



Deliverable D4.2

Governance Framework of the Tourism Data Space



**Funded by
the European Union**

31/07/2023

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

PROJECT INFORMATION

Project Number	101084007
Project Acronym	DATES
Project Full title	European Data Space for Tourism
Project Start Date	1 November 2022
Project Duration	12 months
Funding Instrument	Digital Europe
Funding Scheme	CSA – Coordination and Support Action
Topic	DIGITAL-2021-PREPACTS-DS-01-TOURISM
Coordinator	AnySolution SL

DELIVERABLE INFORMATION

Deliverable No	D4.2
Deliverable Title	Governance Framework of the Tourism data Space
Work-Package No	WP4
Work-Package Title	Governance and Business Framework
WP-Leader (Name and Short Org. Name)	Nuria de Lama- IDC
Tasks No	T4.2
Tasks Title	Open and inclusive Governance Framework definition
Task Leader (Name and Short Org. Name)	Eric Pol - ANG
Main Author (Name and Short Org. Name)	Eric Pol -ANG
Other Authors (Name and Short Org. Name)	Olivier Dion (ANG), Nuria de Lama (IDC), Marco Codastefano (Intellera), Daniel Iglesias, Dolores Ordóñez (ANYSOL), Martin Soutschek (OUTD), Luděk Kühn (DIHT)

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

Reviewers (Name and Short Org. Name)	Tayrne Butler (ANYSOL), Ana Moniche (NECSTOUR)
Status	Draft x Final <input type="checkbox"/>
Deliverable Type	Report X Data <input type="checkbox"/> Demonstration <input type="checkbox"/>
Dissemination Level	Public (PU) X Confidential (CO) <input type="checkbox"/> Restricted (PP) <input type="checkbox"/> Restricted (RE) <input type="checkbox"/> <i>PU: Public; PP: Restricted to other programme participants (incl. Commission Services); RE: Restricted to a group specified by the consortium (incl. Commission Services); CO: Confidential, only for the members of the consortium (incl. Commission Services)</i>
Date Approved by Coordinator	31/07/2023

DOCUMENT REVIEW HISTORY

Date	Version	Reviewer Name (Short Organisation Name)	Summary of main changes
28/06/2023	V01	Dolores Ordóñez (ANYSOL), Tayrne Butler (ANYSOL)	3.1 Improvement of definitions and examples 3.2 SMEs mention Tourism compliance checking Overall review and comments in all sections
11/07/2023	V02	Ana Moniche (NECS)	3.1 introduction of Eurostat and statistical entities
31/07/2023	V1	Tayrne Butler (ANYSOL), Dolores Ordóñez (ANYSOL)	Final review

FINAL ACCEPTANCE BY COORDINATOR: 31/07/2023

DATES CONSORTIUM			
Part. No	Participant organisation name	Short Name	Country
1	ANYSOLUTION SL	ANYSOL	ES
2	FUNDACION TECNALIA RESEARCH & INNOVATION	TECN	ES
3	IDC ITALIA SRL	IDC	IT

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

4	MINISTERO DEL TURISMO	MITUR	IT
5	INTELLERA CONSULTING SRL	INTELLERA	IT
6	AMADEUS SAS	AMAD	FR
7	INTERNATIONAL DATA SPACES EV	IDSA	DE
8	ARCTUR RACUNALNISKI INZENIRING DOO	ARCTUR	SI
9	NETWORK OF EUROPEAN REGIONS FOR COMPETITIVE AND SUSTAINABLE TOURISM ASBL	NECS	BE
10	OUTDOORACTIVE AG	OUTD	DE
11	DIH TOURISM 4.0, ZU	DIHT	CZ
12	AVORIS RETAIL DIVISION SL	AVOR	ES
15	aNEWGOVERNANCE	ANG	BE

LEGAL DISCLAIMER

The information and views set out in this deliverable are those of the author(s) and do not necessarily reflect the official opinion of the European Union. The information in this document is provided “as is”. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein. The DATES Consortium members shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials subject to any liability which is mandatory due to applicable law.

INDEX

EXECUTIVE SUMMARY	9
1 INTRODUCTION	10
2 METHODOLOGICAL APPROACH.....	13
3 HOW TO GOVERN A DATA SPACE	14
3.1 What is a Data Space	14
3.2 How to build data sharing rules within a Data Space	17
3.3 What are the key decision-making levels for Data Spaces	19
4 PROPOSED GOVERNANCE FRAMEWORK.....	24
4.1 The Rulebook of a Data Space.....	25
4.2 The Rolebook of Data Spaces.....	26
4.3 Benefits of the proposed governance framework.....	28
5 EUROPEAN TOURISM DATA SPACE GOVERNANCE.....	31
5.1 About the European Tourism Data Space (ETDS)	31
5.2 The European Tourism Data Spaces Rolebook & Rulebook	33
5.3 The tourism governance coordinating body.....	37
6 CONCLUSION	42

Index of Figures

Figure 1 - Creating a local tourism Data Space Rulebook (page 26)

Figure 2 - Sitra Rolebook & Rulebooks approach (page 28)

Figure 3 - Representativity within the European Tourism Data Space (page 33)

Figure 4 - European Tourism Data Space Governance Body (page 38)

Figure 5 - Practical Dimensions of the European Tourism Data Space Governance Body (page 41)

Index of Tables

Table 1 - First examples of Rulebooks in the tourism Open Rulebook Library (page 36)

List of Abbreviations and Acronyms	
API	Application Programming Interface
B&B	Bed and Breakfast
B2B	Business to Business
B2C	Business to Consumer
B2G	Business to Government
BLOTF	Business, legal, Operational, Functional, and Technical Framework
BSO	Business Support Organization
CB	Certification Body
CSA	Cyber Security Act
CX	Customer Experience
DA	Data Act
DAMA	Data Management Association
DG	Directorate General
DGA	Data Governance Act
DMA	Digital Markets Act
DMO	Destination Management Organization

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

DSA	Digital Services Act
DSI	Data Space Instance
DSSC	Data Spaces Support Center
DST	Data Space for Tourism
DX	Digital Transformation
EC	European Commission
EF	Evaluation Facility
EHDS	European Health Data Space
ETDS	European Tourism Data Space
EU	European Union
EU	End User (depending on the context)
FFD	Free Flow of Data
GDI	Governance for Data Space Instance
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
HVD	High Value Datasets
ICC	Intelligence Cities Challenge
ICT	Information and Communication Technologies
IDS	International Data Space
IDSA	International Data Spaces Association
IoT	Internet of Things
IT	Information Technologies
MS	Member State
OEF	Organisation Environmental Footprint
OTDA	Open Tourism Data Alliance
PEF	Product Environmental Footprint
PoC	Proof of Concept

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

PPP	Public Private Partnership
PSI	Public Sector Information
SME	Small and Medium Enterprise
SO	Support Organisation
SP	Service Provider
STR	Short Term Rentals
UNWTO	United Nations World Tourism Organization
WP	Work Package

EXECUTIVE SUMMARY

D4.2 discusses the vital importance of establishing a comprehensive and effective governance framework for the future European Tourism Data Space (ETDS) that focuses on benefiting the tourism industry. The report is based on research conducted by the DATES consortium members in collaboration with Sitra, and interviews conducted by DATES participants with various tourism stakeholders in multiple Member States. D4.2 underscores the significance of involving all relevant stakeholders, including public and private tourism data providers, individuals (citizens, travellers), tourism associations, and academia, in governing the European Tourism Data Space (ETDS). The involvement of Member States is crucial to facilitate the establishment of Data Spaces, as it connects local tourism Data Space initiatives with the EU-level strategy and governance framework. However, in the context of tourism, many data sharing initiatives lack awareness of the EU data strategy and Data Spaces, and only a few identify themselves as tourism Data Space initiatives. D4.2 also clarifies that the governance and legal frameworks of Data Spaces are interconnected yet distinct concepts. The legal model consists of legally binding rules, primarily derived from regulations, while the governance framework aims to coordinate stakeholders to collectively determine various types of rules (hard law, soft law, internal Data Spaces' decision-making rules). The effectiveness of the proposed governance framework will heavily depend on striking the right balance between regulation and innovation.

To achieve the goals of the European Tourism Data Space (ETDS), each Data Space initiative should appoint a governance authority (or body) responsible for implementing an inclusive governance process outlined in a "Data Space Rulebook." This Rulebook defines decision-making processes and comprises rules for data sharing within the Data Space and with external parties. These rules can be either hard law rules (legally binding regulations), soft law rules (sectoral and cross-sectoral standards, guidelines, and code of conduct), or internal rules decided among members of a Data Space. Our proposed governance framework advocates for a common standard for Data Spaces' Rulebooks based on a standard data-sharing rule language that promotes interoperability across Data Spaces, sectors, and borders, beyond just tourism.

To address the complexity in decision-making, given that data sharing rules and Rulebooks used in a single Data Space can originate from many different sources (EU or MS parliaments, cross-sectoral standard organisations, multiple tourism associations, etc.), we propose the concept of a "Rolebook." The Rolebook is an open and dynamic registry that maps all relevant decision-making entities: "Who does what" and "Who decides for what". To streamline the creation of Rulebooks for all Data Spaces and ensure interoperability, the report suggests creating an "Open Rulebook Library." This library would include Rulebooks produced by any governance body within the tourism Rolebook (parliaments, tourism associations, etc.), providing accessibility and minimising governance responsibilities for individual Data Space initiatives. We highly recommend beginning the creation of the Rolebook library by identifying existing regulations, standards, guidelines, and codes of conduct pertaining to tourism.

Lastly, we propose establishing a new coordinating governance body for the European Tourism Data Space (ETDS) that would maintain and orchestrate the EU tourism Rolebook, thereby avoiding governance gaps and overlaps, and facilitating the creation of Rulebooks for all local tourism Data Space initiatives.

1 INTRODUCTION

The tourism industry plays a vital role in the European economy, accounting for 10.3% of the EU's GDP¹, while in comparison, the EU automotive industry accounts for 7%. It employs 12.3 million people directly, and if indirect jobs are added, the figure rises up to 27.3 million jobs. They are employed within 2.3 million companies, which underlines the specificities of tourism as a very fragmented sector. In Europe there are major players such as global hotel chains or international airlines, or in the Tourism Data sector, companies like Amadeus (a member of the DATES Consortium), which is a leading IT provider for the global travel and tourism industry. However, up to 99% of all tourism companies are SMEs². Thus, the European Tourism Data Space is a perfect fit for one of the key objectives of the EU Data Strategy, namely, to create a level playing field.

Furthermore, in the digital age, the efficient management and sharing of tourism-related data is becoming increasingly important. The European Tourism Data Space (ETDS) emerges as a solution to address these challenges, offering a shared, trustworthy and user-friendly environment where companies and destinations can collaborate and exchange data. This paper explores the concept of the ETDS and its potential to enhance competitiveness and promote interoperability within the European tourism sector and beyond, with a focus on how its governance should be defined.

In defining the Governance that the future common European Tourism Data Space should have, it is important to agree on the objectives of such a Data Space.

One thing is certain. The tourism space is not just about data. It is first and foremost about tourism. It is about delivering improved services and experiences to end customers on the demand side, creating new high-value jobs in the industry, and making it easier to plan, prepare, undertake and share tourism experiences, while promoting sustainability and resilience as key pillars. It is also about better connecting the industry and enabling a leap in innovation for the supply side through data sharing and the development of new data-driven applications. The European Tourism Data Space will enable the development of cross-industry connected services by allowing the seamless combination of information from other Data Spaces, such as mobility, health, finance, agriculture, cultural heritage, energy or skills and jobs, among others.

This report aims to describe a holistic and efficient governance of the European Tourism Data Space. To do this, it is important to carefully consider the foundations on which the ecosystem will establish the European Tourism Data Space (ETDS).

First, a summary of how to govern a Data Space is given. There are many publications on this subject that do not always agree, and it is important to agree on a set, just like an architect chooses the construction principles for a new building.

¹ All figures in this introduction: https://single-market-economy.ec.europa.eu/sectors/tourism/policy-overview_en

² https://www.eca.europa.eu/Lists/ECADocuments/SR21_27/SR_EU-invest-tourism_EN.pdf

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

The next part addresses the proposed governance framework, which should be inclusive and future-proof.

The last part can be considered as the beginning of the governance aspect of the Blueprint for the European Tourism Data Space. It covers the main questions that need to be asked to ensure the European Tourism Data Space works in the long term at the individual level (traveller, employee, company), at the local, regional and national level and, of course, at the European level. It should be noted that tourism is global by definition. This is especially true for Europe, which accounts for 50% of the world market for international tourist arrivals, or 745 million people³. Therefore, the success of the European Tourism Data Space should be a first step in making the EU's principles for data and standards that it introduces truly global.

It must be noted that the governance of all data spaces at EU level will be coordinated by the EDIB (European Data Innovation Board) established by the Data Governance Act. This body brings together Member States, regulators and market stakeholders. As Tourism generates more than 10% of the EU GDP⁴, it seems important that it is represented within this body. And the fact that most of its organisations are SMEs means that such input to the work of EDIB would be an important step towards one of the key objectives of the EU Data Strategy, which is to create a level-playing field.

What will the European Tourism Data Space look like in 3 years' time:

In the **near future**, the European Tourism Data Space (ETDS) will serve as a **comprehensive solution for companies and destinations** to enhance their competitiveness by facilitating the **sharing of data in a trusted and user-friendly manner**. This shared space will promote collaboration between SMEs and larger companies under a common framework, with data sovereignty being a fundamental principle. Through interoperability with other Data Spaces, the ETDS will enable seamless integration and **significantly improve the overall tourism experience for the end-user**, which obviously has a key role to play.

The ETDS will operate as a network deployed at the European level, enabling the seamless flow of tourism-related information. Similar to mobile networks or highways facilitating physical transportation, **the ETDS will hide the complexities of technical infrastructure, regulations, and other considerations**, while creating a **real level playing field**. It will be a federation of systems that interoperate, supporting different business models, pricing strategies, and goals. Data sovereignty will be a key aspect, ensuring control over the shared datasets and maintaining transparency regarding their usage and distribution.

To realise the vision of the ETDS, the **active engagement of all stakeholders is crucial**. This includes companies of all sizes, public administrations, and individuals, as data becomes the foundation for numerous business processes. The development and deployment of necessary infrastructures and

³ Tourism Fact Sheets on the European Union,
<https://www.europarl.europa.eu/factsheets/en/sheet/126/tourism>

⁴ *ibid*

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

technologies will be undertaken by various stakeholders, including those driven by business objectives and others aiming to enable access for smaller players like SMEs. Public-private partnership (PPP) models are expected to play a significant role in this endeavour.

Within three years, the ETDS is envisioned to **become a well-known "one-stop-shop"** for tourism-related data in the European Union (EU). It will be a space where both large entities and small ones, such as SMEs and Destination Management Organizations (DMOs), can share and access data at various geographical levels. The accessibility and pricing of the data could be aligned with the financial resources of SMEs and DMOs to encourage their active participation. **Trust among participants will be effectively guaranteed**, further promoting the widespread adoption and usage of the ETDS.

The integration of the ETDS within the European tourism ecosystem spans both the **public and private sectors**. Public sector entities, from European to local levels, actively contribute their statistics, utilise forecasting algorithms, and integrate open data initiatives into the ETDS. The EU has also played a significant role in promoting the ETDS within the private sector, encouraging data sharing through grants and providing tools, frameworks, and educational resources. The private sector recognizes the benefits of the ETDS for their businesses and is swiftly adapting their systems to connect with the platform.

The **ETDS has fostered the growth of a dynamic ecosystem of start-ups** that offer innovative solutions benefiting European tourism SMEs, the public sector, tourists, and citizens. These solutions encompass various aspects such as travel planning, flow forecasting, recommendation engines, sustainability impact calculations, and abnormal situation detection, as well as non-intrusive tailoring of experiences. Education and training initiatives have also been implemented to ensure professionals in the tourism sector possess the necessary skills to leverage the potential of the ETDS. The ETDS has started to integrate with other operational Data Spaces, such as mobility, security, eHealth, and culture, further expanding its capabilities.

In the future, more powerful catalogues containing tourism data from both private and public sources will emerge. Trusted public institutions, like SEGITTUR in Spain, will manage some of these catalogues, which will draw from traditional repositories of information such as DATAESTUR. The ETDS will facilitate interoperability between these catalogues at different geographical levels (e.g., Europe, country, region, city) and with other sectoral Data Spaces (e.g., mobility, energy, health, culture). However, efforts must be made to ensure the active involvement of tourism SMEs in the ETDS and the creation of new business models tailored to their needs.

2 METHODOLOGICAL APPROACH

This report builds on preparatory work undertaken by the DATES consortium in previous deliverables, especially the D2.3 chapters about use cases (3.1), governance building blocks (3.3.4) and the interview results about governance (3.4.3). It also draws on results of D4.1.

The methodological approach was based on 3 key pillars:

1. **State of the Art of Data Sharing and Data Spaces.** An in depth review of literature on the subject was undertaken, including, but not limited to, Open DEI, Gaia-X, IDSA, Data Space Support Centre and Sitra Rulebook, all of them initially depicted in section 5.3 of D4.1.
2. **Current work being carried out by DATES consortium member aNewGovernance** on a report to be published in September 2023, commissioned by Finland Parliament Innovation Fund Sitra, "Towards a holistic EU Data Governance/Taking stock on the progress of the EU Data Strategy, and proposals". Interim findings were discussed in a meeting on 4 May 2023 in Brussels and received a very positive welcome from European Commission representatives from DG Connect, DG Justice and DG Grow, as well as Member States' representatives (Spain, Finland, France) and representatives of both SMEs and large corporates associations in multiple sectors (Mobility, Skills, Space, Energy, Finance, etc.)⁵.
3. **Interviews with tourism stakeholders** that were not part of the DATES consortium. Besides organisations that were interviewed for D2.3 and already had a background knowledge on the context, other select stakeholders represent SMEs (making up 99%⁶ of EU Tourism sector companies), large groups, professional associations, destination associations, tourism technology representatives, further Member States representatives and UNWTO, the UN agency in charge of tourism.

The aim was not to define what the upcoming European Tourism Data Space should be, but to identify and validate important questions and practical steps for building the structure and defining the governance of the European Tourism Data Space with key ecosystem stakeholders. The results presented in this report can be seen as a first step towards a Blueprint for the European Tourism Data Space.

⁵ EONA-X & Themis-X in mobility and tourism in France, DeltaDAO in Germany, Finntraffic mobility Data Space in Finland, ESA, Prometheus-X Skills Data Space in France and Europe, Agdatahub in France, Atout France, Apidae, Manufacturing-X in Germany, MEDEF professional association in France, Prime Minister Office in France, CDO of Spain, and many more

⁶ https://www.eca.europa.eu/Lists/ECADocuments/SR21_27/SR_EU-invest-tourism_EN.pdf

3 HOW TO GOVERN A DATA SPACE

3.1 What is a Data Space

Definition of a Data Space

In order to gain a thorough understanding of the proposed Data Space governance framework in D4.2, and before addressing the specifics of the European Tourism Data Space, it is important to clarify the terminology used, starting with the definition of a Data Space.

In the literature, there are several definitions for the concept of a Data Space. In D3.1 and according to the DSSC glossary, we define a **Data Space** as “a framework that supports data sharing within a data ecosystem. It provides a clear structure for participants to share, trade, and collaborate on data assets in a way that is compliant with relevant laws and regulations and ensures fair treatment for all involved”.

In the context of D4.2, we add that: “a Data Space refers to an ecosystem for sharing data on a voluntary basis, wherein multiple organisations collaborate to establish a suitable technological data sharing infrastructure **and implement a shared governance framework**, with the ultimate goal to generate new added value (financial, social, societal) in a given sector.”

The purpose of a Data Space is to enable the sharing of personal and non-personal data among the participating organisations (members), as well as with external organisations or other Data Spaces. Common standards are employed to guarantee interoperability and foster trust among participants.

Data spaces include both infrastructure and governance aspects to facilitate data sharing:

- They deploy a **data-sharing infrastructure**, including tools and services for pooling, processing and sharing data across organisations.
- They put in place a **Data Space governance body**, which determines the rules concerning access to and processing of data in a transparent, compliant, and fair way.

Data spaces improve the accessibility, quality, and interoperability of data, both within specific domains and across different sectors.

Data spaces are used for voluntary data sharing and allow organisations and individuals to provide data, while retaining a certain level of control over the sharing process. Control by participants within a Data Space (or by members) is crucial for protecting privacy, safeguarding intellectual property, pursuing data monetisation opportunities, ensuring security, and other aspects.

What are the characteristics of a Data Space?

Data spaces maintain trust and control over data sharing within and across their boundaries by implementing standardised protocols for managing identity, contracts, authorisations, and consent (regarding personal data sharing). They offer flexibility in utilising various technologies as long as these technologies comply with common standards within and across sectors, thereby facilitating overall data discoverability and access.

It is important to differentiate Data Spaces from open data, where control over data usage by data providers is minimal, as well as from data lakes or data hubs, where data is either highly centralised or not easily accessible to a wide range of organisations. These differences can make a huge impact business-wise.

Furthermore, it is crucial to note that not all decision-making bodies involved in establishing rules for data sharing can be classified as Data Spaces. Certain organisations, such as the EU or MS parliaments, along with standard and support organisations, play a vital role in formulating rules for data sharing. However, their primary focus lies in coordination and decision-making rather than developing data-sharing infrastructure or specific use cases. Behind every initiative referred to as a Data Space, there should exist a data sharing infrastructure, an interest of key stakeholders at the institutional level and corporate partners to be part of the Data Space both in terms of sharing - providing selected data and using it in accordance with an agreed data governance and management system to achieve all the previously mentioned objectives and the concrete realisation of use cases.

How and by whom are Data Spaces created?

A Data Space activity can be supported by a governance body that is a legal entity (such as an association, company, cooperative, public-private partnership, etc.), which is the most common case. The governance body of a Data Space can also be structured based on contractual arrangements among members for particular cases.

Data Spaces are often established within a specific sector with a particular focus on a geographic area, as exemplified by EONA-X in the Transport, Mobility & Tourism sector set up by French organisations such as Amadeus, Air France, SNCF, Aéroports de Paris. The local and/or sector-specific nature of most initiatives is easily comprehensible due to the fact that participants share common use cases, language, perspectives, national regulatory framework, market understanding, and familiarity with key players in the market or administration.

However, Data Spaces can be implemented at various levels, depending on the stakeholders willing to work together. These levels can include local initiatives such as Smart Destination projects, regional projects, cross-sectoral collaborations, European Union (EU) initiatives, Member States (MS), and more.

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

It is also possible for a single organisation to participate in multiple Data Spaces, such as a specific tourism company being involved in a Tourism Data Space for tourism-related use cases and in a skills Data Space for HR purposes. Data Spaces typically consist of a combination of private and public organisations.

Data Spaces can also be nested within one another. For instance, an EU-level Tourism Data Space can provide overarching governance and a general infrastructure for data sharing in the tourism domain. Under this, local projects and communities can be developed as "sub" Data Spaces to address specific needs and requirements, either for governance and/or for infrastructure purposes, taking into account the fact that tourism is not based on borders and the freedom of movement of tourists requires a tourism experience implemented in different countries, by different entities, but requiring similar services that need to share their data to offer this unique experience.

What are the Common European Data Spaces

When the term Common European Data Space is used for a specific sector such as tourism, or the "European Tourism Data Space (ETDS)", we refer to the European collection of local Data Space initiatives that either provide or aspire to provide data sharing use cases in the tourism sector, through their respective governance and infrastructure mechanisms.

In the future, the European Tourism Data Space (ETDS) may evolve to provide an overarching governance and infrastructure at the EU level, serving as a foundation for the development of local tourism Data Space initiatives and communities based on it.

The European Digital Infrastructure Consortium (EDIC) framework, which aids in establishing data sharing infrastructure with Member States as key stakeholders, might assist in such a purpose. The fact that tourism development in Member States is generally coordinated by national governments (or by regions in federal states like Germany), and that tourism is a key recipient of Recovery Funds at national level in many countries from Portugal and Spain to Estonia, a European Tourism Data Space (EDTS) could benefit from an EDIC for building its infrastructure and governance. It has to be noted that the DATES consortium has a Ministerial working group led by the Italian Ministry of Tourism and brings together ministries from 13 Member States. A few more have clearly stated their interest in joining.

Currently, however, Data Space initiatives seem to be initiated predominantly at the local level, either by national governments (MS), by specific local or sectoral authorities, or by consortia of private organisations.

What are the benefits of Data Spaces?

A Data Space primarily streamlines data sharing among its members and facilitates technical and governance interactions with external parties, such as individual organisations or other Data Spaces.

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

Avoiding the need for one-to-one discussions between data sharing stakeholders will greatly accelerate data sharing and reduce the cost associated with the sharing of data. The emergence of multiple Data Spaces in various sectors will create a "network of networks" based on interoperability principles to enhance the seamless flow of data across Europe exponentially.

Given the great transversality of the tourism industry (with mobility, health, cultural heritage, agriculture, energy, skills, green deal...), it will be extremely useful to generate seamless synergies that help improve the tourism experience while reducing costs and lowering the environmental impact of all sectors involved.

In a Data Space, a separation of powers exists between governance and infrastructure. The governance body of a Data Space (see section 5), which is made up of various stakeholders, including data providers, sets out common rules for data sharing in a set of guidelines known as the "Rulebook". The provider of the data sharing infrastructure has to comply with the Data Space rules set by the governance body of the Data Space in its Rulebook. This approach prevents dominant technology companies from exerting unilateral control over data-sharing rules, thereby safeguarding the value generated by industry-specific participants. Consequently, Data Spaces serve as an effective mechanism for maintaining European sovereignty in several sectors and fostering power balance.

3.2 How to build data sharing rules within a Data Space

The Rulebook of a Data Space

The interests of all relevant stakeholders (e.g. public and private data providers, individuals, consumer associations, academia, and others) should be adequately and non-discriminatorily represented in the governance of the European Tourism Data Space (ETDS), and all Data Space initiatives.

Each Data Space initiative must establish a governance authority (or body) to implement such inclusive governance. The Data Space governance body is accountable for creating, developing, maintaining and enforcing a governance framework for a particular Data Space, codified in the Data Space Rulebook.

Some Data Space Rulebook models already exist (Sitra Rulebook, IDSA Rulebook, etc.) and are implemented by multiple Data Spaces across Europe and in various sectors (ex: Finntraffic for Mobility in Finland, Prometheus-X for Skills in France), but with no formal and common machine-readable standard yet.

The Data Space Rulebook outlines the rules for data sharing within the Data Space, as well as with external parties. These rules can be of 3 different types :

- **Hard law rules:** Regulations at both the EU and Member State level, referred to as hard law. These regulations can be either directly related to data or data sharing (Data Governance Act,

Data Act, GDPR, etc.) or indirectly (e.g., AI Act). They can be cross-sectoral or sectorial (Health Data Space regulation).

- **Soft law rules:** Non legally binding standards, codes of conduct, guidelines, etc. referred to as “soft law”. Soft law rules can be proposed at any level (e.g., EU, MS, local, sectoral, cross-sectoral). These are developed through collaborative decision-making processes (consensus, voting, etc.) within various players such as standard organisations. These concerns encompass a broad spectrum of topics, including technical, business, ethical, semantic, safety, and more.
- **Internal rules:** Common rules designed among members of a Data Space for local purposes, such as local business agreements, semantic considerations, ethical considerations, etc. Voting mechanisms, consensus-building, or other means of collaborative decision-making processes may be utilised. Internal rules can also play a role when engaging data sharing use cases with external organisations or other Data Spaces.

The responsibility of the governance body of a Data Space, with respect to the Rulebook, is to:

- Ensure that the Rulebook embeds relevant regulations (hard law) and comply with it.
- Help Data Space members to agree on common standards and guidelines that will be part of the Rulebook (soft law) (e.g., tourism semantic standards, standards for consent, etc.).
- Help Data Space members to decide on common internal rules that will be added to the Rulebook (internal decision making such as business rules).

The European Data Space for Tourism should take special consideration to SMEs, since they represent 99% of the tourism business ecosystem. Taking into consideration that all initiatives at the initial stages of the setting up of Data Spaces, it is essential that the Rulebook for tourism includes the protection of SMEs to allow them to benefit from Data Spaces under the same rules and privileges as big companies and even, public administration bodies.

About business rules

Business activity within a Data Space will bear touchpoints with all types of rules and more:

- **Hard law rules** will define a general scope of legally binding rules pertaining to business activities (e.g., the Data Act for the general business framework, competition laws, the GDPR for all business activities having a direct impact on personal data and privacy matters, etc.).
- **Soft law rules** will provide codes of conduct (e.g. Code of Conduct for Data Sharing in Tourism⁷), and guidelines (“does and don’ts”) for fair business practises in specific domains (e.g., the business code of conduct proposed by a sectoral association).
- **Internal rules** will facilitate consensus among participants within a Data Space regarding shared business practices, such as establishing fee conditions for specific resource or actor types and enforcing practices like reciprocal interactions among participants or others. These internal rules will help prevent excessive and burdensome one-on-one negotiations between participants.

⁷ <https://www.ectaa.org/Uploads/documents/Code-of-Conduct-on-Data-Sharing-in-Tourism-Final.pdf>

Simultaneously, it is imperative that these internal rules do not give rise to practices that conflict with regulations, particularly to avoid engaging in illegal price fixing activities.

- **One-to-one business agreements**, even if the goal is to limit them to the strict minimum for scaling purposes, Data Space members should be allowed to add specific rules (that do not have to be open to all members of the Data Space or mentioned in the Data Space Rulebook) between one another. Those rules should not be conflicting with all other types of rules.

How is compliance managed within a Data Space?

Before initiating any data sharing activities through use cases among members of a Data Space, it is crucial to ensure that all relevant agreements between parties (contracts), authorisations, and consents pertaining to data sharing, comply with the rules outlined in the Data Space Rulebook.

Additionally, when collaborating with external entities, such as individual organisations or other Data Spaces, it is necessary to assess the compatibility of the joint use cases with the rules specified in the Data Space Rulebooks of the different Data Spaces.

The control and supervision of Data Spaces activity by regulators (e.g., data intermediaries that need to be notified as required by the Data Governance Act), will also be facilitated by the Rulebooks.

Employing automated and standardised Rulebooks and associated protocols, within the Data Space infrastructure would greatly streamline the multiple required verification processes, and the compliance chain as a whole. This is precisely what support organisations (Gaia-X, IDSA, etc.) standards and technologies assist Data Spaces initiatives with.

3.3 What are the key decision-making levels for Data Spaces

The Rulebook of a Data Space assembles rules coming from various sources and levels. Most of the time there already exists a governance body providing or expressing those rules, under the form of regulations, guidelines, policies, code of conduct, terms of use, agreements, memorandum of understanding, etc.

Here is a list and state of play of the key decision-making levels for data sharing rules, beyond tourism, and for each level we present some existing rules and bodies:

- **EU level**

The EU level sets the top-down vision for the implementation of the Data Spaces.

Hard law rules: The Data Governance Act (DGA) introduces a comprehensive governance framework for the EU data strategy (2020), while the Data Act (DA) establishes regulations governing the access, sharing,

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

and utilisation of data for specific purposes. Both the DGA and the DA are the primary regulations concerning data sharing, but there are other regulations related to data sharing (see D4.1) that also have a direct impact on it, such as the AI Act, EIA, and others. All of these regulations establish legally binding rules (hard law) at the EU level, which can be included in the Rulebooks of Data Spaces. Other sectoral EU regulations directly intersect with tourism Data Space considerations (mobility, health, and others)..

Governance body & soft law rules: The Data Governance Act (DGA) introduces a new governance body at the EU level for data sharing called the European Data Innovation Board (EDIB). This board comprises a wide range of stakeholders from the data sharing ecosystem, such as the European Commission, Member States, regulators, industry representatives, academia, civil society, standardisation organisations, relevant European Data Spaces, and other pertinent stakeholders. The EDIB is an expert group, offering general guidelines for the effective execution of the EU data strategy. It is at the border between regulation and support. EDIB, as well as other governance bodies (e.g. Interoperable Europe Board - IEB - for B2G purposes) emanating from the EU regulation, will create soft law rules that can be incorporated into Data Spaces Rulebooks.

Regarding monitoring purposes, the participation of representatives from national statistical offices in the European Data Innovation Board and discussions with stakeholders is important as they possess professional independence, trustworthiness, and impartiality and they can support in creating the framework for common European Data Spaces.

● **Member State level**

During the study, it has been recognised by most interviewees that the involvement of Member States plays a crucial role in facilitating the establishment of Data Spaces, as it links local initiatives (bottom-up) with the EU level strategy and governance framework (top-down).

Hard law rules: Many national laws can have a direct impact on data sharing like:

- sectoral laws: The *"loi d'orientation des mobilités (LOM)"* is an example of a French mobility law that should play a role in the construction of the Mobility and Tourism Data Space initiatives in France;
- cross-sectoral law: the competition constraints for the French Energy sector are a good example of rules that should play a role in the construction of the Energy Data Space in France.

Governance body: Starting from September 2023, Member States will have a requirement to appoint a representative to join the EDIB board, thus actively participating in the development of EU-wide non-binding rules. However, presently, most Member States do not have a formal coordination body in place, except for a few, like Spain, which has appointed a Chief Data Officer.

The participation of the statistical community in the governance bodies at European and national levels is necessary to consider the experience and contribution of statistical offices. Cooperation between

national statistical institutes and competent bodies at the national level is crucial for the successful implementation of a common Data Space.

Regional Level: In Europe, the powers and responsibilities for tourism policies at the regional level can vary depending on the country and its governance structure. Some regions within certain countries have been granted greater autonomy and decision-making power in this area. Here are a few examples of regional entities with significant powers for tourism policies in specific European countries such as Spain, Italy, Germany, Belgium and Austria.

● Local level

Regarding tourism, most data initiatives lack knowledge about the EU data strategy and the Data Spaces. Their primary focus is on digitization of the tourism sector, which is mostly composed of small players whose understanding of data sharing value is very superficial at this stage. Very few ongoing projects define themselves as tourism Data Space initiatives (among the few: Eona-X & Themis-X in France, the Austrian tourism Data Space).

Governance body & soft law rules: The OASC (Open and Agile Smart Cities) is an example of governance mechanisms implemented at the local level: To achieve this mission, OASC champions the Minimal Interoperability Mechanisms (MIMs), a set of practical capabilities based on open technical specifications that allow cities and communities to replicate and scale solutions globally. The MIMs are developed by the OASC Technology Council and governed by the Council of Cities and the Board of Directors. MIMs provide the technical foundation for procurement and deployment of urban data platforms and end-to-end solutions in cities & communities worldwide. Through the MIMS OASC helps cities and regions coordinate to formulate rules for data sharing.

Soft law rules:

- Some initiatives also provide memorandum of understanding and joint agreements on data sharing across local levels, like the “Join, Boost, Sustain” declaration, part of the living-in.eu movement, where over 60 national, regional and city leaders agreed on common high level principles to boost sustainable digitalisation.
- In the tourism sector, it is worth noticing the Smart Tourist Destinations project⁸ launched by DG Grow and already introduced in D4.1, where an ‘EU Guide’ and a ‘Toolkit’ for mastering data for EU destinations is provided.

● Cross-sectoral level

Governance bodies & soft law rules: In recent years, various organisations, consortia, and collaborative networks have taken initiatives to establish standards, architectures, and frameworks that facilitate the

⁸ <https://smarttourismdestinations.eu/>

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

implementation of Data Space projects. Notable examples of organisations supporting Data Spaces include BDVA, DSSC, FIWARE, Gaia-X, IDSA, Sitra, and others. These support organisations contribute by providing reference models for Data Spaces, introducing labels (such as Gaia-X labels), offering tools certifications, establishing standards (like IDSA connectors), and occasionally providing open-source building blocks for Data Spaces (such as Gaia-X federated services). One of the main objectives of the DSSC (Data Space Support Centre) is to create a common understanding of models derived from all support organisations by providing a blueprint, legal guidance, and governance framework. The rules derived from support organisations mainly cover cross-sectoral topics such as identity, resource description, contracts, consent, and more.

Governance bodies & soft law rules: Additionally, more traditional standard organisations like ISO and W3C may also contribute key cross-sectoral standards that play a role in the governance of Data Spaces.

All these organisations also provide technical or business soft law rules that can be incorporated into the Rulebooks of Data Spaces.

● **Sectoral level**

Governance bodies: As most Common European Data Spaces are in the study phase in 2023 (Digital Europe CSAs for Tourism, Skills, Agriculture, Smart Cities, etc.), there is no formal coordinating body for data sharing at sectoral levels yet. Nevertheless, in each sector, dozens of sectoral organisations already formulate soft law rules pertaining to data sharing under the form of standards, guidelines and codes of conduct (Tourism Data Sharing Code of Conduct). Multiple organisations have already started to work on defining open data standards for sharing tourism information (e.g. AlpineBits Alliance, Open Data Tourism Alliance (ODTA)).

● **Data Space level**

Governance bodies & internal rules: Data Space initiatives are all recent. The most advanced ones already design Rulebooks (ex: Finntraffic for mobility in Finland, Prometheus-X for Skills in France), whether formally or informally, through their respective governance bodies, but without following a common standard for expressing rules.

● **Personal data level**

Personal data sharing is a challenge for most Data Spaces as, at this stage, many organisations do not want to share their clients data for strategic reasons, or might fear data privacy regulation (GDPR). When organisations do want to propose personal data sharing, they need to involve the individual in the process.

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

Governance body & soft law rules: Some organisations like the MyData NGO already propose labels (MyData Operator certification) for data sharing tools, or “personal data intermediaries” to follow the DGA terminology. The W3C SOLID project is developing standards for personal data sharing. In 2023, IDSA started a working group to address personal data sharing. Some EU countries provide national digital identities capabilities (e.g., France Connect), based on the eIDAS standard, but there is no formal governance body for personal data at EU or sectoral level so far, which might create interoperability issues as well as overlaps between the different approaches and workgroups.

4 PROPOSED GOVERNANCE FRAMEWORK

In 2023, aNewGovernance, a member of the DATES consortium, is currently writing a study, for Finnish Parliament innovation fund Sitra, on the holistic governance of the Data Spaces within the new framework that the EU Data Strategy proposes. Relying on +100 interviews of the Data Spaces' ecosystem and community of practice⁹, this study is identifying key pain-points at EU level, Member State level and Data Space/Organisation level. For the present report on the European Tourism Data Space (ETDS), we can reveal the key recommendation of this report, which will be published in mid-September 2023.

For DATES, and following the Sitra study, we propose to apply a governance framework based on what we call the "Rolebook & Rulebook approach".



The governance framework we propose is designed for Data Spaces of all sectors and is already discussed among Data Space initiatives and CSAs from key sectors (Tourism, Skills, Health, Mobility, Green Deal, Smart Cities, etc.).

To begin, it is essential to note that the governance framework and the legal framework, or model, of Data Spaces are interconnected yet separate concepts:

- The legal model pertains to rules that have legal binding, which can be derived from regulations or business agreements. However, as discussed above, many rules governing data sharing are not legally binding, such as soft law rules and some rules originating from internal decision-making within Data Spaces.
- On the other hand, the governance framework presents a comprehensive process aimed at coordinating all stakeholders in the Data Space ecosystem, across various levels, to collectively determine rules of diverse types (hard law, soft law, internal decision-making rules).

Ultimately, the legal model constitutes a subordinate component within the broader governance framework. In fact, in D4.1, DATES pointed out the approach suggested by the DSSC consisting of a triangle that depicts three major pillars for the governance of a data space, including cross-cutting legal frameworks, organisational aspects and the contractual or transactional dimension of the data space. Contents within that structure are still valid; however, DATES goes beyond that by proposing a

⁹ Member States representatives, Data Space initiatives, data sharing organisations +10 sectors, EU Commission and parliament, standard organisations like Gaia-X, IDSA, DSSC, etc.

comprehensive framework (rolebook and rulebook approach) that not only identifies major components and concepts but connects them in a way that can be actionable.

4.1 The Rulebook of a Data Space

Designing a common language for data sharing rules

The establishment of trust among participants in Data Spaces relies on a compliance chain that is built upon data sharing rules. These data sharing rules serve as the fundamental building block, or "the atomic level", of Data Spaces governance.

As already mentioned in this document, those rules come from hard law, soft law, and Data Spaces' internal decision-making.

Following the Sitra study, we propose to formulate a common language for expressing data-sharing rules, encompassing hard and soft law.

Ongoing discussions are taking place at Gaia-X, the DSSC, and other relevant stakeholders of the Data Space community of practice, regarding the necessity of developing a common data-sharing rule language (that could be called DSRL). A suitable language option would be to utilise, as a foundation for the DSRL, the W3C Open Digital Rights Language (ODRL), which is already in use in multiple Data Spaces (ex: Prometheus-X Skills Data Space in France) for writing data sharing contracts in a machine-readable format. The DSSC could, for instance, be in charge of supervising the creation of the DSRL.

Streamlining Data Space Rulebooks creation

We propose to streamline the creation of Rulebooks for all Data Spaces.

The Rulebooks of multiple Data Spaces share common building blocks:

- Hard law rules are the same for all Data Spaces falling under the same jurisdiction;
- Soft law rules can be utilised by multiple Data Spaces;
- When formulating their internal rules, Data Space initiatives can draw inspiration from the practices employed by other Data Spaces.

For all Data Spaces not to reinvent the wheel, and to foster Rulebooks interoperability, thus facilitating future inter Data Spaces data sharing, **we propose to create an "Open Rulebook Library"**.

The Library ought to encompass Rulebooks produced by any governing body within the ecosystem. This includes regulatory Rulebooks, standard Rulebooks, guideline Rulebooks, as well as Rulebooks pertaining to ongoing Data Space initiatives, all of which should be made accessible to the entire ecosystem.

The development of a Rulebook at the level of a Data Space initiative would primarily involve **importing Rulebooks from other levels (Figure 1)**, thereby minimising the governance responsibilities of a Data Space governance body to the bare essentials and facilitating further interoperability.

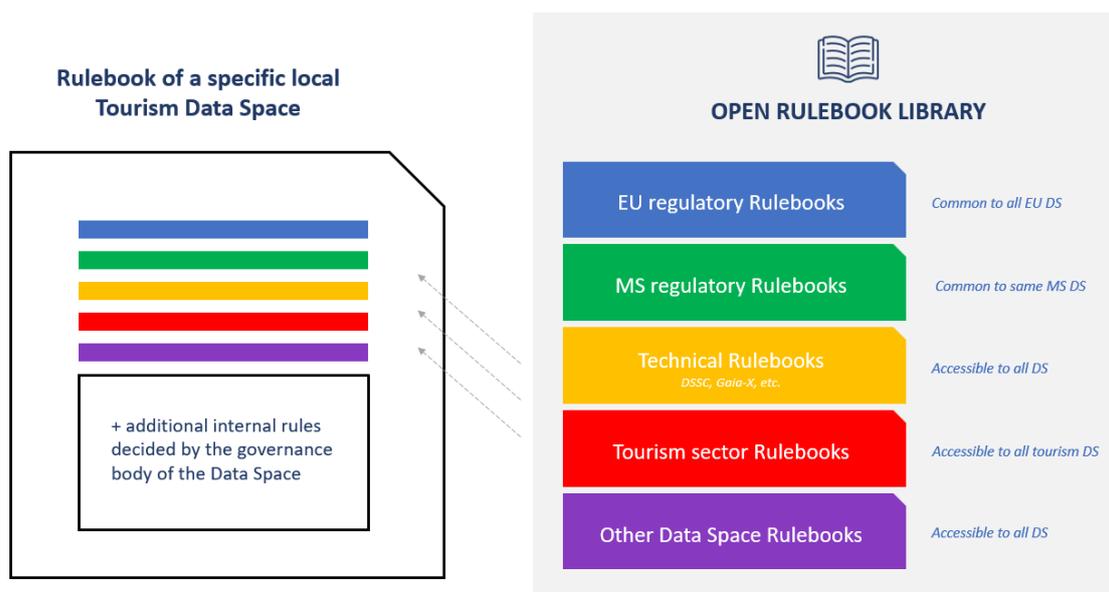


Figure 1 - Creating a local tourism Data Space Rulebook

4.2 The Rolebook of Data Spaces

Coordinating all decision-making levels through a Rolebook

The multiplicity of actors involved in the creation of data sharing rules makes it currently very complex for each Data Space, and even any ecosystem stakeholder in general, to understand “who does what” and “who decides on what”. To address this challenge, Sitra proposed in its study, to create a “Rolebook”.

The Rolebook is an open, transparent, and dynamic registry of decision-making entities and functions for data sharing.

Basic elements of the Rolebook

The key elements that should appear in the Rolebook are:

- **Roles:** The generic functions undertaken by particular stakeholders of the ecosystem involved in data sharing. **Roles** may encompass diverse areas, including formulating EU laws, formulating national laws, regulation (e.g., privacy, competition) at EU or national level, developing guidelines or standards for cross-sectoral topics (e.g., identity, consent), developing guidelines or standards for sector-specific topics (e.g., sectoral semantics, sectoral code of conduct), governing or operating a Data Space, operating a data intermediary, etc. Roles describe the rights and obligations attached to a particular function.

- **Bodies:** The formal or informal structures or organisations that participate in the data sharing governance process (create, implement, or control the application of rules). **Bodies** can concern any level. They should each provide self description elements including a point of contact in the Rolebook. Here are a few examples of **bodies**: EU or MS parliament, a specific support organisation, a sectoral or cross-sectoral standard organisation, a city or a regional council, a national Data Protection Authority, a Data Space governance body, a company, any organisation, etc.).

A **body** can have multiple **roles** that can vary from the context. A **role** can be played by multiple **bodies**.

Each **body** should define a single point of contact in the **Rolebook** for coordination purposes.

Each **body** should also publish their respective **Rulebook**, encompassing both hard and soft law **rules** that have been determined, within the **Rolebook**, using a standard format. **Rules** can refer to **roles** and **bodies**.

Each **role**, **body**, **Rulebook**, or **rule** should clearly define its **scope** to enable the analysis of potential gaps and overlaps.

Avoiding duplication, overlaps and gaps

Following the Rolebook & Rulebook model, we can avoid:

- **Duplications:** Before suggesting the establishment of a new **body** at any level, it is essential to conduct a thorough check of the **Rolebook** to prevent duplication.
- **Overlaps:** When the **scope** of a **role**, a **body**, a specific **rule**, or an entire **Rulebook**, overlaps with another, it is advisable to examine for possible incompatibilities. Creating a dedicated **coordination role** or designating a suitable **coordinating body** can help arbitrate, resolve incompatibilities and settle potential disputes. However, limiting the number of **coordinating bodies** to the essential minimum is essential.
- **Gaps:** If multiple **bodies** or **rules** make reference to a **role** that is not included in the **Rolebook**, it may be recommended to create a **role**, attached to a new or existing **body**.

The Rolebook at the Data Space level

The **Rolebook** approach would greatly facilitate the establishment of the **Rulebook** for each Data Space. A Data Space would have to find in the **Rolebook** all the **bodies** and **rules** that correspond to its own **scope**. It would then import the corresponding **Rulebooks**.

For instance, a tourism Data Space based in France (as a matter of example) would:

- Import hard law **rules** by default:
 - EU level general data sharing **rules** from regulation (DGA, GDPR, AI,..)

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

- EU level mobility and tourism specific **rules**
- French level regulations for data, cybersecurity, competition, etc.
- French level regulations for mobility, tourism, etc.
- Import soft law **rules** of its choice:
 - Cross-sectoral Data Space standards, models (Gaia-X, DSSC, etc.)
 - Tourism sectoral associations or federations codes of conduct, guidelines, semantic standards, etc.
- Create internal **rules**: The French Tourism Data Space would then only need to create local and internal additional **rules** such as business agreements, semantic, ethical, safety, business, etc.

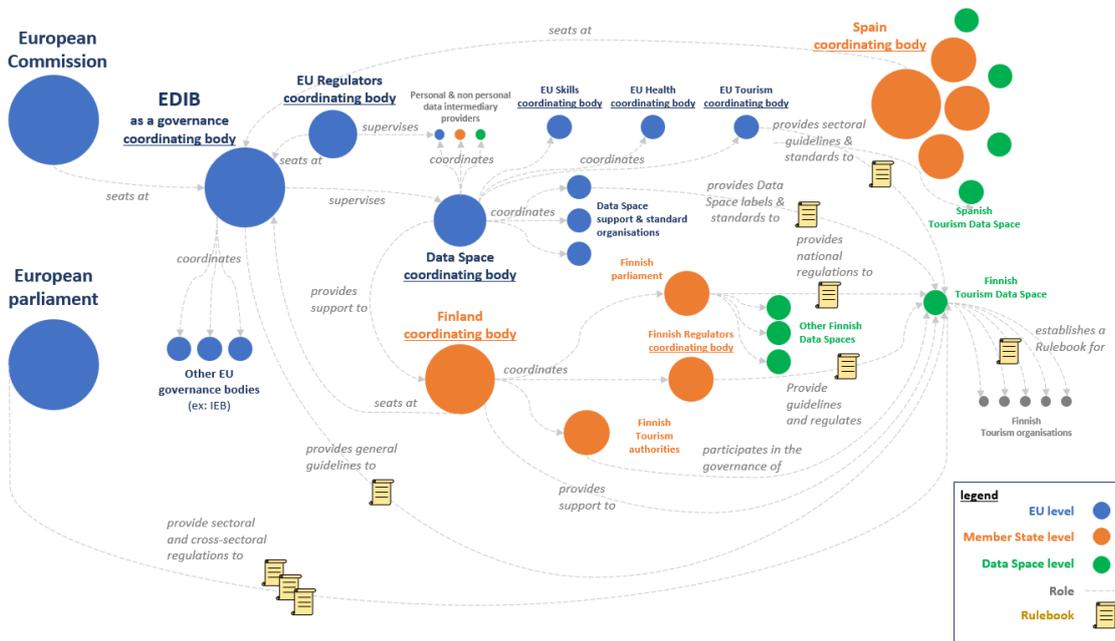


Figure 2 - Sitra Rolebook & Rulebooks approach

Figure 2 is sourced from the upcoming Sitra/aNewGovernance report on a Holistic European Data Governance that addresses key issues for a successful implementation of the EU Data Strategy by addressing pain-points at European-, Member State- and Data Space-level. This report will be published Q3 2023. It represents (schematically) how roles and rules interact at all levels, taking as an illustration both a Spanish and a Finnish tourism Data Spaces only to make the figure readable, but in reality, tourism Data Spaces from all EU27 should interact in the same way, from Estonia to Portugal, and from Ireland to Greece.

4.3 Benefits of the proposed governance framework

Coordination among stakeholders

The Rolebook & Rulebooks approach offers numerous coordination capabilities for the diverse stakeholders within the ecosystem:

- **Dissemination of regulations:** All data sharing provisions in EU and Member State regulations are automated, enabling the identification of inconsistencies within regulations and the implementation of data sharing legal requirements in the infrastructure of Data Space initiatives, ensuring rapid alignment at the EU and Member State levels.
- **Identification of governance gaps:** The Rolebook framework enables quick identification of situations where Rolebook rules reference roles that lack corresponding governance bodies, indicating the need for establishing new governance bodies (e.g., in cases related to sharing of personal data).
- **Resolution of overlapping competencies:** The Rolebook framework facilitates the prompt detection of overlaps.
- **Alignment within a Data Space:** The creation of a Data Space Rulebook is streamlined through automated processes, allowing Data Space initiatives to discover and reuse soft law rules formulated by other ecosystem levels (EU, MS, sectoral bodies, support and standard organisations, etc.), as well as other Data Space initiatives, via a contribution pipeline.
- **Dispute resolution across Data Spaces:** In the event of inconsistencies between Data Space Rulebooks (in the context of inter Data Space sharing), conflicts can be readily detected through automated procedures and resolved either through negotiation among the involved Data Spaces, or by escalating the matter to the appropriate governance body at other levels, including coordinating bodies.

Balancing innovation and regulations

The Rolebook approach enables a balanced approach between regulation and innovation, through the following steps:

1. **Regulation:** Regulations establish a comprehensive framework of mandatory data sharing rules to ensure alignment among all Data Space initiatives across sectors and Member States. These regulations are incorporated into the data-sharing infrastructure of Data Space initiatives through automated implementation.
2. **Innovation:** Data Space initiatives have the flexibility to easily develop and implement soft law rules within their data-sharing infrastructure, allowing for adaptation to local contexts.
3. **Sandboxing & Implementation:** Regulatory bodies can establish regulatory sandbox mechanisms that assist Data Space initiatives in refining their soft law decisions and can gain deeper insights into the effects of hard law regulations.
4. **Learning:** Regulatory bodies possess the capability to monitor and evaluate the outcomes of various decisions made by different Data Space initiatives. Through statistics, they analyse the impact of regulations at different levels (EU, Member State, sectoral, etc.) and identify rules that may pose challenges, such as privacy, competition, cybersecurity, and others, as well as rules that promote effective and reliable data sharing.
5. **Adaptive regulation:** After the learning process, regulatory bodies can assess whether successful soft law rules should be transformed into binding legislation at different levels, such as the EU, Member States, sectoral, and others.

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

Due to varying levels of maturity among stakeholders within the data sharing ecosystem and the unpredictable outcomes of individual data sharing rules, time must be allowed to play its part, for observation, learning, and assessment of the effects of each rule. This process will enable the adaptation of regulations to align with the general public's best interests and the on-boarding of new technologies, be they in infrastructure, user interface or AI.

5 EUROPEAN TOURISM DATA SPACE GOVERNANCE

5.1 About the European Tourism Data Space (ETDS)

What is the European Tourism Data Space (ETDS)?

In the DATES definition, the Common European Data Space for Tourism, or European Tourism Data Space (ETDS), is the collection of all local tourism Data Space initiatives across Europe.

Its primary objective is to enable any private or public actor in the tourism sector, without criteria of size or geography (providing they are based in the EU, or follow EU values and regulations), to access and share data in a secure and trustworthy network. This should enable them to create value (e.g. new services, new quality jobs, business models, and better vision for decision-makers). To this end, it must be ensured that local (or “sub”) tourism Data Space initiatives develop common rules at local level to ensure interoperability.

Its secondary objective is to ensure interoperability with other Data Spaces that may benefit from tourism-generated data or benefit the tourism ecosystem.

Currently, there is no overarching data-sharing infrastructure or governance for the European Tourism Data Space at EU level. The EDIC (European Digital Infrastructure Consortium)¹⁰, in which multiple Member States are involved in order to establish a common infrastructure for data exchange, might prove helpful in this regard.

Considering that tourism inherently involves cross-border activities, the future of the European Tourism Data Space should promote and facilitate cross-border cooperation.

Given that some major technology providers (e.g., Booking.com) have already achieved significant lock-in effects, one of the main benefits of the European Tourism Data Space (ETDS) will be to give tourism industry stakeholders and travellers more control and sovereignty over the tourism data value chain again.

What are other key sectors related to the European Tourism Data Space

The goal of the Common European Data Spaces is to contribute to the creation of an EU digital single market where data can flow seamlessly across sectors.

¹⁰ Policy Programme: Path to the Digital Decade (Q&A) - https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_4631

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

Cross-sectoral data sharing will be a key factor in achieving the single market. The tourism sector has many points of contact with other sectors, and the use cases between Data Spaces could bring great benefits.

Some of the key sectors directly related to the European Tourism Data Space are:

- **Mobility:** There is no tourism without mobility, and some tourism Data Space initiatives already combine the two sectors (e.g., EONA-X, Themis-X).
- **Skills & Jobs:** The tourism sector represents 12.3M direct jobs.
- **Green Deal:** Tourism contributes massively to CO₂ emissions in the EU.
- **Finance:** Payment processes and finance of travel and tourism projects
- **Health:** Pandemic health requirements and vaccination status information.
- **Smart cities and communities:** A variety of data related to mobility, urban planning, energy efficiency and other public services that have significant commonalities and overlaps for destination stewardship
- **Cultural heritage:** Historical and technical monuments, works of art, local customs and cultures are decisive for a large percentage of travellers when choosing a destination. They are often the central motif of marketing events and the basis of tourism products. In turn, tourism can contribute to the financing of their restoration and maintenance or to the sustainable preservation of traditional communities, but it can also be a threatening factor for cultural heritage in all its forms.

Key characteristics of the ETDS

The tourism industry has a peculiarity in the composition of industrial players and the proportion of SMEs in it. Therefore, the establishment of a trustworthy governance body (bodies) is key. The public sector's role in the setup and the structure of the ETDS governance body is vital due to the unique characteristic of the tourism industry, such as the above-mentioned prevalence of SME, fragmentation and significant public institutional involvement. By taking a more active role, the public sector can foster collaboration, facilitate data sharing and ensure that data-driven strategies benefit all stakeholders and contribute to the sustainable growth of the tourism sector, ensuring fair and equal opportunities for all.

5.2 The European Tourism Data Spaces Rolebook & Rulebook

Who are the players in the tourism Rolebook?



Figure 3 - Representativity within the European Tourism Data Space

Figure 3 shows how complex the Tourism ecosystem is. In fact it is even more complex than shown. Most companies in sub-sectors (catering or airlines, for instance) are represented by associations at local, regional, national and European level. The same applies to staff, to public authorities, and to tourists. Those tourists have different reasons to travel; for leisure, to visit their families or for business reasons. They definitely have different tastes, budgets, and constraints. Some want to rest, some others to exercise, others to meet locals or be surprised.

This last point is something the European Tourism Data Space can bring, which algorithm-led global platforms will struggle with: Build on all types and sizes of actors as assets that, by linking through data, will create new experiences, new services, new business models which simply would not make sense from an economic perspective for a single corporate actor, whatever its size.

It is, therefore, critical that the many assets and the **fragmentation aspect of the European tourism sector become its competitive advantage**. It seems logical to bring those different perspectives and

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

sizes of actors to the table without some more financially robust companies taking the lead. It is not a political statement; it is a sheer reflection of the possibilities a trustworthy data space for Tourism can bring to the whole ecosystem, tourists, companies and staff, and destinations.

Many of those organisations would like to implement use cases that are blocked for the time being but can become a reality thanks to ETDS. People with mobility issues could have a better travel experience. Their specific needs for accessibility can be shared automatically (with their consent) so that transport providers, including trains and taxis, but also hotels, restaurants or theme parks, are notified in advance. This would result in a seamless experience for disabled travellers, without unnecessary waiting times and with specific requirements being taken into account.

Taking data sharing between airline associations and car rental businesses as an example, the customer journey experience can be improved so that a traveller may only be required to show a validation code in a smartphone app to the car rental agent, who can then directly provide the car keys with a smile as all details have already been accessed in advance, including payment details and proof of a valid driver's licence.

Hotel associations may want to share data with local UNESCO world heritage sites or local restaurants so that guests receive recommendations matching their preferences and taking the size of the travel group into account (e.g., travelling alone for business, family trip with 2 kids, aged 12 and 14).

In each case, there are benefits for all stakeholders involved. The end-user has a better travel experience, better-tailored services and less waiting time, while the supplier gets more bookings, and the hotel that shares its guests' data with the restaurant gets a commission.

Key supporting roles in the tourism Rolebook

ETDS governance body/bodies need to be structured with strong involvement at the institutional level that plays a critical role in most of the sector's initiatives. Institutions like ministries, EU bodies, research institutions, and other relevant entities can play important **roles** in supporting and participating in the governance structure of the ETDS. Here are some potential roles they can fulfil:

- **Policy Guidance:** Ministries and governmental bodies can provide policy guidance and regulatory support to the governance structure. They can contribute to the development of regulations, standards, and guidelines related to data management, privacy, and security in the tourism industry. Their involvement ensures alignment with national or regional strategies and legal frameworks.
- **Funding and Resources:** Institutions such as research institutions or EU bodies can provide funding opportunities, grants, or resources to support the activities of the governance body. This support can enable the implementation of projects, research initiatives, capacity-building

programs, and technical infrastructure development within the Data Space. Funding and resources contribute to the sustainability and effectiveness of the governance structure.

- **Research and Data Expertise:** Research institutions can bring their expertise in data analysis, modelling, and research methodologies to the governance structure. They can contribute to data-driven insights, market analysis, and evaluation of the impact of data initiatives in the tourism industry. Research institutions can also collaborate on joint research projects to advance knowledge and practices in tourism data management.
- **Technical Expertise and Standards Development:** Institutions with technical expertise, such as standardisation bodies or technology research centres, can support the governance structure by providing guidance on technical aspects of data management. They can contribute to the development of industry-specific data standards, interoperability frameworks, or data exchange protocols relevant to the tourism sector.
- **Collaboration and Networking:** Institutions can facilitate collaboration and networking opportunities for the governance body. For instance, EU bodies may organise events, conferences, or workshops where stakeholders from the tourism industry and relevant institutions can connect, exchange knowledge, and share best practices. These collaborative platforms foster partnerships, facilitate knowledge exchange, and contribute to the credibility and visibility of the governance structure.
- **Advisory and Consultative Roles:** Institutions can serve in advisory or consultative roles within the governance structure. They can provide expert advice, guidance, and strategic insights on emerging trends, technological advancements, and policy developments in the tourism industry. Their input ensures that the governance body remains informed, up-to-date, and aligned with the broader industry and regulatory landscape.
- **Evaluation and Impact Assessment:** Institutions can contribute to evaluating the effectiveness and impact of the Data Space governance initiatives. They can conduct independent assessments, impact studies, or audits to assess the outcomes, benefits, and challenges associated with the governance structure. This evaluation helps ensure accountability, transparency, and continuous improvement of the Data Space governance efforts.

The involvement of institutions has the potential to bring expertise, credibility, and broader industry perspectives to the governance structure. Participation of the public sector would/will strengthen collaboration, align initiatives with policy frameworks, and enhance the overall effectiveness of the ETDS.

Examples of Rulebooks for the EDTS

Following the Sitra Rolebook & Rulebooks approach, each new tourism Data Space initiative should be able to import Rulebooks from other levels (EU, Member State, cross-sectoral, sectoral, etc.). All the Rulebooks should be accessible in a “tourism Open Rulebook Library” and translated in the common data sharing rule language (DSRL as defined in chapter 4). In this chapter we provide a very first list (not comprehensive and to be continued) of key documents that DATES deemed relevant be included in the tourism Open Rulebook Library:

EU level		
Bodies	Roles	Rulebooks
EC, EU parliament, Council	Defining cross-sectoral hard law	DGA, DA, GDPR, AI Act, EIA, etc.
EC, EU parliament, Council	Defining sectoral hard law	Telematics Applications for Passenger Service TSI , Air passenger rights , etc.
	Providing statistics at EU level	
Member state level		
Complete list of National statistical institutes (NSI) and other national authorities	Providing statistics at MS level	https://ec.europa.eu/eurostat/documents/13019146/13574152/20230717_List_other_national_statistical_authorities_BG.pdf/df3bf2cd-cd12-ecac-04f6-67a7def4694f8?t=1689582222358
National Digital and information agencies.	Data architecture definition on national level - institutional data structures, eGovernment development	EE- https://e-estonia.com AT- https://www.oesterreich.gv.at/public.html CZ- https://www.dia.gov.cz/o-nas/ HU- https://kifu.gov.hu/en/ict-services/
European Union Agency for Cybersecurity (ENISA) with its ENISA NATIONAL LIAISON OFFICERS (NLO) / the National Cyber Security Agencies	Secure linking of tourism data with critical personal data (foreign police, population register, tax systems, health records, etc.)	https://www.enisa.europa.eu/about-enisa/structure-organization/national-liaison-office
Czech Republic MS	Data Observatories at national level	https://tourdata.cz/temata/english/
Cross-sectoral level		
DSSC	Coordinating support organisations for cross-sectoral conceptual and technical rules for Data Spaces	Conceptual model, blueprint, legal compass, governance matrix
Gaia-X	Defining cross-sectoral conceptual and technical rules for Data Spaces	https://docs.gaia-x.eu/policy-rules-committee/policy-rules-labelling/22.11/
IDSA	Defining cross-sectoral conceptual and technical rules for Data Spaces	https://internationaldataspaces.org/wp-content/uploads/dlm_uploads/IDSA-White-Paper-IDSA-Rule-Book.pdf

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

Sitra	Rulebook model	https://www.sitra.fi/en/publications/rule-book-for-a-fair-data-economy/
MyData		https://www.mydata.org/wp-content/uploads/2022/07/Understanding-MyData-Operators-2022-1.pdf
Tourism sector level		
Italian Association for Responsible Tourism (AITR), International Committee of Tourism Film Festivals (CIFFT), European Boating industry (EBI), European Cyclists' Federation (ECF), European Travel agent's and Tour Operators Associations (ECTAA), European Historic Thermal Towns Association (EHTTA), European LGBTQ+ Travel Alliance (ELTA), European Travel Commission (ETC), eu travel tech (EU association representing online indirect distributors of travel), Europa Nostra, European Federation of Tourist Guide Associations (FEG), Global Business Travel Association (GBTA), Hotels, Restaurants and Cafés in Europe (HOTREC), The Global Association for the Attraction Industry (IAAPA), International Social Tourism Organisation (ISTO), Mirabilia Network, NECSTouR, New Deal Europe, European Federation of Rural Tourism (RURALTOUR) and Startup Turismo Association.	Defining soft law	Code of conduct on data sharing in tourism

Table 1 - First examples of Rulebooks in the tourism Open Rulebook Library

5.3 The tourism governance coordinating body

What would be the role of the tourism governance coordinating body?

To design and maintain the Rolebook, as well as the Rulebooks, of the European Tourism Data Space, it is important for the European Tourism Data Space to set-up a new **Governance Coordinating Body**.

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

This body, additionally to being in charge of Rulebook & Rolebook, will govern the European Tourism Data Space (ETDS), according to the principles suggested in the previous chapters.

It will also act as a coordination point for discussions with European Data Innovation Board (EDIB) and Data Sharing Support Body, as well as with other sectoral Data Spaces.

Another key role would be to become the entry point for Tourism-sector companies willing to share data, as well as for ecosystems willing to set-up data sharing and/or local Data Space or specialised Data Space (aka sub-Data Space). To carry out this role, it should have a communication team to explain what Data Space, and data sharing in general, can potentially bring to Tourism-sector actors. It could work as a one-stop-shop.

Because data sharing will also be inter Data Spaces, it should also act as a one-stop-shop for queries coming from other sectors, who may benefit from tourism data, or who may provide interesting non-tourism generated data.

Last but not least, this governance body could liaise with policymakers.

Figure 4 below summarises what the tourism coordination body could look like.

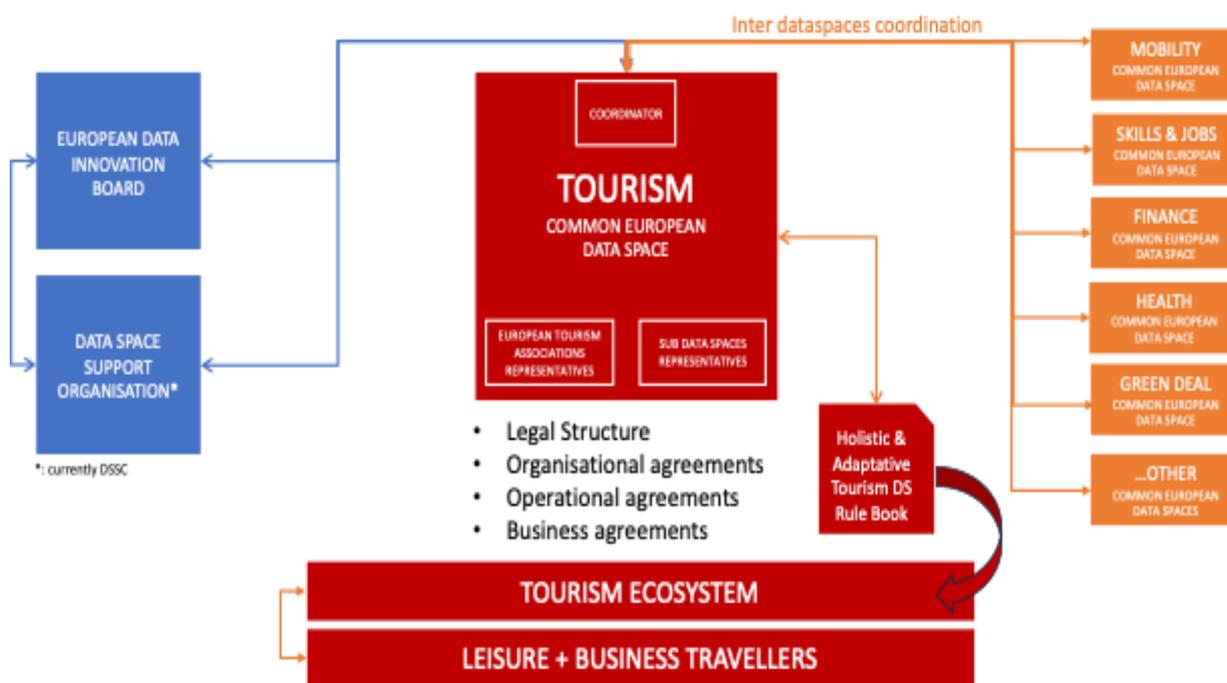


Figure 4 - European Tourism Data Space Governance Body

Proposed characteristics of the tourism coordinating governance body

The future ETDS governance body also need a credible structure that is inclusive and credible to most partners involved, it's important to consider the following options:

- **Inclusive Representation:** This means to ensure that the governance body or interest group represents a diverse range of stakeholders in the tourism industry, including both large corporations and SMEs. It is necessary to seek representation from various sectors within tourism, such as hotels, travel agencies, tour operators, attractions, directly or through involvement of industry associations that represent SMEs in the tourism sector and destination management organisations. This inclusive representation helps build trust and demonstrates that the interests of all participants are considered.
- **Equal Decision-Making:** Design the governance structure in a way that provides equal decision-making power to all members, regardless of their size or influence. Implement a voting system or consensus-based decision-making process where every member has a voice. This ensures that the interests and perspectives of SMEs are given due consideration and prevents dominance by larger players.
- **Transparent Processes:** Foster transparency in the governance body's operations. Clearly communicate the goals, objectives, and decision-making processes to all members. Share meeting minutes, progress reports, and updates regularly. Transparency helps build trust and confidence among participants, ensuring that decision-making is fair and accountable
- **Collaborative Approach:** Foster a collaborative and cooperative environment where all participants work together towards common goals. Encourage open dialogue, information sharing, and collaboration among stakeholders, irrespective of their size or market share. Facilitate opportunities for SMEs to actively participate, share their experiences, and contribute to the governance body's initiatives.
- **Expert Facilitation:** If needed and in special cases consider engaging an independent expert facilitator or mediator to ensure fair and impartial discussions. Such a facilitator can help guide the decision-making process, ensure that all voices are heard, and mediate any potential conflicts or concerns. This independent role can help foster credibility and create a neutral environment for discussions.
- **Capacity Building and Support:** Provide support and resources to SMEs to enhance their capacity in data management and governance. Offer training programs, workshops, and educational materials tailored to their specific needs. This helps level the playing field, empowers SMEs to participate actively, and builds their confidence in the Data Space governance initiative.
- **Pilot Projects and Demonstrations:** Implement pilot projects or demonstrations that showcase the benefits and value of the Data Space governance initiative. Highlight success stories and real-world examples where both large corporations and SMEs have benefited from data collaboration and responsible data management. This tangible evidence can help alleviate concerns and build confidence among SMEs.

By incorporating these options, the governance body can create a structure that is credible, inclusive, and trusted by most partners involved, including SMEs. It demonstrates a commitment to fairness, transparency, and collaboration, fostering a supportive environment for all participants in the tourism industry.

The whole structure can/should be decentralised, and work on a federated approach, to provide the opportunity to address and take into account the different needs and different positions of tourism players and the sector as a whole within the national economic structures of each European country.

Key questions regarding the tourism governance coordinating body

Here are some key questions regarding the tourism governance body that need to be tackled when actually setting up the European Tourism Data Space after this CSA project:

- **Legal entity:** For liability issues, it seems important that ETDS is established as a legal entity. Whether it should be a non-profit, a cooperative model or a for-profit format should be decided by the entities ultimately creating it. However, to ensure a proper representativity of all type and size of stakeholders, we suggest that the non-for-profit option is prioritised.
- **Principles & objectives the Data Space wants to adopt and support:** This could be written following the example of non-profit or company objectives when writing its by-laws
- **Who should be its members, and what are the conditions for access:** It has to be noted that this subject is critical, since if not tackled well, it can open up competition litigations. One critical point is to ensure rules enable a good representativity of SMEs and start-ups who are a key source of innovation (in technology, but also and mainly in innovative use-cases and development creation). Such representativity will ensure future adoption and traction as it will represent the typology of the EU Tourism sector. It will also represent a significant move away from the current Tourism data economy with its global-platform centrality and “winner-takes-all” strategies. Last but not least, to empower smaller structures will respond to one of the objectives of the EU data strategy which so far is not apparent in many verticals, the set-up of a new level-playing field.
- **Organisational and operational agreements:** How is it structured, does it have a secretariat, how are decisions taken, how are they reviewed and with which frequency...
- **Membership fees:** To propose a financing or membership mechanism for participating in the Governance body, it is crucial to ensure SMEs are aware of the advantages the ETDS can offer them. Dissemination and training actions are necessary to achieve this adoption. Additionally, instead of proposing a new membership, a cross-membership strategy could be considered, utilising existing memberships in representative bodies, associations, and initiatives at regional, national, and European levels in the tourism field to promote adherence to the European Tourism Data Space.
- **Business agreements:** It must be kept in mind that the governing body role is to ensure a smooth running of the Data Space, and that the Data Space role is to enable the setting up of new

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

revenue streams, new services, new companies and new jobs in the Tourism sector. Therefore, a very critical role of the governing body will be to handle and manage business agreements.

- Principles
- Automation
- Maintain business secrecy and IP when needed
- Dispute settlement tools

Next figure summarises the main tasks of the Data Space Governing Body. It has to be noted that those tasks will not be set in stone and will have to be reviewed on an on-going basis. It is important for it to thrive, that the European Tourism Data Space is future proof, responds to new needs, and adapts to new technologies or business models.



: includes transparency in data collection, as well as transparency in organisation and processes of the data space *:

Figure 5 - Practical Dimensions of the European Tourism Data Space Governance Body

6 CONCLUSION

In addition to the inherent difficulties in formulating a governance model for a European Data Space across various industries, the tourism sector presents specific considerations that must be taken into account. These factors introduce new requirements and limitations.

Considering other relevant European initiatives, like the Sitra Rolebook & Rulebook approach, and policies related to tourism, particularly in the governance domain, is crucial. This approach aims to identify commonalities and leverage potential synergies. One such reference is the "Transition Pathway for Tourism"¹¹, a significant document at the European level, highlighted in D4.1. It is part of the Commission's 2020 industrial strategy to enhance the EU's global competitiveness. The document outlines 27 themes, including governance (Topic 5: Collaborative governance of tourist destinations). It emphasises the importance of establishing collaborative and data-supported destination management models. The stakeholder consultation revealed that collaboration among all parties involved, including public and private-sector organisations, local producers, cultural and creative sectors, local authorities, tourism management organisations, associations, residents, and even visitors, is vital to ensure sustainable tourism with positive impacts on the visited communities.

Given the interconnections between the tourism sector and other industrial ecosystems (such as agri-food, cultural and creative industries, health, mobility, and transport), it is essential to map the skills and stakeholders to be represented in the tourism Rolebook and the tourism governance coordinating body. A comprehensive approach in this regard will facilitate more effective interactions with other European Data Spaces. However, it also poses the challenge of defining the direct and indirect scope of competencies to avoid redundancy. This aligns with the strategy in the Transition Pathway for Tourism, which emphasises recognizing the links between different industrial ecosystems and coordinating actions at various levels (local, regional, national, and EU) to support the competitiveness of the EU's tourism ecosystem.

The current European tourism sector, especially the private sector, notably SMEs, requires greater knowledge and adoption of data-sharing initiatives. This presents a challenge in adopting the future European Tourism Data Space (ETDS) effectively.

Deployment of the governance model can also be influenced by the need for more private sector knowledge during the early stages of the European Tourism Data Space. The public sector can play a vital role in catalysing the initiative and subsequently transferring the function to the private sector once the foundational infrastructures are in place, and dissemination and training efforts have been carried out. This approach helps the private sector avoid dealing with initial procedures and enables their seamless integration into the governance body.

¹¹ <https://op.europa.eu/en/publication-detail/-/publication/404a8144-8892-11ec-8c40-01aa75ed71a1>

DATES: European Data Space for Tourism

Deliverable D4.2 Governance Framework of the Tourism Data Space

Addressing the significant gap between large tourism companies and SMEs in terms of data utilisation is crucial. While large companies have the infrastructure and resources to exploit data, SMEs often lack the necessary means and skills. This disparity can pose a risk of skewed decision-making in the Governance Body, favouring the interests of large companies and neglecting the needs of smaller ones. Ensuring alignment between the interests of large companies with significant technological components and data holdings and those of the European tourism sector becomes essential.

Defining fundamental objectives for the future European Tourism Data Space, such as enhancing competitiveness, resilience, and sustainability of the European tourism sector, is imperative. These objectives can draw from other European initiatives and policies, like the Transition Pathway for Tourism document. Establishing a code of ethics that consistently aligns with the overall interests of the European tourism sector will help foster an inclusive model for the European Tourism Data Space. Any entity aspiring to be part of this space must adhere to and sign this declaration, thus expressing their commitment.