GIQAT v2.1.0

Governance Interoperability Quick Assessment Tool

User guide

Disclaimer

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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 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

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   levels and the approach and attributes of Governmental interoperability which is the subject of observation and assessment. In addition, we explain the structure of the GIQAT 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 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)** to assess and improve the Governance Interoperability of a digital public service. GIQAT survey assesses the governance aspects of a digitalublic service from the legal, organisational, semantic and technical interoperability viewpoints (L, O, S, T).

The objectives of the present guide 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.
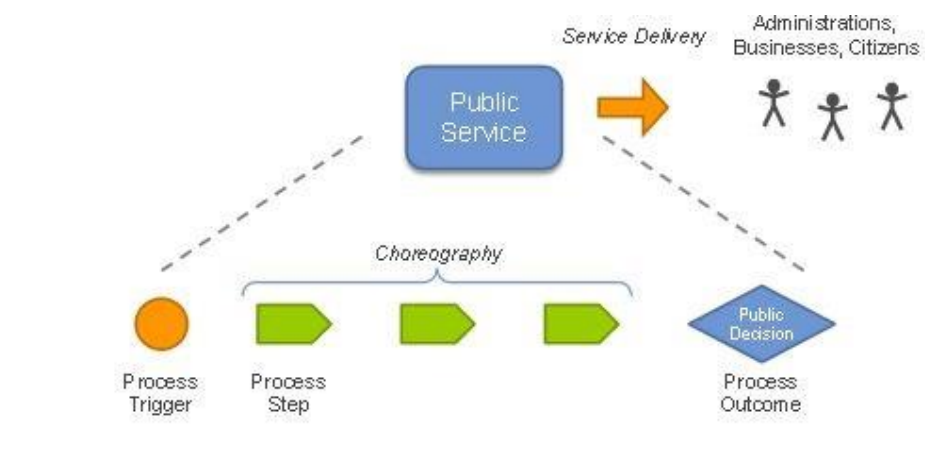
Figure 1: Conceptual model of a public service

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 **behavioral 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"
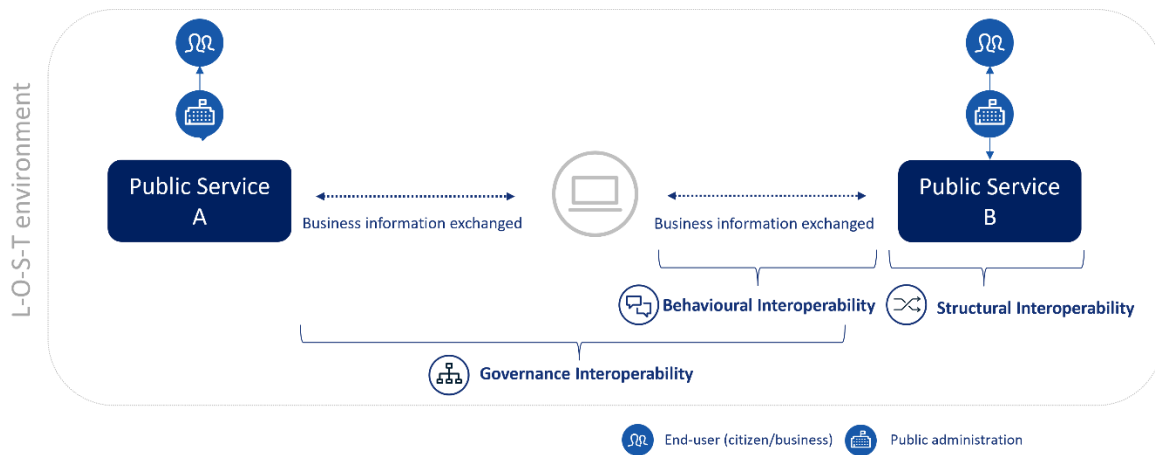
Figure 2: Interoperability dimensions

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 and IMAPS recommendations can provide insights on how the interoperability maturity of a digital public service could be improved.
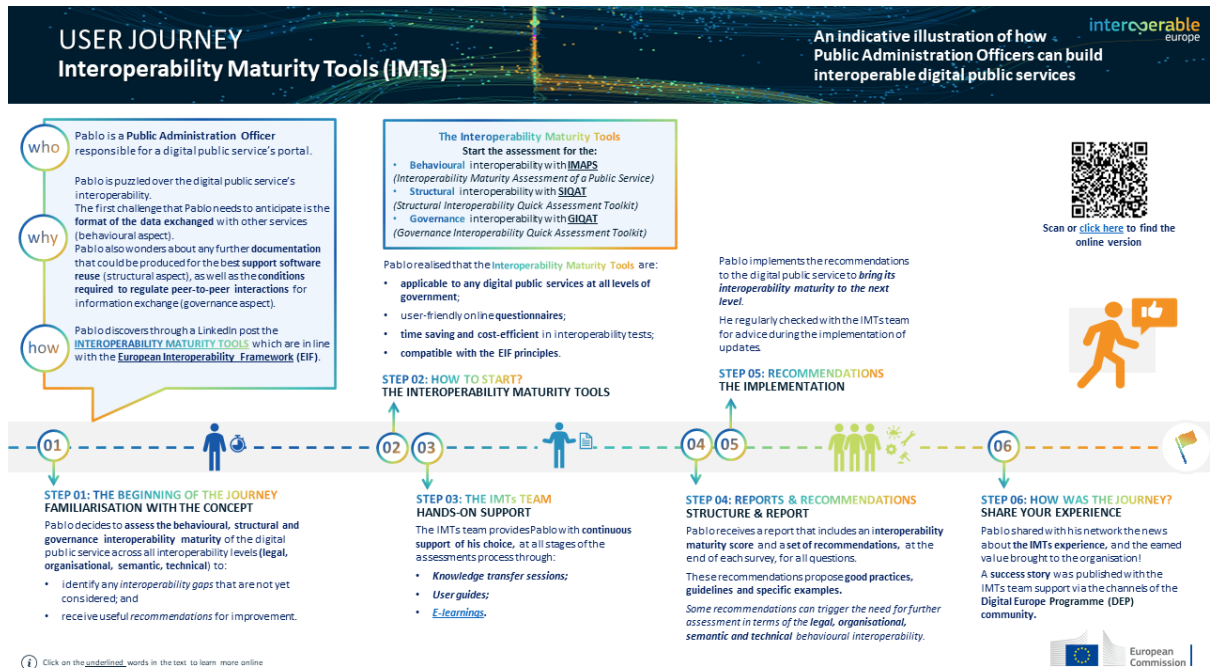
Figure 3 IMTs User Journey

It is briefly mentioned shown before the IMAPS 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 structural 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 level of the digital public service. Using levels allows to:

- Measure the interoperability   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 models and is considered as best practice for assessing and improving. The five levels for GIQAT are summarised in the table below.

Table 1: Five   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 3 below illustrates the GIQAT perspective from the **governance** interoperability viewpoint.

Figure 4: GIQAT perspective
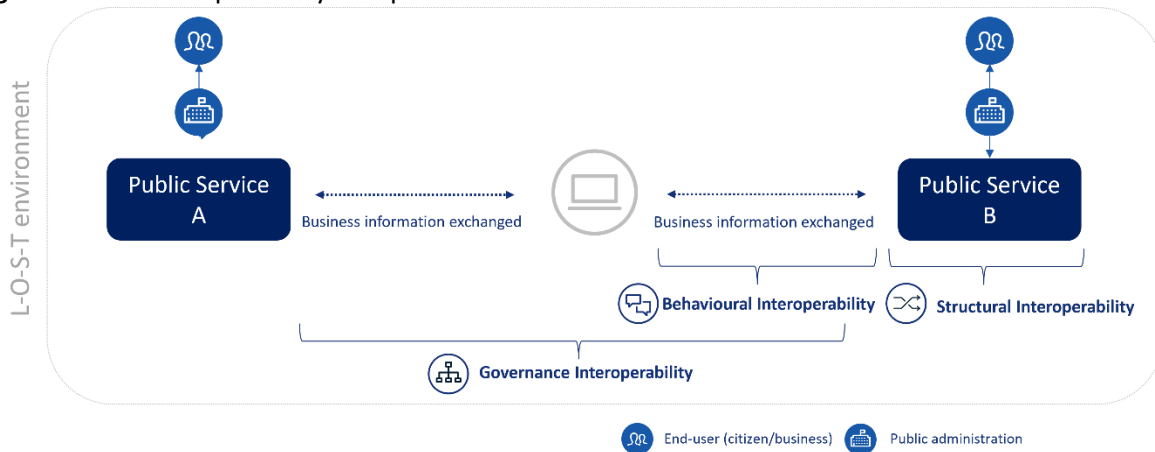
The Governance interoperability aspects are described below:

- **Collaboration Assurance -** Is the extent that an open standard enables the collaboration assurance of a digital public service with another digital public service.
- **Collaboration Control -** Is the extent that an open standard enables the collaboration control 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 ISA have been leveraged to build the current set of GIQAT attributes. The most important ones are:

- *European Interoperability Framework* – 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)[1]. The basis to define GIQAT items have been the EIF recommendations;

- *European Interoperability Reference Architecture (EIRA)* – EIRA version 5.0.0 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 5.0.0 ABBs.

- *Digital Single Market* - 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)*[2] – 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©)* [3] – 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 allows public service owners to evaluate the structural interoperability level of their digital public service.

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[1] Compliance of GIQA with EIF at the level of principles, layers and conceptual model has been also validated following the paradigm of CAMSS approach to demonstrate their scenarios' conformance with EIF.

[2] https://joinup.ec.europa.eu/collection/GIQA-interoperability- -assessment-public-service/about

[3] https://joinup.ec.europa.eu/solution/interoperability-quick-assessment-toolkit

5 GIQAT QUESTIONNAIRE

GIQAT uses a questionnaire structure for assessing the organizational 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 governmental interoperability aspects (section 2.4):

- **Introduction** – This section includes introductory information for the purpose of the Survey and Interoperability in general.
- **Legal Notices –** This section includes all the necessary legal information that is related to GIQAT and how GIQAT uses the data that is collected.
- **Service Identification –** 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** – Is the extent that an open standard enables the collaboration control of a digital public service with another digital public service.
- **Collaboration Assurance** – Is the extent that an open standard enables the collaboration assurance of a digital public service with another digital public service.
- **Rating** – This section is collecting the feedback from the User on his overall experience using the Survey

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

Introduction

Welcome to the GIQAT (Governance Interoperability Quick Assessment Tool)

Introduction:

This online survey allows public service owners to evaluate the governance interoperability maturity level of their digital public service/software component. The Governance Interoperability Quick Assessment Tool (GIQAT) which provides public administrations with insight into two key aspects of the governance interoperability of their digital public service:

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

The GIQAT survey helps solution owners to understand if their solution is aligned to the EIRA and the level of interoperability of their solution. Interoperability is the ability of organisations to interact towards mutually beneficial goals, involving the sharing of information and knowledge between these organisations, through the business processes they support, by means of the exchange of data between their ICT systems. The interoperability model which is applicable to all digital public services and may also be considered as an integral element of the interoperability-by-design paradigm. It includes four layers of interoperability: legal, organisational, semantic and technical.

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 exchange of data, information and knowledge between them regardless their legal, organisational, semantic and technical environment".

The **Interoperability Assessment Tools** (IATs) assess the interoperability maturity of a digital public service. Interoperability is of multidimensional nature involving structural interoperability, behavioural 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" and can be assessed using the **Structural Interoperability Quick Assessment tool** (SIQAT).
2. The **behavioural interoperability** is "the extent its manifested behaviour exchanges data, information or knowledge with its environment in support of a peer-to-peer collaboration" and can be assessed using the **Interoperability Maturity Assessment of a Public Service tool** (IMAPS).
3. The **governance interoperability** is "the extent its agreed choreography rules support a peer-to-peer collaboration" and can be assessed using the **Governance Interoperability Quick Assessment tool** (GIQAT).

Background:

GIQAT is an assessment part of the "Assessment of Trans-European solutions supporting EU policies" action, which supports the Interoperable Europe Programme. Interoperable Europe Programme **is a programme of the European Commission** that **develops digital solutions** enabling interoperable cross-border and cross-sector public services for the benefit of public administrations, businesses and citizens across the EU. The GIQAT is fully aligned with the European Interoperability Framework (EIF) and therefore can be leveraged to track the implementation status of the EIF's implementation.

The **GIQAT v2.1.0** is an updated version of GIQAT v2.0.0 and it is fully aligned with the European Interoperability Framework (EIF) and therefore can be leveraged to track the implementation status of the EIF's implementation.

The EIF's interoperability principles are fundamental behavioural aspects to drive interoperability actions. They describe the context in which European public services are designed and implemented.

The twelve interoperability principles of the New EIF (Subsidiarity and proportionality, Openness, Transparency, Transparency, Technological neutrality and data portability, User-centricity, Inclusion and accessibility, Security and privacy, Multilingualism, Administrative simplification, Preservation of information and Assessment of Effectiveness and Efficiency) together fulfil the goals of achieving interoperability: achieve Legal; Organisational; Semantic; and Technical Interoperability (L.O.S.T).

The GIQAT survey is based on the European Interoperability Reference Architecture, in particular to the version **EIRA v5.0.0.** The EIRA was created in the context of Action 2016.32 of the ISA² Programme and is being maintained under the Interoperable Europe public initiative. The EIRA provides a common terminology that can be used by people working for public administrations in various architecture and system development tasks.

The figure below illustrates a typical **user journey** for the IAT's end user and shows how IATs recommendations can provide insights on how the interoperability of a digital public service could be improved.

Prepare the Survey:

Before fill in the GIQAT survey the solution owner should gather information for qualifying the solution (e.g. the solution has been developed taking into Open Data Standards for ICT systems, etc.). In addition, performing the assessment requires good understanding of the relevant solution to be analysed by the solution owner who performs the assessment. The Quick Assessment Methodology is aligned with and refers to the EIRA, hence the solution owner should have a good understanding of European Interoperability Framework (EIF) and EIRA and its terminology in order to provide high quality and complete information. It is also required that the solution owner provides consistent, complete and accurate information. Therefore it is strongly recommended that the solution owner compiles all the information requested.

Expected benefits

- It spots areas for improving the Governance IOP in a given solution.
- It supports portfolio management decisions:
  - by suggesting solutions that could be published in the European Interoperability Cartography (EIC);
  - by clustering solutions with regard to Governance IOP Maturity;
  - by identifying solutions that should be improved in term of governance interoperability.
- It is applicable to any software solution (not only TES).
- It allows to verify the compliance of the solution with EIRA.
- It saves time and resources in Governance IOP peer-to-peer tests by acting as a gateway to it. If the result of the Governance IOP Quick Assessment is below a suggested threshold then it is recommended not to invest further efforts in a full Governance IOP peer-to-peer test.
- It supports end users of the EIC in verifying the Overall Governance IOP Score of any published solution.

Expected Profiles:

The first step is that the public service, owner, performs an assessment using GIQAT. The recommendations that the owner receives at the end of the survey trigger the need for further assessment of the digital public service in terms of legal, organisational, semantic, and technical governance interoperability that can be executed by either the public service owner or other delegated respondents.

Therefore the survey targets end-users who have expertise in lawmaking, policymaking & decision-making such as policymakers and decision-makers.

But also end users that have expertise in data models, semantic standards and specifications such as data experts and business architects.

Average time to complete the survey:

The GIQAT is designed to take approximately 20-30 minutes to complete. After filling in the questionnaire, a report will be generated with the interoperability scores plus recommendations on how to further improve your digital public service.

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

Contact:

For any general or technical questions, please send an email to DIGIT-IMAPS@ec.europa.eu. Follow all activities related to the GIQAT on our GIQAT community page.

For detailed information about the GIQAT survey, please download the following documents: GIQAT Questionnaire, GIQAT Recommendations and User Guide.

Disclaimer: The unit of assessment is the "Digital Public Service" and is referred to as "Service" in the survey that follows.

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Legal Notices

Legal Notices

EUROPEAN COMMISSION
GIQAT - GOVERNANCE INTEROPERABILITY QUICK ASSESSMENT TOOL

Disclaimer: *By no means will the Interoperability assessment imply any endorsement of the EC to the assessed specification. Likewise, The use of GIQAT© implies that the user accepts that the EC is not liable on the assessment nor on any direct or indirect consequence/decision of such assessment.*

* Reuse of your inputs and contact details:

Your survey inputs and results will not be shared with others. Aggregate analysis, across all submitted GIQAT surveys, will only be made in a fully anonymized way. Your contact details will not be reused, except if you provide your consent herewith: "I agree that my contact details can be reused by the European Commission in the context of other Interoperable Europe actions":

○ Yes ○ No

* Would you like to be contacted for evaluation purposes?

○ Yes ○ No

Privacy Statement

The Specific Privacy Statement related to this questionnaire can be found below.

The Governance Interoperability Quick Assessment Tool (GIQAT) - Self-assessment Questionnaire is referred to as "survey" in the following sections.

By submitting your survey, you agree with this privacy statement.

Download and consult the Privacy Statement explaining the terms of processing personal data
 GIQAT_Privacy_Statement.pdf

*
☐ I accept your Terms

Previous   Next

Service Identification

Service Identification

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 ❓

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 ❓

A.4.3 Appearance: How does the service deliver the outcome towards the end user group?

More Info ❓

○ 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)

* A.4.4 Please specify the email address of the provided service.

@ [   ]

A.5 Service provider: Which tier of public administration is primarily responsible for providing the service?

More Info ❓

○ International Public Administration
○ Central Public Administration
○ Regional Public Administration
○ Local Public Administration
○ Other Legal Entity

A.5.1 Are the solutions provided by a Directorate-General of the European Commission?

○ Yes
○ No

A.6 Please indicate in which sector is the service provided.

○ Education
○ Public Health
○ Public Safety
○ Environmental Protection
○ Justice
○ Transportation
○ Infrastructure
○ Social Services
○ Economy/Financial
○ Other

A.7 What is the end user group to whom the service is delivered?

More Info ❓

☐ Public Administrations (A2A)
☐ Citizens (A2C)
☐ Businesses (A2B)

A.8 At what administrative level is the service provided?

☐ Local (e.g. city, municipality)
☐ Regional
☐ National
☐ European
☐ International

Thank you for your inputs. Please continue to fill the questionnaire to quickly assess the Interoperability level of your solution.

[Previous] [Next]

Collaboration Control

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

* B.3.2 Is the data owner of the service also the owner of the solution?
Enabler / Manifestation   *EIF Interoperability View: L.* ***O.*** *S. T*

More Info ❷
- ● Yes
- ○ No

* B.4 To what extent are the data owners of the service responsible for overseeing and protecting a data domain?
Enabler / Manifestation   *EIF Interoperability View: L.* ***O.*** *S. T*

More Info ❷
- ○ Fully
- ○ Quite
- ○ Moderately
- ○ Partially
- ○ Not at all
- ○ No answer

* B.5 To what extent are defined in the service the structures to ensure the functioning and implementation of an interoperability framework?
Enabler / Manifestation   *EIF Interoperability View: L.* ***O.*** *S. T*

More Info ❷
- ○ Fully
- ○ Quite
- ○ Moderately
- ○ Partially
- ○ Not at all
- ○ No answer

* B.6 To what extent are defined in the service the roles to ensure the functioning and implementation of an interoperability framework?
Enabler / Manifestation   *EIF Interoperability View: L.* ***O.*** *S. T*

More Info ❷
- ○ Fully
- ○ Quite
- ○ Moderately
- ○ Partially
- ○ Not at all
- ○ No answer

* B.7 To what extent are defined in the service the responsibilities to ensure the functioning and implementation of an interoperability framework?

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

More Info ❸

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

* B.8 To what extent are defined in the service the policies to ensure the functioning and implementation of an interoperability framework?

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

More Info ❸

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

* B.9 To what extent are defined in the service the standards to ensure the functioning and implementation of an interoperability framework?

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

More Info ❸

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

* B.10 To what extent are defined in the service the specifications to ensure the functioning and implementation of an interoperability framework?

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

More Info

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

* B.11 To what extent are defined in the service the practices to ensure the functioning and implementation of an interoperability framework?

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

More Info

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

* B.12 To what extent are defined in the service the decision-making and operational procedures to ensure the functioning and implementation of an interoperability framework?

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

More Info

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

* B.13 To what extent are defined organizational agreements that identify the parties' roles in the service?
Enabler / Manifestation   *EIF Interoperability View: L. **O.** S. T*

More Info ❓

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

* B.14 To what extent are defined organizational agreement that identifies the parties responsibilities in the service?
Enabler/ Manifestation   *EIF Interoperability View: L. **O.** S. T*

More Info ❓

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

* B.15 To what extent does your service rely on a shared governance framework, with convergence power, in relation to public policy goals attainment?
Enabler / Manifestation   *EIF Interoperability View: L. **O.** S. T*

More Info ❓

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

* B.16 To what extent are semantic agreements **in place in the service, for the definition of the data structure, model and semantics formats?**

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

More Info ❓

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

* B.17 To what extent is your service formed by usable data, information and knowledge resources?

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

More Info ❓

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

* B.18 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?**

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

More Info ❓

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

* B.19 To what extent are shared platform **in place for regulating the collaboration with internal/external peers exchanging data, information or knowledge in the service?**

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

More Info ❓

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

Please provide your comments and/or summarize your options, if necessary.

[text area]

[Previous] [Next]

Collaboration Assurance

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 ❷

- ○ 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 ❷

- ○ 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 ❷

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

* C.4 To what extent is the service compliant with an existing quality assurance documentation on confidentiality of data, information, and knowledge?

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

More Info ❷

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

* C.5 To what extent is the service compliant with an existing quality assurance documentation on the use of data, information, and knowledge?

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

More Info ❷

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

* C.6 To what extent is the service compliant with an existing quality assurance documentation on data portability?

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

More Info ❷

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

* C.7 To what extent is the service compliant with an existing quality assurance documentation on open data?
Enabler / Manifestation   *EIF Interoperability View: L. O.* **S.** *T*

More Info ?

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

* C.8 To what extent is the service compliant with an existing technical design documentation?
Enabler / Manifestation   *EIF Interoperability View: L. O. S.* **T**

More Info ?

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

Please provide your comments and/or summarize your options, if necessary.

[Previous] [Next]

Rating

Rating

How would you rate this questionnaire?

GIQAT Questionnaire ☆ ☆ ☆ ☆ ☆

You can share your feedback here!

Contact:
For any general or technical questions, please send an email to DIGIT-IMAPS@ec.europa.eu.

Thank you for taking the GIQAT questionnaire.

Previous   Submit

5.2   GIQAT Questionnaire

5.2.1   Identification - Questions

A.1.1	
Name	Contact details
Question type	Free text
Question	Please provide your name.
Question logic	Next question

A.1.2	
Name	Contact details
Question type	Email
Question	Please provide your email address.
Question logic	Next question

A.1.3	
Name	Contact details
Question type	Number-Slider
Question	Please provide your phone number.
Question logic	Next question

A.2	

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

A.2.1

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

A.3

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

A.4

Name	Digital public service description
Question type	Free text
Question	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)?
Examples	Examples: • 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
Question logic	Next question

A.4.1

Name	Digital public service description
Question type	Free Text
Question	Please provide the public service catalogue name and URI, if it is applicable for the service.
Question logic	Next question

A.4.2

Name	Digital public service description
Question type	Free text
Question	Please give a brief description of the service
Question logic	Next question

A.4.3

Name	Digital public service description
Question type	Single choice
Question	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
Question logic	Next question

A.4.4

Name	Digital public service description
Question type	Email
Question	Please specify the email address of the provided service
Question logic	Next question

A.5	
Name	Sector of the service
Question type	Single choice
Question	Service provider: Which tier of public administration is primarily responsible for providing the service. • International Public Administration • Central Public Administration • Regional Public Administration • Local Public Administration • Other Legal Entity
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
- 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
- Public Safety
- Environmental Protection
- Justice
- Transportation
- Infrastructure
- Social Services
- Economy/Financial
- Other

Question logic	Next question

A.7	
Name	End user group(s) to which the service is delivered
Question type	Multiple choice (>1 possible answer)
Question	What is the end user group to whom the service is delivered?

- Public Administrations (A2A)
- Citizens (A2C)
- Businesses (A2B)

Examples	A specific group of businesses; A specific group of citizens; A specific group of public administrations.
Question logic	Next question

A.8	
Name	Administrative level
Question type	Multiple choice (>1 possible answer)
Question	At what administrative level is the service provided? • Local (e.g. city, municipality) • Regional • National • European • International
Question logic	Next question

5.2.2 Collaboration Control - Questions

B.1	
Name	Digital public service description
Category	Enabler
EIF-layer	Legal
Weight	10%
Question type	Single Choice
Question	To what extent does the service rely on legislation to regulate the peer-to-peer interactions? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.2	
Name	Digital public service description
Category	Enabler
EIF-layer	Legal
Weight	15%
Question type	Single Choice

Question	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?
	• Fully
	• Quite
	• Moderately
	• Partially
	• Not at all
	• No answer
Examples	-
Question logic	Next question

B.3.1	
Name	Data privacy
Category	Enabler
EIF-layer	Organisational
Weight	2.5%
Question type	Single Choice
Question	Does the service rely on a data owner?
	• Yes
	• No
Examples	-
Question logic	Next question

B.3.2	
Name	Data privacy
Category	Enabler
EIF-layer	Organisational
Weight	2%
Question type	Single Choice
Question	Is the data owner of the service also the owner of the solution?
	• Yes
	• No
Examples	-
Question logic	Next question

B.4	
Name	Data privacy

Category	Enabler
EIF-layer	Organisational
Weight	2.5%
Question type	Single Choice
Question	To what extent are the Data owners of the digital public service responsible for overseeing and protecting a data domain? • Fully • Quite • Moderately • Partially • Not at all • No answer
Question logic	Next question

B.5	
Name	Digital public service structures
Category	Enabler
EIF-layer	Organisational
Weight	13%
Question type	Single Choice
Question	To what extent are defined in the service the structures to ensure the functioning and implementation of an interoperability framework? • Fully • Quite • Moderately • Partially • Not at all • No answer
Question logic	Next question

B.6	
Name	Digital public service roles
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined in the service the roles to ensure the functioning and implementation of an interoperability framework? • Fully

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

Examples	-
Question logic	Next question

B.7

Name	Digital public service responsibilities
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined in the service the responsibilities to ensure the functioning and implementation of an interoperability framework? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.8

Name	Digital public service policies
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined in the service the policies to ensure the functioning and implementation of an interoperability framework? • Fully • Quite • Moderately • Partially • Not at all

	• No answer
Examples	-
Question logic	Next question

B.9	
Name	Digital public service standards
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined in the service the standards to ensure the functioning and implementation of an interoperability framework? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.10	
Name	Digital public service specifications
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined in the digital public service the specifications to ensure the functioning and implementation of an interoperability framework? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-

Question logic	Next question

B.11	
Name	Digital public service EIF practises
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined in the service the practices to ensure the functioning and implementation of an interoperability framework? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.12	
Name	Digital public service decision making
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined in the service the decision making and operational procedures to ensure the functioning and implementation of an interoperability framework? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-

Question logic	Next question

B.13	
Name	Digital public service organizational agreements
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined organizational agreements that identify the parties' roles in the digital public service? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.14	
Name	Digital public service organisational agreement
Category	Enabler
EIF-layer	Organisational
Weight	1.3%
Question type	Single Choice
Question	To what extent are defined organizational agreement that identifies the parties responsibilities in the service? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.15	
Name	Digital public service shared governance framework
Category	Enabler
EIF-layer	Organisational
Weight	5%
Question type	Single Choice
Question	To what extent does your service rely on a shared governance framework, with convergence power, in relation to public policy goals attainment? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.16	
Name	Semantic agreements in the digital public service
Category	Enabler
EIF-layer	Semantic
Weight	6%
Question type	Single Choice
Question	To what extent are semantic agreements in place in the service, for the definition of the data structure, model and semantics formats? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.17	
Name	Digital public service data
Category	Enabler

EIF-layer	Semantic
Weight	9%
Question type	Single Choice
Question	To what extent is your service formed by usable data, information and knowledge resources? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.18

Name	Collaboration in the digital public service
Category	Enabler
EIF-layer	Technical
Weight	14%
Question type	Single Choice
Question	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 digital public service? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

B.19

Name	Shared platform for collaboration
Category	Enabler
EIF-layer	Technical
Weight	21%

Question type	Single Choice
Question	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? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

5.2.3 Collaboration Assurance - Questions

C.1	
Name	Quality assurance documentation for digital public service
Category	Enabler
EIF-layer	Organisational
Weight	3.5%
Question type	Single Choice
Question	To what extent is the service compliant with an existing quality assurance documentation on standards and specifications? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

C.2	
Name	Interoperability on digital public service
Category	Enabler
EIF-layer	Organisational
Weight	3.5%
Question type	Single Choice
Question	To what extent is the service compliant with an existing quality assurance documentation on how to achieve interoperability? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

C.3	

Name	Data privacy
Category	Enabler
EIF-layer	Organisational
Weight	12.3%
Question type	Single choice
Question	To what extent is the service compliant with an existing governance methodology on the protection of data, information, and knowledge? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

C.4	
Name	Quality assurance documentation
Category	Enabler
EIF-layer	Organisational
Weight	15.7%
Question type	Single Choice
Question	To what extent is the service compliant with an existing quality assurance documentation on confidentiality of data, information, and knowledge? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

C.5	
Name	Quality assurance documentation

Category	Enabler
EIF-layer	Semantic
Weight	8%
Question type	Single Choice
Question	To what extent is the service compliant with an existing quality assurance documentation on the use of data, information, and knowledge? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

C.6	
Name	Quality assurance documentation on data portability
Category	Enabler
EIF-layer	Semantic
Weight	6%
Question type	Single Choice
Question	To what extent is the service compliant with an existing quality assurance documentation on data portability? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

C.7	
Name	Quality assurance documentation for open data
Category	Enabler
EIF-layer	Semantic
Weight	6%

Question type	Single Choice
Question	To what extent is the service compliant with an existing quality assurance documentation on open data? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	Next question

C.8	
Name	Technical design documentation
Category	Enabler
EIF-layer	Technical
Weight	45%
Question type	Single Choice
Question	To what extent is the service compliant with an existing technical design documentation? • Fully • Quite • Moderately • Partially • Not at all • No answer
Examples	-
Question logic	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 improvement[2];
- The recommendation as to how to reach the next   level.

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[2] With the exception when this is considered a sliding scale

6.3 Recommendations

6.3.1 Collaboration Control – 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
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 – Recommendations

The table below presents the respective recommendation to each option in GIQA 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 behavioral 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.
	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 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 implementationing 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 implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementationing 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 implementationing 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 implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementationing 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 implementationing 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 implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementationing of an interoperability framework.
B.8	Ad hoc (1)	Opportunistic (2)	Currently your solution has not defined the necessary modalities to ensure the functioning and implementationing 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 implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementationing 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 implementationing 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 implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementationing 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 implementationing 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 implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementationing 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 implementationing 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

			implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementationing 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 implementationing 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 implementationing 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 implementationing of an interoperability framework.
	Sustainable (4)	Seamless (5)	At the moment your solution has almost defined the necessary modalities to ensure the functioning and implementationing of an interoperability framework.
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.
	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.
	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 – 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 – 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 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.
	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.
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.
	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