

GIQAT v2.2.0

Governance Interoperability Quick Assessment Tool

User guide



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Table of Abbreviations

Acronym	Description
ABB	Architectural Building Block
CAMSS	Common Assessment Method for Standards and Specifications
DIGIT	Directorate-General for Informatics
EC	European Commission
EIF	European Interoperability Framework
EIRA	European Interoperability Reference Architecture
EU	European Union
GIQAT	Governance Interoperability Quick Assessment Toll
IMM	Interoperability Model
IMTS	Interoperability Maturity Tools
ISA	Interoperability Services for Public Administrations
IQAT	Interoperability Quick Assessment Toolkit
MS	Member State
PA	Public Administration

Glossary of terms

Term	Description
Attribute	Structural part of each GIQAT component. Each attribute includes questions (items) that assess a specific aspect of the digital public service. Each of the GIQAT survey components has questions (items) that are organised under the interoperability enablers and the interoperability manifestations.
Item	Structural part of each GIQAT attribute. Items are the questions of the GIQAT questionnaire (survey)
Option	Options are the possible replies to one GIQAT item
Principles	Rules applied on digital public service to enable and ensure 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 GIQAT survey

EXECUTIVE SUMMARY

This document provides the guidelines and definitions for using the **Governance Interoperability Quick Assessment Tool (GIQAT)** to assess and improve the governance interoperability maturity of a digital public service. GIQAT survey assesses the governance aspects of a digital public service from the legal, organisational, semantic and technical interoperability viewpoint (L, O, S, T). GIQAT allows public service owners to evaluate the governance interoperability level of their digital public service. It uses the Governance Interoperability Assessment Tool (GIQAT) model, which provides public administrations insight into two key aspects of their interoperability performance:

- The current interoperability level of a Public Service
- Improvement priorities to reach the next level of interoperability maturity.

In the following chapters, we provide an introduction to the most important chapters in the context of GIQAT and we present its objectives, the defined maturity levels and the approach and attributes of governance interoperability which is the subject of observation and assessment.

In addition, we present an explanation of the structure of the GIQAT questionnaire, and the methodology used to determine the maturity levels of governance interoperability of a digital public service.

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 Governance interoperability of their digital public service.

1 INTRODUCTION

1.1 Document Objectives

The present deliverable documents the guidelines and definitions for using the **Governance Interoperability Quick Assessment Tool (GIQAT)** in order to assess and improve the governance interoperability maturity of a digital public service. GIQAT survey assesses the governance aspects of a digital public service from the legal, organisational, semantic and technical interoperability viewpoints (L, O, S, T). This document is based on the updates of GIQAT v2.1.0 to version 2.2.0 by implementing the feedback collected during GIQAT version 2.1.0 deployment and review, as this has been recorded in the respective JIRA tickets as well as suggestions received by the experts. These updates include the description of GIQAT version 2.2.0, its purpose and scope, 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 GIQAT survey;
- the description of the GIQAT **levels**, as well as the **governance interoperability aspects** that it covers;
- the description of the GIQAT **structure** including its **attributes and components**;
- the description of how the GIQAT **questionnaire** is structured its questions and their options;
- the description of how the GIQAT **recommendations** are generated including the recommendations per question.

1.2 Document Structure

The document is organised into the following chapters:

- **Executive summary**, which provides an overview of the document objectives, activities and conclusions;
- **Chapter 1:** Serves as an introduction to the document;
- **Chapter 2:** Includes the description of the key concepts used in GIQAT;
- **Chapter 3:** Includes the levels of GIQAT, as well as the governance interoperability aspects that it covers;
- **Chapter 4:** Presents GIQAT structure, in components, attributes and items, demonstrating IMTs User Journey;
- **Chapter 5:** Presents the GIQAT questionnaire and how it is structured;
- **Chapter 6:** Presents the GIQAT recommendations and how they are generated.

2 GIQAT KEY CONCEPTS

The following concepts are key to understand the GIQAT:

- *Public service* – services that public authorities identify as being of particular importance to citizens (A2C), businesses (A2B) and public administrations (A2A) and that would not be supplied (or would be supplied under different conditions) if there were no public intervention. Examples are transport networks, postal services and social services.
- *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.

2.1 Public Service

From a conceptual point of view, a public service starts with a trigger, goes through a number of steps and delivers an outcome towards an end user. The outcome may be, but not necessarily, a public decision (e.g. issuing of a license involves a decision, issuing of an electronic fee involves a decision, etc.). The aforementioned conceptual model of a public service is illustrated in the below figure.

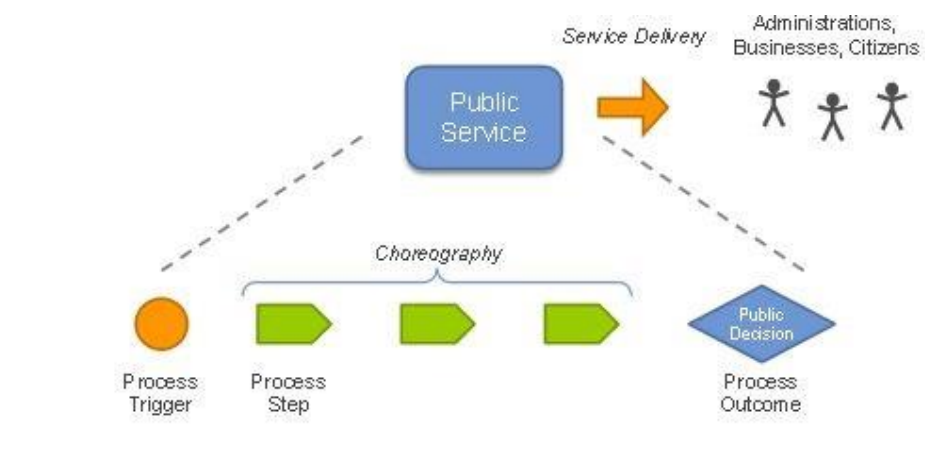


Figure 1: Conceptual model of a public service

For illustration purposes, the conceptual model is applied to the public service “Income tax declaration”. In simple terms:

- The service’s trigger is the new fiscal year.
- The main process steps it comprises are the following:
 - Collect information;
 - Let citizen validate information;
 - Check declaration
- The outcome is the public decision on the amount of income tax, which is due.

2.2 Digital public service

The Governance Interoperability Quick Assessment Tool (GIQAT) assesses the governance interoperability of a digital public service. The following four design rules apply when defining a digital public service:

- The digital public service has a service outcome / public decision. When multiple service outcomes are recognised, multiple digital public services will need to be defined and assessed, each through a separate GIQAT assessment (only if the answers to the questions are not identical and consequently generate different results and recommendations);
- The digital public service has a single service owner (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), each service owner needs to conduct a separate assessment for his respective service (only if the answers to the questions are not identical and consequently generate different results and recommendations);
- The digital public service has a single primary end user group. The digital public service has a single primary end user group. Services can be delivered towards three types of end users (front office): citizens, business and other public administrations, or they can be consumed by another service (back-office). The GIQAT has been designed to evaluate services which are delivered and consumed by end users (i.e. front-office services), as well as by other IT systems (i.e. back-office services). In case the same digital public service is delivered to different types of end users, these services should be assessed separately from one another through the GIQAT (only if the answers to the questions are not identical and consequently generate different results and recommendations);
- The digital public service has a visual end user interface (e.g. web portal or app) or is taking form of machine-to-machine interaction.

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

- Citizens (3) are offered the service to access their Electronic Health Record (1) via the eHealth portal (4) of the [Danish Sundhed](#) portal (2);
- Citizens (3) are offered the service to issue an e-administrative fee (1) via the GSIS portal (4) provided by the Ministry of Digital Government (2);
- Administrations (3) are offered the service to obtain European vehicle information (1) via the web service (4) of the EUCARIS (2).

2.3 Interoperability and GIQAT

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 **behavioural interoperability** is "the extent its manifested behavior 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"

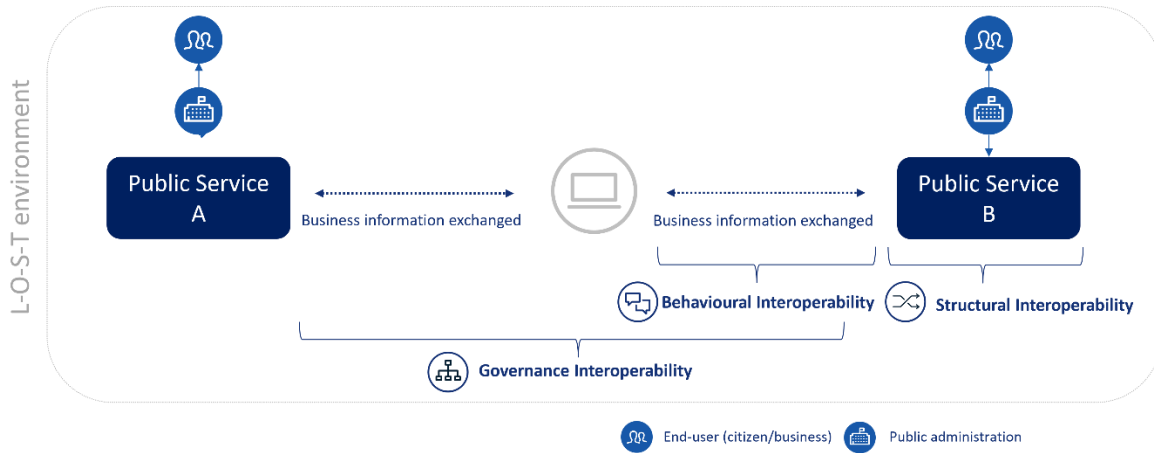


Figure 2: Interoperability dimensions

GIQAT Model Objectives

GIQAT delivers insights into two important aspects of the interoperability:

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

Although the GIQAT is publicly available for any organisation and citizens interested, the main target audience is the public service owners of digital public services that operate in an environment where interoperability is required to deliver a public service to end users.

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

2.4 IMTs User Journey

The figure below illustrates a **typical user journey** for the IMTs end user and shows how [SIQAT](#), [GIQAT](#), [IMAPS](#) recommendations can provide insights on how the interoperability maturity of a digital public service could be improved.

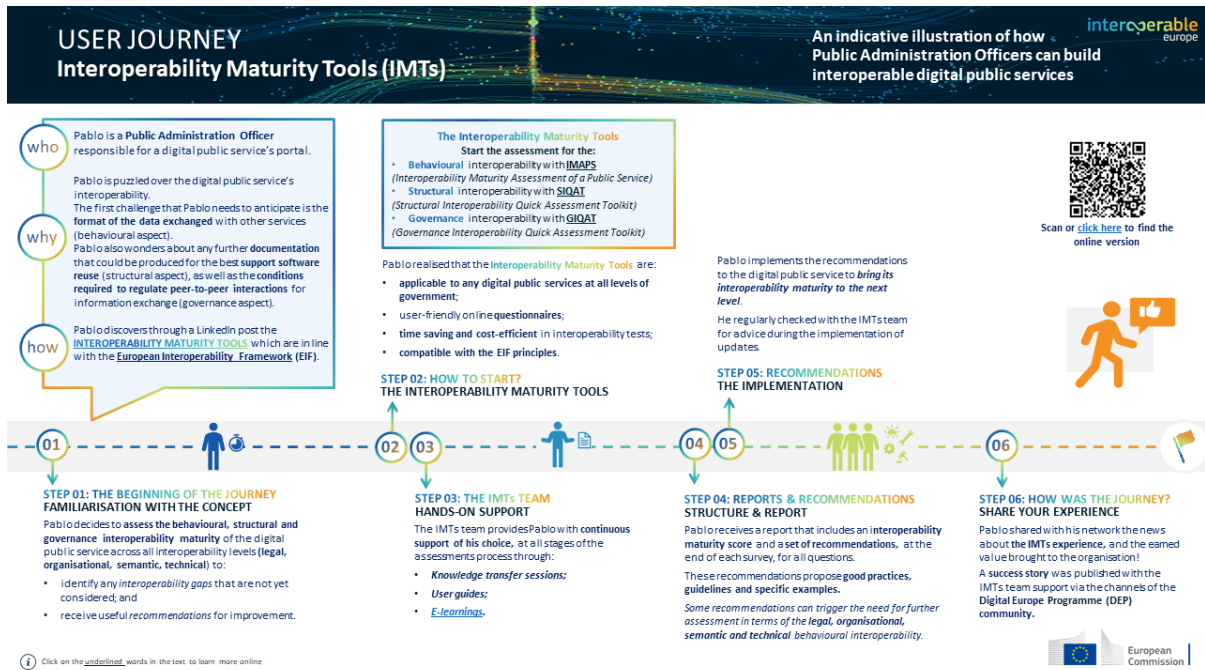


Figure 3 IMTs User Journey

It is briefly mentioned shown before the GIQAT assessment, as part of the introduction to the survey at the EU Survey portal, it describes the structure, and the logic behind the IMTs survey starting from the IMAPS questionnaire and continues with SIQAT and GIQAT.

2.5 GIQAT Target users

GIQAT can be used by the following end-users:

- Public service owners: to improve the overall governance interoperability and conformance of their digital public services;
- Policy-makers: to get insights on the interoperability level of digital public service;
- Public Procurement Officers: to identify standards and specifications for an interoperable digital public service.

3 GIQAT LEVELS

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

- Measure the 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 interoperability.

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

Table 1: Five maturity levels of GIQAT

LEVEL 01	AD HOC	Poor Interoperability – the digital public service cannot be considered interoperable
LEVEL 02	OPPORTUNISTIC	Fair Interoperability – the digital public service implements some elements of interoperability best practices
LEVEL 03	ESSENTIAL	Essential Interoperability – the digital public service implements the essential best practices for interoperability
LEVEL 04	SUSTAINABLE	Good Interoperability – all relevant interoperability best practices are implemented by the digital public service
LEVEL 05	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 GOVERNANCE INTEROPERABILITY ASPECTS

4.1 Approach

GIQAT uses the term “governance” to refer to the fact that it assesses aspects that have to do with how the public services are governed. Figure 4 below illustrates the GIQAT perspective from the **governance** interoperability viewpoint.

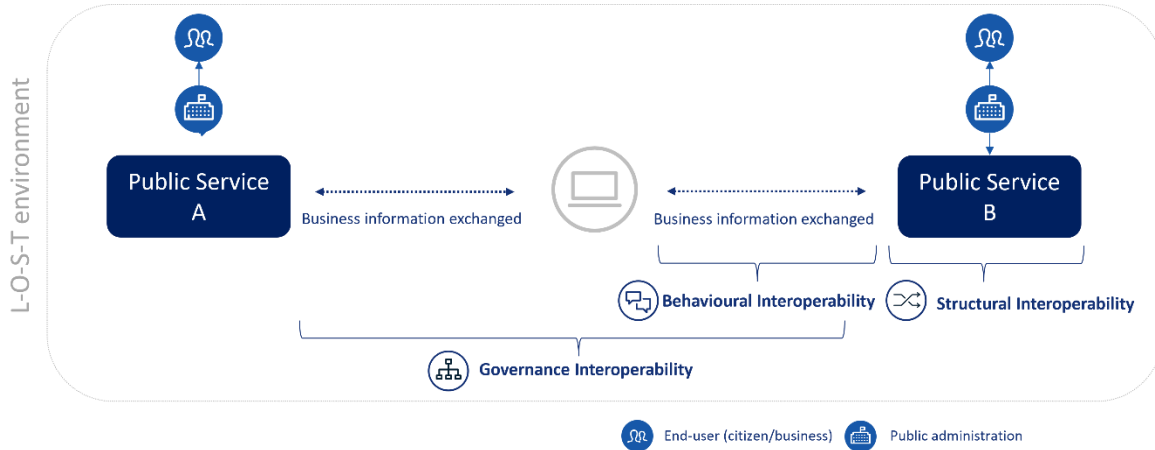


Figure 4: GIQAT perspective

The governance interoperability aspects are described below:

- **Collaboration Control (B)** - Is the extent that an open standard enables the collaboration control of a digital public service with another digital public service.
- **Collaboration Assurance (C)** - Is the extent that an open standard enables the collaboration assurance of a digital public service with another digital public service.

4.2 GIQAT Attributes

4.2.1 GIQAT Components' attributes

GIQAT components' attributes are presented in the table below.

Attribute	Rationale
Enabler component	Assesses the extent to which the digital public service meets key enabler requirements. An Enabler is a Key Success Factor - it makes or breaks your public service interoperability – if the service does not meet a key enabler requirement, then it cannot succeed in becoming interoperable. This includes Interoperability solutions that are necessary for the efficient and effective delivery of public services across administrations' such as: services and tools, standards and specifications.
Manifestation component	Assesses the extent to which the public service is usable by the consumer. If your public service does not meet a manifestation requirement, then the service could still be interoperable across administrations but it will be less usable by the consumer.

4.2.2 Sources of Input

Various related programmes and initiatives inside and outside Interoperable Europe (former ISA) have been leveraged to build the current set of GIQAT 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 GIQAT 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 GIQAT items have been the EIF recommendations;
- **European Interoperability Reference Architecture (EIRA)²** – EIRA version 6.1.0 compliance is ensured at the level of GIQAT 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 GIQAT items has been the context of each one of the EIRA version 6.1.0 ABBs.
- **Digital Single Market³** - the Digital Single Market strategy aims to open up digital opportunities for people and businesses and enhance Europe's position as a world leader in the digital economy. Select attributes were defined to align with this ambition; the terminology of GIQAT overall embraces the key concepts of “digitalisation” in its various aspects;
- **Interoperability Maturity Assessment of a Public Service (IMAPS)⁴** – IMAPS is an online survey that helps public service owners evaluate, consider and improve all key interoperability aspects of their digital public service (legal, semantic, organisational, or technical). Ultimately, they can view and monitor the service’s compliance with the New European Interoperability Framework (EIF). Not only can IMAPS be used to assess the interoperability of any public service – from open data portals, and e-voting platforms, to public procurement services, and much more – it is applicable to services at all levels of government (international, national, regional and local).
- **Interoperability Quick Assessment Toolkit (IQAT©)⁵** – IQAT© 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 IQAT© is to allow public service owners to evaluate the structural interoperability level of their digital public service.

¹ <https://web.archive.org/web/20220301180315/https://ec.europa.eu/isa2/eif>

² <https://joinup.ec.europa.eu/solution/interoperability-quick-assessment-toolkit>

³ https://ec.europa.eu/isa2/solutions_en

⁴ <https://joinup.ec.europa.eu/collection/interoperability-maturity-tools-imts-digital-public-services/solution/imaps>

⁵ https://ec.europa.eu/isa2/solutions/interoperability-quick-assessment-toolkit-iqat_en

5 GIQAT QUESTIONNAIRE

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

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

GIQAT Questionnaire is designed to take approximately 20 to 30 minutes to complete. Once the questionnaire is completed, a report is generated with the governance interoperability scores plus recommendations on how to further improve the digital public service’s governance interoperability.

5.1 Questionnaire Structure

This section outlines the structure of the questionnaire. The main sections of the questionnaire are in line with the earlier presented overview of governance interoperability aspects ([section 4](#)):

- **Service Identification (A)** – This section collects from the User all the information that is necessary to identify the service that is assessed and the person providing the information.
- **Collaboration Control (B)** – Is the extent that an open standard enables the collaboration control of a digital public service with another digital public service.
- **Collaboration Assurance (C)** – Is the extent that an open standard enables the collaboration assurance of a digital public service with another digital public service.

The following figures illustrate the sections of GIQAT questionnaire as described above.

In this section, please answer the following questions regarding the context of your public service.

A.1.1 Please provide your name:

A.1.2 Please provide your email address:

A.1.3 Please provide your phone number:

* A.2 Please indicate the country of the organisation providing the service

A.3 Please provide your role in your organisation providing the service:

* A.4 A digital public service is a digital service rendered in the public interest.
What is the name of the service that you provide to the end users (citizens, businesses, or other public administrations)?

More Info [i](#)

A.4.1 Please provide the public service catalogue name and URI, if it is applicable for the service.

* A.4.2 Please give a brief description of the service

More Info [i](#)

Figure 3: Section A of the GIQAT questionnaire

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Collaboration Control

This section contains 19 questions covering the Collaboration control aspects.

*

B.1 To what extent does the service rely on legislation to regulate the peer-to-peer interactions?

Enabler / Manifestation EIF Interoperability View: L. O. S. T

More Info ⓘ

- Fully
- Quite
- Moderately
- Partially
- Not at all
- No answer

*** B.2 To what extent does the service rely on a shared legal framework to regulate the collaboration with internal/external peers exchanging data, information or knowledge?**

Enabler / Manifestation EIF Interoperability View: L. O. S. T

More Info ⓘ

- Fully
- Quite
- Moderately
- Partially
- Not at all
- No answer

*** B.3.1 Does the service rely on a data owner?**

Enabler / Manifestation EIF Interoperability View: L. O. S. T

More Info ⓘ

- Yes
- No

Figure 4: Section B of GIQAT questionnaire

Collaboration Assurance

This section contains 8 questions covering the Collaboration Assurance aspects.

*** C.1 To what extent is the service compliant with an existing quality assurance documentation on standards and specifications?**

Enabler / Manifestation EIF Interoperability View: L. O. S. T

More Info ⓘ

- Fully
- Quite
- Moderately
- Partially
- Not at all
- No answer

*** C.2 To what extent is the service compliant with an existing quality assurance documentation on how to achieve interoperability?**

Enabler / Manifestation EIF Interoperability View: L. O. S. T

More Info ⓘ

- Fully
- Quite
- Moderately
- Partially
- Not at all
- No answer

*** C.3 To what extent is the service compliant with an existing governance methodology on the protection of data, information, and knowledge?**

Enabler / Manifestation EIF Interoperability View: L. O. S. T

More Info ⓘ

- Fully
- Quite
- Moderately
- Partially
- Not at all
- No answer

Figure 5: Section C of the GIQAT questionnaire

5.2 GIQAT Questionnaire

5.2.1 Identification - Questions (A)

A.1.1

<i>Name</i>	Contact details
<i>Question type</i>	Free text
<i>Question</i>	Please provide your name.
<i>Question logic</i>	Next question

A.1.2

<i>Name</i>	Contact details
<i>Question type</i>	Email
<i>Question</i>	Please provide your email address.
<i>Question logic</i>	Next question

A.1.3

<i>Name</i>	Contact details
<i>Question type</i>	Number-Slider
<i>Question</i>	Please provide your phone number.
<i>Question logic</i>	Next question

A.2

<i>Name</i>	Contact details
<i>Question type</i>	Single choice
<i>Question</i>	Please indicate the country of the organisation providing the service.
<i>Question logic</i>	Next question

A.2.1

<i>Name</i>	Contact details
<i>Question type</i>	Free Text
<i>Question</i>	Please indicate the country if not in the list above
<i>Question logic</i>	Next question

A.3

<i>Name</i>	Contact details
<i>Question type</i>	Free Text
<i>Question</i>	Please provide your role in the organisation providing the service
<i>Question logic</i>	Next question

A.4

<i>Name</i>	Digital public service description
<i>Question type</i>	Free text
<i>Question</i>	A digital public service is a digital service rendered in the public interest.

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<i>Examples</i>	<p>What is the name of the service that you provide to the end users (citizens, businesses or other public administrations)?</p> <p>Examples:</p> <ul style="list-style-type: none"> • Issue of birth certificate for citizens • Submission of yearly income tax declaration for citizens • Issue of an electronic fee for citizens • Electronic Health Record Access • Government e-invoicing for businesses • Cross-Border Vehicle Identification Service for public administration
<i>Question logic</i>	Next question
A.4.1	
<i>Name</i>	Digital public service description
<i>Question type</i>	Free Text
<i>Question</i>	Please provide the public service catalogue name and URI, if it is applicable for the service.
<i>Question logic</i>	Next question
A.4.2	
<i>Name</i>	Digital public service description
<i>Question type</i>	Free text
<i>Question</i>	Please give a brief description of the service
<i>Question logic</i>	Next question
A.4.3	
<i>Name</i>	Digital public service description
<i>Question type</i>	Single choice
<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 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 • The service delivers the outcome towards other IT systems (machine-to-machine interface)
<i>Question logic</i>	Next question
A.4.4	
<i>Name</i>	Digital public service description
<i>Question type</i>	Email

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Question | Please specify the official email address of the contact point for the provided service

Question logic | Next question

A.5

Name | Sector of the service

Question type | Single choice

Question | Service provider: Which public administration tier is primarily responsible for providing the service.

- International Public Administration
- Central Public Administration
- Regional Public Administration
- Local Public Administration
- Other Legal Entity. In case of “Other Legal Entity”, please indicate in the text below

Question logic | Next question

A.5.1

Name | Sector of the service

Question type | Single Option

Question | Are the solutions provided by a Directorate-General of the European Commission?

- Yes
- No

Question logic | Next question

A.5.2

Name | Sector of the service

Question type | Multiple choice (1 answer possible)

Question | Please indicate the Directorate-General of the European Commission, if applicable

- Administration and Payment of Individual Entitlements
- Agriculture and Rural Development
- Budget
- Climate Action
- Communication
- Communications Networks, Content and Technology
- Competition
- Consumers, Health, Agriculture and Food Executive Agency
- Data Protection Officer
- Defence Industry and Space
- Economic and Financial Affairs
- Education, Audiovisual and Culture Executive Agency
- Education, Youth, Sport and Culture
- Employment, Social Affairs and Inclusion
- Energy

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- Environment
- European Anti-Fraud Office
- European Civil Protection and Humanitarian Aid Operations
- European Climate, Infrastructure and Environment Executive Agency
- European Neighbourhood and Enlargement Negotiations
- European Personnel Selection Office
- European Research Council Executive Agency
- European School of Administration
- Eurostat - European statistics
- Executive Agency for Small and Medium-sized Enterprises
- Financial Stability, Financial Services and Capital Markets Union
- Foreign Policy Instruments
- Health and Food Safety
- Historical Archives Service
- Human Resources and Security
- Informatics
- Infrastructure and Logistics in Brussels
- Infrastructure and Logistics in Luxembourg
- Inspire, Debate, Engage and Accelerate Action
- Internal Audit Service
- Internal Market, Industry, Entrepreneurship and SMEs
- International Partnerships
- Interpretation
- Joint Research Centre
- Justice and Consumers
- Legal Service
- Library and e-Resources Centre
- Maritime Affairs and Fisheries
- Migration and Home Affairs
- Mobility and Transport
- Publications Office
- Regional and Urban Policy
- Research Executive Agency
- Research and Innovation
- Secretariat-General
- Structural Reform Support
- Task Force for Relations with the United Kingdom
- Taxation and Customs Union
- Trade Translation

Question logic

Next question

A.6

Name

Sector of the service

Question type

Single choice

Question

Please indicate in which sector is the service provided.

- Education
- Public Health

	<ul style="list-style-type: none"> • Public Safety • Environmental Protection • Justice • Transportation • Infrastructure • Social Services • Economy/Financial • Other
<i>Question logic</i>	Next question
A.7	
<i>Name</i>	End user group(s) to which the service is delivered
<i>Question type</i>	Multiple choice (>1 possible answer)
<i>Question</i>	What is the end user group to whom the service is delivered? <ul style="list-style-type: none"> • Public Administrations (A2A) • Citizens (A2C) • Businesses (A2B)
<i>Question logic</i>	Next question
A.8	
<i>Name</i>	Administrative level
<i>Question type</i>	Multiple choice (>1 possible answer)
<i>Question</i>	At what administrative level is the service provided? <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 Collaboration Control (B) - Questions

B.1	
<i>Name</i>	Digital public service description
<i>Category</i>	Enabler
<i>EIF-layer</i>	Legal
<i>Weight</i>	10%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent does the service rely on legislation to regulate the peer-to-peer interactions? <ul style="list-style-type: none"> • Fully • Quite

	<ul style="list-style-type: none"> • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.2

<i>Name</i>	Digital public service description
<i>Category</i>	Enabler
<i>EIF-layer</i>	Legal
<i>Weight</i>	15%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent does the service rely on a shared legal framework to regulate the collaboration with internal/external peers exchanging data, information or knowledge? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.3.1

<i>Name</i>	Data privacy
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	2.5%
<i>Question type</i>	Single Choice
<i>Question</i>	Does the service rely on a data owner? <ul style="list-style-type: none"> • Yes • No
<i>Question logic</i>	Next question

B.3.2

<i>Name</i>	Data privacy
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	2%
<i>Question type</i>	Single Choice
<i>Question</i>	Is the data owner of the service also the owner of the solution? <ul style="list-style-type: none"> • Yes • No
<i>Question logic</i>	Next question

B.4

<i>Name</i>	Data privacy
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	2.5%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are the data owners of the digital public service responsible for overseeing and protecting a data domain? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.5

<i>Name</i>	Digital public service structures
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	13%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are defined in the service the structures to ensure the functioning and implementation of an interoperability framework? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.6

<i>Name</i>	Digital public service roles
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are defined in the service the roles to ensure the functioning and implementation of an interoperability framework? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially

<i>Question logic</i>	<ul style="list-style-type: none"> • Not at all • No answer <p>Next question</p>
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B.7

<i>Name</i>	Digital public service responsibilities
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent are defined in the service the responsibilities to ensure the functioning and implementation of an interoperability framework?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.8

<i>Name</i>	Digital public service policies
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent are defined in the service the policies to ensure the functioning and implementation of an interoperability framework?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.9

<i>Name</i>	Digital public service standards
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent are defined in the service the standards to ensure the functioning and implementation of an interoperability framework?</p>

<i>Question logic</i>	<ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer <p>Next question</p>
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B.10

<i>Name</i>	Digital public service specifications
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent are defined in the service the specifications to ensure the functioning and implementation of an interoperability framework?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.11

<i>Name</i>	Digital public service EIF practises
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent are defined in the service the practices to ensure the functioning and implementation of an interoperability framework?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.12

<i>Name</i>	Digital public service decision making
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational

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<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are defined in the service the decision making and operational procedures to ensure the functioning and implementation of an interoperability framework? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.13

<i>Name</i>	Digital public service organizational agreements
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are defined organizational agreements that identify the parties' roles in the digital public service? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.14

<i>Name</i>	Digital public service organisational agreement
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	1.3%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are defined organizational agreement that identifies the parties responsibilities in the service? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.15

<i>Name</i>	Digital public service shared governance framework
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	5%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent does your service rely on a shared governance framework, with convergence power, in relation to public policy goals attainment? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.16

<i>Name</i>	Semantic agreements in the digital public service
<i>Category</i>	Enabler
<i>EIF-layer</i>	Semantic
<i>Weight</i>	6%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are semantic agreements in place in the service, for the definition of the data structure, model and semantics formats? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

B.17

<i>Name</i>	Digital public service data
<i>Category</i>	Enabler
<i>EIF-layer</i>	Semantic
<i>Weight</i>	9%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent is your service formed by usable data, information and knowledge resources? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially

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<i>Question logic</i>	<ul style="list-style-type: none">• Not at all• No answer Next question
B.18	
<i>Name</i>	Collaboration in the digital public service
<i>Category</i>	Enabler
<i>EIF-layer</i>	Technical
<i>Weight</i>	14%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent technical agreements regulate the peer-to-peer interactions and define rules for the exchange/use of information with the purpose of guaranteeing collaboration in the service? <ul style="list-style-type: none">• Fully• Quite• Moderately• Partially• Not at all• No answer
<i>Question logic</i>	Next question

B.19	
<i>Name</i>	Shared platform for collaboration
<i>Category</i>	Enabler
<i>EIF-layer</i>	Technical
<i>Weight</i>	21%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent are shared platform in place for regulating the collaboration with internal/external peers exchanging data, information or knowledge in the digital public service? <ul style="list-style-type: none">• Fully• Quite• Moderately• Partially• Not at all• No answer
<i>Question logic</i>	Next question

5.2.3 Collaboration Assurance (C) - Questions

C.1

<i>Name</i>	Quality assurance documentation for digital public service
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	3.5%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent is the service compliant with an existing quality assurance documentation on standards and specifications? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

C.2

<i>Name</i>	Interoperability on digital public service
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	3.5%
<i>Question type</i>	Single Choice
<i>Question</i>	To what extent is the service compliant with an existing quality assurance documentation on how to achieve interoperability? <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

C.3

<i>Name</i>	Data privacy
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	12.3%
<i>Question type</i>	Single choice
<i>Question</i>	To what extent is the service compliant with an existing governance methodology on the protection of data, information, and knowledge? <ul style="list-style-type: none"> • Fully • Quite • Moderately

<i>Question logic</i>	<ul style="list-style-type: none"> • Partially • Not at all • No answer <p>Next question</p>
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C.4

<i>Name</i>	Quality assurance documentation
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisational
<i>Weight</i>	15.7%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent is the service compliant with an existing quality assurance documentation on confidentiality of data, information, and knowledge?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

C.5

<i>Name</i>	Quality assurance documentation
<i>Category</i>	Enabler
<i>EIF-layer</i>	Organisation
<i>Weight</i>	8%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent is the service compliant with an existing quality assurance documentation on the use of data, information, and knowledge?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

C.6

<i>Name</i>	Quality assurance documentation on data portability
<i>Category</i>	Enabler
<i>EIF-layer</i>	Semantic
<i>Weight</i>	6%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent is the service compliant with an existing quality assurance documentation on data portability?</p>

<i>Question logic</i>	<ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer <p>Next question</p>
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C.7

<i>Name</i>	Quality assurance documentation for open data
<i>Category</i>	Enabler
<i>EIF-layer</i>	Semantic
<i>Weight</i>	6%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent is the service compliant with an existing quality assurance documentation on open data?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

C.8

<i>Name</i>	Technical design documentation
<i>Category</i>	Enabler
<i>EIF-layer</i>	Technical
<i>Weight</i>	45%
<i>Question type</i>	Single Choice
<i>Question</i>	<p>To what extent is the service compliant with an existing technical design documentation?</p> <ul style="list-style-type: none"> • Fully • Quite • Moderately • Partially • Not at all • No answer
<i>Question logic</i>	Next question

6 GIQAT RECOMMENDATIONS

The main objective of the **Governance Interoperability Quick Assessment Tool (GIQAT)** is to provide insight into how digital public services can improve their governance interoperability. After filling in the online questionnaire, the respondent receives a PDF with advice on how to improve the behavioral interoperability of his digital public service. This report presents how these recommendations are generated.

6.1 Principles

The following five principles are applied to generate recommendations:

- **Principle 1:** Each interoperability item includes 5 options, each one of them corresponding to one of the 5 interoperability levels;
- **Principle 2:** The improvement tables provide recommendations on how to improve maturity gradually for a specific interoperability item;
- **Principle 3:** When a digital public service does not yet reach the maximum level for a specific interoperability item, a recommendation is given to make the step towards the next interoperability level;
- **Principle 4:** When a digital public service successfully attains the maximum maturity level for a interoperability item, no recommendation is given;
- **Principle 5:** When the maturity improvement is not based on specific 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 Recommendation's overview

- For each improvement step, the recommendation tables in the following chapters show:
- The question the recommendation relates to;
- The assessed level;
- The next level to be reached through improvement⁶;
- The recommendation as to how to reach the next level.

6.3 Recommendations

6.3.1 Collaboration Control (B) – Scoring table

Table 2: Collaboration Control scoring model

Item	Ad hoc (1)	Opportunistic (2)	Essential (3)	Sustainable (4)	Seamless (5)	No Answer
B.1	Not at all	Partially	Moderately	Quite	Fully	No answer
B.2	Not at all	Partially	Moderately	Quite	Fully	No answer
B.3.1	No	N/A	N/A	N/A	Yes	No answer

⁶ With the exception when this is considered a sliding scale

Item	Ad hoc (1)	Opportunistic (2)	Essential (3)	Sustainable (4)	Seamless (5)	No Answer
B.3.2	No	N/A	N/A	N/A	Yes	No answer
B.4	Not at all	Partially	Moderately	Quite	Fully	No answer
B.5	Not at all	Partially	Moderately	Quite	Fully	No answer
B.6	Not at all	Partially	Moderately	Quite	Fully	No answer
B.7	Not at all	Partially	Moderately	Quite	Fully	No answer
B.8	Not at all	Partially	Moderately	Quite	Fully	No answer
B.9	Not at all	Partially	Moderately	Quite	Fully	No answer
B.10	Not at all	Partially	Moderately	Quite	Fully	No answer
B.11	Not at all	Partially	Moderately	Quite	Fully	No answer
B.12	Not at all	Partially	Moderately	Quite	Fully	No answer
B.13	Not at all	Partially	Moderately	Quite	Fully	No answer
B.14	Not at all	Partially	Moderately	Quite	Fully	No answer
B.15	Not at all	Partially	Moderately	Quite	Fully	No answer
B.16	Not at all	Partially	Moderately	Quite	Fully	No answer
B.17	Not at all	Partially	Moderately	Quite	Fully	No answer
B.18	Not at all	Partially	Moderately	Quite	Fully	No answer
B.19	Not at all	Partially	Moderately	Quite	Fully	No answer

6.3.2 Collaboration Control (B) – Recommendations

The table below presents the respective recommendation to each option in GIQAT 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 governance interoperability**.

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 3: Collaboration Control Recommendations

Question	Addressed Level	Next Level	Recommendation
B.1	Ad hoc (1)	Opportunistic (2)	At the moment your service does not rely on legislation to regulate the peer-to-peer interaction. Full compliance would be the last mile for an interoperable solution.

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Question	Addressed Level	Next Level	Recommendation
	Opportunistic (2)	Essential (3)	At the moment your service does not fully rely on legislation to regulate the peer-to-peer interaction. Full compliance would be the last mile for an interoperable solution.
	Essential (3)	Sustainable (4)	At the moment your service does not fully rely on legislation to regulate the peer-to-peer interaction. Full compliance would be the last mile for an interoperable solution.
	Sustainable (4)	Seamless (5)	At the moment your service mostly rely on legislation to regulate the peer-to-peer interaction. Full compliance would be the last mile for an interoperable solution.
B.2	Ad hoc (1)	Opportunistic (2)	At the moment the legal framework is not set in place and impede the share of the solution. Consider defining the legal framework to enable the share of the solution.
	Opportunistic (2)	Essential (3)	At the moment the legal framework is insufficiently set in place and impedes the share of the solution. Consider defining the legal framework to enable the share of the solution.
	Essential (3)	Sustainable (4)	At the moment a piece of the legal framework is defined. Consider a fully defining the legal framework.
	Sustainable (4)	Seamless (5)	At the moment most of the legal framework is defined. A fully set up legal framework would be the last mile for an interoperable solution.
B.3.1	Ad hoc (1)	Seamless (5)	Currently your solution does not have a data owner. You should consider having one since it is necessary to achieve organisational interoperability.
B.3.2	Ad hoc (1)	Seamless (5)	Currently the data owner and the owner of the service / component are not the same. Consider having the same owner of the service/sw component, since it facilitates the organisational interoperability.
B.4	Ad hoc (1)	Opportunistic (2)	Currently, the data owners are not responsible for overseeing and protecting the data domain. Consider regulating the data

Question	Addressed Level	Next Level	Recommendation
			owners responsibilities to achieve organisational interoperability of your public service.
	Opportunistic (2)	Essential (3)	Currently, the data owners are not responsible enough for overseeing and protecting the data domain. Consider regulating the data owners responsibilities to achieve organisational interoperability of your public service.
	Essential (3)	Sustainable (4)	Currently, the data owners are not responsible enough for overseeing and protecting the data domain. Consider regulating the data owners responsibilities to achieve organisational interoperability of your public service.
	Sustainable (4)	Seamless (5)	Currently, the data owners responsibilities are not fully specified. Consider regulating the data owners responsibilities as it is needed to achieve organisational interoperability of your public service.
B.5	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.

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Question	Addressed Level	Next Level	Recommendation
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
B.6	Ad hoc (1)	Opportunistic (2)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Sustainable (4)	Seamless (5)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
B.7	Ad hoc (1)	Opportunistic (2)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Sustainable (4)	Seamless (5)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
B.8	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the necessary modalities to ensure the

Question	Addressed Level	Next Level	Recommendation
			functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
B.9	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
B.10	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.

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Question	Addressed Level	Next Level	Recommendation
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
B.11	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
B.12	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Opportunistic (2)	Essential (3)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Essential (3)	Sustainable (4)	At the moment your solution has not fully defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementation of an interoperability framework.

Question	Addressed Level	Next Level	Recommendation
B.13	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the organizational agreements. Consider developing and formalizing functional roles.
	Opportunistic (2)	Essential (3)	Currently your solution has not fully defined the organizational agreements that identify the parties' roles. Consider to refine the functional roles.
	Essential (3)	Sustainable (4)	Currently your solution has not fully defined the organizational agreements that identify the parties' roles. Consider to refine the functional roles.
	Sustainable (4)	Seamless (5)	Currently your solution has almost defined the organizational agreements that identify the parties' roles. Consider to refine the functional roles.
B.14	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the organizational agreements. Consider developing and formalizing functional roles and responsibilities.
	Opportunistic (2)	Essential (3)	Currently your solution has not fully defined the organizational agreements that identify the parties' responsibilities. Consider to refine the functional responsibilities.
	Essential (3)	Sustainable (4)	Currently your solution has not fully defined the organizational agreements that identify the parties' responsibilities. Consider to refine the functional responsibilities.
	Sustainable (4)	Seamless (5)	Currently your solution has almost defined the organizational agreements that identify the parties' responsibilities. Consider to refine the functional responsibilities.
B.15	Ad hoc (1)	Opportunistic (2)	Currently your solution does not rely on a shared governance framework.
	Opportunistic (2)	Essential (3)	Currently your solution partially rely on a shared governance framework.

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Question	Addressed Level	Next Level	Recommendation
	Essential (3)	Sustainable (4)	Currently your solution does not fully rely on a shared governance framework.
	Sustainable (4)	Seamless (5)	Currently your solution almost rely on a shared governance framework.
B.16	Ad hoc (1)	Opportunistic (2)	Consider aligning the definition of the data structure, model and semantics formats, to achieve a higher governance interoperability level for your public service
	Opportunistic (2)	Essential (3)	Consider aligning the definition of the data structure, model and semantics formats, to achieve a higher governance interoperability level for your public service
	Essential (3)	Sustainable (4)	Consider aligning the definition of the data structure, model and semantics formats, to achieve a higher governance interoperability level for your public service
	Sustainable (4)	Seamless (5)	Consider aligning the definition of data structure, model and semantics formats, to achieve a higher governance interoperability level for your public service
B.17	Ad hoc (1)	Opportunistic (2)	Currently your solution is not formed by usable data, information and Knowledge resources
	Opportunistic (2)	Essential (3)	Currently your solution is partially formed by usable data, information and Knowledge resources
	Essential (3)	Sustainable (4)	Currently your solution is not fully formed by usable data, information and Knowledge resources
	Sustainable (4)	Seamless (5)	Currently your solution is almost formed by usable data, information and Knowledge resources
B.18	Ad hoc (1)	Opportunistic (2)	At the moment the technical agreements are not set in place and this action impedes the share of the solution. Consider defining the technical agreements to enable the share of the solution.

Question	Addressed Level	Next Level	Recommendation
	Opportunistic (2)	Essential (3)	At the moment the technical agreements are insufficiently set in place and this action impedes the share of the solution. Consider defining the technical agreements to enable the share of the solution.
	Essential (3)	Sustainable (4)	At the moment a piece of the legal agreements regulate the peer to peer interactions. Consider defining fully the legal agreements
	Sustainable (4)	Seamless (5)	At the moment most of the technical agreements regulate the peer to peer interactions. A fully set up technical agreement would be the last mile for an interoperable solution

6.3.3 Collaboration Assurance (C) – Scoring table

Table 4: Collaboration Assurance scoring model

Item	Ad hoc (1)	Opportunistic (2)	Essential (3)	Sustainable (4)	Seamless (5)	No Answer
C.1	Not at all	Partially	Moderately	Quite	Fully	No answer
C.2	Not at all	Partially	Moderately	Quite	Fully	No answer
C.3	Not at all	Partially	Moderately	Quite	Fully	No answer
C.4	Not at all	Partially	Moderately	Quite	Fully	No answer
C.5	Not at all	Partially	Moderately	Quite	Fully	No answer
C.6	Not at all	Partially	Moderately	Quite	Fully	No answer
C.7	Not at all	Partially	Moderately	Quite	Fully	No answer
C.8	Not at all	Partially	Moderately	Quite	Fully	No answer

6.3.4 Collaboration Assurance (C) – Recommendations

Table 5: Collaboration Assurance Recommendations

Question	Addressed Level	Next Level	Recommendation
C.1	Ad hoc (1)	Opportunistic (2)	Currently you are not compliant with the quality assurance documentation. Consider implementing it to achieve interoperability at your service.
	Opportunistic (2)	Essential (3)	At the moment you are not fully compliant with the quality assurance documentation on standards and specifications. Consider fully implementing it to achieve interoperability at your service.
	Essential (3)	Sustainable (4)	At the moment you are not fully compliant with the quality assurance documentation on standards and specifications. Consider fully implementing it to achieve interoperability at your service.
	Sustainable (4)	Seamless (5)	At the moment your service is almost compliant with the quality assurance documentation on standards and specifications. Consider fully implementing it to achieve interoperability at your service
C.2	Ad hoc (1)	Opportunistic (2)	Currently you are not compliant with the quality assurance documentation. Consider implementing it to achieve interoperability at your service
	Opportunistic (2)	Essential (3)	At the moment your service is not fully compliant with the existing quality assurance documentation on how to achieve interoperability. Consider further implementing it to have a fully interoperable service
	Essential (3)	Sustainable (4)	At the moment your service is not fully compliant with the existing quality assurance documentation on how to achieve interoperability. Consider further implementing it to have a fully interoperable service
	Sustainable (4)	Seamless (5)	At the moment your service is almost compliant with the existing quality assurance documentation on how to

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Question	Addressed Level	Next Level	Recommendation
			achieve interoperability. Consider further implementing it to have a fully interoperable service
C.3	Ad hoc (1)	Opportunistic (2)	At the moment your service is not compliant with a governance methodology. Consider defining all governance methodology aspects (i.e. data protection, information and knowledge assets) to reach interoperability of your service.
	Opportunistic (2)	Essential (3)	At the moment your service is not fully compliant with a governance methodology. Consider fully defining all aspects (i.e. data protection, information and knowledge assets) to reach a full interoperability.
	Essential (3)	Sustainable (4)	At the moment your service is almost compliant with a governance methodology. Consider fully defining all aspects (i.e. data protection, information and knowledge assets) to reach a full interoperability.
	Sustainable (4)	Seamless (5)	At the moment your service is almost compliant with a governance methodology. Consider fully defining all aspects (i.e. data protection, information and knowledge assets) to reach a full interoperability.
C.4	Ad hoc (1)	Opportunistic (2)	At the moment your service is not compliant with the quality assurance documentation on confidentiality of data, information and knowledge. Consider further defining them to have a fully interoperable service.
	Opportunistic (2)	Essential (3)	At the moment your service is not fully compliant with the quality assurance documentation on confidentiality of data, information and knowledge. Consider further defining them to have a fully interoperable service.

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Question	Addressed Level	Next Level	Recommendation
	Essential (3)	Sustainable (4)	At the moment your service is not fully compliant with the quality assurance documentation on confidentiality of data, information and knowledge. Consider further defining them to have a fully interoperable service.
	Sustainable (4)	Seamless (5)	At the moment your service is almost compliant with the quality assurance documentation on confidentiality of data, information and knowledge. Consider further defining them to have a fully interoperable service.
C.5	Ad hoc (1)	Opportunistic (2)	At the moment your service is not compliant with the quality assurance documentation on the use of data, information and knowledge. Consider further defining them to have a fully interoperable service.
	Opportunistic (2)	Essential (3)	At the moment your service is not fully compliant with the quality assurance documentation on the use of data, information and knowledge. Consider further defining them to have a fully interoperable service.
	Essential (3)	Sustainable (4)	At the moment your service is not fully compliant with the quality assurance documentation on the use of data, information and knowledge. Consider further defining them to have a fully interoperable service.
	Sustainable (4)	Seamless (5)	At the moment your service is almost compliant with the quality assurance documentation on the use of data, information and knowledge. Consider further defining them to have a fully interoperable service.

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Question	Addressed Level	Next Level	Recommendation
C.6	Ad hoc (1)	Opportunistic (2)	At the moment your service is not compliant with the quality assurance documentation on data portability. Being fully compliant with the documentation is needed to achieve interoperability for your public service.
	Opportunistic (2)	Essential (3)	At the moment your service is not fully compliant with the quality assurance documentation on data portability. Consider the documentation further since it is needed to achieve better interoperability for your public service.
	Essential (3)	Sustainable (4)	At the moment your service is not fully compliant with the quality assurance documentation on data portability. Consider the documentation further since it is needed to achieve better interoperability for your public service.
	Sustainable (4)	Seamless (5)	At the moment most of your service is compliant with the quality assurance documentation on data portability. Consider the documentation further since it is needed to achieve better interoperability for your public service.
C.7	Ad hoc (1)	Opportunistic (2)	At the moment your service is not compliant with the documentation on Open Data. Implementing the documentation further will make your public service more interoperable.
	Opportunistic (2)	Essential (3)	At the moment your service is not fully compliant with the documentation on Open Data. Implementing the documentation further will make your public service more interoperable.
	Essential (3)	Sustainable (4)	At the moment your service is not fully compliant with the documentation on Open Data. Implementing the documentation further will make your public service more interoperable.

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Question	Addressed Level	Next Level	Recommendation
	Sustainable (4)	Seamless (5)	At the moment your service is almost compliant with the documentation on Open Data. Implementing the documentation further will make your public service more interoperable.
C.8	Ad hoc (1)	Opportunistic (2)	At the moment your service is not compliant with the technical design documentation. Consider implementing the documentation to enable the share of your solution.
	Opportunistic (2)	Essential (3)	At the moment your service is not fully compliant with the technical design documentation. Technical requirements fully set up would be the last mile for sharing a fully interoperable solution
	Essential (3)	Sustainable (4)	At the moment your service is not fully compliant with the technical design documentation. Technical requirements fully set up would be the last mile for sharing a fully interoperable solution
	Sustainable (4)	Seamless (5)	At the moment your service is almost compliant with the technical design documentation. Technical requirements fully set up would be the last mile for sharing a fully interoperable solution