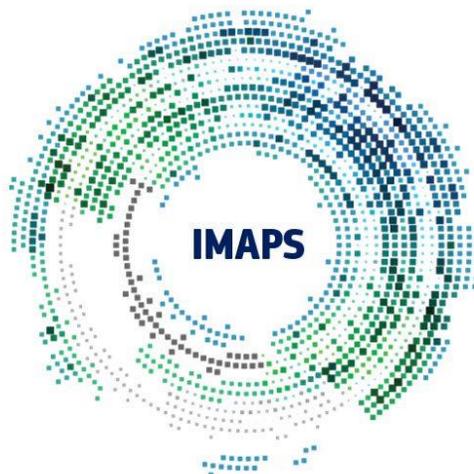


LIMAPS v1.0.0

Legal Interoperability Maturity Assessment of a Public Service

User guide



Interoperability Maturity Assessment of Your Digital Public Service

LIMAPS Legal Interoperability

OIMAPS Organisational Interoperability

SIMAPS Semantic Interoperability

TIMAPS Technical Interoperability

Disclaimer

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Table of Abbreviations

Acronym	Description
ABB	Architectural Building Block
CAMSS	Common Assessment Method for Standards and Specifications
CarTool	Cartography Tool
DIGIT	Directorate-General for Informatics
EC	European Commission
EIF	European Interoperability Framework
EIRA© (EIRA)	European Interoperability Reference Architecture
ELAP	EIRA Library of Architecture Principles (ELAP)
ELIS	EIRA Library of Interoperability Specifications
EU	European Union
HL SAT	High Level Solution Architecture Template
ISA	Interoperability Services for Public Administrations
IMAPS	Interoperability Maturity Assessment of Public Services
LIMAPS	Legal Interoperability Maturity Assessment of Public Services
MS	Member State
PA	Public Administration
SIQAT	Structural Interoperability Quick Assessment Toolkit

Glossary of terms

Term	Description
Attribute	Structural part of each LIMAPS component. Each attribute includes questions (items) that assess a specific aspect of the digital public service. Each of the LIMAPS survey components has questions (items) that are organised under the following attributes: the legal interoperability specifications of data, information and knowledge delivered by the digital public service to its end users and/or other services, the legal interoperability enablers and the legal interoperability manifestations.
Component	Fundamental structural part of the LIMAPS model that reflects how the respective questions (items) in the questionnaire (survey) are organised. Each component refers to a different pillar of the digital public service lifecycle. LIMAPS has two components: Service Delivery and Service Consumption, which means that the respective questions refer to these two specific categories.
Item	Structural part of each LIMAPS attribute. Items are the questions of the LIMAPS questionnaire (survey)
Option	Options are the possible replies to one LIMAPS item
Principles	Rules applied on digital public service to enable and ensure legal interoperability
(Overall) Weight	Weight refers to the absolute numerical factor that each component/attribute/item contributes into the structural part it belongs. Overall weight refers to the overall numerical factor that each component/attribute/item contributes to the whole LIMAPS survey

EXECUTIVE SUMMARY

This document provides the guidelines and definitions for using the **Legal Interoperability Maturity Assessment of a Public Service (LIMAPS)** tool in order to assess and improve the legal behavioral interoperability maturity of a digital public service. It also includes the questions and the options of the LIMAPS questionnaire as well as the respective recommendations. LIMAPS is the **legal specialisation** of IMAPS survey that assesses the behavioral aspects of a digital public service from the legal interoperability viewpoint.

In the following chapters, we provide an introduction to the most important chapters in the context of LIMAPS and we present the objectives of LIMAPS, the defined maturity levels and the approach and attributes of legal interoperability that are the subject of observation and assessment.

In addition, we present an explanation of the structure of the LIMAPS questionnaire, the methodology used to determine the maturity levels of legal behavioral interoperability of a public service and the questions and options of the questionnaire.

Finally, we conclude with the recommendations that the end-user receives for each question. After filling in the online questionnaire, the respondent receives a PDF with advice on how to improve the technical behavioral interoperability of his digital public service.

1 INTRODUCTION

1.1 Document Objectives

The main objective of the **Legal Interoperability Maturity Assessment of a Public Services (LIMAPS)** is to provide insight into how digital public services can improve their legal behavioral interoperability maturity. LIMAPS is the **legal specialisation** of IMAPS survey that assesses the behavioral aspects of a digital public service from the legal interoperability viewpoint. This document is based on the updates of LIMAPS beta v1.0.0 to version 1.0.0 by implementing the feedback collected during LIMAPS beta v1.0.0 deployment and review, as this has been recorded in the respective JIRA tickets as well as during the sessions with the experts. These updates include the description of LIMAPS version 1.0.0, its purpose and scope in relation to IMAPS, as well as its design and deployment on the EU Survey portal. The objectives of the present deliverable are the following:

- the description of the **key concepts** to understand the LIMAPS;
- the presentation of **model objectives**;
- the description of LIMAPS **maturity levels**;
- the description of the LIMAPS **structure** including its **attributes and components**;
- the description of how the LIMAPS **questionnaire** is structured, its questions and their options;
- the description of how the LIMAPS **recommendations** are generated including the recommendations per question.

1.2 Document Structure

The document is organised in the following chapters:

- **Executive summary**, which provides an overview of the deliverable objectives, activities and conclusions;
- **Chapter 1**: Serves as introduction to the document;
- **Chapter 2**: Includes the description of the key concepts used in LIMAPS and their link to IMAPS;
- **Chapter 3**: Includes the maturity levels of LIMAPS;
- **Chapter 4**: Presents LIMAPS structure, in components, attributes and items, demonstrating how their design ensures alignment with IMAPS, EIF and EIRA;
- **Chapter 5**: Presents the LIMAPS questionnaire and how it is structured;
- **Chapter 6**: Presents the LIMAPS recommendations and how they are generated.

2 LIMAPS KEY CONCEPTS

The following concepts are key to understand the LIMAPS:

- *Digital public service* – the digital delivery of a public service via channels such as interactive digital collaborations (chat, messaging functionality), mobile application, web portal / website, email and machine-to-machine interface.
- *Interoperability* – the ability of disparate and diverse organisations to interact towards mutually beneficial and agreed common goals, involving the sharing of information and knowledge between the organisations, through the business processes they support, by means of the exchange of data between their respective IT systems.
- *Legal Interoperability* - Legal interoperability ensures that organisations operating under different legal frameworks, policies and strategies are able to work together. In the context of EIF, this covers to ensure that legislation is screened by means of 'interoperability checks', to identify any barriers to interoperability.

2.1 Digital public service

The Legal Interoperability Maturity Assessment of Public Services (LIMAPS) assesses the legal behavioral interoperability of a digital public service. The following four design rules apply when defining a digital public service:

1. The digital public service has a **single outcome / public decision**. When multiple service outcomes are recognised, then multiple digital public services will need to be defined and assessed, each one through a separate LIMAPS assessment;
2. The digital public service has a **single service owner** i.e. the public administration responsible for the service. When the ownership of a service is distributed amongst multiple public administrations (e.g. multiple local administrations providing birth certificates), then each service owner needs to conduct a separate assessment for his respective service;
3. The digital public service has a **single primary end user group**. Public services can be delivered towards three of end users: citizens, businesses and other public administrations. In case the same digital public service is delivered to different types of end users, then these services should be assessed separately from one another through the LIMAPS;
4. The digital public service has a **virtual end user interface**. LIMAPS at the outset has been designed to evaluate services, which are delivered to end users. This is a corollary to the previous design rule.

Examples of digital public services that conform to the aforementioned design rules are the following:

- A national legal act introduces new provisions for the payment of allowances for participation and the cost of transport that allows citizens and businesses (3) to benefit from automated case handling and rapid decisions (1);
- A national eGovernment portal (4) delivers data under legally binding requirements at a national/cross-border level (1) to other public administrations (3);
- Citizens (3) are offered the national electronic service of citizens' identities (eID) (1) via the eID portal (4) provided by the Ministry of Interior (2).

2.2 Interoperability and IMAPS

Interoperability in a digital public service is an attribution defined as "the extent it enables peer-to-peer collaboration with public services towards mutually beneficial goals, involving the sharing of data, information and knowledge between them regardless their legal, organisational, semantic and technical environment". Figure 2 illustrates the digital public service in the context of interoperability.

Interoperability is of multidimensional nature involving structural interoperability, behavioral interoperability and governance interoperability:

1. The **structural interoperability** is "the extent its structure has been developed reusing and/or sharing components in support of a peer-to-peer collaboration"
2. The **behavioral interoperability** is "the extent its manifested behaviour exchanges data, information or knowledge with its environment in support of a peer-to-peer collaboration"
3. The **governance interoperability** is "the extent its agreed choreography rules support a peer-to-peer collaboration"

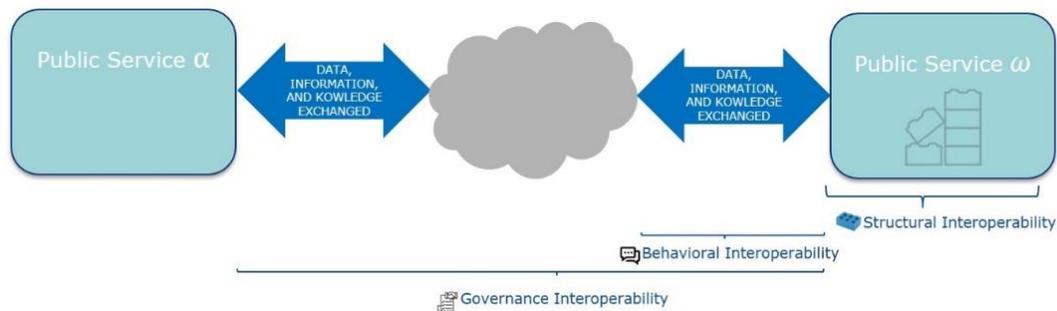


Figure 1: Interoperability dimensions

In addition, all relationships that interconnect the digital public service with the outside environment are considered relevant for assessing interoperability and thus, they are taken into account in the IMAPS. Interoperability and IMAPS are concerned with how the relationship between internal and external domains is defined and implemented.

In particular, IMAPS measures how well a public administration interacts with **external** entities to organise the efficient provisioning of its public services to other public administrations, businesses and citizens. IMAPS uses the term "behavioral" to refer to the fact that it assesses aspects that have to do with how the public services "behave" while interacting with each other or with their end users (citizens, business or other Public Administrations).

2.3 Legal Interoperability and LIMAPS

LIMAPS assesses the behavioral aspects of a digital public service, via an approach similar to this of IMAPS, but from the **legal behavioral interoperability viewpoint**.

Legal interoperability focuses on the legal provisions that regulate the collaboration among different public administrations that operate under different legal mandates, as well as on limitations of data, information and knowledge share and reuse, and also, to legal behavioral interoperability enablers and manifestations that resolve legal incompatibilities and facilitate the interaction of the digital public services with its end users and other client services.

In particular, LIMAPS assesses the behavioral aspects of a digital public service by limiting its focus on:

- the legal behavioral interoperability **specifications** of data, information and knowledge delivered and consumed by the public service and its end-users or other client services;
- the legal behavioral interoperability **capabilities** that **enable** either the delivery and consumption of data, information and knowledge by the digital public service and its end users or other client services or ii) the discoverability of the public service or other client services;
- the legal behavioral interoperability **manifestations** of the public service delivering and consuming data, information and knowledge (manifestations can be performance, results, user experience).

LIMAPS Objectives

LIMAPS delivers insights into two important aspects of legal interoperability maturity:

- Provide insight into the **current legal interoperability maturity** of a digital public service based on a set of defined interoperability attributes and maturity stages;
- Provide guidelines for how the digital public service can **improve its legal interoperability maturity**.

Improving interoperability and in particular, legal interoperability is a continuous activity. Organisations are therefore encouraged to use the model and its improvement recommendations regularly.

2.4 IMAPS and LIMAPS User Journey

The figure below illustrates a **typical user journey** for the IMAPS end user and shows how IMAPS recommendations can trigger the need for an assessment with LIMAPS survey.

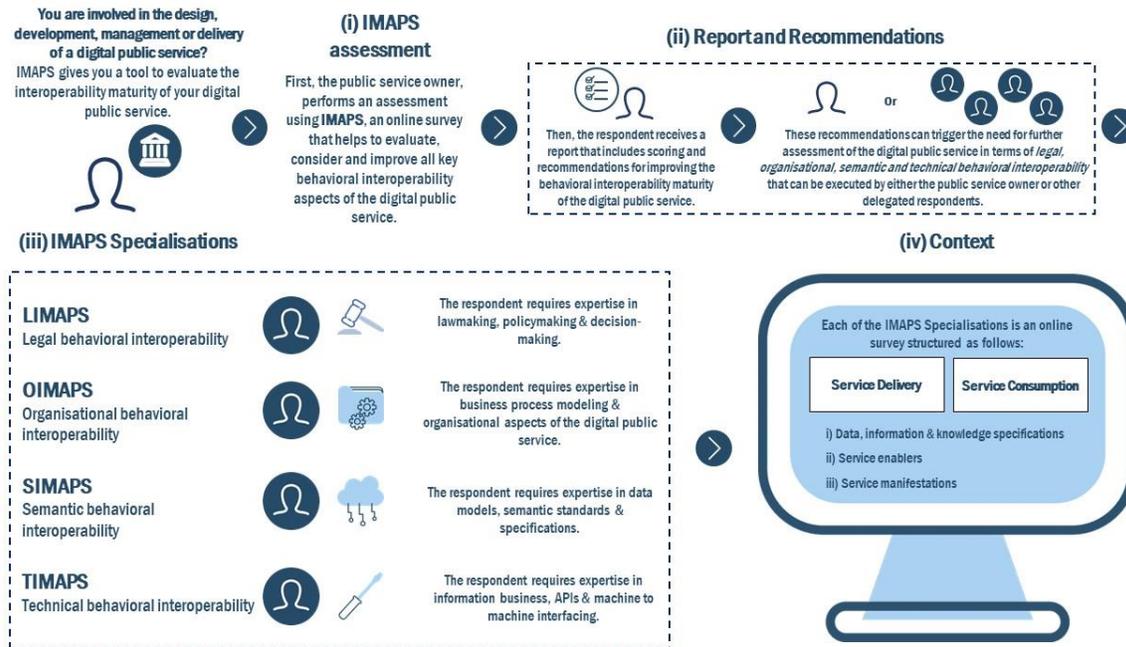


Figure 2: IMAPS to LIMAPS user journey

It is briefly mentioned that although LIMAPS can serve as a stand-alone survey that can provide an assessment of a digital public service from a legal behavioural interoperability point of view, the recommended use case is to first perform an assessment with IMAPS, and following its recommendations, then to perform an assessment with LIMAPS.

2.5 LIMAPS Target users

LIMAPS can be used by the following end-users:

- Policy- makers: to make informed refinements in the next policy cycle (evidence-aware policy making);
- Public service owners: to improve the overall legal interoperability and conformance of their digital public services;
- Decision-makers: to make informed decisions for the strategical priorities of each Public Administration and beyond.

3 LIMAPS MATURITY LEVELS

LIMAPS uses a **five-stage model** to indicate the legal interoperability maturity of the digital public service. Using maturity levels allows to:

- Measure the legal interoperability maturity of the digital public service as a whole as well as underlying aspects;
- Indicate which capabilities and next steps are required to reach higher levels, and thus improve legal interoperability maturity.

A five-stage approach is often seen in proven maturity models and is considered best practice for assessing and improving maturity. The five maturity levels for LIMAPS are summarised in the table below.

Table 1: Five maturity levels of LIMAPS

Maturity Level	Maturity Stage	Interpretation
1	Ad Hoc	Poor interoperability – the digital public service cannot be considered interoperable
2	Opportunistic	Fair interoperability – the digital public service implements some elements of interoperability best practices
3	Essential	Essential interoperability – the digital public service implements the essential best practices for interoperability
4	Sustainable	Good interoperability – all relevant interoperability best practices are implemented by the digital public service
5	Seamless	Interoperability leading practice – the digital public service is a leading interoperability practice example for others

The desired interoperability level for a digital public service is at least level 4: “Sustainable”. At this level, the digital public service is considered to have implemented all relevant best practices.

4 LIMAPS STRUCTURE

4.1 Approach

IMAPS uses the term “behavioral” to refer to the fact that it assesses aspects that have to do with how the public services “behave” while interacting with each other or with their end users (citizens, business or other Public Administrations). **LIMAPS** assesses the behavioral aspects of a digital public service, via an approach similar to this of IMAPS, but from the **legal behavioral interoperability viewpoint**.

LIMAPS conceptual model describes all possible instances where **interoperability with the outside world may occur from the digital public service viewpoint**. It distinguishes between the **internal domain** (the internal service management) and the **external domain** (the digital public service uses/consumes existing services and exposes the produced service to thirds).

4.2 LIMAPS Components

Component	Fundamental structural part of the LIMAPS model that reflects how the respective questions (items) in the questionnaire (survey) are organised. Each component refers to a different pillar of the digital public service lifecycle. LIMAPS has two components: Service Delivery and Service Consumption, which means that the respective questions refer to these two specific categories.
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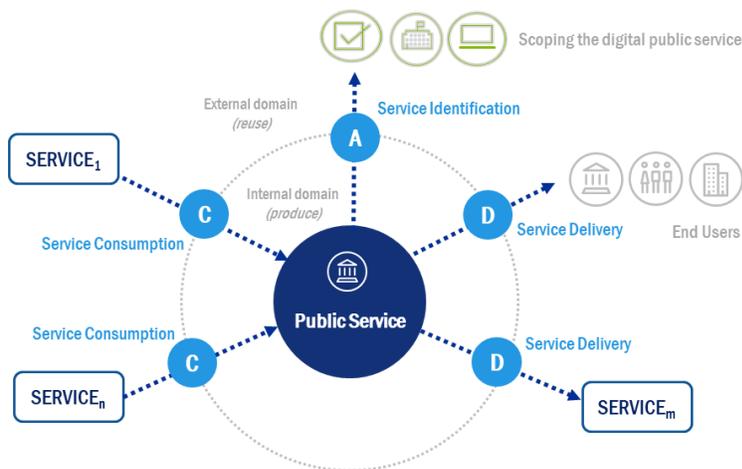


Figure 3: LIMAPS behavioral interoperability viewpoint

The LIMAPS structural components are described below:

- **Service Consumption (C)** – Consumption of reusable machine-to-machine services from other public administrations and businesses. This can include the consumption of functionalities, base registry information and security services;
- **Service Delivery (D)** – Delivery of the digital public service to its end users and/or other public administrations

The components indicated in the figure above are the object of measurement in LIMAPS, specifying where legal behavioral interoperability plays a role from a service delivery and a service consumption viewpoint.

4.2.1 Service Delivery (D)

The public administration delivers the digital public service towards end users i.e. citizens, businesses or other administrations. We call this **Service Delivery**. The service that is being delivered represents the focal point of the LIMAPS in terms of correctly scoping and delimiting the digital public service under evaluation. If service delivery is scoped correctly, the scoping of the other areas becomes more straightforward. The Service Delivery area focuses on the delivery of the digital public service to its end users or other services.

4.2.2 Service Consumption (C)

For delivering the digital public service towards the end user, the digital public service may be required to consume services of other public administrations or businesses. This area is called **Service Consumption** and it focuses on the consumption of reusable machine-to-machine (client) services from other public administrations and businesses. This can, indicatively, include the consumption of functionalities, base registry information and security services.

Digital public services that consume (reuse) existing services where possible are considered more interoperable than organisations that produce (develop) their own proprietary services without reusing existing functionalities.

4.3 LIMAPS Attributes

Attribute	Structural part of each LIMAPS component. Each attribute includes questions (items) that assess a specific aspect of the digital public service. Each of the LIMAPS survey components has questions (items) that are organised under the following attributes: the legal interoperability specifications of data, information and knowledge delivered by the digital public service to its end users and/or other services, the legal interoperability enablers and the legal interoperability manifestations.
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LIMAPS components' attributes are presented in the table below.

Table 2: Service delivery and service consumption attributes

Service Delivery	
Attribute	Rationale
Data, information and knowledge Delivered	Assesses the legal behavioral interoperability specifications of [data, information and knowledge delivered by the public service to its end users and/or other client services.
Service Delivery Enablers	Assesses the legal behavioral interoperability capabilities that enable either i) the delivery of data, information and knowledge by the digital public service to its end users and/or other client services or ii) the discoverability of the public service.
Service Delivery Manifestations	Assesses the legal behavioral interoperability manifestations of the public service delivering data, information and knowledge (manifestations can be performance, results, user experience).

Service Consumption	
Attribute	Rationale
Data, information and knowledge Consumed	Assesses the legal behavioral interoperability specifications of data, information and knowledge consumed by the public service from other server services
Service Consumption Enablers	Assesses the legal behavioral interoperability capabilities that enable the public service to either i) discover other server services and/or ii) consume their data, information and knowledge
Service Consumption Manifestations	Assesses the legal behavioral interoperability manifestations of the public service consuming data, information and knowledge (manifestations can be performance, results, user experience).

It is briefly noted that there is a symmetry in the way the Service Delivery and Service Consumption attributes have been defined, from the delivery viewpoint to the consumption viewpoint. This means that there is no attribute in Service Delivery that is not also examined in the Service Consumption component from the service consumption viewpoint and vice versa.

4.4 Sources of Input

Various related programmes and initiatives inside and outside ISA² have been leveraged to build the current set of LIMAPS Attributes. The most important ones are:

- **European Interoperability Framework (EIF)¹** – The European Interoperability Framework (EIF) serves as an important framework for organisations to promote and improve interoperability and therefore is considered as a paramount starting point for defining LIMAPS attributes. The respective items per attribute have been specifically formed to assess the level of conformance with the elements of EIF structure (principles/layers/conceptual model). The basis to define LIMAPS items have been the EIF recommendations;
- **European Interoperability Reference Architecture (EIRA)²** – EIRA compliance is ensured at the level of LIMAPS attributes. In this context, the respective items per attribute have been specifically formed to assess the level of conformance with the EIRA Architecture Building Blocks (ABBs). The basis to define LIMAPS items has been the context of each one of the EIRA ABBs.
- **Digital Single Market** - the Digital Single Market strategy aimed to open up digital opportunities for people and business and enhance Europe's position as a world leader in the digital economy. Selected attributes were defined to align with this ambition; the terminology of LIMAPS overall embraces the key concepts of “digitalisation” in its various aspects;
- **Structural Interoperability Quick Assessment Toolkit (SIQAT®)³** – SIQAT® has been developed in the context of Action 2016.36 Assessment of trans-European systems supporting EU policies of the Interoperability solutions and common frameworks for European public administrations, businesses and citizens. The objective of the SIQAT® is to allow public service owners to evaluate the structural interoperability maturity level of their digital public service.

¹ https://ec.europa.eu/isa2/eif_en

² <https://joinup.ec.europa.eu/collection/european-interoperability-reference-architecture-eira/solution/eira>

³ <https://joinup.ec.europa.eu/collection/european-interoperability-reference-architecture-eira/solution/siqat/release/v100>

- **Legal interoperability experts** – The IMAPS project team conducted some rounds of interviews with identified experts from the legal interoperability domain to improve and adapt the LIMAPS questionnaire.
- **A multi-dimensional framework to evaluate the innovation potential of digital public services⁴** – This report presents the main findings of a study conducted as part of the “Innovative Public Services” (IPS) Action of the ISA² Programme. The main outcome of the research is an original multi-dimensional framework for evaluating the interoperability readiness of digital public services. The framework was conceptualised and tested in the context of desk and field research on available evidence to support European Public Administrations willing to embrace new digital technologies and deliver innovative public services according to the four layers of the European Interoperability Framework (EIF) and in alignment with the user centricity principles defined in the Tallinn Declaration (2017).
- **Common Assessment Method for Standards and Specifications (CAMSS)⁵** - CAMSS is the European guide for assessing and selecting standards and specifications for an eGovernment project, a reference when building an architecture and an enabler for justifying the choice of standards and specifications in terms of interoperability needs and requirements. It is fully aligned with the European Standardisation Regulation 1025/2012.
- **EIRA Library of Interoperability Specifications (ELIS)⁶** - The EIRA Library of Interoperability Specifications is a library containing the standards and specifications defining the interoperability requirements of the architectural building blocks (ABBs) contained in the European Interoperability Reference Architecture (EIRA). The aim of this library is supporting solutions architects when modelling using EIRA.
- **EIRA Library of Architecture Principles (ELAP)⁷** - The EIRA library of architecture principles (ELAP) is intended to direct government organizations in initiating changes and implementing IT projects. Particularly when designing new or modified services, it is necessary to make visible how the principles are implemented and which considerations are made in this regard. The apply-or-explain principle applies here, whereby deviations are permitted provided that they are substantiated and recorded with good arguments so that they can be revisited at a later stage. This prevents important matters from being overlooked. The principles are described in relation to relevant policy frameworks, established standards, building blocks and examples that are already available, so that they are as recognisable as possible in practice.
- In the context of LIMAPS, the CAMSS terminology, ELIS requirements and ELAP principles have been used as basis and guidance to design the items and options of the questionnaire, as well as the respective interoperability aspects, linked to each item. These interoperability aspects will serve as the basis to design the High Level Solution Architecture Template (HL SAT) of LIMAPS, a specification that extends EIRA and provides high level requirements on how to design a semantically interoperable digital public service.

⁴ <https://publications.jrc.ec.europa.eu/repository/handle/JRC121672>

⁵ <https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/about>

⁶ <https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/solution/elis/release/v110>

⁷ <https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/solution/elap/release/v100>

5 LIMAPS QUESTIONNAIRE

LIMAPS uses a questionnaire structure for assessing the legal behavioral interoperability maturity of a digital public service. This section details the questionnaire type, question types and assessment structure in more detail.

LIMAPS questionnaire is a compact and highly user-friendly tool available online. Designed as a self-assessment tool, LIMAPS assessment criteria have been condensed into targeted question sets in order to evaluate key legal behavioral interoperability aspects of a digital public service. Such insight results in personalised, confidential feedback and recommendations on how a service can improve.

LIMAPS Questionnaire is designed to take approximately 20 minutes to complete. Once the questionnaire is completed, a report is generated with the legal behavioral interoperability scores plus recommendations on how to further improve the digital public service's legal behavioral interoperability.

5.1 Questionnaire Structure

This section outlines the structure of the questionnaire. The four main sections of the questionnaire are in line with the earlier presented overview of behavioral interoperability aspects ([section 5](#)):

- Service Identification (A): This section assesses the scope of the digital public service (the object of measurement, i.e. the digital public service to examine), service landscaping, the digital public service's outcome, the service owner, the administrative level, etc.;
- Service Delivery (D): The section assesses how the digital public service delivers its service;
- Service Consumption (C): This section assesses if and how services are consumed from other administrations and businesses.

The following figures illustrate the sections A, D and C of LIMAPS questionnaire as described above.

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Service Identification (A)

* A1A. Please provide your name:

* A1B. Please provide your email address:
We will send your report to this email address

A1C. Please provide your phone number:

* A1D. Please indicate the country of the organisation providing the digital public service

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czechia
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia

Figure 4: LIMAPS questionnaire Section A

* A2A. A digital public service is a digital service rendered in the public interest.
What is the name of the digital public service that you provide to the end users (citizens, businesses or other public administrations)?

* A2B. Use the following criteria to define a digital public service: i) Process and underlying activities, ii) Appearance, iii) Owner (see A3).
Please describe the process and underlying activities of the digital public service. The digital public service always has three phases (1. initiation, 2. processing and 3. delivery of an outcome).
Focus on the public decision that is the outcome of the service. If there is no public decision and/or outcome, focus on the benefits the service provides to the target audience.

* A2C. Appearance: How does the digital public service deliver the outcome towards the end user group?

- The public service does not deliver the outcome directly towards a person but towards other IT systems (machine-to-machine interface)
- The public service delivers the outcome towards the end users via traditional channels e.g. phone, postal service
- The public service delivers the outcome towards the end users via digital channels, e.g. through a web portal/website or an application

Figure 5: LIMAPS questionnaire Section A

Service Delivery (D)



The public administration delivers the digital public service data towards other end users like administrations, businesses and citizens. We call this the **Public Service Delivery**.

The service being delivered represent the focal point of the LIMAPS in terms of correctly scoping and delimiting the digital public service under evaluation.

The Service Delivery area focuses on the data, information and knowledge delivered by the digital public service, the Service Delivery Enablers and the Service Delivery Manifestations.

Figure 6: LIMAPS questionnaire Section D

Data, information and knowledge delivered

**Assesses the legal behavioural interoperability specifications of data, information and knowledge delivered by the digital public service to its end users and/or other client services.*

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* D1. To what extent is the digital public service compliant with the legal obligations that define the specifications of the data, information and knowledge delivered to its end users?

[More Info](#)

Enabler / Manifestation

- Such compliance is not applicable (because the digital public service does not deliver data, information and knowledge) or is not necessary (because there are no legal obligations that affect the delivery of data, information and knowledge)
- The digital public service is not compliant with any of the existing legal obligations that affect the delivery of data, information and knowledge
- The digital public service is partially compliant with some of the existing legal obligations that affect the delivery of data, information and knowledge (e.g. at a national level)
- The digital public service is fully compliant with most of the existing legal obligations that affect the delivery of data, information and knowledge (at a national level)
- The digital public service is fully compliant with all the existing legal obligations that affect the delivery of data, information and knowledge (both at national and international level, e.g. to the Open Data Directive, to the eIDAS Regulation on electronic identification for electronic identification and/or trust services, etc.)

* D2. To what extent does the digital public service refer to the legal basis on the specifications of the data, information and knowledge delivered to its end users?

[More Info](#)

Enabler / Manifestation

- A legal basis is not applicable (because the digital public service does not deliver data, information and knowledge) or is not necessary (because there are no legal barriers to impact the delivery of data, information and knowledge and thus, no need to be legally resolved).
- The digital public service does not refer to the legal basis on the data, information and knowledge it delivers, although there are legal barriers that impact their delivery that have to be legally resolved (e.g. in the case of personal/critical data, information and knowledge that have to be delivered).
- The digital public service provides custom rules to define the specifications for the delivery of data, information and knowledge, but there are legal barriers that impact the delivery of data, information and knowledge that require a stronger legal basis (e.g. in the case of personal/critical data, information and knowledge that have to be delivered).
- The digital public service provides formal rules to define the specifications for the delivery of data, information and knowledge (e.g. a legislation obliging the controller to carry out an assessment of the impact of the envisaged consumption and processing operations on the protection of personal data e.g. GDPR).

Figure 7: LIMAPS questionnaire Section D

Service Consumption (C)



For delivering the digital public service data towards other administrations, businesses and citizens, the digital public service may be required to consume service of other public administrations or businesses. This area is called **Service Consumption**.

The Service Consumption area focuses on the data, information and knowledge consumed, the Service Consumption Enablers and the Service Consumption Manifestations.

Please answer the following questions regarding the service consumption of your digital public service.

Figure 8: LIMAPS questionnaire Section C

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Service Consumption Enablers

**Assesses the legal behavioural interoperability capabilities that enable the digital public service to either i) discover other server services and/or ii) consume their data, information and knowledge*

*** C3. To what extent is the digital public service legally mandated to consume data, information, technology in a machine-readable format?**

More info

Enabler / Manifestation

- Not applicable, there is no automated data consumption
 - There is such legal basis but no provisions are in place yet
 - Partially, there is a legal basis that mandates a semi-automated data consumption using IT applications interfacing with information systems
 - Fully, there is a legal basis that mandates fully automated data consumption e.g. AI-based tools (machine learning)
-

*** C4. To what extent does the digital public service consume data, information, knowledge that are subject to a license that describes their specifications?**

More info

Enabler / Manifestation

- Not applicable, the digital public service does not consume data
- They are not subject to any license, although they could be
- They are subject to a proprietary license
- They are subject to an Open Data License

Figure 9: LIMAPS questionnaire Section C

5.2 LIMAPS Questionnaire

5.2.1 Service Identification (A) - Questions

A1A.

<i>Name</i>	Contact details
<i>Question type</i>	Free text
<i>Rationale</i>	Gather contact information for eventual follow-up.
<i>Question</i>	Please provide your name.
<i>Question logic</i>	Next question

A2A.

<i>Name</i>	Contact details
<i>Question type</i>	Free text
<i>Rationale</i>	Gather contact information for eventual follow-up.
<i>Question</i>	Please provide your email address.
<i>Question logic</i>	Next question

A1C.

<i>Name</i>	Contact details
<i>Question type</i>	Free text - format check on phone number
<i>Rationale</i>	Gather contact information for eventual follow-up.
<i>Question</i>	Please provide your phone number.
<i>Question logic</i>	Next question

A1D.

<i>Name</i>	Contact details
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	Gather contact information for eventual follow-up.
<i>Question</i>	Please indicate the country of the organisation providing the digital public service. Please indicate the country if not in the list above.
<i>Question logic</i>	Next question

A2A.

<i>Name</i>	Digital public service description
<i>Question type</i>	Open

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<i>Rationale</i>	Gain insight into the digital public service the administration provides.
<i>Question</i>	A digital public service is a digital service rendered in the public interest. What is the name of the digital public service that you provide to the end users (citizens, businesses or other public administrations)?
<i>Examples</i>	Submission of yearly income tax declaration for citizens (administration-to-citizen); change of residence of a citizen (administration-to-citizen); online information provisioning on relevant jobs to citizens (administration-to-citizen);
<i>Question logic</i>	Next question

A2B.

<i>Name</i>	Digital public service description
<i>Question type</i>	Open
<i>Rationale</i>	Gain insight into the digital public service the administration provides.
<i>Question</i>	Use the following criteria to define a digital public service: i) Process and underlying activities, ii) Appearance, iii) Owner (see A3). Please describe the process and underlying activities of the digital public service. The digital public service always has three phases (1. initiation, 2. processing and 3. delivery of an outcome). Focus on the public decision that is the outcome of the service. If there is no public decision and/or outcome, focus on the benefits the service provides to the target audience.
<i>Examples</i>	Providing classification services towards other administrations for ensuring international standardisation of patent data via a machine-to-machine interface (administration-to-administration).
<i>Question logic</i>	Next question

A2C.

<i>Name</i>	Digital public service description
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	Gain insight into the digital public service the administration provides.
<i>Question</i>	<p>Appearance: How does the digital public service deliver the outcome towards the end user group?</p> <ul style="list-style-type: none"> • The public service does not deliver the outcome directly towards a person but towards other IT systems (machine-to-machine interface) • The public service delivers the outcome towards the end users via traditional channels e.g. phone, postal service • The public service delivers the outcome towards the end users via digital channels, e.g. through a web portal/website or an application
<i>Question logic</i>	Next question

A3.

<i>Name</i>	Service owner
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This question determines the scope / boundaries of the public administration providing the digital public service.
<i>Question</i>	<p>Owner: Which public administration is primarily responsible for providing the digital public service?</p> <ul style="list-style-type: none"> • Ministry e.g. Ministry of Public Administration, Ministry of Justice • Public Administration e.g. Tax Administration • Directorate-General of the European Commission e.g. DG COMM, DG JUST, DGIT • Government institution/agency/office e.g. National Agency for Information Society, National Centre for Public Administration and Local Government (EKDDA) • EU institution/agency/office e.g. EU Publications Office • Other Legal Entity
<i>Question logic</i>	Next question

A4.

<i>Name</i>	Sector of the service
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This question determines the scope / boundaries of the public administration providing the digital public service.
<i>Question</i>	<p>Please indicate in which sector is the digital public service provided.</p> <ul style="list-style-type: none"> • Education • Public Health • Public Safety • Environmental Protection • Justice • Transportation • Infrastructure • Social Services • Economy/Financial • Other
<i>Question logic</i>	Next question

A5.

<i>Name</i>	End user group(s) to which the service is delivered
<i>Question type</i>	Multiple choice (>1 possible answer)
<i>Rationale</i>	Determine the end user group(s) to which the digital public service is delivered.
<i>Question</i>	<p>What is the end user group to whom the digital public service is delivered?</p> <ul style="list-style-type: none"> • Public Administrations (A2A) • Citizens (A2C) • Businesses (A2B)
<i>Examples</i>	A specific group of businesses; A specific group of citizens; A specific group of public administrations.
<i>Question logic</i>	Next question

A6.

<i>Name</i>	Administrative level
<i>Question type</i>	Multiple choice (>1 possible answer)
<i>Rationale</i>	Gain insight into the government providing the digital public service.
<i>Question</i>	At what administrative level is the digital public service provided (multiple answers are possible)? <ul style="list-style-type: none"> • Local (e.g. city, municipality) • Regional • National • European • International
<i>Question logic</i>	Next question

Maturity scoring: This section is not scored.

5.2.2 Service Delivery (D) - Questions

D1.

<i>Name</i>	Legal obligations for the data transmitted
<i>Category</i>	Enabler
<i>Weight</i>	50%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item examines to what extent the digital public service is compliant with the legal obligations (e.g. legislations) that define the specifications of the data, information and knowledge delivered by the digital public service to its end users. Compliance with all relevant legal obligations might cause legal barriers due to the multiple legal obligations that have to be resolved. This item examines the legal behavioral interoperability specifications of the data, information and knowledge delivered by the digital public service to its end users. This item is compliant with the EIRA ABB 'Legal Interoperability Specification'.
<i>Question</i>	To what extent is the digital public service compliant with the legal obligations that define the specifications of the data, information and knowledge delivered to its end users? <ul style="list-style-type: none"> • Such compliance is not applicable (because the digital public service does not deliver data, information and knowledge) or is not necessary (because there are no

Examples

- legal obligations that affect the delivery of data, information and knowledge)
- The digital public service is not compliant with any of the existing legal obligations that affect the delivery of data, information and knowledge
 - The digital public service is partially compliant with some of the existing legal obligations that affect the delivery of data, information and knowledge (e.g. at a national level)
 - The digital public service is fully compliant with most of the existing legal obligations that affect the delivery of data, information and knowledge (at a national level)
 - The digital public service is fully compliant with all the existing legal obligations that affect the delivery of data, information and knowledge (both at national and international level, e.g. to the Open Data Directive, to the eIDAS Regulation on electronic identification for electronic identification and/or trust services, etc.)
-
- The use of eDelivery is compliant with the EU Treaties
 - The delivery of tax service is compliant with national regulations and legal acts
 - The national electronic public procurement platform is delivered to the end-users against EU directives on public procurement e.g. Directive 2014/24/EU
 - Portugal and Czech Republic have eID schemes based on the electronic national identity card which are compliant with the eIDAS Regulation

Question logic

Next question

D2.

<i>Name</i>	Legal basis on data transmission
<i>Category</i>	Enabler
<i>Weight</i>	50%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item examines to what extent the digital public service refers to the legal basis on the specifications of the data, information and knowledge delivered to its end users. Such a legal basis aims to resolve any legal barriers that may impact the delivery of data, information and knowledge (e.g. in the case of personal / critical data, information and knowledge). The type of legal basis in place defines the extent of the legal/juridical certainty and determinacy for the delivery of data, information and knowledge. This item examines the legal behavioral interoperability specifications of the data, information and

Question

knowledge delivered by the digital public service to its end users. This item is compliant with the EIRA ABB 'Legislation on Data, Information and Knowledge Exchange'.

To what extent does the digital public service refer to the legal basis on the specifications of the data, information and knowledge delivered to its end users?

- A legal basis is not applicable (because the digital public service does not deliver data, information and knowledge) or is not necessary (because there are no legal barriers to impact the delivery of data, information and knowledge and thus, no need to be legally resolved).
- The digital public service does not refer to the legal basis on the data, information and knowledge it delivers, although there are legal barriers that impact their delivery that have to be legally resolved (e.g. in the case of personal/critical data, information and knowledge that have to be delivered).
- The digital public service provides custom rules to define the specifications for the delivery of data, information and knowledge, but there are legal barriers that impact the delivery of data, information and knowledge that require a stronger legal basis (e.g. in the case of personal/critical data, information and knowledge that have to be delivered).
- The digital public service provides formal rules to define the specifications for the delivery of data, information and knowledge (e.g. a legislation obliging the controller to carry out an assessment of the impact of the envisaged consumption and processing operations on the protection of personal data e.g. GDPR).

Examples

- A national eGovernment portal delivers data under legally binding requirements at a national level.
- A public administration in MS uses the Single Digital Gateway regulation (Regulation (EU) 2018/1724) for delivering data to citizens and businesses
- A national eProcurement platform uses the ESPD which allows business to easily tender in different countries (the "legal mandate" is also semantic for the service providers)

Question logic

Next question

D3.

<i>Name</i>	Digital-ready legislation for automated transmission of data
<i>Category</i>	Enabler
<i>Weight</i>	20%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item examines whether there are digital-ready policies and legislations in place that mandate a digital and automated delivery of data, information and knowledge by the digital public service (digital-ready legislation). Such a mandate defines the specifications of the data, information and knowledge delivered by the digital public service to its end users, resolving any legal barriers that may impact their automated delivery (e.g. in the case of personal / critical data, information and knowledge). This item examines a legal behavioral interoperability capability that enables and facilitates the digital public service to deliver data information and knowledge towards its end users. This item is compliant with the EIRA ABB 'Legislation on Data, Information and Knowledge Exchange'.
<i>Question</i>	To what extent is the digital public service legally mandated to deliver data, information and knowledge in a machine-readable format? <ul style="list-style-type: none"> • Not applicable (because the digital public service does not deliver data, information and knowledge) or not necessary (because there is no legal basis to mandate automated data delivery) • There is such legal basis but no provisions are in place yet • Partially, the legal basis allows for semi-automated data delivery using IT applications interfacing with information systems • Fully, the legal basis allows for fully automated data delivery e.g. AI-based tools (machine learning)
<i>Examples</i>	<ul style="list-style-type: none"> • Digital-ready legislation streamlines access to adult education and continuing training via the establishment of a database of evidence of formal qualifications for adult education and continuing training • A national legal act introduces new provisions for the payment of allowances for participation and the cost of transport that allows citizens and businesses to benefit from automated case handling and rapid decisions • The data transmission of the eGovernment portal is held via AI-based tools and text mining algorithms following the EU Framework of ethical aspects of artificial intelligence, robotics and related technologies.
<i>Question logic</i>	Next question

D4.

<i>Name</i>	Licenses for data transmission
<i>Category</i>	Enabler
<i>Weight</i>	50%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item aims to assess how the specifications of the data, information and knowledge delivered by the digital public service are translated into terms and conditions that accompany their delivery and allow their reuse by the end users of the digital public service. A data license is a legal instrument that explicitly specifies these terms and conditions. The type of the legal license determines the extent of the data, information and knowledge delivery and reuse by the end users of the digital public service (e.g. proprietary or open license). This item examines a legal behavioral interoperability capability that enables and facilitates the digital public service to deliver data information and knowledge towards its end users. This item is compliant with the EIRA ABB 'Legislation on Data, Information and Knowledge Exchange'.
<i>Question</i>	<p>To what extent does the digital public service impose a license to describe the specifications of the data, information and knowledge delivered to its end users?</p> <ul style="list-style-type: none"> • The use of a licenses is not applicable (because the digital public service does not deliver data, information and knowledge) or not necessary (because there are no legal obligations to require licensing the data, information and knowledge delivered • The digital public service does not impose any license upon the delivery and reuse of the data, information and knowledge it delivers, although there are legal specifications that affect their reuse • The digital public service imposes a proprietary license upon the delivery of data, information and knowledge to describe the terms and conditions of their reuse • The digital public service imposes an open data license upon the delivery of data, information and knowledge to describe the terms and conditions of their reuse
<i>Examples</i>	<ul style="list-style-type: none"> • Dublinked uses the Creative Commons Attribution (CC-BY) license. This license lets others distribute, remix, tweak, and build upon data, even commercially, as long as users credit the original publisher for the original creation.

<i>Question logic</i>	<ul style="list-style-type: none"> Open government license (http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2/) - United Kingdom Government license. A good example of a simple government license which respects the specific terms of a public body.
	Next question

D5.	
<i>Name</i>	Legal framework of the service
<i>Category</i>	Enabler
<i>Weight</i>	30%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item examines to what extent the digital public service informs its end users around the legal aspects that define the specifications of the data, information and knowledge delivered by the digital public service to its end users. This item examines a legal behavioral interoperability capability that enables and facilitates the digital public service to deliver data information and knowledge towards its end users. This item is compliant with the EIRA ABB 'Shared Legal Framework'.
<i>Question</i>	<p>To what extent does the digital public service inform the end users on the legal aspects that define the specifications of the delivered data, information and knowledge ?</p> <ul style="list-style-type: none"> Not applicable (because the digital public service does not deliver data, information and knowledge) or not necessary (because there is no legal basis around the data, information and knowledge delivered by the digital public service) Not at all, the legal aspects of the service are not available to the end users Partially, the legal aspects of the service are available to the end users on demand Fully, the legal aspects of the service are publicly available
<i>Examples</i>	<ul style="list-style-type: none"> The digital public service is designed based on a Shared Legal Framework in relation to public policy goals attainment which is available for the consumers on demand. The digital public service is regulated primarily by the Constitution and the Public Administration Act which are publicly available.

<i>Question logic</i>	<ul style="list-style-type: none"> The digital public service is regulated by the Public Service Commission General Regulations, which govern the Commission’s internal proceedings; the Public Service Commission Appointments Regulations, which govern appointments in the Public Service; and the Disciplinary Procedure in the Public Service Commission Regulations, which regulate discipline in the Public Service. <p>Next question</p>
D6.	
<i>Name</i>	End users consent
<i>Category</i>	Enabler
<i>Weight</i>	20%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	<p>This item assesses the type of consent that the digital public service requests from the end user in order to deliver the requested data, information and knowledge. This item examines a legal behavioral interoperability capability that enables and facilitates the digital public service to deliver data information and knowledge towards its end users. This item is compliant with the EIRA ABB 'Legislation on Data Information and Knowledge Exchange'.</p>
<i>Question</i>	<p>To what extent does the digital public service request end-user’s consent prior to the delivery of data, information and knowledge?</p> <ul style="list-style-type: none"> Not applicable because either the digital public service does not deliver data, information and knowledge or because none of the data, information and knowledge required prior to delivery is subject to any data protection provisions The digital public service does not request any consent although the data, information and knowledge delivered required prior to delivery are subject to data protection provisions. The digital public service implicitly requests an "implied consent" in the sense that the end users provide their details (email, name, etc.) required prior to delivery, but do not sign anything to explicitly say (e.g. by ticking a box) that they agree on sharing their personal data. This is implicit in their participation. The digital public service requests an "informed consent" in the sense that the end users understand what they are signing up to, prior to delivery, following a clear and understandable language.

Examples

- The digital public service requests an "explicit consent" in the sense that the end users give clear and documentable consent, prior to delivery, to the terms of the agreement (e.g. by ticking one or more boxes or signing a form that clearly describes the data, information and knowledge to be processed and shared).
- A public authority requests for consent for the publication of names together with contributions or feedbacks, in accordance with Article 5(1)(d) of Regulation (EU) 2018/1725.
- Two public bodies require the same information for issuing their permit for a land owner, but are not accessing each other's databases. Therefore, they ask for land owner's consent to merge the files, to avoid duplicate procedures and correspondence.

Question logic

Next question

D7.

<i>Name</i>	Management of end users consent
<i>Category</i>	Manifestation
<i>Weight</i>	20%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item assesses the type of consent that the digital public service has obtained from the end user in order to deliver the requested data, information and knowledge. This item examines a legal behavioral interoperability manifestation of the public service delivering data, information and knowledge towards its end users (in terms of user experience). This item is compliant with the EIRA ABB 'Legislation on Data Information and Knowledge Exchange'.
<i>Question</i>	<p>To what extent does the digital public service enable end-users to manage (i.e. revoke) consent to deliver data, information and knowledge?</p> <ul style="list-style-type: none"> • Not applicable because either the digital public service does not deliver data, information and knowledge or because none of the data, information and knowledge delivered is subject to any data protection provisions • The digital public service obtains a one-time consent from the end user in order to deliver data, information and knowledge. • The digital public service obtains an "explicit consent" from the end-user to deliver data, information and

Examples

- knowledge. This means that it can reuse specific data and for specific purposes based on specific terms that the end-user has chosen (e.g. by ticking one or more boxes)
- The digital public service obtains "full consent" in the sense that it can fully reuse end-user data, information and knowledge
 - The digital public service obtains "full consent" in the sense that it can fully reuse end-user data, information and knowledge, as well as share with other parties
 - A local municipality that is planning road maintenance works, offers citizens to subscribe to an email list to receive updates on the progress of the works and on expected delays asking for their full consent to reuse their email addresses at any time there are road maintenance works.

Question logic

Next question

D8.

Name

Data reusability

Category

Manifestation

Weight

20%

Question type

Multiple choice (1 answer possible)

Rationale

This item examines to what extent the digital public service delivers already reusable data that discovers from database registries and other similar sources. In order to create cohesion across the public sector and to support an effective digital public service, the public administrations should consider whether, instead of introducing new specifications, to possibly reuse data from existing public registries as a basis for simplification and administration of the legislation. A shared legal framework is necessary to facilitate this discoverability and reusability. This item examines a legal behavioral interoperability manifestation that facilitates the digital public service to deliver data, information and knowledge towards its end users (in terms of performance). This item is compliant with the EIRA ABB 'Shared Legal Framework'.

Question

To what extent does the digital public service deliver data, information and knowledge from other consumed services? (e.g. address, geolocation data, personal data)

- Not applicable because the digital public service does not consume data, information and knowledge from any electronic registries nor other sources or, because

Examples

- none of the consumed data is applicable to be already reusable in delivery.
- None of the consumed data, information and knowledge are already reusable for the public service delivery. Currently, new data have to be consumed from citizens or businesses for the delivery of the digital public service although, there is the applicability to consume data, information and knowledge already reusable for the public service delivery (e.g. from electronic base registries, etc.).
 - Partially, some of the consumed data, information and knowledge are already reusable for the public service delivery (where applicable).
 - Fully, all the consumed data, information and knowledge are already reusable for the public service delivery (where applicable).
 - A specific ministry reuses data from existing business registers and integrates them in the national portal of citizens.
 - A public administration uses uniform concepts and creates a basis for reuse of data by the authorities.

Question logic

Next question

D9.	
<i>Name</i>	Administrative simplification
<i>Category</i>	Manifestation
<i>Weight</i>	20%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item aims to assess how the public service manifests its legal behavioral interoperability performance towards its end users. It examines how adequately described and understood the legal rules and concepts of the digital public service are. The implementation of simple and clear rules often have the character of regulatory simplification and administrative streamlining. The legislation should be simple and clear so that it is easy to understand for citizens as well as businesses. Simple rules facilitate the protection of legal rights by providing more clarity on the legal position of the individual and improve citizens' and businesses' experience of being treated fairly. For the authorities, simple and clear rules have the advantage of being easier to administer and contribute to a more uniform administration and digital legislative support. This item examines a legal behavioral interoperability manifestation of the public

Question

service delivering data, information and knowledge towards its end users (in terms of user experience). This item is compliant with the EIRA ABB 'Shared Legal Framework'.

To what extent does the digital public service provide user friendly explanations on the legal provisions concerning the data, information and knowledge delivered?

- Not applicable, there is no need to have such rules in place.
- Rules and concepts of the digital public service are not described at all.
- The legislative provisions of the digital public service are partially described in a high-level manner but they are somehow clear and comprehensible for the end-users
- The legislative provisions of the digital public service are fully clear and comprehensible for the end-users

Examples

- Digital-ready legislation streamlines access to adult education and continuing training via legislative provisions that are as clear and simple as possible.
- The regulation on the letting of all-year dwellings and the letting of part of an all-year dwelling is made simpler and easier to manage for the benefit of the public administration and for the benefit of citizens wishing to rent their all-year dwellings.

Question logic

Next question

D10.

Name

Tracing and logging mechanisms

Category

Manifestation

Weight

20%

Question type

Multiple choice (1 answer possible)

Rationale

This item examines whether there are any tracing and logging mechanisms in place to follow and monitor the flow of data, information and knowledge delivered, as well as monitor a single user's journey across the various steps of the service, ensuring thus, a secure delivery of data, information and knowledge. This item examines a legal behavioral interoperability manifestation of the public service delivering data, information and knowledge towards its end users (in terms of performance). This item is compliant with the EIRA ABB 'Shared Legal Framework'.

Question

To what extent does the digital public service provide tracing and logging mechanisms to allow a secure delivery of data, information and knowledge towards its end users?

Examples

- Not applicable, the digital public service does not need to have any tracing and logging mechanisms.
- No such mechanism is in place although the digital public service should have user tracing and logging applications to monitor the delivery of data, information and knowledge across a single user's journey through the digital public service.
- There are user tracing and logging applications in place, to monitor the delivery of data, information and knowledge across a single user's journey through the digital public service.
- There are user tracing and logging applications in place, to monitor the delivery of data, information and knowledge across a single user's journey through the digital public service, involving different actors and their roles, whose responsibilities are clearly established from the outset and explained to the end users.
- To ensure accountability in the eHealth portal, the controller of contact tracing application is clearly defined; the national health authorities are the controllers.
- A public authority provides a digital public service based on a mandate assigned by and in line with requirements laid down by law, having as legal basis for the consumption/processing of data the Art. 6(1)(e) of GDPR

Question logic

Next question

Maturity scoring: The overall weight of this area in the total maturity score is 70%. For more information, please see [section 7.3](#).

5.2.3 Service Consumption (C) - Questions

C1.	
<i>Name</i>	Legal obligations for the data processed
<i>Category</i>	Enabler
<i>Weight</i>	50%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item examines to what extent the digital public service is compliant with the legal obligations (e.g. legislations) that define the specifications of the data, information and knowledge consumed by the digital public service from other services. Compliance with all relevant legal obligations might cause legal barriers due to the multiple legal obligations that have to be resolved (see next question). This item examines the legal behavioral interoperability specifications of data, information and knowledge consumed by the digital public service from other services. This item is compliant with the EIRA ABB 'Legal Interoperability Specification'.
<i>Question</i>	<p>To what extent is the digital public service compliant with the legal obligations that define the specifications of the data, information and knowledge consumed by other services?</p> <ul style="list-style-type: none"> • Such compliance is not applicable (because the digital public service does not consume data, information and knowledge) or not necessary (because there are no legal obligations that affect the consumption of data, information and knowledge) • The digital public service is not compliant with any of the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service • The digital public service is partially compliant with some of the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service • The digital public service is fully compliant with most of the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service (at a national level) • The digital public service is fully compliant with all the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service (both at national and international level, e.g. to the Open Data Directive, to the eIDAS Regulation on electronic identification for electronic identification and/or trust services, etc.)

Examples

- The national electronic public procurement platform consumes personal data of the contracting authorities following the GDPR
- Portugal and the Czech Republic with eID schemes based on the electronic national identity card are compliant with the eIDAS Regulation

Question logic

Next question

C2.

Name

Legal basis on data processing

Category

Manifestation

Weight

50%

Question type

Multiple choice (1 answer possible)

Rationale

This item examines to what extent the digital public service is mandated by a legal basis that defines the specifications of the data, information and knowledge consumed by the digital public service. Such a legal basis aims to resolve any legal barriers that may impact the consumption of data, information and knowledge (e.g. in the case of personal / critical data, information and knowledge). The type of legal basis in place defines the extent of the legal/judicial certainty and determinacy for the consumption of data, information and knowledge. This item examines the legal behavioral interoperability specifications of data, information and knowledge consumed by the digital public service from other services. This item is compliant with the EIRA ABB 'Legislation on Data Information and Knowledge Exchange'.

Question

To what extent is the digital public service mandated by a legal basis that defines the specifications for the data, information and knowledge consumption from other services?

- Not applicable, the digital public service does not need to consume any data
- There are considerations for national regulations to be in place
- National regulations are in place
- Formal regulations and directives are in place e.g. Open Data Directive, eIDAS Regulation on electronic identification for electronic identification and/or trust services.

<i>Examples</i>	<ul style="list-style-type: none"> • A national eGovernment portal process the consumed data under legally binding requirements at a national level. • A national eProcurement platform uses the ESPD which allows business to easily tender in different countries (the "legal mandate" is also semantic for the service providers) having EU rules in place for the data consumption from the economic operators
<i>Question logic</i>	Next question

C3.	
<i>Name</i>	Digital-ready legislation for automated processing of data
<i>Category</i>	Enabler
<i>Weight</i>	20%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item examines to what extent there are digital-ready policies and legislations in place that mandate a digital and automated consumption of data, information and knowledge (from other parties, registries, services, etc.) by the digital public service (digital-ready legislation). Such a mandate enables and facilitates the digital public service to consume data, information and knowledge in an interoperable and future-proof way. This item examines a legal behavioral interoperability capability that enables and facilitates the digital public service to consume data information and knowledge. This item is compliant with the EIRA ABB 'Legislation on Data Information and Knowledge Exchange'.
<i>Question</i>	<p>To what extent is the digital public service legally mandated to consume data, information, technology in a machine-readable format?</p> <ul style="list-style-type: none"> • Not applicable, there is no automated data consumption • There is such legal basis but no provisions are in place yet • Partially, there is a legal basis that mandates a semi-automated data consumption using IT applications interfacing with information systems • Fully, there is a legal basis that mandates fully automated data consumption e.g. AI-based tools (machine learning)
<i>Examples</i>	<ul style="list-style-type: none"> • The data consumption from the eGovernment portal is held via AI-based tools and text mining algorithms following the EU Framework of ethical aspects of artificial intelligence, robotics and related technologies.

<i>Question logic</i>	<ul style="list-style-type: none"> The personal data consumption from the web service of the national bank uses IT application interfacing with IT systems <p>Next question</p>
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C4.	
<i>Name</i>	Licenses for data processing
<i>Category</i>	Enabler
<i>Weight</i>	40%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item aims to assess to what extent the specifications of the data, information and knowledge consumed by the digital public service are provided as terms and conditions for their reuse by the digital public service. A data license is a legal instrument that explicitly specifies these terms and conditions. The type of the legal license determines the extent of the data, information and knowledge consumption and reuse by the digital public service (e.g. data consumed under a proprietary or open license). This item examines a legal behavioral interoperability capability that enables and facilitates the digital public service to consume data information and knowledge towards its end users. This item is compliant with the EIRA ABB 'Legislation on Data Information and Knowledge Exchange'.
<i>Question</i>	<p>To what extent does the digital public service consume data, information and knowledge that are subject to a license that describes their specifications?</p> <ul style="list-style-type: none"> Not applicable, the digital public service does not consume data They are not subject to any license, although they could be They are subject to a proprietary license They are subject to an Open Data License Dublinked uses the Creative Commons Attribution (CC-BY) license. This license lets others distribute, remix, tweak, and build upon data, even commercially, as long as users credit the original publisher for the original creation. Open government license (http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2/)- United Kingdom Government license. A good example of a simple government license which respects the specific terms of a public body.
<i>Examples</i>	
<i>Question logic</i>	Next question

C5.

<i>Name</i>	Data reusability
<i>Category</i>	Enabler
<i>Weight</i>	40%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	<p>This item assesses how the digital public service discovers and consumes already reusable data information and knowledge. It examines whether this consumption is done in an ad-hoc way, under specific legal agreements or legal rights that are imposed or openly, via an automatic discovery and consumption from database registries and other similar sources. In order to create cohesion across the public sector and to support an effective digital public service, the public administrations should consider whether, instead of introducing new specifications, to possibly reuse data from existing public registries as a basis for simplification and administration of the legislation. A shared legal framework is necessary to facilitate this discoverability and consumption. This item examines a legal behavioral interoperability capability that enables the digital public service to consume data, information and knowledge that are already reusable, preferably in an automated manner. This item is compliant with the EIRA ABB 'Shared Legal Framework'.</p>
<i>Question</i>	<p>To what extent does the digital public service consume already reusable data, information and knowledge from other services?</p> <ul style="list-style-type: none"> • Not applicable, there are no data, information and knowledge from other sources that could be already reusable • The digital public service does not consume any already reusable data from other services, although this could be applicable. Currently, new data are only being consumed from citizens or businesses in an ad hoc manner under ad-hoc agreements. • The digital public service consumes already reusable data of public sector information with the right to the protection of personal data • The digital public service discovers and consumes already reusable open data from open data portals or catalogues where there is a public access of data and information
<i>Examples</i>	<ul style="list-style-type: none"> • The national public procurement portal reuses data (notices) from the Tenders Electronic Daily (TED) platform. • The ministry of Agriculture in Greece reuses Open data on pesticide use in agriculture from the European Data Portal.
<i>Question logic</i>	Next question

C6.

<i>Name</i>	Preservation policy of data
<i>Category</i>	Manifestation
<i>Weight</i>	50%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	<p>This item examines whether there is a preservation policy in place for keeping the already consumed data in an electronic format, ensuring their shareability and reusability. It is an important manifestation that ensures iteration with other services and it is linked with integrity of data, which is a key aspect in security (CIA -> Confidentiality, Integrity, Availability).</p> <p>This item examines a legal behavioral interoperability manifestation of the digital public service consuming data, information and knowledge (in terms of performance and results). This item is compliant with the EIRA ABB 'Shared Legal Framework'.</p>
<i>Question</i>	<p>To what extent does the digital public service have preservation policies in place to specify the time period for keeping the data, information and knowledge consumed in an electronic format?</p> <ul style="list-style-type: none"> • Not applicable, the digital public service does consume data • The digital public service does not apply such policies, although it consumes and maintains data from other services • The digital public service uses custom standards around data preservation • The digital public service uses formal standards around data preservation e.g. ISO 19165-1:2018 — Preservation of digital data and metadata
<i>Examples</i>	<ul style="list-style-type: none"> • By using CISE specifications and data models, public administrations are contributing to the preservation policy of their data in the maritime domain that will help to ensure the shareability and reusability in the future. • eArchiving provides documentation and support services based on international standards to help describe, transmit and preserve digital information.
<i>Question logic</i>	Next question

C7.

<i>Name</i>	Tracing and logging mechanisms
<i>Category</i>	Manifestation
<i>Weight</i>	50%
<i>Question type</i>	Multiple choice (1 answer possible)
<i>Rationale</i>	This item examines whether there are any tracing and logging mechanisms in place to ensure the secure consumption of data. This item examines a legal behavioral interoperability manifestation of the digital public service consuming data, information and knowledge (in terms of performance). This item is compliant with the EIRA ABB 'Shared Legal Framework'.
<i>Question</i>	<p>To what extent are tracing and logging mechanisms in place to monitor and ensure the secure consumption of data, information and knowledge from other services?</p> <ul style="list-style-type: none"> • Not applicable, the digital public service does not consume data • No such mechanism is in place although the digital public service consumes data from other services • Partially, there are contact tracing applications in place, but the consumption of personal data does not have a legal basis • Fully, there are contact tracing applications in place and the legal basis for consuming personal data is compliant with GDPR i.e. Art. 6(1)(e).
<i>Examples</i>	<ul style="list-style-type: none"> • To ensure accountability in the eHealth portal, the controller of contact tracing application is clearly defined; the national health authorities are the controllers. • A public authority provides a digital public service based on a mandate assigned by and in line with requirements laid down by law, having as legal basis for the processing of data the Art. 6(1)(e) of GDPR.
<i>Question logic</i>	Next question

Maturity scoring: The overall weight of this area in the total maturity score is 30%. For more information, please see [section 7.3](#).

6 LIMAPS RECOMMENDATIONS

The main objective of the **Legal Interoperability Maturity Assessment of a Public Service (LIMAPS)** is to provide insight into how digital public services can improve their legal behavioral interoperability maturity. After filling in the online questionnaire, the respondent receives a PDF with advice on how to improve the legal behavioral interoperability of his digital public service. This section presents how these recommendations are generated.

6.1 Principles

The following five principles are applied to generate recommendations:

- **Principle 1:** Each legal interoperability attribute differentiates between at least two maturity levels;
- **Principle 2:** The improvement tables provide recommendations on how to improve maturity gradually for a specific legal interoperability attribute;
- **Principle 3:** When a digital public service does not yet reach the maximum level for a specific legal interoperability attribute, a recommendation is given to make the step towards the next legal interoperability level;
- **Principle 4:** When a digital public service successfully attains the maximum maturity level for a legal interoperability attribute, no recommendation is given⁸;
- **Principle 5:** When the maturity improvement is not based on specific legal interoperability characteristics per level, a sliding scale (e.g. from less to more) is used. In this scenario, a generic recommendation (not maturity level specific) is given to improve the maturity further along the sliding scale.

6.2 Recommendations overview

For each improvement step, the recommendation tables in the following chapters show:

- The question the recommendation relates to;
- The assessed maturity level;
- The next maturity level to be reached through improvement⁹;
- The recommendation as to how to reach the next maturity level.

⁸ The reason for this is that in this case- according to the model- the service is already implementing a legal interoperability attribute in a way that it corresponds to best practice. There are no direct recommendations to improve further

⁹ With the exception when this is considered a sliding scale

6.3 Recommendations

6.3.1 Service Delivery (D) – Scoring table

Table 3: Service Delivery scoring model

Item	Ad hoc (1)	Opportunistic (2)	Essential (3)	Sustainable (4)	Seamless (5)
D1	The digital public service is not compliant with any of the existing legal obligations that affect the delivery of data, information and knowledge.		The digital public service is partially compliant with some of the existing legal obligations that affect the delivery of data, information and knowledge (e.g. at a national level)	The digital public service is fully compliant with most of the existing legal obligations that affect the delivery of data, information and knowledge (at a national level)	The digital public service is fully compliant with all the existing legal obligations that affect the delivery of data, information and knowledge (both at national and international level, e.g. to the Open Data Directive, to the eIDAS Regulation on electronic identification for electronic identification and/or trust services, etc.)
D2	The digital public service does not refer to the legal basis on the data, information and knowledge it delivers, although there are legal barriers that impact their delivery that have to be legally resolved (e.g. in the case of personal/critical data, information and knowledge that have to be delivered).			The digital public service provides custom rules to define the specifications for the delivery of data, information and knowledge, but there are legal barriers that impact the delivery of data, information and knowledge that require a stronger legal basis (e.g. in the case of personal/critical data, information and knowledge that have to be delivered).	The digital public service provides formal rules to define the specifications for the delivery of data, information and knowledge (e.g. a legislation obliging the controller to carry out an assessment of the impact of the envisaged consumption and processing operations on the protection of personal data e.g. GDPR).

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D3	There is such legal basis but no provisions are in place yet			Partially, the legal basis allows for semi-automated data delivery using IT applications interfacing with information systems	Fully, the legal basis allows for fully automated data delivery e.g. AI-based tools (machine learning)
D4	The digital public service does not impose any license upon the delivery and reuse of the data, information and knowledge it delivers, although there are legal specifications that affect their reuse			The digital public service imposes a proprietary license upon the delivery of data, information and knowledge to describe the terms and conditions of their reuse	The digital public service imposes an open data license upon the delivery of data, information and knowledge to describe the terms and conditions of their reuse
D5	Not at all, the legal aspects of the service are not available to the end users			Partially, the legal aspects of the service are available to the end users on demand	Fully, the legal aspects of the service are publicly available
D6	The digital public service does not request any consent although the data, information and knowledge delivered required prior to delivery are subject to data protection provisions.		The digital public service implicitly requests an "implied consent" in the sense that the end users provide their details (email, name, etc.) required prior to delivery, but do not sign anything to explicitly say (e.g. by ticking a box) that they agree on sharing their personal data. This is implicit in their participation.	The digital public service requests an "informed consent" in the sense that the end users understand what they are signing up to, prior to delivery, following a clear and understandable language.	The digital public service requests an "explicit consent" in the sense that the end users give clear and documentable consent, prior to delivery, to the terms of the agreement (e.g. by ticking one or more boxes or signing a form that clearly describes the data, information and knowledge to be processed and shared).
D7	The digital public service obtains a one-		The digital public service obtains an	The digital public service obtains "full consent" in the sense that it can fully	The digital public service obtains "full consent" in

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	time consent from the end user in order to deliver data, information and knowledge.		"explicit consent" from the end-user to deliver data, information and knowledge. This means that it can reuse specific data and for specific purposes based on specific terms that the end-user has chosen (e.g. by ticking one or more boxes).	reuse end-user data, information and knowledge.	the sense that it can fully reuse end-user data, information and knowledge, as well as share with other parties.
D8	None of the consumed data, information and knowledge are already reusable for the public service delivery. Currently, new data have to be consumed from citizens or businesses for the delivery of the digital public service although, there is the applicability to consume data, information and knowledge already reusable for the public service delivery (e.g. from electronic base registries, etc.)			Partially, some of the consumed data, information and knowledge are already reusable for the public service delivery (where applicable)	Fully, all the consumed data, information and knowledge are already reusable for the public service delivery (where applicable)
D9	Rules and concepts of the digital public service are not described at all.			They are partially described in a high-level manner but they are somehow clear and understood by the end-users	The legislative provisions of the service are as clear and simple as possible and they are easy to

					understand for end-users
D10	No such mechanism is in place although the digital public service should have user tracing and logging applications to monitor the delivery of data, information and knowledge across a single user's journey through the digital public service			There are user tracing and logging applications in place, to monitor the delivery of data, information and knowledge across a single user's journey through the digital public service	There are user tracing and logging applications in place, to monitor the delivery of data, information and knowledge across a single user's journey through the digital public service, involving different actors and their roles, whose responsibilities are clearly established from the outset and explained to the end users

6.3.2 Service Delivery (D) – Recommendations

The table below presents the respective recommendation to each option in LIMAPS questionnaire. As mentioned above, the purpose of the recommendations is to propose the needed actions to be taken by the digital public service owners in order to **achieve a higher level of legal interoperability maturity**.

In case the selected option is associated to “Seamless level (5)”, then no action is required from the public service owners and the recommendation is by default “Congratulations, you are at the Seamless level”.

Table 4: Service Delivery Recommendations

Question	Addressed Level	Next Level	Recommendation
D1.	Ad hoc (1)	Essential (3)	Consider fulfilling compliance with national regulations that affect the delivery of data, information knowledge to facilitate the legal behavioral interoperability of the digital public service
	Essential (3)	Sustainable (4)	Currently, some regulations are in place for the data transmission. Consider following formal regulations and directives e.g. Open Data Directive, eIDAS Regulation on electronic identification for electronic identification and/or trust services to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, national regulations are in place for the data transmission. Consider checking if there is applicability to be compliant with legal obligations also at an international/European level.

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D2.	Ad hoc (1)	Sustainable (4)	Consider setting up a legal basis, e.g. custom or formal rules, to determine the specifications for the delivery of data, information and knowledge and facilitate the interoperation of the digital public service towards its end users (recommendation also applicable to policy makers).
	Sustainable (4)	Seamless (5)	Consider setting up a formal legal basis to explicitly ensure the certainty and determinacy for the delivery of data, information and knowledge (e.g. a legislation obliging the end user to carry out an assessment of the impact of the envisaged operations to ensure protection of data, information and knowledge). (recommendation also applicable to policy makers).
D3.	Ad hoc (1)	Sustainable (4)	Currently, there is such legislation but no provisions are in place yet. Consider following a legislation that allows for automated data transfer using IT applications interfacing with information systems to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, there is a legislation that allows for automated data transfer using IT applications interfacing with information systems. Consider following a legislation that allows for AI-based tools handling the automated transmission of data (machine learning) to enhance the legal behavioral interoperability of the digital public service.
D4.	Ad hoc (1)	Sustainable (4)	Currently, the data delivered by the digital public service are not subject to any license although they could be. Consider having a proprietary license for the data transmission to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, the data delivered by the digital public service are subject to a proprietary license. Consider having the data delivered subject to an Open Data License to enhance the legal behavioral interoperability of the digital public service.
D5.	Ad hoc (1)	Sustainable (4)	Currently, the legal framework of the service is not available to the consumers. Consider having public policy and a legal framework to exchange data and information among organisations to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, there is a public policy and a legal framework to exchange data and information among organisations. Consider following an EU legal framework enabling the alignment of Member States legal frameworks to enhance the legal behavioral interoperability of the digital public service.

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D6.	Ad hoc (1)	Essential (3)	Currently, the digital public service does not request any consent although the data, information and knowledge delivered required prior to delivery are subject to data protection provisions. Consider introducing a type of end user consent, an "implied consent", in the sense that the end users provide their details required prior to delivery, without signing an agreement.
	Essential (3)	Sustainable (4)	Currently, the digital public service implicitly requests an "implied consent" from the end users. Consider requesting an "informed consent" in the sense that the end users clearly understand what they are signing up to, prior to delivery.
	Sustainable (4)	Seamless (5)	Currently, the digital public service requests an "informed consent" in the sense that the end users clearly understand what they are signing up to, prior to delivery. Consider requesting an "explicit consent" in the sense that the end users give clear and documentable consent, prior to delivery, to the terms of the agreement.
D7.	Ad hoc (1)	Essential (3)	Currently, the digital public service obtains a one-time consent from the end user in order to deliver data, information and knowledge. Consider obtaining an "explicit consent" from the end-user to be able to reuse specific data and for specific purposes based on specific terms that the end-user has opted for.
	Essential (3)	Sustainable (4)	Currently, the digital public service obtains an "explicit consent" from the end-user to deliver data, information and knowledge. Consider obtaining a "full consent" to be able to fully reuse end-user data, information and knowledge.
	Sustainable (4)	Seamless (5)	Currently, the digital public service obtains "full consent" in the sense that it can fully reuse end-user data, information and knowledge. Consider obtaining "full consent" to be also able to share the end-user data, information and knowledge with other parties.
D8.	Ad hoc (1)	Sustainable (4)	Currently, new data have to be consumed from citizens or businesses for the delivery of the digital public service. Consider collecting data from registries, private parties or other sources are reuse them in the delivery of your service to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, some data are consumed from base registries or other similar electronic means and they are already reusable for delivery, while some data have to be consumed from citizens or businesses for the delivery of the digital public service. Consider collecting data from registries, private parties or other sources are reuse them in the delivery of your

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			service to enhance the legal behavioral interoperability of the digital public service.
D9.	Ad hoc (1)	Sustainable (4)	Currently, rules and concepts of the digital public service are not described at all. Consider partially described them in a high-level manner in order to be clear and understood by the end-users to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, rules and concepts of the digital public service are partially described in a high-level manner but they are somehow clear and understood by the end-users. Consider making the legislative provisions of the service as clear and simple as possible and they are easy to understand for end-users to enhance the legal behavioral interoperability of the digital public service.
D10.	Ad hoc (1)	Sustainable (4)	Currently, no such mechanism is in place although the digital public service should have contact tracing applications. Consider having contact tracing applications in place to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, contact tracing applications are in place. Consider having contact tracing applications involving different actors and making their roles and responsibilities clearly established from the outset and explained to the end users to enhance the legal behavioral interoperability of the digital public service.

6.3.3 Service Consumption (C) – Scoring table

Table 5: Service Consumption scoring model

Item	Ad hoc (1)	Opportunistic (2)	Essential (3)	Sustainable (4)	Seamless (5)
C1	The digital public service is not compliant with any of the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service		The digital public service is partially compliant with some of the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service	The digital public service is fully compliant with most of the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service (at a national level)	The digital public service is fully compliant with all the existing legal obligations that define the specifications of the data, information and knowledge consumed by the digital public service (both at national and international level, e.g. to the Open

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					Data Directive, to the eIDAS Regulation on electronic identification for electronic identification and/or trust services, etc.)
C2	There are considerations for national regulations to be in place			National regulations are in place	Formal regulations and directives are in place e.g. Open Data Directive, eIDAS Regulation on electronic identification for electronic identification and/or trust services.
C3	There is such legal basis but no provisions are in place yet			Partially, there is a legal basis that mandates a semi-automated data consumption using IT applications interfacing with information systems	Fully, there is a legal basis that mandates fully automated data consumption e.g. AI-based tools (machine learning)
C4	They are not subject to any license, although they could be			They are subject to a proprietary license	They are subject to an Open Data License
C5	The digital public service does not consume any already reusable data from other services, although this could be applicable. Currently, new data are only being consumed from citizens or businesses in an ad hoc manner under ad-hoc agreements.			The digital public service consumes already reusable data of public sector information with the right to the protection of personal data	The digital public service discovers and consumes already reusable open data from open data portals or catalogues where there is a public access of data and information

C6	The digital public service does not apply such policies, although it consumes and maintains data from other services			The digital public service uses custom standards around data preservation	The digital public service uses formal standards around data preservation e.g. ISO 19165-1:2018 — Preservation of digital data and metadata
C7	No such mechanism is in place although the digital public service consumes data from other services			Partially, there are contact tracing applications in place, but the consumption of personal data does not have a legal basis	Fully, there are contact tracing applications in place and the legal basis for consuming personal data is compliant with GDPR i.e. Art. 6(1)(e).

6.3.4 Service Consumption (C) – Recommendations

Table 6: Service Consumption Recommendations

Question	Addressed Level	Next Level	Recommendation
C1.	Ad hoc (1)	Essential (3)	Consider fulfilling compliance with national regulations that affect the consumption of data, information knowledge to enhance and facilitate the legal behavioral interoperability of the digital public service
	Essential (3)	Sustainable (4)	Currently, some regulations are in place for the data consumption. Consider following formal regulations and directives e.g. Open Data Directive, eIDAS Regulation on electronic identification for electronic identification and/or trust services to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, national regulations are in place for the data consumption. Consider checking if there is applicability to be compliant with legal obligations also at an international/European level.
C2.	Ad hoc (1)	Sustainable (4)	Currently, data is not compliant with any legal obligations but there are considerations to be compliant with national regulations. Consider following national regulations for the data consumption to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, national regulations are in place for the data consumption/processing. Consider following formal regulations and directives e.g. Open Data Directive, eIDAS Regulation on electronic identification for electronic identification and/or

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			trust services to enhance the legal behavioral interoperability of the digital public service.
C3.	Ad hoc (1)	Sustainable (4)	Currently, there is such legislation but no provisions are in place yet. Consider following a legislation that allows for automated data consumption using IT applications interfacing with information systems to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, there is a legislation that allows for automated data consumption using IT applications interfacing with information systems. Consider following a legislation that allows for AI-based tools handling the automated consumption of data (machine learning) to enhance the legal behavioral interoperability of the digital public service.
C4.	Ad hoc (1)	Sustainable (4)	Currently, the data consumption by the digital public service are not subject to any license although they could be. Consider having a proprietary license for the data consumption to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, the data consumption by the digital public service are subject to a proprietary license. Consider having the data consumption subject to an Open Data License to enhance the legal behavioral interoperability of the digital public service.
C5.	Ad hoc (1)	Sustainable (4)	Currently, the digital public service does not reuse any data from other services, although this could be applicable. Consider reusing data of public sector information with the right to the protection of personal data to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, the digital public service reuses data of public sector information with the right to the protection of personal data. Consider reusing open data from open data portals or catalogs in which there is a public access of data and information to enhance the legal behavioral interoperability of the digital public service.
C6.	Ad hoc (1)	Sustainable (4)	Currently, there is no preservation policy in place specifying the time period for keeping the data, information and knowledge consumed by the digital public service in an electronic format. Consider having custom standards around data preservation to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, there are custom standards around data preservation. Consider having formal standards around data preservation e.g. ISO 19165-1:2018 — Preservation of digital data and metadata to enhance the legal behavioral interoperability of the digital public service.

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C7.	Ad hoc (1)	Sustainable (4)	Currently, no such mechanism is in place although the digital public service consumes data from other services. Consider having contact tracing applications in place to enhance the legal behavioral interoperability of the digital public service.
	Sustainable (4)	Seamless (5)	Currently, there are contact tracing applications in place, but the consumption of personal data does not have a legal basis. Consider having contact tracing applications in place with a legal basis for consumption of personal data e.g. GDPR Art. 6(1)(e) to enhance the legal behavioral interoperability of the digital public service.