear in mind the amendments or new rules they seek to introduce, as these reflect both EC concerns as well as improvements to passengers’ experience. We therefore recommend for SIGN-AIR to follow-up on their adoption and proactively consider integrating certain aspects in the DSA and SC, to present for acceptance (for now, on a voluntary basis) by TSP DSA and SC signees.

## **19. PRM rights when travelling by air**

### **a) Description**

Regulation (EC) 1107/2006<sup>21</sup> covers the rights of disabled persons and persons with reduced mobility when travelling by air. It is in force since 26. July 2008.

The Regulation (**§1 – Purpose and scope**) protects passengers with a disability or reduced mobility against discrimination and ensures that they receive assistance. It applies to flights from and within the European Union, as well as to flights from a third country to the EU, if operated by an EU carrier.

Definitions (**§2 – Definitions**) mainly refer to stakeholders involved (a.o. *disabled person, person with reduced mobility, air carrier, Community air carrier, tour operator, managing body of the airport*).

As transport contracts (i.e., tickets) may not include any clauses that deviate from this Regulation (**§13 – Exclusion of waiver**), it is considered relevant for SIGN-AIR to take into account the rules it entails.

**§3 – Prevention of refusal of carriage** provides that air carriers, ticket vendors and tour operators may not refuse to accept a reservation from or embark persons with a disability or reduced mobility – unless (**§4 – Derogations, special conditions and information**) this is strictly necessary to comply with safety requirements established by law (to meet these safety requirements, the carrier may request the person to be accompanied by someone to assist them)<sup>22</sup>, or if the aircraft is physically too small.

Disabled persons and PRM have the right to assistance (**§7 Assistance at airports & §10 Assistance by air carriers**), free of charge, getting on and off the plane, during the flight and in airports before and after the flight. To get the best assistance, they should contact the airline, ticket seller or tour operator at least 48 hours before the trip and present themselves at an agreed time ahead of the departure time at a designated point. However, also without such notification, all reasonable efforts should be made to provide assistance. To ensure a smooth experience, **§6 – Transmission of information** provides that air carriers, their agents and tour operators shall take all measures to receive

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<sup>21</sup> Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5 July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air

<sup>22</sup> In other modes, such an accompanying person shall travel along for free; this is currently not foreseen for air travel – however, a recent proposal to amend Regulation (EC) 1107/2006 suggests this should change (cf. below)

notifications of the need for assistance, and that they should pass these on to the involved carriers and airport managing bodies.

#### **b) Impact**

Definitions included in the Regulation (§2) may feed into the **SIGN-AIR glossary**.

Any **agreements/ contracts**, that cover transport services falling within the scope of the Regulation (§1), need to comply with its provisions, which cannot be waived (§13). It may be possible to codify and publish the rules as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a notification of the need for assistance) & ‘actions’ (e.g., passing on this information to those stakeholders that need to provide this assistance, ensuring a seamless passenger experience).

When creating a *Mobility Package*, SIGN-AIR should consider the situation whereby PRM/ persons with a disability wish to purchase it. By law, tickets and reservations may not be refused to PRM or people with disabilities, and assistance should be provided. This means that the possibility should be foreseen to allow for a notification of the need for assistance, and for this notification to be passed on to any relevant actors that need to provide the assistance throughout the journey.

Added to this, SIGN-AIR should explore the issue of PRM assistance in the context of *Disruption Management* clauses, included in DSA and SC. If passengers that need assistance miss a connection, their assistance needs should be updated accordingly, which in turn requires smooth information exchange between all entities involved (ticket seller, TSPs, infrastructure managers).

#### **Context and state-of-play**

Regulation (EC) 1107/2006 entered into force on 26. July 2008.

In 2012, the European Commission published a first set of **Interpretative Guidelines**.<sup>23</sup> These addressed practical problems and uncertainties that remained for both air carriers and passengers with a disability or reduced mobility. The Interpretative Guidelines were updated in 2024.<sup>24</sup>

Furthermore, it should be noted that, as part of the ‘Passenger Mobility Package’ (29. November 2023)<sup>25</sup>, the European Commission published a **Proposal for a Regulation on passenger rights in the context of multimodal journeys**<sup>26</sup> which, amongst others, introduces seamless PRM assistance through a single notification mechanism, also for multimodal trips, in case of a single contract. As this proposal is considered of crucial relevance to SIGN-AIR, it is discussed separately (see sub-section 23 of this Chapter).

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<sup>23</sup> [https://transport.ec.europa.eu/system/files/2016-09/2012-06-11-swd-2012-171\\_en.pdf](https://transport.ec.europa.eu/system/files/2016-09/2012-06-11-swd-2012-171_en.pdf)

<sup>24</sup> [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C\\_202405992](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C_202405992)

<sup>25</sup> [https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29\\_en](https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29_en)

<sup>26</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A752%3AFIN>

The ‘Passenger Mobility Package’ also included a **Proposal for a Regulation amending existing passenger rights’ as regards enforcement**<sup>27</sup>, which includes the following amendments/ additions to Regulation (EC) 1107/2006: service quality standards; common form for reimbursement and compensation requests; risk-based approach to the monitoring of compliance; sharing of information with national enforcement bodies; information about ADR by national enforcement bodies; cooperation between Member States and the Commission and Passenger Rights Committee. The proposal adds that an accompanying person, when required, shall travel free of charge and be seated next to the person with a disability or reduced mobility – thus proposing to harmonise the rules on this matter and aligning air passengers’ rights with those of passengers travelling with other modes of transport.

It is to note that these proposals are currently being discussed in the Council and the European Parliament and as such not yet in force; nevertheless, it is relevant to bear in mind the amendments or new rules they seek to introduce, as these reflect both EC concerns as well as improvements to passengers’ experience. We therefore recommend for SIGN-AIR to follow-up on their adoption and proactively consider integrating certain aspects in the DSA and SC, to present for acceptance (for now, on a voluntary basis) by TSP DSA and SC signees.

## **20. Rail Passenger Rights**

### **a) Description**

Regulation (EU) 2021/782<sup>28</sup> covers the rights of passengers – including passengers with a disability or reduced mobility – when travelling by rail. It is in force since 7. June 2023, replacing Regulation (EC) 1371/2007.

The Regulation sets out rules related to (**§1 – Subject matter and objectives**): transport contract, information and tickets; liability for passengers and their luggage; delays, missed connections and cancellations; persons with disabilities and PRM; security, complaints and quality of service; information and enforcement.

In principle, the Regulation applies to (**§2 – Scope**) all rail passenger services in the EU. Member States can decide to exempt domestic (regional, urban, suburban) services and international services that start or finish outside the EU.<sup>29</sup> Nevertheless, certain provisions are mandatory for all types of railway services.<sup>30</sup>

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<sup>27</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0753>

<sup>28</sup> Regulation (EU) 2021/782 of the European Parliament and of the Council of 29 April 2021 on rail passengers’ rights and obligations (recast)

<sup>29</sup> A list of exemptions is published on the website of the European Commission’s DG MOVE: [https://transport.ec.europa.eu/transport-themes/passenger-rights/rail-passenger-rights\\_en](https://transport.ec.europa.eu/transport-themes/passenger-rights/rail-passenger-rights_en)

<sup>30</sup> §5 Non-discriminatory contract conditions and tariffs, §11 Availability of tickets and reservations, §13 Liability for passengers and luggage, §14 Insurance and coverage liability, §21 Right to transport (persons with disabilities and PRM), §22 Information to persons with disabilities and PRM about accessibility rules of stations and of rolling stock, §27 Personal security of passengers, §28 Complaints

Definitions (**§3 – Definitions**) refer to the main terms important for the purpose of the Regulation, covering a.o. stakeholders involved (*railway undertaking, infrastructure manager, station manager, tour operator, ticket vendor*), contractual terms related to ticketing (*transport contract, ticket, reservation, through-ticket, travel pass or season ticket*), types of rail journeys (*domestic, urban/suburban, regional, long-distance, international*) and types of disruptions (*missed connection, delay*). It also includes a definition of ‘*person with disabilities*’ or ‘*person with reduced mobility*’.

As transport contracts (i.e., tickets) may not include any clauses that deviate from this Regulation (**§7 – Exclusion of waiver and stipulation of limits**), it is considered relevant for SIGN-AIR to take into account the following rules, presented per main topic or ‘core passenger right’.

**Non-discrimination:** Passengers may not be charged more because of their nationality or where they are buying the ticket from (**§5 – Non-discriminatory contract conditions and tariffs**).

**Access and assistance for disabled passengers and passengers with reduced mobility:** Tickets and reservations shall not be refused to disabled persons and PRM and no extra cost may be charged. Accompanying persons may only be required if strictly necessary (**§21 – Right to transport**). Assistance must be provided, free of charge, at stations and on board. Accompanying persons, if required, shall travel along free of charge (**§23 – Assistance at railway stations and on board**). Railway undertakings, station managers, ticket vendors & tour operators shall cooperate to offer PRM assistance; a single notification (24h) in advance shall be sufficient. Member States may require that station managers and railway undertakings on their territory cooperate to establish and operate Single Points of Contact for PRM and persons with disabilities (**§24 – Conditions under which assistance is provided**).

**Information:** Passengers have the right to adequate information throughout their travel. **§ 9 – Travel information**, together with **Annex II**, dictates which information shall be offered to the passenger both prior to and during the journey (real-time), to be made available in appropriate, accessible formats. This includes information on taking bikes on the train (availability, conditions, reservations), aligned with **§6 – Bicycles**. To complement §9, **§10 – Access to traffic and travel information** obliges infrastructure managers, railway undertakings, ticket vendors and tour operators to exchange data on FRAND (fair, reasonable, and non-discriminatory) terms, using appropriate technical means such as APIs. The right to information also refers to being informed about passenger rights (**§30 – Information to passengers about their rights**), including contact details of the NEBs. Finally, it comprises the right to information on (non-discriminatory) conditions of access for PRM and disabled persons, and for (this, and other) information to be available in appropriate, accessible formats (**§22 – Information to persons with disabilities and persons with reduced mobility**).

**Disruptions (delays, cancellations, denied boarding):** In case of a delay of > 60 minutes, due to a delay at departure, a cancellation or a missed connection, passengers must be offered a choice between re-routing – at the earliest opportunity or at a later date, under comparable conditions, at no extra cost – or a refund. A refund, where relevant, includes a free journey back to the initial departure point. Re-routing may involve alternative transport modes. In case no re-routing options are communicated to passengers within 100 minutes, they may arrange their own alternatives, which shall be reimbursed (**§18 – Reimbursement and re-routing**). Passengers – also travel pass/ season ticket holders – are entitled to compensation, except in case of ‘extraordinary circumstances’ or when they were informed of the delay prior to purchase (**§19 – Compensation**). The right to assistance includes information about the situation, meals and refreshments, and if needed, accommodation (**§20 – Assistance**).

Importantly, **§12 – Through-tickets** introduces an obligation for railway operators to offer through-tickets (i.e., single contracts).<sup>31</sup> Passengers must be informed on purchase about the type of ticket; if not clearly stated otherwise, tickets bought in a single transaction are considered a through-ticket, coming with certain rights in case of missed connections, depending on where the ticket was bought (RU or intermediary).<sup>32</sup>

**Complaint handling:** Each RU and station manager with > 10.000 passengers/ day must set up a complaint-handling mechanism, accessible to the public<sup>33</sup> (**§28 – Complaints**). Passengers may also complain with the NEB (**§33 – Complaint handling by national enforcement bodies and other bodies**).  
*Note: If needed, they can pursue the matter through alternative dispute resolution or in court.*

#### b) Impact

Definitions included in the Regulation (§3) may feed into the **SIGN-AIR glossary**.

Any **agreements/ contracts**, that cover transport services falling within the scope of the Regulation (§2), need to comply with its provisions, which cannot be waived (§7). It may be possible to codify and publish the rules as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a cancellation) & ‘actions’ (e.g., information about the disruption and about alternative connections).

For SIGN-AIR, this entails that *Mobility Packages* must be offered under non-discriminatory contract tariffs and conditions (§5) and that passengers have the right to adequate travel information (§9), both when planning and during the journey. This includes information about taking bikes on trains (availability, conditions, reservations) (§6), information on (non-discriminatory) conditions of access for PRM and disabled persons (§22), and information on passenger rights (§30). Standardisation & harmonisation efforts in the context of SIGN-AIR (*TransiTool*) should consider the data fields in Annex II to the Regulation, which lists the minimum information to be provided by railway undertakings and ticket vendors.

*Disruption Management* clauses, included in SIGN-AIR DSA and SC, should take due care to align with the provisions in this Regulation, which determine that in case of a (long) delay, cancellation, or missed connection, passengers have the right to choose between reimbursement or re-routing (§18), and also to compensation (§19) and assistance (§20). It is to note that only ‘through-tickets’, i.e. ‘Single Tickets’, offer full passenger protection; and that in some cases these are mandatory (§12). In all cases, passengers should be informed of their rights (§12, 30) and be able to complain (§28, 33).

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<sup>31</sup> This obligation applies to long-distance or regional rail services operated by a sole railway undertaking (meaning also those wholly owned by, or wholly-owned subsidiaries of, the RU); while for other rail passenger services, all reasonable efforts should be made to cooperate and offer through-tickets.

<sup>32</sup> When bought from a railway operator: right to reimbursement, assistance, compensation; when bought from a ticket vendor or tour operator: right to reimbursement + 75% compensation

<sup>33</sup> It is to note that this Regulation is complemented by [Commission Implementing Regulation 2024/949 establishing a common form for rail passengers’ reimbursement and compensation requests](#).

When two parties decide to create a *Mobility Package*, the provisions included in the Regulation apply to those parts of the journey that are done by rail (all types of tickets: single, combined, seasonal). Signees to SIGN-AIR DSA and SC may however decide – awaiting the entry into force of new EU legislation on this matter (see sub-section 23 of this Chapter), on a voluntary basis – to offer passenger protection also in the case of multimodal journeys, with re-routing/ reimbursement and assistance (practical information, advice and support) as passengers’ main priorities.

Finally, SIGN-AIR should also look into the issue of PRM assistance, both when offering *Mobility Packages* and in the context of *Disruption Management*. By law, tickets and reservations may not be refused to PRM or people with disabilities (§21), and assistance should be provided, free of charge (§23), whereby one single notification, 24h in advance, should be sufficient, requiring all actors involved to exchange information and collaborate in order to provide a seamless experience (§24).

Regarding *data sharing*, the Regulation explicitly introduces an obligation for rail actors to *share (real-time) traffic and travel information* (§10). Exemptions are possible until 7. June 2030, but only in case it is *not technically feasible* to exchange real-time data. §10 further specifies that involved parties (IM, RU) may request the conclusion of a ‘contract or other arrangement’ under FRAND terms, related to fulfilling their data sharing obligations. Data sharing is at the core of SIGN-AIR, and a crucial enabler for all of SIGN-AIR’s main goals (*Mobility Packages*, *Synchronisation of Timetables*, *Disruption Management*). SIGN-AIR might contribute to overcoming technical hurdles (e.g., by supporting standardisation and harmonisation of data to enable their exchange) and potentially even commercial ones – by contributing to a definition or inventory of what could constitute FRAND commercial terms, in various scenarios.

### Context and state-of-play

Regulation (EC) 1371/2007 came into force at the end of 2009. Following the report on the application of the Regulation (2013) and the impact assessment (2017) – which highlighted some shortcomings and inconsistencies with existing legislation on other transport modes – a proposal for a recast was published in 2017. After several years of debate and negotiations, Regulation (EU) 2021/782 was adopted on 29. April 2021 and entered into force on 7. June 2023.

As part of the ‘Passenger Mobility Package’ (29. November 2023)<sup>34</sup>, the European Commission published a **Proposal for a Regulation amending existing passenger rights’ as regards enforcement**<sup>35</sup>, which includes the following amendments/ additions to Regulation (EU) 2021/782: means of communication to passengers; risk-based approach to the monitoring of compliance with passenger rights; and cooperation between Member States and the EC.

Additionally, the ‘Passenger Mobility Package’ also included a **Proposal for a Regulation on passenger rights in the context of multimodal journeys**.<sup>36</sup> Looking ahead, rail journeys within the scope of Regulation (EU) 2021/782 may constitute part of a multimodal package, in which case the rules outlined in the Proposal on multimodal passenger rights, once it enters into force, would be applicable.

<sup>34</sup> [https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29\\_en](https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29_en)

<sup>35</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0753>

<sup>36</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A752%3AFIN>



As this proposal is considered of crucial relevance to SIGN-AIR, it is discussed separately (see sub-section 23 of this Chapter).

It is to note that both of the above mentioned proposals are currently being discussed in the Council and the European Parliament and as such not yet in force; nevertheless it is relevant to bear in mind the amendments or new rules they seek to introduce, as these reflect both EC concerns as well as improvements to passengers' experience. We therefore recommend for SIGN-AIR to follow-up on their adoption and proactively consider integrating certain aspects in the DSA and SC, to present for acceptance (for now, on a voluntary basis) by TSP DSA and SC signees.

As announced in Ursula von der Leyen's *Political Guidelines for the next European Commission*<sup>37</sup> and confirmed in her Mission Letter to the new Transport Commissioner<sup>38</sup>, the European Commission is preparing a proposal for a **Single Digital Booking and Ticketing Regulation** focusing on rail (announced for end of 2025), which will be accompanied by further amendments to Regulation (EU) 2021/782, most likely expanding the concept of 'through-tickets' to all multi-operator rail journeys.

Finally, it is worth noting the existence already today of **voluntary sectoral agreements** within the rail sector to complement currently existing Regulation on passengers' rights in case of missed connections, notably HOTNAT ('Hop on the next available train')<sup>39</sup> and AJC ('Agreement on Journey Continuation')<sup>40</sup>, allowing international rail passengers that missed their connection (also in case of separately bought tickets with different operators!) to hop on the next train, under certain conditions. Similarly to the provisions included in the Rail Passenger Rights' Regulation, the conditions and rights as foreseen in these agreements could potentially also be codified as triggers and actions in SIGN-AIR's contract templates – preparing already for the likely introduction of a broader 'through-ticketing' obligation in rail (cf. above).

## **21. Bus & Coach Passenger Rights**

### **a) Description**

Regulation (EU) 181/2011<sup>41</sup> covers the rights of passengers travelling by bus or coach. It came into force on 1. March 2013.

The Regulation sets out rules related to (**§1 – Subject matter**): non-discriminatory contract conditions; liability in case of accidents; non-discrimination and assistance for disabled persons and PRM;

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<sup>37</sup> [https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648\\_en?filename=Political%20Guidelines%202024-2029\\_EN.pdf](https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en?filename=Political%20Guidelines%202024-2029_EN.pdf)

<sup>38</sup> [https://commission.europa.eu/document/download/de676935-f28c-41c1-bbd2-e54646c82941\\_en?filename=Mission%20letter%20-%20TZITZIKOSTAS.pdf](https://commission.europa.eu/document/download/de676935-f28c-41c1-bbd2-e54646c82941_en?filename=Mission%20letter%20-%20TZITZIKOSTAS.pdf)

<sup>39</sup> <https://www.railteam.eu/en/services-on-your-journey/hop-on-the-next-available-train-hotnat/>

<sup>40</sup> <https://www.cer.be/cer-eu-projects-initiatives/agreement-on-journey-continuation-ajc>

<sup>41</sup> Regulation (EU) No 181/2011 of the European Parliament and of the Council of 16 February 2011 concerning the rights of passengers in bus and coach transport and amending Regulation (EC) No 2006/2004

passenger rights in case of cancellation or delay; minimum information to be provided to passengers; complaint handling; enforcement.

The Regulation mainly applies to (§2 – **Scope**) regular (i.e., provided at specified intervals, along specified routes, with predetermined stopping points) long-distance (> 250km) bus and coach services starting or finishing in an EU country. Some rights apply to all regular services.<sup>42</sup> Some also apply to ‘occasional services’.<sup>43</sup> Since 1. March 2021, exemptions are not possible anymore.

Definitions (§3 – **Definitions**) refer to the main terms important for the purpose of the Regulation, covering a.o. stakeholders involved (*carrier, performing carrier, ticket vendor, travel agent, tour operator, terminal managing body*), contractual terms related to ticketing (*transport contract, ticket, reservation*), types of services (*regular, occasional*), and types of disruptions (*cancellation, delay*). It also includes a definition of ‘disabled person’ or ‘person with reduced mobility’.

As transport contracts (i.e., tickets) may not include any clauses that deviate from this Regulation (§6 – **Exclusion of waiver**), it is considered relevant for SIGN-AIR to take into account the following rules, presented per main topic or ‘core passenger right’.

**Non-discrimination:** Passengers may not be charged more because of their nationality or where they are buying the ticket from. Carriers shall issue a ticket (which may be in electronic format), unless other documents give entitlement to transport (§4 – **Tickets and non-discriminatory contract conditions**).

**Access and assistance for disabled passengers and passengers with reduced mobility:** Tickets and reservations shall not be refused to disabled persons and PRM – unless this is strictly necessary to comply with legal health and safety requirements, or where infrastructure cannot guarantee safe transport – and no extra cost may be charged. If necessary, PRMs have the right to be accompanied – free of charge – by a person of their choice (§9 – **Right to transport & §10 – Exceptions and special conditions**). Assistance must be provided, free of charge, at designated terminals<sup>44</sup> and on board buses and coaches (§13 – **Right to assistance at designated terminals and on board buses and coaches**). Prior notification at least 36h in advance is required; however, also without such notification, all reasonable efforts should be made to provide assistance (§14 – **Conditions under which assistance is provided**). Relevant to mention for SIGN-AIR is also §15 – **Transmission of information to a third party**: If travel agents or tour operators receive a request for assistance, they shall transfer this to the carrier or terminal managing body as soon as possible.

**Information:** Passengers have the right to adequate information throughout their travel (§24 – **Right to travel information**). The right to information also refers to being informed about passenger rights

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<sup>42</sup> Non-discriminatory transport conditions; PRM access at no additional cost, financial compensation for loss or damage to mobility equipment; travel information and information on passenger rights; complaint handling mechanism; NEBs

<sup>43</sup> Non-discriminatory transport conditions; provision of a ticket or entitlement; compensation and assistance in case of death, injury, loss or damage caused by accidents; financial compensation for loss or damage to mobility equipment

<sup>44</sup> A list of ‘Designated terminals’, is available here (updated 17. October 2024): [https://transport.ec.europa.eu/transport-themes/passenger-rights/road\\_en](https://transport.ec.europa.eu/transport-themes/passenger-rights/road_en)



(§25 – Information on passenger rights), including contact details of the NEBs. Finally, it comprises information on (non-discriminatory) conditions of access for PRM and disabled persons, and for (this, and other) information to be available in appropriate, accessible formats (§11 – Accessibility and information).

**Disruptions (delays, cancellations, denied boarding):** If a long-distance service is cancelled, if departure is delayed for > 2 hours, or in case of overbooking, passengers must be offered a choice between re-routing – at the earliest opportunity, under comparable conditions, at no extra cost – or a refund. A refund, where relevant, includes a free journey back to the initial departure point. If the carrier fails to offer this choice, additional compensation is due (50% of the ticket price) (§19 – Continuation, re-routing and reimbursement). If a service is delayed or cancelled, passengers have the right to timely information about the situation and, if needed, alternative connections (§20 – Information). Under certain conditions, assistance such as snacks, meals and refreshments and, if necessary, accommodation, must be offered (§21 – Assistance in case of cancelled or delayed departures). It may be relevant for SIGN-AIR that the right to reimbursement/ re-routing and assistance does not apply to passengers with ‘open’ tickets, except for those holding a travel pass or season ticket (§23 – Exemptions).

**Complaint handling:** Passengers should first contact the carrier, who must have a complaint handling system in place (§27 – Submission of complaints). They may also complain with the NEB (§28 – National Enforcement Bodies). *Note: If needed, they can pursue the matter through alternative dispute resolution or in court.*

## b) Impact

Definitions included in the Regulation (§3) may feed into the **SIGN-AIR glossary**.

Any **agreements/ contracts**, that cover transport services falling within the scope of the Regulation (§2), need to comply with its provisions, which cannot be waived (§6). It may be possible to codify and publish the rules as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a cancellation) & ‘actions’ (e.g., information about the disruption and about alternative connections).

*Mobility Packages* must be offered under non-discriminatory contract tariffs and conditions (§4), including for people with disabilities and PRM (§9). Passengers have the right to adequate travel information (§24), including about accessibility (§11), in accessible formats. PRM and people with a disability are entitled to assistance, free of charge (§13), following a notification, 36h in advance (§14), whereby travel agents or tour operators are expected to transfer the request for assistance to the carrier or terminal involved (§15).

*Disruption Management* clauses, included in SIGN-AIR DSA and SC, should take due care to align with the provisions in this Regulation, which determine that in case of a (long) delay or cancellation, or denied boarding, passengers (including season ticket and travel pass holders, but excluding passengers holding ‘open’ tickets) have the right to choose between reimbursement or re-routing (and additional compensation, if not provided with this choice) (§19), timely information about the situation and, if applicable, alternative connections (§20) and possibly assistance (§21). In all cases, passengers should be informed of their rights (§25) and be able to complain (§27-28).

Regarding *data sharing*, the Regulation demands the provision of (real-time) information to passengers, including on alternative connections, and also requires ticket vendors to pass on requests for PRM assistance to responsible operators and terminals. SIGN-AIR should consider these requirements in the further development of its goals and use cases. In general, SIGN-AIR can help surpass technical hurdles and facilitate better cooperation between TSPs, ultimately contributing to a better passenger experience.

### Context and state-of-play

As announced in the Sustainable and Smart Mobility Strategy<sup>45</sup>, the European Commission evaluated Regulation (EU) 181/2011 in view of modernising the applicable rules. The **evaluation reports**, published in 2021<sup>46</sup>, highlighted gaps in the Regulation that undermine its effectiveness, such as: low awareness among passengers of their rights; limited protection for services < 250km; delays en route or on arrival not covered; limited liability for damaged or lost luggage. Additionally, the evaluation confirmed that the Regulation should be applied more effectively and more consistently across the EU.

Subsequently, as part of the ‘Passenger Mobility Package’ (29. November 2023)<sup>47</sup>, the European Commission published a **Proposal for a Regulation amending existing passenger rights’ as regards enforcement**<sup>48</sup>, which includes the following amendments/ additions to Regulation (EU) 181/2011: common form for reimbursement and compensation requests; improving information to passengers on their rights at the time of booking and during journey disruptions; service quality standards; risk-based approach to the monitoring of compliance with passenger rights; sharing of information with national enforcement bodies; information about ADR by national enforcement bodies; cooperation between Member States and the EC; Passenger Rights Committee.

Additionally, the ‘Passenger Mobility Package’ also included a **Proposal for a Regulation on passenger rights in the context of multimodal journeys**.<sup>49</sup> Looking ahead, bus & coach journeys within the scope of Regulation (EU) 181/2011 may constitute part of a multimodal package, in which case the rules outlined in the Proposal on multimodal passenger rights, once it enters into force, would be applicable. As this Proposal is considered of crucial relevance to SIGN-AIR, it is discussed separately (see sub-section 23 of this Chapter).

It is to note that both of the above mentioned Proposals are currently being discussed in the Council and the European Parliament and as such not yet in force; nevertheless it is relevant to bear in mind the amendments or new rules they seek to introduce, as these reflect both EC concerns as well as

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<sup>45</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0789>, Action Point 63: “Review of the passenger rights regulatory framework, including to ensure its resilience to extensive travel disruptions, and including options for multimodal tickets”

<sup>46</sup> <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/11879-Bus-coach-transport-passenger-rights-evaluation-en>

<sup>47</sup> [https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29\\_en](https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29_en)

<sup>48</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0753>

<sup>49</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A752%3AFIN>

improvements to passengers' experience. We therefore recommend for SIGN-AIR to follow-up on their adoption and proactively consider integrating certain aspects in the DSA and SC, to present for acceptance (for now, on a voluntary basis) by TSP DSA and SC signees.

## **22. Maritime & Inland Waterways Passenger Rights**

### **a) Description**

Regulation (EU) 1177/2010<sup>50</sup> covers the rights of passengers travelling by sea and inland waterway. It came into force on 18. December 2012.

The Regulation sets out rules related to (**§1 – Subject matter**): non-discriminatory contract conditions; non-discrimination and assistance for disabled persons and PRM; passenger rights in case of cancellation or delay; minimum information to be provided to passengers; complaint handling; enforcement.

With some exceptions<sup>51</sup>, the Regulation applies to (**§2 – Scope**) passenger services departing from an EU port, or departing from a port in a third country to an EU port if operated by an EU carrier, and cruise services<sup>52</sup> with a port of embarkation in the EU.

Definitions (**§3 – Definitions**) refer to the main terms important for the purpose of the Regulation, covering a.o. stakeholders involved (*carrier, Union carrier, performing carrier, ticket vendor, travel agent, tour operator, terminal operator*), contractual terms related to ticketing (*transport contract, ticket, reservation*), types of services (*passenger service, integrated services, cruise*). It also includes a definition of 'disabled person' or 'person with reduced mobility'. It doesn't define types of disruptions.

As transport contracts (i.e., tickets) may not include any clauses that deviate from this Regulation (**§6 – Exclusion of waiver**), it is considered relevant for SIGN-AIR to take into account the following rules, presented per main topic or 'core passenger right'.

**Non-discrimination:** Passengers may not be charged more because of their nationality or where they are buying the ticket from. Carriers shall issue a ticket (which may be in electronic format), unless other documents give entitlement to transport (**§4 – Tickets and non-discriminatory contract conditions**).

**Access and assistance for disabled passengers and passengers with reduced mobility:** Tickets and reservations shall not be refused to disabled persons and PRM – unless this is strictly necessary to comply with legal health and safety requirements, or where infrastructure cannot guarantee safe transport – and no extra cost may be charged. If necessary, PRMs have the right to be accompanied – free of charge – by a person of their choice (**§7 – Right to transport & §8 – Exceptions and special**

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<sup>50</sup> Regulation (EU) No 1177/2010 of the European Parliament and of the Council of 24 November 2010 concerning the rights of passengers when travelling by sea and inland waterway and amending Regulation (EC) No 2006/2004

<sup>51</sup> The Regulation does not apply to small ships (up to 12 passengers and/ or no more than 3 crew members), most historical ships, excursion and sightseeing ships other than cruises, and services that cover >500m one way.

<sup>52</sup> Cruise ship passengers have no right to re-routing or reimbursement in case of cancelled or delayed departures and no right to compensation in case of delay in arrival.

**conditions**). Assistance must be provided, free of charge, both at the port and on board of ships (**§10 – Right to assistance in ports and on board ships**). Prior notification at least 48h in advance is required; however, also without such notification, all reasonable efforts should be made to provide assistance; a single notification should suffice in case the ticket involves multiple journeys (**§11 – Conditions under which assistance is provided**). Relevant to mention for SIGN-AIR is also **§12 – Reception of notifications and designation of meeting points**: If travel agents or tour operators receive a request for assistance, they shall transfer this information to the carrier or terminal operator as soon as possible.

**Information:** Passengers have the right to adequate information throughout their travel (**§22 – Right to travel information**). The right to information also refers to being informed about passenger rights (**§23 – Information on passenger rights**), including contact details of the NEBs. Finally, it comprises the right to information on (non-discriminatory) conditions of access for PRM and disabled persons, and for (this, and other) information to be available in appropriate, accessible formats (**§9 – Accessibility and information**).

**Disruptions (delays, cancellations, denied boarding):** If a service is cancelled or delayed, passengers have the right to timely information about the situation and, if needed, alternative connections (**§16 – Information in the event of cancelled or delayed departures**). In case of a cancellation or a delay at departure of > 90 minutes, they must be offered a choice between re-routing – at the earliest opportunity, under comparable conditions, at no extra cost – or a refund. A refund, where relevant, includes a free journey back to the initial departure point (**§18 – Re-routing and reimbursement in the event of cancelled or delayed departures**). Passengers must in this case also be offered additional assistance such as snacks, meals and refreshments and, if necessary, accommodation (**§17 – Assistance in the event of cancelled or delayed departures**). Finally, passengers may be entitled to compensation (25% resp. 50% of the ticket price, depending on the length of the delay and the length of the scheduled journey) (**§19 – Compensation of the ticket price in the event of delay in arrival**). It may be relevant for SIGN-AIR that the right to reimbursement/ re-routing, assistance or compensation does not apply to passengers with ‘open’ tickets, except those holding a travel pass or season ticket. It is also to note that compensation is not due if the delay or cancellation is caused by weather conditions or extraordinary circumstances. Finally, if the passenger is informed before purchasing the ticket, or if the cancellation/ delay is caused by the passenger’s fault, they have no right to assistance or compensation (**§20 – Exemptions**).

**Complaint handling:** Passengers should first contact the carrier, who must have a complaint handling system in place (**§24 – Complaints**). They may also complain with the NEB about alleged infringements (**§25 – National Enforcement Bodies**). *Note: If needed, they can pursue the matter through alternative dispute resolution or in court.*

## **b) Impact**

Definitions included in the Regulation (§3) may feed into the **SIGN-AIR glossary**.

Any **agreements/ contracts**, that cover transport services falling within the scope of the Regulation (§2), need to comply with its provisions, which cannot be waived (§6). It may be possible to codify and publish the rules as a part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, in the form of ‘triggers’ (e.g., a cancellation) & ‘actions’ (e.g., information about the disruption and about alternative connections).

*Mobility Packages* must be offered under non-discriminatory contract tariffs and conditions (§4), including for people with disabilities and PRM (§7). Passengers have the right to adequate travel information (§22), including about accessibility (§9), in accessible formats. PRM and people with a disability are entitled to assistance, free of charge (§10), following a notification, 48h in advance (a single notification should suffice for multi-leg journeys) (§11), whereby travel agents or tour operators are expected to transfer the request for assistance to the carrier or terminal operator involved (§12).

*Disruption Management* clauses, included in SIGN-AIR DSA and SC, should take due care to align with the provisions in this Regulation, which determine that in case of a (long) delay or cancellation, passengers (including season ticket and travel pass holders, but excluding those holding ‘open’ tickets) have the right to choose between reimbursement or re-routing (§18), timely information about the situation and, if applicable, alternative connections (§16), assistance (§17) and possibly compensation (§19). In all cases, passengers should be informed of their rights (§23) and be able to complain (§24-25).

Regarding *data sharing*, the Regulation demands the provision of (real-time) information to passengers, including on alternative connections, and also requires ticket vendors to pass on requests for PRM assistance to responsible operators and terminals. SIGN-AIR should consider these requirements in the further development of its goals and use cases. In general, SIGN-AIR can help surpass technical hurdles and facilitate better cooperation between TSPs, ultimately contributing to a better passenger experience.

### Context and state-of-play

As announced in the Sustainable and Smart Mobility Strategy<sup>53</sup>, the European Commission evaluated Regulation (EU) 1177/2010 in view of modernising the applicable rules. The **evaluation reports**, published in 2021<sup>54</sup>, highlighted gaps in the Regulation that undermine its effectiveness, such as: several provisions of the Regulation not being clearly defined; low awareness among passengers of their rights; persons with disabilities and reduced mobility (PRM) facing constraints due to the physical inaccessibility of infrastructure and a lack of staff PRM awareness training; insufficient information provision during travel disruptions; use of digital technologies that are not accessible to all passengers; lack of specific rules for passengers travelling with their car. Additionally, the evaluation confirmed that the Regulation should be applied more effectively and more consistently across the EU.

Subsequently, as part of the ‘Passenger Mobility Package’ (29. November 2023)<sup>55</sup>, the European Commission published a **Proposal for a Regulation amending existing passenger rights’ as regards enforcement**<sup>56</sup>, which includes the following amendments/ additions to Regulation (EU) 1177/2010:

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<sup>53</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0789>, Action Point 63: “Review of the passenger rights regulatory framework, including to ensure its resilience to extensive travel disruptions, and including options for multimodal tickets”

<sup>54</sup> <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/11878-Sea-and-inland-waterway-transport-passengers-rights-evaluation- en>

<sup>55</sup> <https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29 en>

<sup>56</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0753>

common form for reimbursement and compensation requests; improving information to passengers on their rights at the time of booking and during journey disruptions; service quality standards; risk-based approach to the monitoring of compliance; sharing of information with national enforcement bodies; information about ADR by national enforcement bodies; cooperation between Member States and the EC; Passenger Rights Committee.

Additionally, the 'Passenger Mobility Package' also included a **Proposal for a Regulation on passenger rights in the context of multimodal journeys**.<sup>57</sup> Looking ahead, sea or inland waterway journeys within the scope of Regulation (EU) 1177/2010 may constitute part of a multimodal package, in which case the rules outlined in the Proposal on multimodal passenger rights, once it enters into force, would be applicable. As this Proposal is considered of crucial relevance to SIGN-AIR, it is discussed separately (see sub-section 23 of this Chapter).

It is to note that both of the above mentioned Proposals are currently being discussed in the Council and the European Parliament and as such not yet in force; nevertheless it is relevant to bear in mind the amendments or new rules they seek to introduce, as these reflect both EC concerns as well as improvements to passengers' experience. We therefore recommend for SIGN-AIR to follow-up on their adoption and proactively consider integrating certain aspects in the DSA and SC, to present for acceptance (for now, on a voluntary basis) by TSP DSA and SC signees.

## **23. Multimodal Passenger Rights**

### **a) Description**

On 29 November 2023, the European Commission adopted a set of proposals designed to improve the experience of passengers and travellers by strengthening their rights. As part of this 'Passenger Mobility Package', the proposal on passenger rights in the context of multimodal journeys<sup>58</sup> sets out, for the first time, new rules to protect passengers using different types of transport in one trip.<sup>59</sup>

The proposal on passenger rights in the context of multimodal journeys covers the following topics (**§1 – Subject matter**): non-discriminatory contract conditions; minimum information to be provided to passengers; passenger rights in case of cancellation or delay; non-discrimination and assistance for disabled persons and PRM; service quality standards; complaint handling; enforcement; penalties.

The proposal for a Regulation applies to (**§2 – Scope**) multimodal journeys, of which all the transport services fall under the scope of existing passenger rights' regulations, offered either by carriers or by intermediaries, under the form of single, combined, or separate multimodal tickets.

Definitions included in the proposal (**§3 – Definitions**) refer to the main terms important for the purpose of the Regulation, covering, a.o.: stakeholders involved (*carrier, managing body of the airport, railway station manager, port terminal operator, bus terminal managing body, multimodal hub*

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<sup>57</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A752%3AFIN>

<sup>58</sup> Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on passenger rights in the context of multimodal journeys COM/2023/752 final

<sup>59</sup> [https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29\\_en](https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29_en)



*manager, ticket vendor, intermediary*), contractual terms related to ticketing (*transport contract, ticket, single – combined – separate multimodal ticket*), types of services (*multimodal journey*), types of disruptions (*missed connection*). It also defines ‘*disabled person*’ or ‘*person with reduced mobility*’.

The proposal follows the same structure and touches upon the same main topics as the other, mode-specific passenger rights’ Regulations. While as of yet, the Regulation is still in the proposal stage and not in force, it is still relevant for SIGN-AIR to take a close look at the provisions included in it, as the topic is very closely linked to at least two of SIGN-AIR’s main goals: *Mobility Packages & Disruption Management*.

**Non-discrimination:** Passengers may not be charged more because of their nationality or where they are buying the ticket from (**§4 – Tickets and non-discriminatory contract conditions**).

**Access and assistance for disabled passengers and passengers with reduced mobility:** Tickets and reservations shall not be refused to disabled persons and PRM – unless this is strictly necessary – and no extra cost may be charged. If a carrier requires a PRM to be accompanied by another person to provide assistance, this person shall travel along free of charge (**§12 – Right to transport**). In the context of single multimodal contracts, carriers, terminal managers and intermediaries must cooperate to provide assistance, free of charge. A single notification, 48h in advance, shall be sufficient. However, also without such notification, all reasonable efforts should be made to provide assistance (**§14 – Assistance to persons with disabilities and persons with reduced mobility**). Complementing §14, **§15 – Single points of contact for assistance at multimodal hubs** provides that Member States shall ensure that carriers and terminal managers on their territory cooperate to establish and operate single points of contact, whose responsibility it is to accept requests for assistance from PRM and pass these on to terminal operators and carriers.

**Information:** Passengers have the right to adequate information throughout their travel, provided in the ‘most appropriate format’, accessible to people with disabilities, and also by electronic means, where possible (**§5 – Travel information for passengers**). *Prior to purchase*, passengers must be informed about the type of ticket (single, combined, separate) and associated rights; general guidance on minimum connection times; general conditions; time schedules and conditions for the fastest trip and for all available fares, highlighting the lowest one; disruptions and delays; complaint handling procedures. *During the journey*, passengers must receive real-time information about disruptions and delays (planned and in real-time); main connecting transport services; security and safety issues. Intermediaries shall *pass on the contact details and booking details to the carriers concerned*, ensuring GDPR compliance. The right to information also refers to being informed about passenger rights (**§23 – Information on passenger rights**), including contact details of the NEBs. Finally, it comprises the right to information on accessibility of hubs and services and for this information to be available in appropriate, accessible formats (**§13 – Information on accessibility to persons with disabilities and persons with reduced mobility**). To complement §5, **§6 – Access to travel information for carriers and intermediaries** mandates that carriers offering single multimodal contracts provide other carriers and intermediaries with access to the travel information as specified in §5. For this, they may request the conclusion of a ‘contract or other arrangement’ on FRAND (fair, reasonable, and non-discriminatory) terms, using appropriate technical means such as APIs (this § mirrors §10 in the revised Rail Passenger Rights’ Regulation).

**Disruptions (missed connections):** If passengers miss a connection in the context of a single multimodal contract, they must be offered the choice between re-routing – at the earliest opportunity or at a later date at the passengers’ convenience, under comparable conditions, at no extra cost – or a refund. Re-routing may involve alternative transport modes. A refund, where relevant, includes a free journey back to the departure point (**§7 – Reimbursement and re-routing**). To complement §7, **§8 – Reimbursement when the single multimodal contract was booked through an intermediary** defines B2B and B2C responsibilities as follows: intermediary and contracting carrier shall inform the passenger about the reimbursement process; if the intermediary has paid the contracting carrier from their own accounts (‘merchant of record’), the following deadlines apply: the carrier reimburses the intermediary within 7 days; the intermediary reimburses the passenger within a further 7 days; if after 14 days the passenger hasn’t been reimbursed, the carrier shall contact the passenger and reimburse them within 14 days. Furthermore, in case of missed connections in the context of a single multimodal contract, passengers are entitled to assistance: meals and refreshments, and accommodation if needed (**§9 – Assistance**). In case of combined multimodal tickets, carriers or intermediaries that sold the ticket and did NOT inform the passenger adequately about their (lack of) rights, have to reimburse the ticket and pay additional compensation in case of a missed connection (75% of the ticket price) within 14 days (**§10 Liability for combined multimodal tickets**).

**Complaint handling:** Passengers should first contact the carrier, who must have a complaint handling system in place (**§18 – Complaints**). The Commission will adopt an implementing act establishing a common form for reimbursement and compensation requests. Passenger may use this form, but are not obliged to. The EC will publish it in all Union languages on its website (**§11 – Common form for reimbursement and compensation requests**). Passengers may also complain with the NEB about alleged infringements (**§25 – National Enforcement Bodies**).

## **b) Impact**

Awaiting the entry into force of this proposal, it is as of yet not mandatory to comply with the provisions included therein. However, the proposal may inspire SIGN-AIR to think ahead, and propose/codify, as part of the ‘standard’ data sharing agreements and smart contracts, i.e., SIGN-AIR contract templates, a number of ‘triggers’ (a missed connection in different scenarios) and ‘actions’ (information about the real-time status and impact on the rest of the journey, offering re-routing alternatives, informing about passenger rights and where to submit complaints, for example).

The content of the Regulation is particularly relevant in the context of SIGN-AIR’s goal to create *Mobility Packages*, differentiating between ‘single’ and ‘combined’ tickets, with different associated rights, notably in terms of *Disruption Management*. Another use case to consider is the right of PRM and persons with a disability to request and receive assistance, through a *single notification mechanism* which requires all actors involved to exchange information and collaborate in order to provide a seamless experience.

## **Context and state-of-play**

From 2011 onwards, EU citizens benefit from a **set of basic, mode-specific passenger rights**: air passenger rights came first in 2004, followed by rail (2007), bus and coach (2010) and waterborne (2011) passenger rights. However, adequate protection for passengers combining multiple transport modes is still missing.



Under its **Sustainable and Smart Mobility Strategy** (SSMS, see paragraphs 91 and 92), the Commission committed to reviewing the existing rules to ensure their resilience to extensive travel disruptions, including options for multimodal tickets (Action 63 of the Action Plan attached to the SSMS).<sup>60</sup>

Already in 2019, the Commission carried out an **exploratory study** on passenger rights in the multimodal context. The study focused on problems faced by passengers in case of multimodal journeys.<sup>61</sup> To complement this study, an **impact assessment** was conducted, the results of which have been published on the European Commission's website.<sup>62</sup> As a result, the Proposal on passenger rights in the context of multimodal journeys was published as part of the 'Passenger Mobility Package' (29. November 2023)<sup>63</sup>.

The said proposal is currently being discussed in the Council and the European Parliament and as such not yet in force; nevertheless it is relevant to bear in mind the amendments it seeks to introduce, as this reflects both EC concerns as well as improvements to passengers' experience, and follow-up on its adoption<sup>64</sup> and as the content of the proposal is closely linked to at least two out of three SIGN-AIR goals – creating *Mobility Packages* ( 'single' and 'combined' tickets) and *Disruption Management*.

## 24. Package Travel Directive

### a) Description

The Package Travel Directive (PTD)<sup>65</sup>, applicable since 1. July 2018<sup>66</sup>, aims to introduce a high, uniform level of consumer protection in relation to contracts for travel packages and linked travel arrangements, taking into account the growing use of internet booking.

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<sup>60</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0789>, Action Point 63: "Review of the passenger rights regulatory framework, including to ensure its resilience to extensive travel disruptions, and including options for multimodal tickets"

<sup>61</sup> <https://op.europa.eu/en/publication-detail/-/publication/f176da6f-d9ca-11e9-9c4e-01aa75ed71a1>

<sup>62</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13290-Travel-better-protection-for-passengers-and-their-rights\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13290-Travel-better-protection-for-passengers-and-their-rights_en)

<sup>63</sup> [https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29\\_en](https://transport.ec.europa.eu/news-events/news/passenger-mobility-package-2023-11-29_en)

<sup>64</sup> The European Parliament's Legislative Train Schedule is a useful source: <https://www.europarl.europa.eu/legislative-train/theme-a-new-plan-for-europe-s-sustainable-prosperity-and-competitiveness/file-multimodal-framework-for-passenger-rights> & [https://oeil.secure.europarl.europa.eu/oeil/en/procedure-file?reference=2023/0436\(COD\)](https://oeil.secure.europarl.europa.eu/oeil/en/procedure-file?reference=2023/0436(COD))

<sup>65</sup> Directive (EU) 2015/2302 of the European Parliament and of the Council of 25 November 2015 on package travel and linked travel arrangements, amending Regulation (EC) No 2006/2004 and Directive 2011/83/EU of the European Parliament and of the Council and repealing Council Directive 90/314/EEC

<sup>66</sup> Texts of the national transposition measures for the Package Travel Directive (EU) 2015/2302, as provided by the Member States, are available here: [https://commission.europa.eu/law/law-topic/consumer-protection-law/travel-and-timeshare-law/national-transposition-measures-package-travel-directive\\_en](https://commission.europa.eu/law/law-topic/consumer-protection-law/travel-and-timeshare-law/national-transposition-measures-package-travel-directive_en)

Chapter I of the Directive clarifies the **subject matter (§1)**, **scope (§2)**, **definitions (§3)** and **level of harmonisation (§4)** (i.e., Member States are expected to not maintain or introduce in their national law any provisions that do not align with those in the PTD).

The rules apply to combinations of at least two types of travel services (transport, accommodation, car rental or other services, for example guided tours) including:

- **packages**, such as ready-made holidays from a tour operator as well as now also customised selection of components by the traveller bought from a single online or offline point of sale;
- **linked travel arrangements**, for instance, when the traveller purchases travel services at one point of sale, but through separate booking processes, or, after having booked one travel service on one website, is invited to book another service on a different website, within 24 hours.

To find out whether a booking is a package, linked travel arrangement, or single booking, a flowchart has been developed.<sup>67</sup> Further details can be found also on the European Commission's website YourEurope.<sup>68</sup>

In most cases, 'Package' means:

- a combination of at least two different types of travel service
  - as part of the same trip, generally purchased from a single point of sale, and/or
  - sold at an inclusive price or advertised as a package;
- that the services have been selected before the traveller agrees to pay.

'Linked travel arrangement' means:

- at least two different types of travel services purchased as part of the same trip, where there are usually, but not necessarily, separate contracts with travel service providers. This applies either:
  - where separate services are selected and paid for on one visit to the same point of sale;
  - where the traveller is offered another travel service within 24h of having booked a first one.<sup>69</sup>

This directive does *not* apply to travel arrangements:

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<sup>67</sup> [https://commission.europa.eu/document/653055bf-a1ae-4280-a26d-bf7142fccfa9\\_en](https://commission.europa.eu/document/653055bf-a1ae-4280-a26d-bf7142fccfa9_en)

<sup>68</sup> [https://europa.eu/youreurope/citizens/travel/holidays/package-travel/index\\_en.htm](https://europa.eu/youreurope/citizens/travel/holidays/package-travel/index_en.htm)

<sup>69</sup> <https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX%3A32015L2302&qid=1529931942475>

- covering less than 24 hours, unless an overnight stay is included;
- offered occasionally, on a not-for-profit basis and only to a limited group of travellers;
- purchased as part of a general agreement for travel relating to a business or profession.

**Content of the Directive:**<sup>70</sup>

- **Clear information for travellers:** Businesses must inform travellers whether they are offered a package or linked travel arrangement, and on their key rights through standardised information forms. They must provide clear information on the features and characteristics of the package, its price and any additional charges.
- **Money-back and repatriation in case of bankruptcy:** Organisers of packages must take out insolvency protection. This guarantee covers refunds and repatriation in case organisers go bankrupt. This guarantee applies also to linked travel arrangements.
- **Clear rules on liability:** The organiser of the package, is liable if something goes wrong, no matter who performs the travel services.
- **Strong cancellation rights:** With the new rules, travellers may cancel their package holiday for any reason by paying a reasonable fee. They may cancel their holiday, free of charge should their destination become dangerous for example because of war or natural disasters, or if the package price is raised over 8% of the original price.
- **Accommodation if the return journey cannot be carried out:** Where travellers cannot return from their package holidays, for instance in the case of natural disasters, travellers are granted accommodation for up to three nights if they cannot return from their holiday on time. Additional nights are covered in line with the relevant passenger rights regulations.
- **Assistance to travellers:** The package organiser must also provide assistance to travellers in difficulty, in particular, by providing information on health services and consular assistance.

Basically, passenger rights in case of a Package are:

- Protection in case of bankruptcy
- Liability for proper performance of the contract
- Assistance in case of difficulties
- Changes to/ termination of the contract.

Passenger rights in case of a Linked Travel Arrangement:

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<sup>70</sup> [https://commission.europa.eu/law/law-topic/consumer-protection-law/travel-and-timeshare-law/package-travel-directive\\_en](https://commission.europa.eu/law/law-topic/consumer-protection-law/travel-and-timeshare-law/package-travel-directive_en)

- Limited protection in case of bankruptcy
- If the travel includes transport, passenger rights still apply.

#### **b) Impact**

In case the SIGN-AIR platform would facilitate contracts that involve different parties offering a combination of at least two types of travel services (transport, accommodation, car rental or other services, for example guided tours) – which is currently not foreseen, but could perhaps be envisioned in the future (?) –, then these parties would need to take into account the rules as defined by the PTD. Any contracts (packages, linked travel arrangement) offered to end-users must offer at least the same protection (cf. above) as outlined by the PTD and transposed in national law.

A multimodal transport service (e.g., an air-rail journey, as foreseen in SIGN-AIR – goal: *Mobility Packages*), may itself also constitute part of a package in the meaning of the PTD, in case it is offered jointly with another service, e.g. accommodation.

#### **Context and state-of-play**

The European Commission published a report on the application of the PTD on 1. March 2021. The report takes stock of the experience gained with the application of the Package Travel Directive since its entry into application in July 2018. It presents preliminary results of the assessment of national measures transposing the Directive. It also assesses the rules in the context of the 2019 Thomas Cook bankruptcy and the challenges that have since emerged during the COVID-19 crisis.<sup>71</sup>

On 29 November 2023, following a [review of the Directive](#), the Commission adopted a proposal to amend the Directive<sup>72</sup> to make the protection of travellers more effective and to simplify and clarify certain aspects of the Directive. Overall, the new rules aim to increase passenger protection:

- Overall, clearer rules and reduced legal uncertainty;
- Strengthened insolvency protection;
- Clarification of passengers' right to self-cancellation;
- Clearer rules on vouchers;
- Limitations set to downpayments;
- Roles of different actors clarified, B2B rules help to ensure a smooth refund process;
- Improved information to be provided to passengers;
- More combinations considered as packages, meaning better consumer protection.

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<sup>71</sup> [https://commission.europa.eu/document/68c2a885-b91c-47e3-ac31-f36669241f47\\_en](https://commission.europa.eu/document/68c2a885-b91c-47e3-ac31-f36669241f47_en)

<sup>72</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0905>

It should be noted that, as part of the ‘Better Protection for Passengers and their Rights’ initiative<sup>73</sup> (launched December 2021), an initial assessment was conducted in view of aligning Air Passenger Rights with the passenger rights included in the PTD, regarding the right to self-cancellation and protection against the risk of a liquidity crisis or an insolvency – two aspects that have not been included in the proposals that formed part of the ‘Passenger Mobility Package’ (November 2023), but might be taken up in the (also ongoing) review of the Air Services Regulation (1008/2008).

It is also to note that for packages that include transport services, both the PTD and passenger rights regulations (e.g., entailing a right to compensation in case of delays) apply (whereby compensation and price reductions shall be deducted from each other to avoid overcompensation). For disruptions occurring during multimodal journeys that form part of a ‘package’, awaiting the entry into force of regulatory protection, the package organiser concerned may be liable.<sup>74</sup>

## 25. MDMS and SDBTR

### a) Description

On 9. December 2020, the European Commission proposed its ‘Sustainable and Smart Mobility Strategy’<sup>75</sup>. The SSMS identified multiple barriers to multimodality, one of them being the cumbersome nature of planning and purchasing tickets for multimodal journeys, pointing to the need of a “conducive framework for EU-wide, integrated, multimodal information, ticketing and payment services”, which would involve “overcoming the insufficient availability and accessibility of data, sub-optimal cooperation between suppliers and vendors, the absence of digital tickets in some cases, inadequate payment system interoperability, and the existence of different licencing and distribution agreements” (§59).

Aligned with this, **Action Point 37 in the SSMS Action Plan** set out to “Assess the need for regulatory action on rights and duties of multimodal digital service providers and issue a recommendation to ensure public service contracts do not hamper data sharing and support the development of multimodal ticketing services, together with an initiative on ticketing, including rail ticketing”.

Subsequently, an **impact assessment study** was launched in October 2021, aiming to lead up to a proposal for a Regulation on Multimodal Digital Mobility Services, defined as “services providing information on traffic and travel data such as location of transport facilities, schedules, availability or fares for more than one transport mode, which may include features enabling the making of reservations, bookings or payments or the issuing of tickets”. The IIA Roadmap<sup>76</sup> pointed out the following issues to be addressed: “difficult co-operation between mobility operators and multimodal digital mobility services; complex and lengthy negotiations to obtain licences and distribution

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<sup>73</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13290-Travel-better-protection-for-passengers-and-their-rights\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13290-Travel-better-protection-for-passengers-and-their-rights_en)

<sup>74</sup> 2024 Interpretative Guidelines on Reg. (EC) 261/2004, chapter 7 – p.31

<sup>75</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0789>

<sup>76</sup> Ares(2021)6062336, available [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13133-Multimodal-digital-mobility-services\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13133-Multimodal-digital-mobility-services_en)

*agreements; the lack of common standards and interfaces; and the lack of solutions concerning revenue sharing. In some cases, those distribution agreements between operators (both public and private) and digital service providers are unbalanced, due to inequality of bargaining power in favour of incumbent operators”.*

In parallel to the impact assessment, the **Multimodal Passenger Mobility Forum (MPMF)** was set up, to assist the European Commission in the preparation of policy initiatives in the field of sustainable multimodal mobility for passengers. The MPMF serves as a platform for structured dialogue, exchange of technical knowledge, cooperation and coordination between Union Member States and relevant public and private stakeholders. Its activities, in the course of 2022, culminated in a final report<sup>77</sup>, that delved deeper into problems and opportunities related to data sharing challenges (for ex., quality of data, cost of data generation and quality control), conditions for access to data (in all transport modes) and license agreements for selling and re-selling mobility services, development of harmonised standards for MDMS technical interfaces (APIs), enhancing cooperation while avoiding ‘self-preferencing’.

Three years later, the MDMS initiative got shelved, but only to be taken up again in 2025. The new approach distinguishes between **two separate but linked worked streams**: one still focusing on market challenges for the development of *multimodal* digital mobility services (**MDMS**) and another one focusing on single digital booking and ticketing in *rail* specifically (**SDBTR**), accompanied by extended passenger protection for multi-operator rail journeys.

#### **b) Impact**

At this moment, it is not possible to describe these initiatives and their impact on SIGN-AIR in detail, as they are still in a too early phase of development and no legislative proposals have been published yet.

However, SIGN-AIR will closely follow-up on them, as they are closely related to the project’s core focus, which is to make it easier for TSPs to collaborate by offering support in terms of data sharing, but also in terms of facilitating the conclusion of agreements and contracts to regulate the terms and conditions for such collaboration. Thus, considering the barriers hampering the development of MDMS, SIGN-AIR might contribute to overcoming some of the technical hurdles (e.g., by supporting standardisation and harmonisation of data to enable their exchange) and potentially even commercial ones,— by contributing to a definition or inventory of what could constitute FRAND commercial terms, in various scenarios.

### **3.4.4 Aviation (safety) law**

#### **26. Code of Conduct for computerised reservation systems**

##### **a) Description**

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<sup>77</sup> [https://transport.ec.europa.eu/news-events/news/multimodal-passenger-mobility-forum-final-report-2023-02-02\\_en](https://transport.ec.europa.eu/news-events/news/multimodal-passenger-mobility-forum-final-report-2023-02-02_en)

Regulation (EC) No 80/2009<sup>78</sup> refers to computerised reservation systems (CRS). It sets out a harmonised code of conduct on the use of CRS to ensure fair competition and the protection of consumers' rights. The relevant articles are listed below:

#### **Article 1 - Subject matter and scope**

The Regulation refers to CRS. It applies to air transport as well as to rail transport when this is combined with a flight.

#### **Article 3 - Relationship with transport providers**

The Regulation defines the system vendor as any body and its affiliates that is responsible for operating or marketing a computerised reservation system. The system vendor must not: impose any unfair or unjustified conditions on airlines or on their own subscribers; prevent an airline from using other reservation systems, including its own internet booking service and call centres; and reserve any specific loading or processing procedures for one or more participating carriers. The system vendor must: load and process data provided by airlines with equal care and timeliness; publicly disclose the extent of a direct or indirect capital holding they have in an airline or vice versa; provide a principal display for each individual transaction through its computerised reservation system; clearly identify in the display any airlines that are banned from flying within the EU; process personal data only for the purposes (making a reservation or issuing a ticket) for which they were given; upon request from the European Commission, submit an independently audited report on their ownership structure and governance model.

#### **Article 7 - Marketing Information Data Tapes ('MIDT')**

The Regulation states that the system vendors may make available marketing, booking and sales data, provided these are offered on a non-discriminatory basis to all participating carriers and do not identify the customer.

#### **b) Impact**

The Regulation might be applied to the SIGN-AIR solution if the solution is considered as a system vendor, or if it collaborates with the CRS. In that case the SIGN-AIR solution must not: impose any unfair or unjustified conditions on airlines or on their own subscribers; prevent an airline from using other reservation systems, including its own internet booking service and call centres; and reserve any specific loading or processing procedures for one or more participating carriers. On the other hand, the SIGN-AIR solution must: load and process data provided by airlines with equal care and timeliness; publicly disclose the extent of a direct or indirect capital holding they have in an airline or vice versa; provide a principal display for each individual transaction through its computerised reservation system; clearly identify in the display any airlines that are banned from flying within the EU; process personal data only for the purposes (making a reservation or issuing a ticket) for which they were given; upon request from the European Commission, submit an independently audited report on their ownership structure and governance model.

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<sup>78</sup> Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems and repealing Council Regulation (EEC) No 2299/89



The Regulation can be connected with the SIGN-AIR solution, especially in the case when the two signees select the sub-goal of a single ticket, as well as the sub-goals of the combined or seasonal tickets. The impact on the SIGN-AIR solution can also be observed in the fact that the project envisioned signing the SC and DSA between air and rail transport modes, and this Regulation shall apply to both air and rail transport products (Article 1).

The SC and DSA in the SIGN-AIR solution should be aligned with Article 3 which defines relationships with transport providers.

The SC and DSA in the SIGN-AIR solution should be aligned with Article 7 (Marketing Information Data Tapes ('MIDT')). "Any marketing, booking and sales data may be made available by system vendors provided that such data are offered with equal timeliness and on a non-discriminatory basis to all participating carriers, including parent carriers." This part should apply to the negotiation part, to provide a non-discriminatory appearance of all possible signees on the SIGN-AIR platform.

## **27. Common rules for the operation of air services in the Community**

### **a) Description**

Regulation No 1008/2008<sup>79</sup> establishes rules on licensing of air carriers, access to air routes, and pricing of air services within the EU. This Regulation removed all commercial restrictions for European airlines operating within the EU i.e. it guarantees EU airlines the right to operate intra-EU flights without additional national restrictions. The document includes articles on public service obligations, which might have a direct connection to multimodal transport development in the EU, particularly when the two signees select the sub-goals of the goal of Synchronisation of timetables.

The relevant articles are listed below:

#### **Article 16 - General principles for public service obligations (PSO)**

Article 16 can be considered to have a direct connection to multimodal transport development in the EU. It ensures regional connectivity for areas where air travel is important (or even only option) but not profitable for airlines. When imposing public service obligations on air transport routes, Member States must evaluate whether other transport modes, such as rail services, can adequately meet transport needs. If existing rail services provide travel times under three hours with sufficient frequencies, connections, and suitable timings, this could reduce the necessity for air transport on certain routes. PSOs can be imposed for up to 4 years (5 years for routes serving outermost regions).

#### **Article 19 - Traffic distribution between airports and exercise of traffic rights**

Article 19 allows Member States to regulate air traffic distribution between airports within the same city or region, taking into account: a) availability of transport infrastructure (e.g., rail, metro); b) public transport connectivity (must allow arrival at the airport within 90 minutes). The regulation ensures adequate transport infrastructure for airport connections. Also, the article states that airports must

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<sup>79</sup> REGULATION (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community



have frequent and reliable public transport linking them to each other and to the city they serve. Any new traffic distribution measures require approval from the European Commission.

#### **Article 20 - Environmental measures**

Article 20 allows Member States to impose restrictions on air traffic for environmental reasons, when alternative modes (such as rail or road) can provide a service. This includes situations where air traffic causes harmful pollution, excessive noise levels, or climate-related concerns.

#### **Article 22 - Pricing freedom**

Article 22 establishes pricing freedom for air transport services within the European Union (EU). This means that airlines can freely set fares and rates for intra-EU flights without government intervention. Governments cannot regulate or impose pricing restrictions on airfares, except under specific circumstances (e.g., public service obligations).

#### **b) Impact**

The regulation aims to ensure connectivity for remote or economically developing regions through air services where other modes are insufficient. This can lead to policies that support multimodal transport solutions, such as combined air-rail ticketing systems or investments in high-speed rail infrastructure to replace short-haul flights.

Article 16 of Regulation No 1008/2008 provides the framework for imposing PSOs on air routes that are important for economic and social development but are not commercially viable for airlines. Article 16 explicitly considers the availability of other transport modes, and if a rail service can efficiently substitute an air route, priority may be given to rail rather than maintaining the air service under a PSO. This provision encourages cooperation between air and rail operators, particularly in high-speed rail corridors, to create seamless multimodal transport solutions. Article 16 should be considered in achieving the SING-AIR goal titled Synchronisation of timetables, and subgoal, substitution of short haul flights. **Note:** The regulation No 1008/2008 focuses on air transport without directly facilitating agreements with other modes. Thus, further policy adjustments could strengthen multimodal cooperation, ensuring that air PSOs complement rail and road services in the case of multimodal agreements.

Article 19 encourages investments in rail and public transport connections between major airports, by fostering that each airport that serves the city must be connected by efficient transport links (e.g., high-speed rail, metro, express bus services). It is also defined that provided transport infrastructure must allow passengers to travel between the airports and the city center within 90 minutes. It directly encourages better air-rail links to ensure seamless connectivity between airports and cities and supports the development of multimodal hubs where air passengers can easily switch to rail or road transport. Article 19 also states that airports must have frequent and reliable public transport linking them to each other and to the city they serve. This creates opportunities for air-rail agreements (single ticketing and baggage handling between trains and airplanes), where airlines collaborate with railway operators to provide reliable seamless connections. The implementation of Article 19, which regulates traffic distribution between airports while ensuring adequate multimodal transport connectivity, has led to several successful air-rail integration agreements across the EU: Lufthansa and Deutsche Bahn

(DB)<sup>80</sup>, Air France and SNCF, KLM and NS Dutch Railways, and Vienna Airport and Austrian Federal Railways (ÖBB).

Article 20 allows Member States to limit or refuse traffic rights when serious environmental issues exist, particularly if other modes of transport can provide appropriate service levels. It directly influences multimodal transport cooperation by prioritizing environmental sustainability, which can result in a shift from air transport to alternative modes such as rail and road. Article 20 encourages substitution of air routes with rail or other sustainable transport where feasible. Airlines may have agreements with rail operators to offer single tickets.

Article 22 enables dynamic pricing across transport modes. Multimodal agreements of the SING-AIR platform involve integrating different transport modes (air, rail, road, maritime) to offer seamless travel service and as such it may influence the coordination between dynamic airline pricing with fixed rail or bus ticket prices.

## **28. Allocation of slots at Community airports**

### **a) Description**

Regulation 95/93<sup>81</sup> has indirect but important implications for multimodal transport development in the EU. It primarily regulates how airlines gain access to take-off and landing slots to ensure fair competition and efficient airport use. It might affect the process of slot allocation that ensures better synchronization between air and rail services in the case of a multimodal agreement. This regulation only governs slot allocation for airlines, but its rules on coordination, traffic distribution, and public service obligations can indirectly influence multimodal transport at multimodal airports. If a multimodal hub relies on efficient slot allocation, this regulation might have influence on air-rail connectivity.

### **Article 3 - Conditions for airport coordination**

Article 3 establishes the process for designating an airport as coordinated or fully coordinated when demand exceeds available capacity, ensuring transparent, neutral, and non-discriminatory slot allocation. This article has an impact on airport management and airline operations. It promotes airline competition and mitigates congestion at airports.

### **Article 6 - Airport capacity**

Article 3 requires authorities to assess airport capacity, considering different types of traffic. Competent authorities must determine the available capacity for slot allocation twice a year, in

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<sup>80</sup> Lufthansa and DB have a codeshare agreement, meaning passengers can book train tickets under a Lufthansa flight number. High-speed rail services from Frankfurt Airport connect to major German cities such as Cologne, Stuttgart, Düsseldorf, and Munich in under three hours. Rail connectivity meets the 90-minute rule for airport accessibility outlined in Article 19.

<sup>81</sup> COUNCIL REGULATION (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports

coordination with key stakeholders (air traffic control (ANSP), airlines, airport authority etc.). The goal is to maximize airport efficiency while maintaining safety and operational stability.

## **Article 9 - Regional services**

Article 9 allows Member States to reserve slots at fully coordinated airports for domestic scheduled services to ensure regional connectivity. If no other transport mode can provide adequate service, an air route may receive priority slot access and only one carrier must be operating the route. Slots can also be reserved for routes where public service obligations (PSO) apply, ensuring that essential air services continue in regions where market forces alone would not sustain them.

### **b) Impact**

If a multimodal hub, such as an airport with an integrated rail station, experiences congestion, it may be designated as a fully coordinated airport, limiting slot availability for airlines. The allocation of airport slots to airlines is done according to defined rules (follows established regulations). In the case of the establishment of a multimodal transport system, this regulation could lead to amendments in these rules. New provisions could be introduced to account for multimodal services, prioritizing air-rail connections and ensuring capacity is allocated efficiently to enhance seamless connectivity (the SIGN-AIR goal titled Synchronisation of timetables).

Article 6 requires authorities to assess airport capacity, considering different types of traffic (short-haul, long-haul etc.). This can encourage improved infrastructure planning, ensuring that airports have integrated transport hubs (rail, bus, and/or metro connections). This fosters better air-rail connectivity, particularly in congested hubs where short-haul flights can be replaced by rail services (the SIGN-AIR goal titled Synchronisation of timetables, and subgoal, substitution of short haul flights).

Article 9 supports intermodal connections for underserved regions, encouraging coordination between air and rail/bus services, so it could impact air-rail agreements, especially if a high-speed rail alternative is available. Also it might influence slot allocation policies in favor of rail where applicable (the SIGN-AIR goal titled Synchronisation of timetables, and subgoal, substitution of short haul flights).

This regulation only applies on slot allocation for airlines, but its rules on coordination, traffic distribution, and public service obligations can indirectly influence multimodal transport integration at airports. Multimodal agreement of SIGN-AIR platform would fall under this regulation in a case when slot allocation rules influence multimodal scheduling (e.g., high-speed rail replacing short-haul flights). Also, it might be applicable when traffic distribution rules prioritize multimodal hubs (e.g., requiring air-rail connectivity before slot approval).

## **29. Provision of air navigation services in the single European sky**

### **a) Description**

Regulation 550/2004<sup>82</sup> primarily focuses on the efficiency and safety of air navigation services within the EU. However, several articles could impact multimodal transport development in the EU by

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<sup>82</sup> REGULATION (EC) No 550/2004 of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the single European sky (the service provision Regulation)

improving interoperability, data exchange, and efficiency in air transport, which can facilitate better integration with other transport modes. Its impact is indirect.

#### **Article 6 - Common requirements**

Article 6 establishes the common safety, quality, and interoperability standards that air navigation service providers (ANSPs) must meet. This uniformity reduces fragmentation in air navigation services, benefiting airlines, airports, and passengers. Common requirements enable seamless cross-border air navigation services.

#### **Article 10 - Relations between service providers**

Article 10 allows air navigation service providers to collaborate within the Single European Sky (SES) by formalizing agreements and exchanging operational data. This ensures clear accountability and efficient coordination between providers.

#### **Article 13 - Access to and protection of data**

Article 13 requires real-time operational data exchange between air navigation service providers, airspace users, and airports. It establishes rules for the exchange, access, and protection of operational data in the context of air navigation services. Access to relevant operational data must be granted to appropriate authorities, certified ANSPs, airspace users, and airports on a non-discriminatory basis. Certified ANSPs, airspace users, and airports must establish standard conditions for access to relevant operational data beyond real-time exchanges. The regulation allows for detailed rules to be established at the EU level.

#### **b) Impact**

Article 6 ensures standardization of procedures across different transport modes and could facilitate the development of single European transport hubs. It plays a key role in enabling agreements between service providers by establishing clear guidelines for data exchange and operational standards, ensuring seamless coordination and interoperability.

Article 10 allows air navigation service providers to collaborate by formalizing agreements and exchanging operational data. This enables better coordination between airports, rail networks, and public transport operators by facilitating data sharing on schedules, delays, and service disruptions. It supports seamless multimodal transport by improving real-time communication between different transport systems. Further, it can enhance on-time performance for connecting flights to rail or road transport.

Article 13 requires real-time operational data exchange between air navigation service providers, airspace users, and airports. This improves passenger information systems and enables different transport providers (air, rail and road) to synchronize services more effectively. By ensuring that real-time flight data is accessible, it allows rail and road operators to adjust schedules dynamically, minimizing transfer times and disruptions.

### **30. Design of airspace structures and data quality, runway safety**

#### **a) Description**

The Regulation (EU) 2020/469<sup>83</sup>, primarily focuses on air traffic management (ATM), air navigation services (ANS), airspace structure design, and data quality. It amends existing regulations (EU) No 923/2012, (EU) No 139/2014, and (EU) 2017/373 to enhance safety, efficiency, and standardization in European aviation. It requires digitalization of aeronautical information, ensuring consistency with Single European Sky (SES) objectives.

Multimodal agreement settlement supported by the SIGN-AIR platform refers to the integration of two different transportation modes (air, rail, and road) under different regulatory frameworks. At the moment, this regulation is applicable in the aviation sector, imposing stricter data management and quality standards on entities responsible for aeronautical information. Stakeholders in rail or road transport may need to adjust their systems to meet the aviation sector's enhanced data and safety requirements. However, its implementation may require adaptations from non-aviation transport sectors to ensure seamless multimodal integration.

**Section 2 – Safety of Services** – defines safety requirements for air traffic service providers (ANSPs), focusing on operational safety, contingency planning, and coordination with other stakeholders. It ensures reliable multimodal transport integration when air TSPs are involved in multimodal agreement.

**Section 3 – Aeronautical Information Products** - focuses on standardized data presentation and digital data sets. These provisions are important for multimodal transport integration, ensuring that air, rail and road operators have accurate, up-to-date information for seamless coordination. In particular:

- **Chapter 1 – Aeronautical information in a standardised presentation** – defines how aeronautical information should be formatted and distributed to ensure consistency and interoperability.
- **Chapter 2 – Digital data sets** - mandates the digitalization of aeronautical information, ensuring compatibility with data-sharing systems used in multimodal agreements.

**Annex 3:** points, ATM/ANS.OR.A.080 and ATM/ANS.OR.A.085.

**ATM/ANS.OR.A.080 - Provision of Aeronautical Data** - mandates ATM/ANS providers to share aeronautical data with Aeronautical Information Service (AIS) providers in a timely manner.

**ATM/ANS.OR.A.085 - Aeronautical Data Quality Management** - introduces strict accuracy, integrity, and consistency standards for aeronautical data.

**Appendix 1 - Aeronautical Data Catalogue** - defines common formats for digital aeronautical data exchange and aligns with Single European Sky digital transformation goals.

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<sup>83</sup> REGULATION (EU) 2020/469 amending Regulation (EU) No 923/2012, Regulation (EU) No 139/2014 and Regulation (EU) 2017/373 as regards requirements for air traffic management/air navigation services, design of airspace structures and data quality, runway safety and repealing Regulation (EC) No 73/2010

## **b) Impact**

The Regulation (EU) 2020/469 defines data quality requirements, ensuring accurate aeronautical information and seamless interoperability between aviation stakeholders. Digitalization and data exchange play a key role in all goals within the SIGN-AIR platform. This has an impact on coordination with other transport modes that rely on precise scheduling and data exchange.

Section 2 – Safety of Services – it might have an impact on multimodal agreement content in achieving the third goal (Disruption management) because it ensures continuity of transport operations during air traffic disruptions (e.g., rerouting flights, adjusting train or bus schedules). Also, it enhances crisis response coordination between air and ground transport in hubs, minimizing passenger inconvenience and supply chain disruptions. This regulation allows integrated emergency response planning for multimodal hubs, reducing the impact of aviation emergencies on rail and road transport.

Section 3 – Chapter 1 – main impact will be on ensuring real-time updates for multimodal transport systems, allowing railway and road transport operators to adjust schedules based on flight information. By defining that all aeronautical information must be in English and follow ISO transliteration standards, it ensures TSPs can access and understand flight-related data. Chapter 2 requires that aeronautical information must be provided as structured digital data sets and each data set must include metadata (e.g. provider name, date/time of data provision, validity period etc.) that enables digital integration between aviation and other transport networks and it is aligned with the requirements of the SIGN-AIR platform.

ATM/ANS.OR.A.080 - enhances predictability for multimodal journey planners, allowing passengers to receive up-to-date flight and ground transport schedules. Real-time updates of flight schedules, delays, and operational disruptions can be integrated into multimodal transport systems, ensuring accurate coordination with train and bus. It might help for Travel companion deployment.

ATM/ANS.OR.A.085 - Strengthens real-time information sharing and sets high accuracy and integrity standards for aeronautical data. This will enhance digital synchronization between aviation, rail, and road TSPs, reducing information mismatches.

Appendix 1 - Aeronautical Data Catalogue – this should be taken into account when developing the SIGN-AIR platform. It will enable seamless data exchange between airlines and other TSPs.

The standardized digital aeronautical information provisions in Regulation (EU) 2020/469 enhance multimodal agreement efficiency by ensuring real-time flight data integration with rail and road transport, and enhancing disruption management through automated NOTAM (Notice to Air Missions) updates.

## **31. Management of information security risks with a potential impact on aviation safety**

### **a) Description**

Regulation (EU) 2022/1645<sup>84</sup> primarily addresses information security risk management within the aviation sector. It applies to airport operators and apron management service providers under

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<sup>84</sup> REGULATION (EU) 2022/1645 laying down rules for the application of Regulation (EU) 2018/1139 of the European Parliament and of the Council, as regards requirements for the management of information security

Regulation (EU) No 139/2014. It establishes requirements for identifying, managing, and mitigating information security risks that could impact aviation safety. It ensures that cyber threats, system vulnerabilities, and security incidents do not compromise aviation safety.

Multimodal agreements that rely on aviation information security networks (such as SIGN-AIR platforms that include airport operators), may indirectly be subject to this regulation in terms of cybersecurity compliance. The regulation might impact the SIGN-AIR platform if security risks are linked to data exchange between airports and other transport networks.

### Article 3 – Definitions

This article defines the main terms important for the purpose of the Regulation.

**Article 6** - Amendment to Regulation (EU) No 748/2012 and Article 7 - Amendment to Regulation (EU) No 139/2014 - Information Security Management System (ISMS):

- **Annex (IS.D.OR.200)** - requires organisations to establish, implement, and maintain an information security management system (ISMS) to protect data.
- **Annex (IS.D.OR.205 and IS.D.OR.210)** - Mandates risk assessment and treatment of data vulnerabilities
- **Annex (IS.D.OR.230)** – Information Security External Reporting Scheme - Requires organisations to report security incidents impacting aviation safety to competent authorities within 72 hours.
- **Annex (IS.D.OR.235)** – Contracting of Information Security Activities - Any organisation outsourcing IT-related tasks must ensure subcontractors meet aviation security requirements.

Regulation (EU) 2023/203<sup>85</sup> focuses on the management of information security risks in aviation safety. It establishes requirements for aviation organizations and competent authorities to implement security measures that protect aviation-related IT systems, networks, and data from cyber threats. The regulation requires detection, response, and recovery from cyber threats that could compromise flight operations.

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risks with a potential impact on aviation safety for organisations covered by Commission Regulations (EU) No 748/2012 and (EU) No 139/2014 and amending Commission Regulations (EU) No 748/2012 and (EU) No 139/2014

<sup>85</sup> Regulation (EU) 2023/203 laying down rules for the application of Regulation (EU) 2018/1139 of the European Parliament and of the Council, as regards requirements for the management of information security risks with a potential impact on aviation safety for organisations covered by Commission Regulations (EU) No 1321/2014, (EU) No 965/2012, (EU) No 1178/2011, (EU) 2015/340, Commission Implementing Regulations (EU) 2017/373 and (EU) 2021/664, and for competent authorities covered by Commission Regulations (EU) No 748/2012, (EU) No 1321/2014, (EU) No 965/2012, (EU) No 1178/2011, (EU) 2015/340 and (EU) No 139/2014, Commission Implementing Regulations (EU) 2017/373 and (EU) 2021/664 and amending Commission Regulations (EU) No 1178/2011, (EU) No 748/2012, (EU) No 965/2012, (EU) No 139/2014, (EU) No 1321/2014, (EU) 2015/340, and Commission Implementing Regulations (EU) 2017/373 and (EU) 2021/664.



There is no direct impact on multimodal agreement, but the relevance of this regulation to SIGN-AIR agreements depends on how information security in aviation affects multimodal operations. The regulation mandates a robust Information Security Management System (ISMS) for aviation stakeholders, including airlines, airports, and air traffic control.

**Article 1 - Subject Matter** - sets out requirements for managing information security risks in aviation safety.

**Article 4 - Requirements for Organisations and Competent Authorities** – requires that all organisations must implement an Information Security Management System (ISMS) to detect and respond to cybersecurity threats.

**Article 5 - Requirements Arising from Other Union Legislation** - Recognizes compliance with cybersecurity laws like **Directive (EU) 2016/1148 (NIS Directive)** and **Regulation (EU) 2021/696 (Union Space Programme)** as equivalent to aviation cybersecurity standards.

#### **b) Impact**

If an air-rail agreement is signed and supported by the SIGN-AIR platform (e.g. single ticketing, disruption management) and it includes sharing real-time passenger data with airlines/airports, it may need to comply with aviation security protocols. The SIGN-AIR platform must adhere to the definitions outlined in this article, including information security, information security risk, information security event, incident response, threat, vulnerability and risk assessment (Article 3). IS.D.OR.205 requires that parties involved must identify interfaces where they exchange data with other entities. IS.D.OR.210 requires that parties involved must develop security protocols for external connections, thus it includes those with multimodal platforms. IS.D.OR.230 requires that if any information security incident or vulnerability in a multimodal system (e.g., an airport-rail database) affects aviation operations, it must be reported to aviation authorities. This applies if multimodal systems share passenger, cargo, or operational data with aviation networks. IS.D.OR.235 requires any operator, that is not from the aviation sector, that contracts IT services that interact with airport operations, they must ensure compliance with aviation cybersecurity regulations.

Multimodal agreement of SIGN-AIR platform might cover real-time data exchange (e.g., flight schedules, passenger information, etc.) between TSPs from different transport modes. It requires that cybersecurity is harmonized across sectors. By strengthening cybersecurity in aviation, the regulation indirectly enhances security standards in digital transport platforms that integrate air transport with other modes. Thus, if other TSPs share data with aviation (e.g., ticketing, schedules), they must align their security protocols to aviation standards. Article 1 might have impact on how digital integration will be managed. Article 4 will require for other TSPs to align their security policies with aviation's standards. Article 5 acknowledges overlapping cybersecurity frameworks across sectors, highlighting the need for harmonized security standards in multimodal transport.

### **3.5 Standard development support**

The standardisation activities associated to the SESAR Solution - SIGN-AIR platform at this stage of the project (M22) are being detailed in D2.5 "Standardisation (STAND) - Intermediate".



## Beneficiaries' logos

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