

06 JUNE
2023

Interoperability in Practice: From Zero to Hero

Meet the Interoperability Maturity Tools (IMTs)

EUROPEAN COMMISSION

Directorate General for Informatics (DIGIT)

DIGIT B2

[Digital Europe programme](#)

Project Officer: Dr. Raul Abril

interoperable
europe

Welcome to IMTs Webinar!



You will be muted

Please unmute yourself when you want to join the discussion



Use slido

Submit your questions in writing by using slido



Raise your hand

Ask permission to make a question during the Q&A section



This Webinar will be recorded

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Let's make an introduction

Where are you from?

What is your professional background?

Are you familiar with the Interoperability Maturity Tools? (e.g., IMAPS, SIQAT, GIQAT)

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Where are you from?

DIGIT (1)

Latvia (1)

Greece (7)

France (1)






The Netherlands
(1)

Belgium (1)



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Where are you from?

-  Anonymous Greece
-  Anonymous Latvia
-  Anonymous Greece
-  Anonymous Belgium
-  Anonymous Spain

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What is your professional background?

Public administration

Public Administration
employee, IT
solutions Architect

Public Administration
employee (2)

Other

Semantic
technology/
terminologist

Enterprise &
Information Architect

Business process
management

Academic Researcher
/computer scientist

Government

Consultant in
Government and
Public Sector (2)








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What is your professional background?

Public administration 3

Government 3

-  Anonymous
Interoperability center of the ministry of digital g
-  Anonymous
Public administration employee, IT solutions Arc
-  Anonymous
Business process management
-  Anonymous
Government and Public sector consultant
-  Anonymous

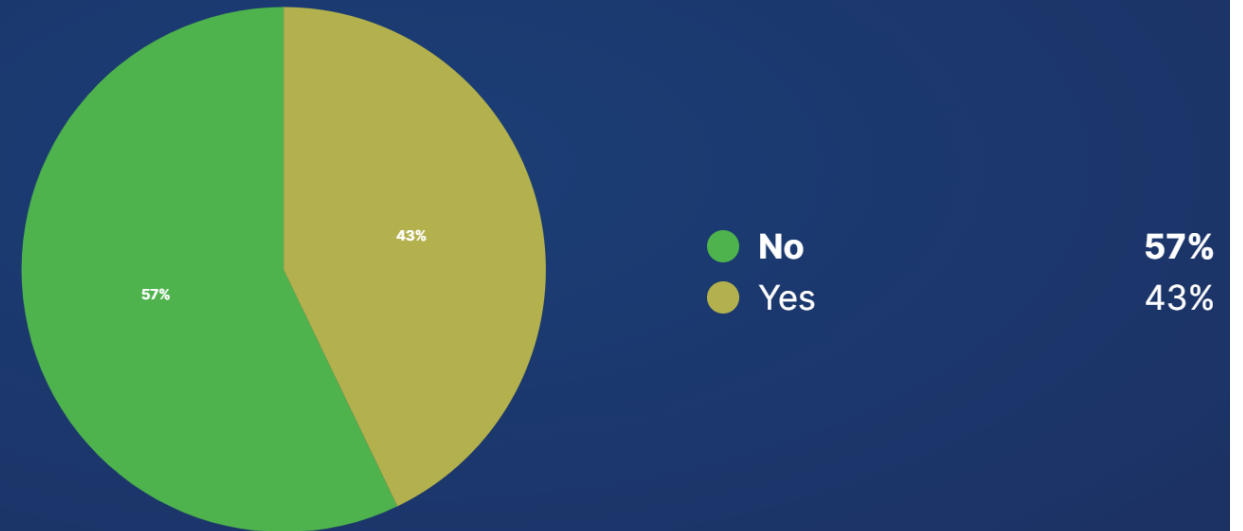
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Are you familiar with the Interoperability Maturity Tools? (e.g., IMAPS, SIQAT, GIQAT)



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Are you familiar of the Interoperability Maturity Tools? (e.g., IMAPS, SIQAT, GIQAT)










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AGENDA

- | | | |
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| 01 | Introduction to Interoperability: The EU Agenda, Objectives and Approach
Project Team | 10' |
| 02 | The Interoperability Challenge and Landscape
Dr. Raul Abril, EC DIGIT | 15' |
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Interoperability over the years

The EU Agenda,
Objectives & approach

The EU Agenda for interoperability...



Data strategy
Digital Decade
Next Generation Digital Strategy

... part of the broader EU Digital Policy effort

EU Member States and eGovernment Benchmark 2022

N/A	Country (EU 27)	Population (as of 2021, Eurostat)	eGovernment Benchmark 2022 score
1	Romania	19.201.662	42%
2	Cyprus	896.007	50%
3	Greece	10.678.632	52%
4	Poland	37.840.001	55%
5	Slovakia	5.459.781	60%
6	Bulgaria	6.916.548	61%
7	Croatia	4.036.355	61%
8	Italy	59.236.213	61%
9	Czechia	10.701.777	63%
10	Germany	83.155.031	63%
11	Hungary	9.730.772	66%
12	Slovenia	2.108.977	67%
13	France	67.656.682	70%
14	Belgium	11.554.767	74%
15	Portugal	10.298.252	78%

EU Member States ranked by their eGovernment Benchmark 2022 score.
For the ones with the highest scores, there is still space for improvement in the smoother delivery of digital public services

Interoperability Maturity Tools (IMTs)

IMTs are part of the **Interoperable Europe public initiative of the [Digital Europe programme](#)**, (former ISA² programme) developing digital solutions that enable public administrations, businesses and citizens in Europe to benefit from interoperable cross-border and cross-sector public services.



IMTs **awareness raising** and support to **communication campaigns** in **Interoperable Europe** participating countries



IMTs **knowledge transfer** and **capacity-building**, including training of owners of digital public services in public administrations in **Interoperable Europe** participating countries



Further development of the **IMTs concept and model**, including survey management and support to users

What is in for Public Administrations?

Objectives

- Enable you to **assess** the current interoperability maturity of your digital public service(s)
- **Explain the IMTs** and guide you through the IMT assessments
- **Discuss** the IMT assessments results with you and reflect on how these can be implemented for increasing the interoperability of your digital public service(s)

Benefits

- **Free of charge** support by IMTs team
- **Availability of IMTs experts** to provide analysis, advice and insights into interoperability good practices from other digital public services
- Possibility to **request translation** of IMTs
- **Sharing of IMTs experience** with other users

AGENDA

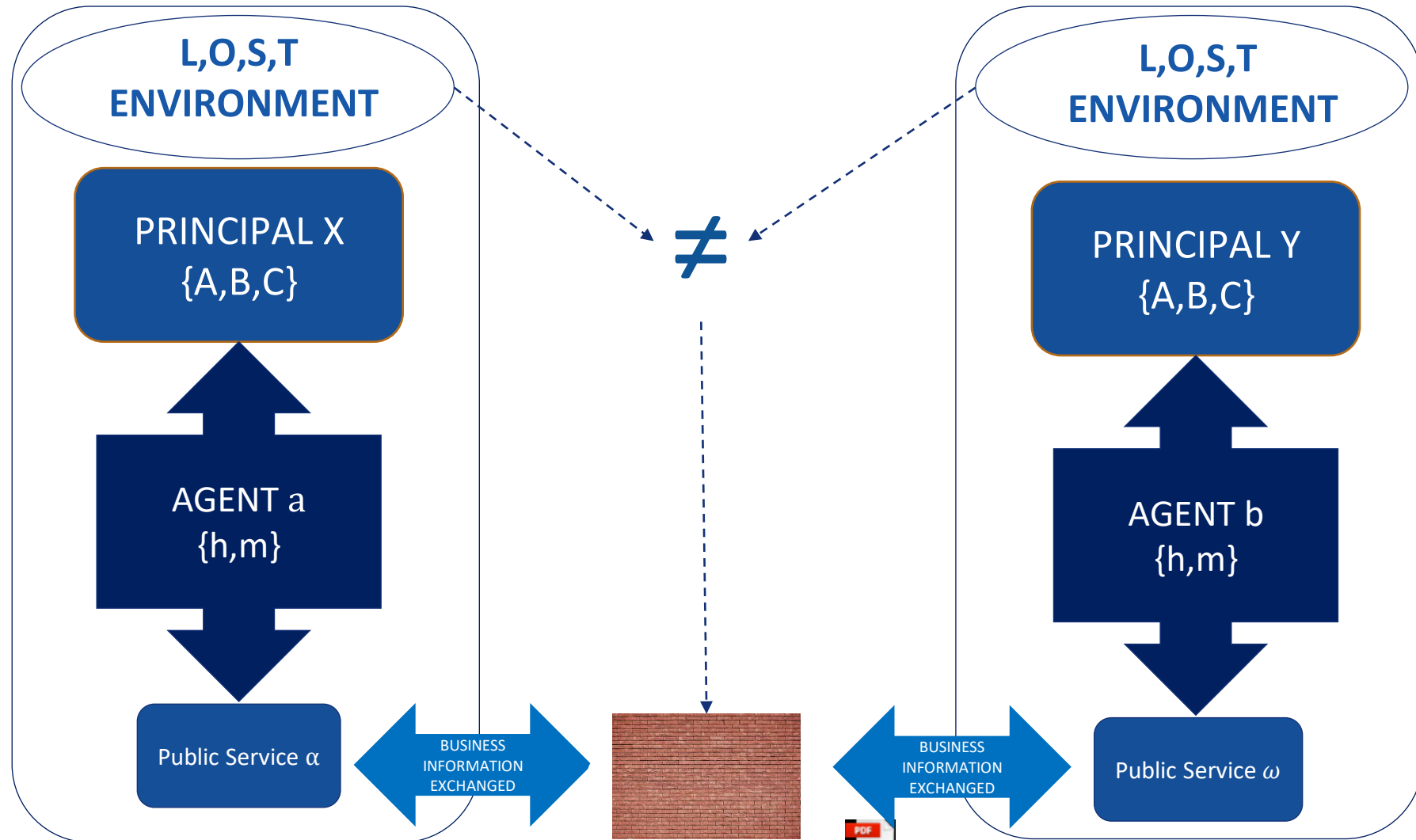
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The Interoperability Challenge and Landscape

Defining IOP Aspects,
Landscape and Tools

The IOP challenge: LOST environments

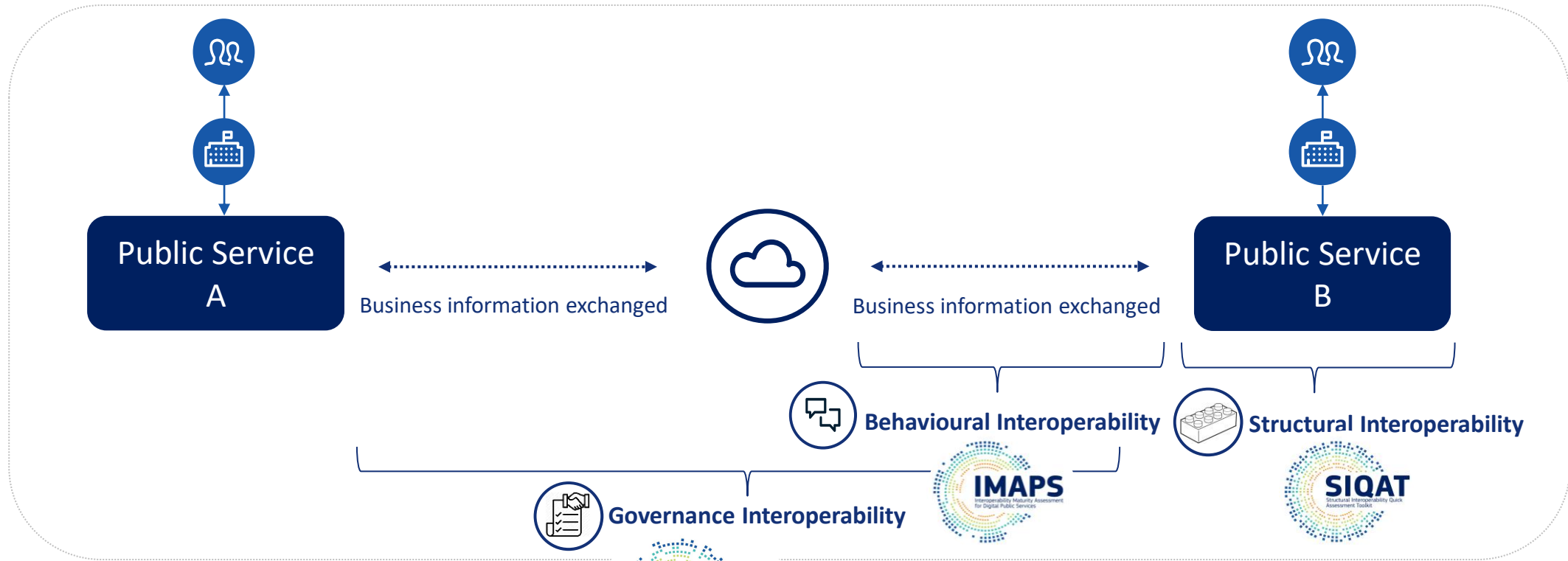


A: Public Administration
(local, regional,
national, European)
B: Business
C: Citizen
h: human
m: machine



Interoperability aspects

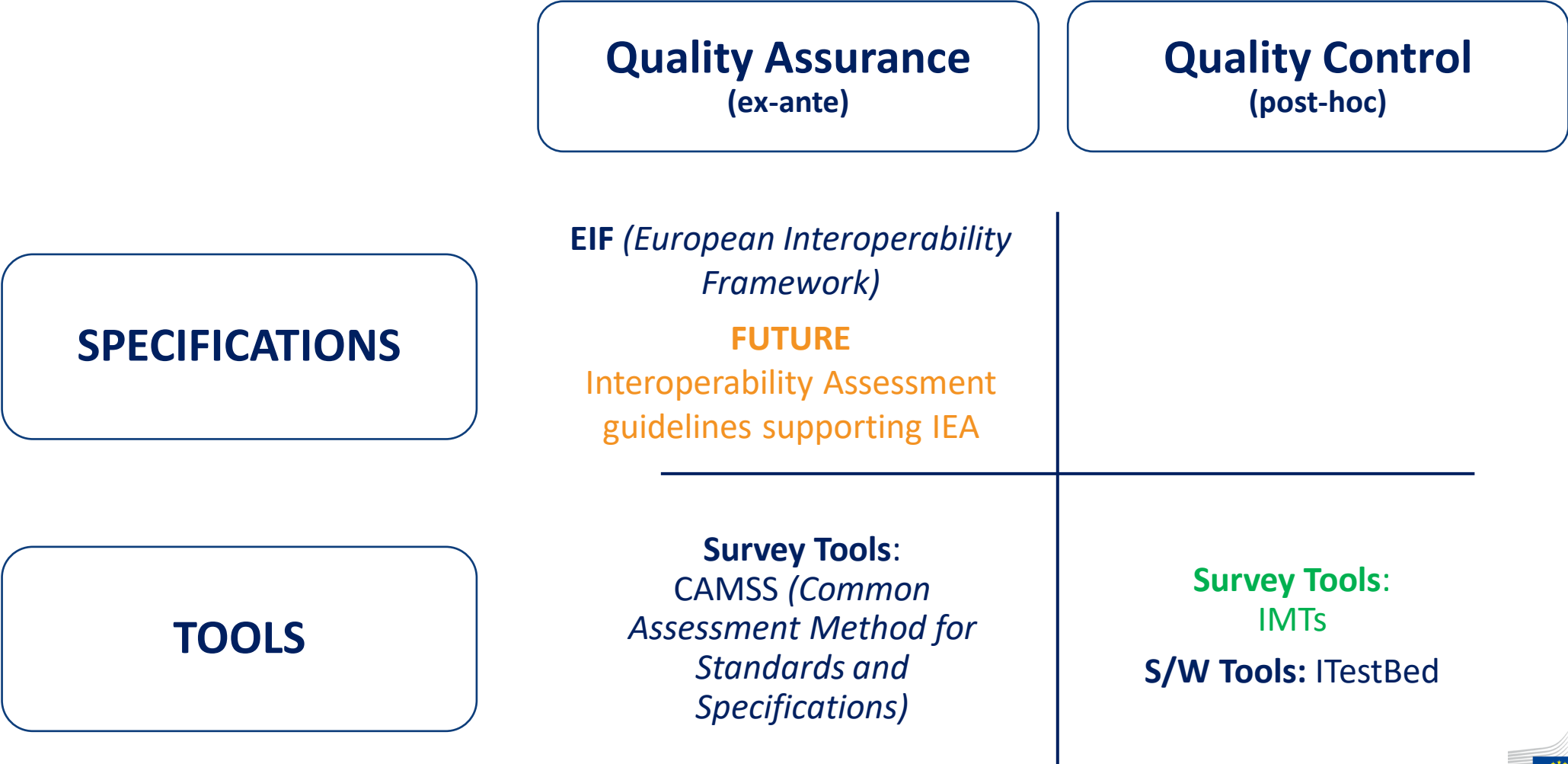
L-O-S-T layers



Structural Interoperability: Interoperability by design
Behavioral Interoperability: Information exchange
Governance Interoperability: Collaboration

End-user (citizen/business) Public administration

Positioning: The Interoperability Landscape



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Introduction to IMTs

Basics and Examples

Interoperability Maturity Tools (IMTs)



Behavioral Interoperability

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"



Structural Interoperability

The **structural interoperability** is "the extent that a digital public service is interoperable on its **structure/design**". Assesses on how a digital public service owner can use or reuse the digital public service



Governance Interoperability

The **governance interoperability** is "the extent its agreed choreography rules support a P2P collaboration". Focuses on collaboration and assesses the existence of **protocols and agreements** to allow the information exchange in agreed terms between digital public services

Comparison among IMTs - Example

Let's suppose that a digital public service is using APIs for information exchange.

The digital public service owner may use one or all of the following tools to assess the interoperability maturity of the service:



Behavioral

Interoperability

IMAPS to assess if **open web API services** are made **available/considered to share** the digital public service release components



Structural

Interoperability

SIQAT to assess if there is **documentation and technical specifications** in place to support the **reuse** of the API



Governance

Interoperability

GIQAT to assess the extent on which there are in place **technical agreements to define rules for the exchange of the information**

Specialised IMAPS versions (Specialisations)

L-O-S-T

- Legal aspects - [LIMAPS](#)
- Organisational aspects - [OIMAPS](#)
- Semantic aspects - [SIMAPS](#)
- Technical aspects - [TIMAPS](#)

A dedicated video for an *Introduction to SIMAPS* is available in the Interoperable Europe YouTube channel and can be found [here](#).



What are IMTs?

IMTs are **online surveys** that help public service owners **evaluate, consider** and **improve** all **key interoperability aspects** of their digital public service **in production** (legal, semantic, organisational, or technical).

- Allow to view and monitor the service's compliance with the **New European Interoperability Framework (EIF)**.
- Can be used to assess the interoperability of **any public service**.
- Are applicable to services at **all levels of government** (international, national, regional and local).

YOU SUBMIT



Online questionnaire

Available on EUSurvey which can be easily completed in 30 minutes.

YOU GET



IMTs interoperability score

Indicates the interoperability maturity level of your digital public service and allows for comparison with the interoperability of other digital public services.



IMTs assessment report & recommendations

Provides you with specific recommendations on how to improve the interoperability of your service and can support you in your internal decision-making process.

Who are they relevant for?

Public administrations at **all government tiers**, in charge of the design, development or delivery of a digital public service. **End-users** of the service can be citizens, businesses or other public administrations.



NATIONAL/ CENTRAL

- Ministry of Public Administration
- Ministry of the Interior
- Ministry of Health
- Ministry of Finance
- Ministry of Justice
- e-Government Agency
- ...



REGIONAL

- Regional Ministry of Transport
- Regional Tax Authorities
- Administrative Simplification Agency
- ...



LOCAL

- City of ...
- Local Tax Authorities
- Municipalities
- ...



INTERNATIONAL

- European Commission
- EU institutions & agencies
- International organisations
- ...

IMTs interoperability score | Where do you stand today?

1

Ad hoc

Poor interoperability – the digital public service cannot be considered interoperable

2

Opportunistic

Fair interoperability – the digital public service implements some elements of interoperability best practices

3

Essential

Essential interoperability – the digital public service implements the essential best practices for interoperability

4

Sustainable

Good interoperability – all relevant interoperability best practices are implemented by the digital public service

5

Seamless

Interoperability leading practice – the digital public service is a leading interoperability practice example for others



Average maturity level of digital public services in Europe (2018)



All **best practices** implemented

IMTs eligibility criteria | How to select & scope your digital public service in production



Service outcome

The digital public service leads to a single outcome or public decision.



Service owner

The digital public service has a single service owner (the public administration responsible for the service).



End user group

Services can be delivered towards three types of end users (front office): citizens, business and other public administrations or be consumed by another service (back-office).



Administrative level

The digital public service can be delivered at one or multiple administrative levels: local (e.g., city, municipality, regional, national, European, international).



Delivery channel

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.

Case example

e-birth certificate

*Ministry of
Interior*

Parents of new-born

National

*e-Government
Portal*

What type of digital public services? | Examples

e-invoicing service

Backoffice for e-certificate service

Application for study programmes

Provision of e-certificates for citizens

electronic health record access **Government online service portal**

Tax payment service

Online application for social care

e-procurement service

Online application for family allowances

Access to criminal records

... and many more.

Share your questions for Interoperability Maturity Tools

Take your phone and visit
<https://www.slido.com/>

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IMTs Testimonials

The case of IMAPS in
the Greek Public Sector



Meet the Speaker



YANNIS CHARALABIDIS

**Professor of Digital Governance,
Director of MSc Programme on
Digital Innovation &
Entrepreneurship**

Yannis Charalabidis is a **Professor of Digital Governance** in the Department of Information and Communication Systems Engineering of the **University of Aegean**. In parallel, he serves as Director of the Innovation and Entrepreneurship Unit of the University and Head of the **Digital Governance Research Centre**, coordinating research and pilot projects for governments and enterprises worldwide. He has more than 25 years of experience in designing, implementing, managing and applying complex information systems as project manager, in Greece and Europe.

IMTs Testimonials Presentation

Presentation Slides:

<https://www.slideshare.net/charalabidis/imts-testimonials-the-case-of-imaps-in-the-gr-public-sector>

Any questions you have to share?

Take your phone and visit
<https://www.slido.com/>

Use the code #7201620

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IMTs in Practice

User Journey and Demo

USER JOURNEY

Interoperability Maturity Tools (IMTs)

An indicative illustration of how
to build interoperable digital public services

who

Pablo is a **Public Administration Officer** responsible for a digital public service's portal.

why

Pablo is puzzled over the digital public service's interoperability. The first challenge that Pablo needs to anticipate is the **format of the data exchanged** with other services (behavioural aspect). Pablo also wonders about any further **documentation** that could be produced for the best **support software reuse** (structural aspect), as well as the **conditions required to regulate peer-to-peer interactions** for information exchange (governance aspect).

how

Pablo discovers through a LinkedIn post the **INTEROPERABILITY MATURITY TOOLS** which are in line with the **European Interoperability Framework (EIF)**.

The Interoperability Maturity Tools

Start the assessment for the:

- **Behavioural** interoperability with **IMAPS** (*Interoperability Maturity Assessment of a Public Service*)
- **Structural** interoperability with **SIQAT** (*Structural Interoperability Quick Assessment Toolkit*)
- **Governance** interoperability with **GIQAT** (*Governance Interoperability Quick Assessment Toolkit*)

Pablo realised that the **Interoperability Maturity Tools** are:

- **applicable to any digital public services at all levels of government;**
- user-friendly online **questionnaires;**
- **time saving and cost-efficient** in interoperability tests;
- **compatible with the EIF principles.**

Pablo implements the recommendations to the digital public service to **bring its interoperability maturity to the next level.**

He regularly checked with the IMTs team for advice during the implementation of updates.



Scan or [click here](#) to find the online version



01

STEP 01: THE BEGINNING OF THE JOURNEY FAMILIARISATION WITH THE CONCEPT

Pablo decides to **assess the behavioural, structural and governance interoperability maturity** of the digital public service across all interoperability levels (**legal, organisational, semantic, technical**) to:

- identify any *interoperability gaps* that are not yet considered; and
- receive useful *recommendations* for improvement.

02

STEP 02: HOW TO START? THE INTEROPERABILITY MATURITY TOOLS

STEP 03: THE IMTs TEAM HANDS-ON SUPPORT

The IMTs team provides Pablo with **continuous support of his choice**, at all stages of the assessments process through:

- **Knowledge transfer sessions;**
- **User guides;**
- **E-learning.**

04

STEP 04: REPORTS & RECOMMENDATIONS STRUCTURE & REPORT

Pablo receives a report that includes an **interoperability maturity score** and a **set of recommendations**, at the end of each survey, for all questions.

These recommendations propose **good practices, guidelines and specific examples.**

*Some recommendations can trigger the need for further assessment in terms of the **legal, organisational, semantic and technical** behavioural interoperability.*

STEP 05: RECOMMENDATIONS THE IMPLEMENTATION

06

STEP 06: HOW WAS THE JOURNEY? SHARE YOUR EXPERIENCE

Pablo shared with his network the news about the **IMTs experience**, and the earned value brought to the organisation!

A **success story** was published with the IMTs team support via the channels of the **Digital Europe Programme (DEP) community.**

IMAPS VALUE PROPOSITION

INTEROPERABILITY MATURITY ASSESSMENT OF A PUBLIC SERVICE

DESCRIPTION WHAT IS IMAPS?

IMAPS is an online questionnaire which allows public administrations to assess the **interoperability maturity of their digital public services**. IMAPS is **aligned with the principles and recommendations** set out by the **European Interoperability Framework (EIF)**. **Specialised versions** of IMAPS can be used complementarily to assess the behavioural interoperability of a digital public service focusing on **legal (LIMAPS), organisational (OIMAPS), semantic (SIMAPS) and technical aspects (TIMAPS)**.

AUDIENCE FOR WHOM IS IMAPS RELEVANT?

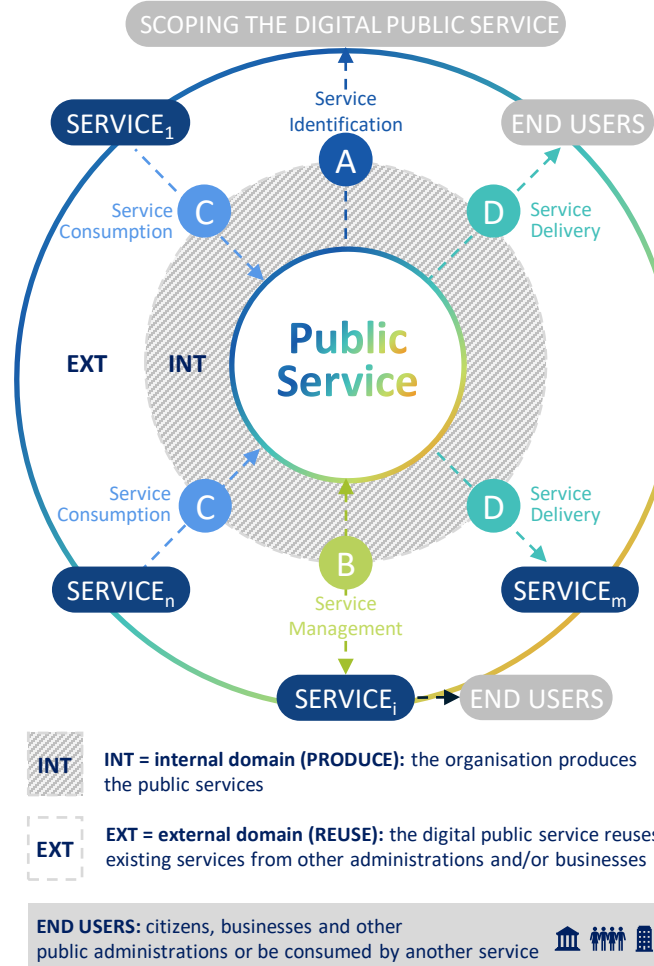
- **Public service owners** | to improve the overall behavioural interoperability and conformance of their digital public services.
- **Policy-makers** | to get insights on the interoperability maturity of digital public service.
- **Public Procurement Officers** | to identify standards and specifications for an interoperable digital public service.

BENEFITS WHY USE IMAPS?

- ✓ A **free of charge assessment** which can be completed in 30 minutes.
- ✓ An **interoperability maturity score** indicating where your service stands today considering key interoperability aspects.
- ✓ A **set of recommendations** for improving your digital public service, based on interoperability standards and good practices.
- ✓ A **statement of conformance** with the EIF principles.
- ✓ A **check of interoperability requirements** for the design of new digital public services, which are interoperable by default.

IMAPS CONCEPTUAL MODEL

The IMAPS conceptual model describes all possible instances where **interoperability with the outside world may occur from the digital public service viewpoint**. It distinguishes between:



DIGITAL PUBLIC SERVICE COMPONENTS

The **IMAPS** assessment captures four different service areas:

- A Service Identification:** scopes the digital public service e.g. service outcome, service owner, administrative level, etc.
- B Service Management:** focuses on the processes related to service interactions with the external domain e.g., SLAs, data policies, etc.
- C Service Consumption:** focuses on the reusable machine-to-machine services from other public administrations and businesses e.g., manually vs digitally service consumption
- D Service Delivery:** focuses on the delivery aspects of the digital public service e.g., delivery channels, multilingualism, etc.



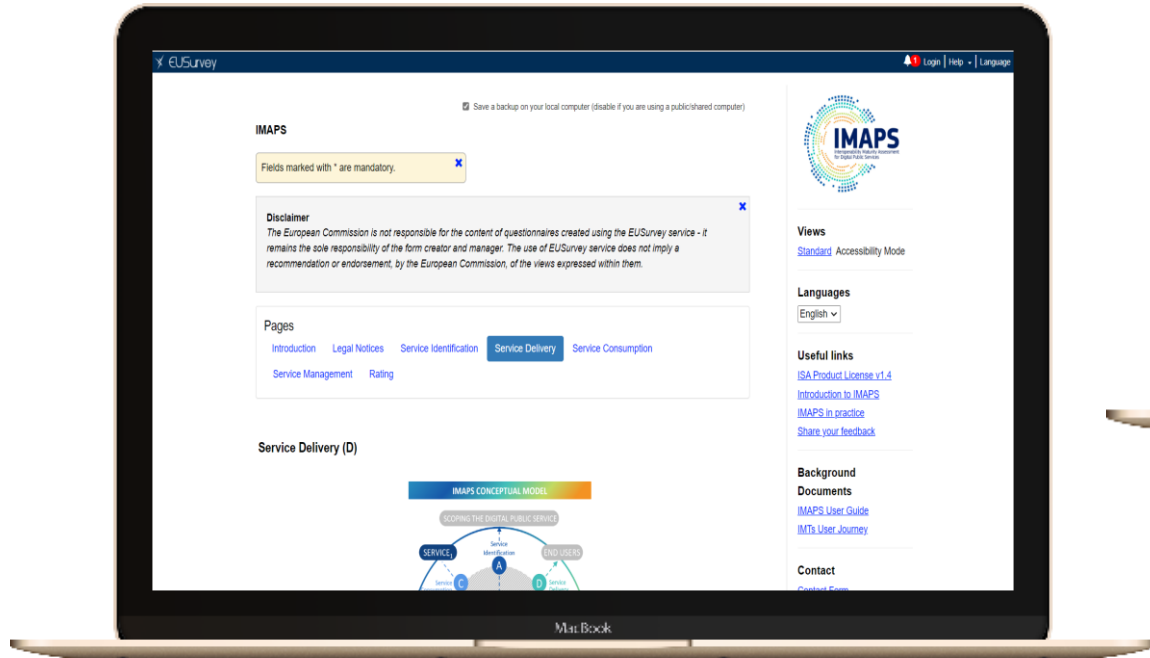
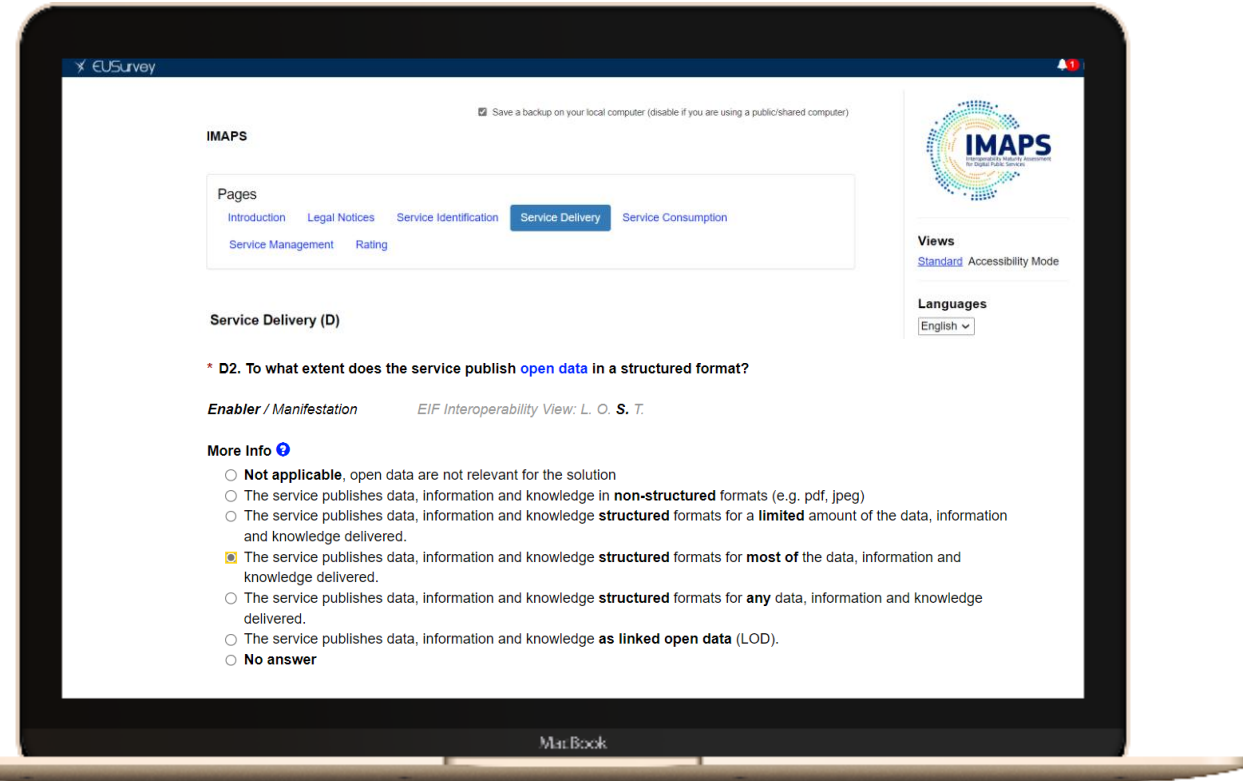
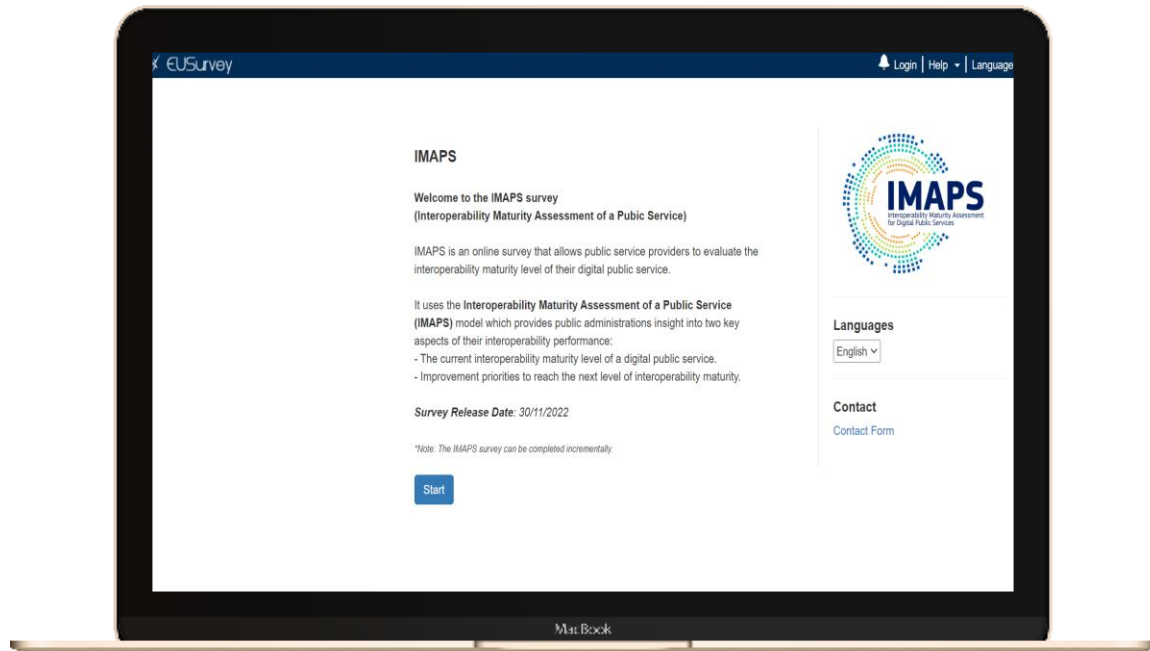
[Start your assessment here](#)



Welcome to the IMAPS Survey

Interoperability Maturity Assessment of Digital Public Services





IMAPS Results report and interoperability score

IMAPS - Results

Thank you for completing the survey.

Your interoperability maturity levels of the Service Delivery, Service Consumption and Service Management of your Public Service, respectively, depend on the scores you achieved in each of these sections of the survey.

Please see the survey score conversion table below for guidance.

The recommendations for your public service are displayed under each question and response provided.

Disclaimer

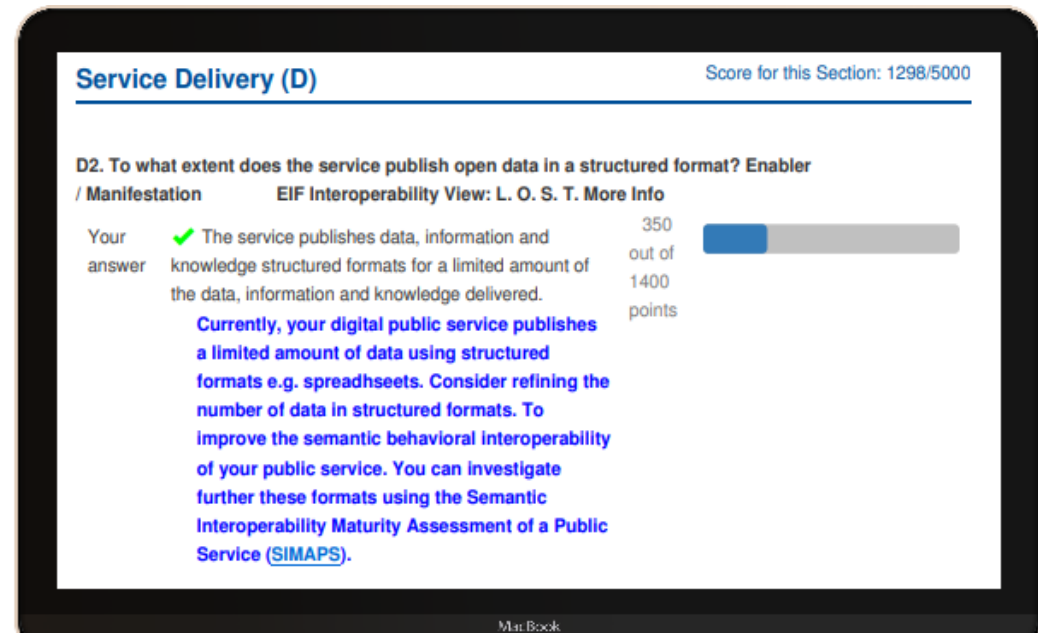
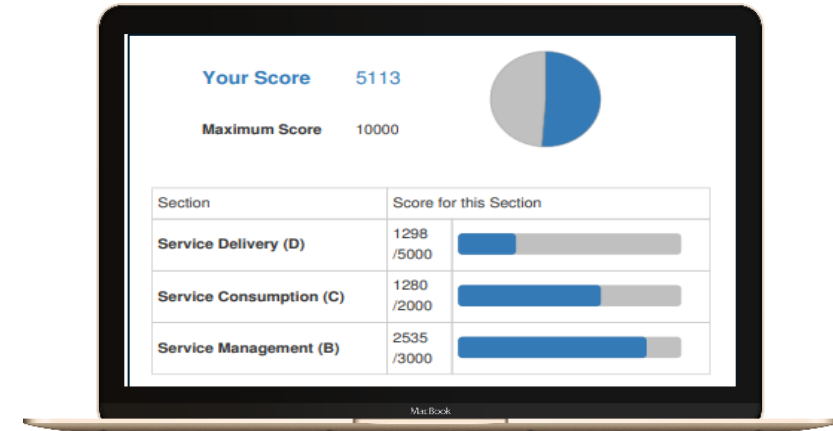
The information and views in this results report do not necessarily reflect the official opinion of the Commission.

The Commission does not guarantee the accuracy of the information included in this document. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for any post-processing of the results produced in the present report.

Survey Score Conversion Table

	Maturity Level				
	1	2	3	4	5
Service delivery (D)	0-1000	1001-2000	2001-3000	3001-4000	4001-5000
Service consumption (C)	0-400	401-800	801-1200	1201-1600	1601-2000
Service management (B)	0-600	601-1200	1201-1800	1801-2400	2401-3000

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



IMAPS specialisations

Complementary insights to IMAPS

LIMAPS

Measures and improves the legal behavioural interoperability maturity of digital public services. Legal interoperability focuses on the legal provisions that regulate the collaboration among different public administrations that operate under different legal mandates.

[Start your LIMAPS online self-assessment.](#)
[More info on LIMAPS.](#)

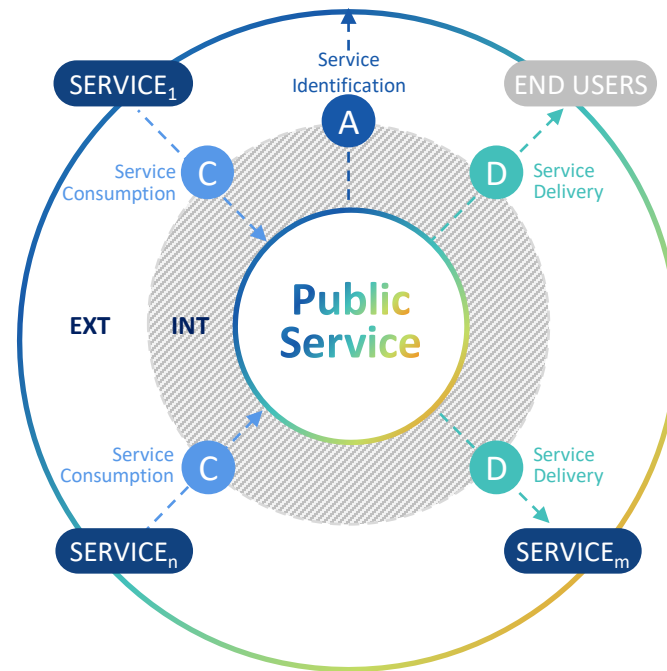
SIMAPS

Measures and improves the semantic behavioural interoperability maturity of digital public services. Semantic interoperability enables a meaningful manner of information exchange and ensures that their precise meaning is understood and preserved throughout exchanges between different organisations. Semantic interoperability provides also a common understanding of the data, by using common data formats.

[Start your SIMAPS online self-assessment.](#)
[More info on SIMAPS.](#)

CONCEPTUAL MODEL

The LIMAPS conceptual model describes all possible instances where **interoperability with the outside world may occur from the digital public service viewpoint**. It distinguishes between:



INT INT = **internal domain (PRODUCE)**: the organisation produces the public services

EXT EXT = **external domain (REUSE)**: the digital public service reuses existing services from other administrations and/or businesses

END USERS: citizens, businesses and other public administrations or be consumed by another service



OIMAPS

Measures and improves the organisational behavioural interoperability maturity of digital public services. Organisational interoperability focuses on business processes and the collaboration among public administrations of different internal structures and user community requirements.

[Start your OIMAPS online self-assessment.](#)
[More info on OIMAPS.](#)

TIMAPS

Measures and improves the technical behavioural interoperability maturity of digital public services. Technical interoperability focuses on the technical aspects of linking information systems and services (interface specifications, interconnection services between hardware and software, etc.). It is usually associated with hardware/software components, systems and platforms that enable machine-to-machine communication to take place.

[Start your TIMAPS online self-assessment.](#)
[More info on TIMAPS.](#)

SIQAT VALUE PROPOSITION

STRUCTURAL INTEROPERABILITY QUICK ASSESSMENT TOOL

DESCRIPTION WHAT IS SIQAT?

- SIQAT is an **online questionnaire** created in the EU Survey portal.
- SIQAT allows public administrations to assess the **Structural interoperability of their digital public services**.
- SIQAT is **aligned with the principles and recommendations** set out by the **European Interoperability Framework (EIF)**.

AUDIENCE FOR WHOM IS SIQAT RELEVANT?

- **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.

BENEFITS WHY USE SIQAT?

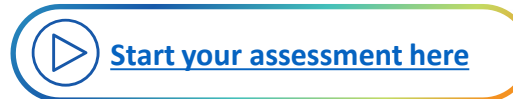
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- ✓ An **interoperability maturity score** indicating where your service stands today considering key interoperability aspects.
- ✓ A **set of recommendations** for improving your digital public service, based on interoperability standards and good practices.
- ✓ A **statement of conformance** with the EIF principles.
- ✓ A **check of interoperability requirements** for the design of new digital public services, which are interoperable by default.

DIGITAL PUBLIC SERVICE COMPONENTS

The SIQAT assessment provides public administrations with insight into two key aspects of the structural interoperability of their digital public service:

Shareability: It is the extent that an open standard enables prospective coexistence of an off-the-shelf asset in a given domain set of digital public service value chains.

Reusability: It is the extent that an open standard enables the coexistence of an off-the-shelf asset in a given value chain of a digital public service.



GIQAT VALUE PROPOSITION

GOVERNANCE INTEROPERABILITY QUICK ASSESSMENT TOOL

DESCRIPTION WHAT IS GIQAT?

- GIQAT is an **online questionnaire** created in the EU Survey portal.
- GIQAT allows public administrations to assess the **Governance interoperability of their digital public services**.
- GIQAT is **aligned with the principles and recommendations** set out by the **European Interoperability Framework (EIF)**.

AUDIENCE FOR WHOM IS GIQAT RELEVANT?

- **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.

BENEFITS WHY USE GIQAT?

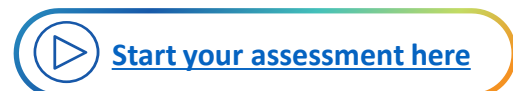
- ✓ A free of charge assessment which can be completed in 30 minutes
- ✓ An **interoperability maturity score** indicating where your service stands today considering key interoperability aspects.
- ✓ A **set of recommendations** for improving your digital public service, based on interoperability standards and good practices.
- ✓ A **statement of conformance** with the EIF principles.
- ✓ A **check of interoperability requirements** for the design of new digital public services, which are interoperable by default.

DIGITAL PUBLIC SERVICE COMPONENTS

The GIQAT assessment 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.



IMAPS Live Dry Run

Contents



Live showcase of the online questionnaire **IMAPS** on the EU Survey platform



Navigation through the different **service areas** of IMAPS



Become familiar with the **user-friendly interface** of EU Survey platform
Explore **interactive features** and **advanced functionalities**
Gather **valuable insights**



Success stories

1



Belgium: The Federal Service Bus (FSB) of the Belgian Federal Public Service Policy and Support Directorate General Digital Transformation (FPS BOSA DT).

2



Czech Republic:

A number of digital public services provided by public administrations in the Czech Republic (e.g., the Czech Ministry of Health).

3



Slovenia: “Online application for subsidised public transport tickets for students”, (Slovenian Ministry of Public Administration) via its eGov portal (“eUprava”).

4



Valencia: Assessment of the existing digital public services and design of the “Sede Electrónica de CACSA” (Ciudad de las Artes y de las Ciencias).

AGENDA

- | | | |
|----|---|------------|
| 01 | Introduction to Interoperability: The EU Agenda, Objectives and Approach
Project Team | 10' |
| 02 | The Interoperability Challenge and Landscape
Dr. Raul Abril, EC DIGIT | 15' |
| 03 | Introduction to Interoperability Maturity Tools
Project Team | 15' |
| 04 | IMTs testimonials: The case of IMAPS in the GR Public Sector
Prof. Yannis Charalabidis, University of the Aegean | 20' |
| 05 | IMTs in Practice: User journey and demo
Project team | 15' |
| 06 | Panel Discussion | 10' |
| 07 | Closing Remarks
Project team | 05' |



Panel Discussion

IMTs and Interoperability

Share your comments and feedback

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Closing Remarks

Reflections and
next steps

Next Steps

 Virtual session

Interoperability
Maturity tools
(IMTs) support
team



Digital Public
Service (DPS)
team



01

Webinar
Introduction

02 

First familiarisation
session on IMTs
with a **LIVE demo**

03

Select and scope
the digital public
service

Select the
appropriate IMTs


 1 day

04

Follow-up questions/
Ad-hoc support

04

Perform the IMTs
assessments

 30 min per
assessment*

05 

Discuss results
and tailored
recommendations

05

Fill in the user
satisfaction
survey and share
feedback with the
IMTs support
team

06

Support to the
DPS team
campaign

07

Share the DPS
team user
experience

*This is the actual time to
perform each one of the
IMTs assessments.

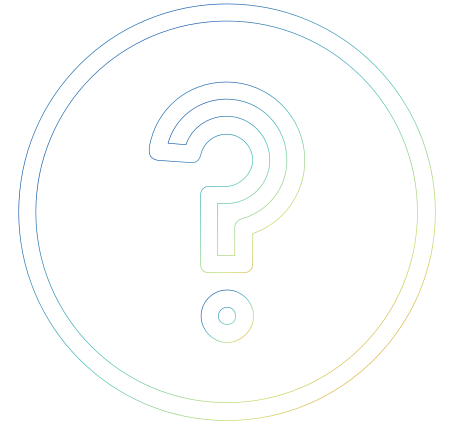
Next Steps

Do you have any questions?

Reach out to us:

Ine.VRANCKX@ext.ec.europa.eu

DIGIT-IMAPS@ec.europa.eu



A complex network graph visualization on a dark blue background. The graph consists of numerous nodes and edges. The nodes are small dots, and the edges are thin lines connecting them. The color of the nodes and edges transitions from a deep blue on the left to a bright yellow in the center, and then back to a lighter blue on the right. The overall structure is dense and interconnected, with a central hub-and-spoke pattern. The text "Thank you" is overlaid on the right side of the graph.

Thank you



interoperable europe

innovation ∞ govtech ∞ community

Stay in touch



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[Interoperable Europe - YouTube](#)



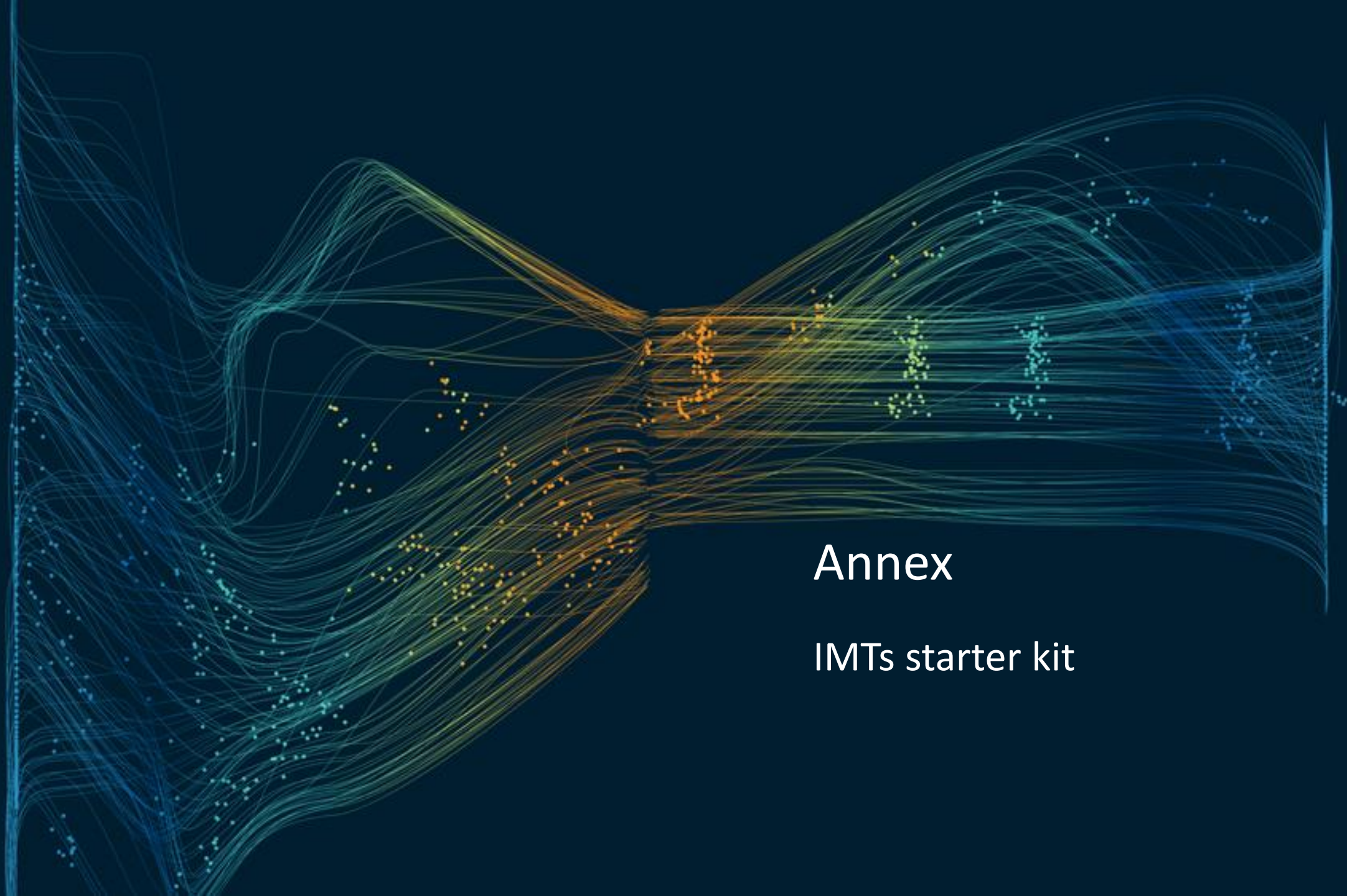
[Interoperable Europe | LinkedIn](#)



DIGIT-INTEROPERABILITY@ec.europa.eu



<https://joinup.ec.europa.eu/collection/interoperable-europe/interoperable-europe>



Annex

IMTs starter kit

How to get started?

- IMTs community on Joinup: <https://joinup.ec.europa.eu/collection/interoperability-maturity-tools-imts-digital-public-services/about>
- IMAPS online survey: https://ec.europa.eu/eusurvey/runner/IMAPS_v_2_2_0
- IMAPS action on Interoperable Europe page on Joinup website: <https://joinup.ec.europa.eu/collection/interoperable-europe/imaps>
- LIMAPS online survey: https://ec.europa.eu/eusurvey/runner/LIMAPS_v_1_2_0
- LIMAPS page on Joinup: <https://joinup.ec.europa.eu/collection/imaps-interoperability-maturity-assessment-public-service/solution/limaps/about>
- OIMAPS online survey: https://ec.europa.eu/eusurvey/runner/OIMAPS_v_1_2_0
- OIMAPS page on Joinup : <https://joinup.ec.europa.eu/collection/imaps-interoperability-maturity-assessment-public-service/solution/oimaps>
- SIMAPS online survey: https://ec.europa.eu/eusurvey/runner/SIMAPS_v_1_3_0
- SIMAPS page on Joinup : <https://joinup.ec.europa.eu/collection/imaps-interoperability-maturity-assessment-public-service/solution/simaps>



How to get started?

- TIMAPS online survey: https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_2_0
- TIMAPS page on Joinup : <https://joinup.ec.europa.eu/collection/imaps-interopability-maturity-assessment-public-service/solution/timaps>
- GIQAT online survey: https://ec.europa.eu/eusurvey/runner/GIQAT_v_2_1_0
- GIQAT page on Joinup website: <https://joinup.ec.europa.eu/collection/interopability-maturity-tools-imts-digital-public-services/solution/giqat/about>
- SIQAT online survey: https://ec.europa.eu/eusurvey/runner/SIQAT_v_2_1_0
- SIQAT page on Joinup website: <https://joinup.ec.europa.eu/collection/interopability-maturity-tools-imts-digital-public-services/solution/siqat/about>



Single Interoperability Assessment Gateway (SIAG)

What is it for?

The **Single Interoperability Assessment Gateway (SIAG)** provides a **single point of access to all Interoperable Europe former ISA² interoperability assessment solutions**. These solutions help public administrations to design, develop, implement, evaluate and to improve the interoperability of their digital public services and of its various components.

The aim of the Gateway is to allow **users to find in one click** the right solution – free of charge – that they need for their specific situation.

What is in for you?

The Gateway helps you to **discover** and to **use** the Interoperable Europe former ISA² interoperability assessment solutions by:

- **Showing in one view** all interoperability assessment solutions and tools developed by the Interoperable Europe former ISA²
- **Guiding you** to the interoperability assessment solution(s) relevant for you
- **Providing you with key characteristics and information** on the solution and tools
- **Illustrating their use** with concrete examples
- **Giving you direct access** to the latest release of the solution to get started

For whom is this relevant?

You are...



Policy-maker

Get insights on the interoperability maturity of digital public services and address gaps and challenges for a future-proof, evidence-based policy-making



Public Service Owner

Diagnose the behavioural interoperability maturity level of a digital public service



Public Procurement Officer

Identify standards and specifications for an interoperable digital public service



IT Solutions Portfolio Manager

Gather insights for the governance of a portfolio of interoperable solutions for digital public services



IT Requirements Manager

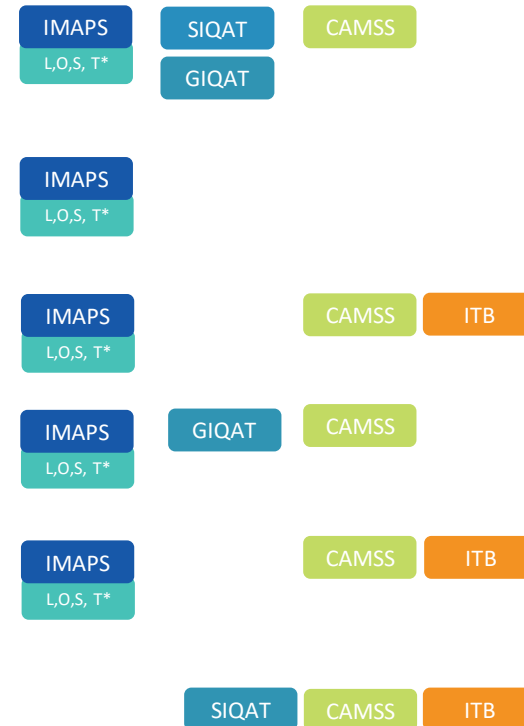
Analyse and assess the functionalities of a To-Be digital public service



IT Software/ Application Architect and Developer

Design, develop and assess an interoperable software solution for a digital public service

... this solution could be interesting for you:



High level comparison of IMTs

IMAPS focuses on the information exchange and on behaviour and actions of systems during interaction.



LIMAPS focuses on the legal provisions that regulate the collaboration among different public administrations that operate under different legal mandates.



TIMAPS focuses on the technical aspects of linking information systems and services.



GIQAT focuses on collaboration and control between digital public services and the need to have protocols and agreements to do this information exchange in agreed terms with the other digital public services.



SIMAPS ensures that exchanged data is understood and interpreted correctly across different systems while ensures common semantics, ontologies and data models.



OIMAPS focuses on business processes(e.g., flexibility to introduce changes in the consumption of data)and the collaboration among public administrations, that wish to exchange data, information and knowledge.



SIQAT focuses on the structured format of data being exchanged while deals with the technical aspects of data exchange and reuse.



Comparison of IMTs - Examples

		<i>BEHAVIOURAL</i>				<i>STRUCTURAL</i>	<i>GOVERNMENTAL</i>
		IMAPS	SIMAPS	LIMAPS	...	SIQAT	GIQAT
EIF Perspective	SEMANTIC	To what extent does the service publish open data in a structured format ?	To what extent does the service deliver structured data , information and knowledge from other services or end users?	To what extent is the service compliant with legislation that mandates the delivery of data, information and knowledge in a machine-readable format ?		To what extent does the software use common/well-known standard data representation formats (e.g., JSON)	To what extent are semantic agreements in place in the service, for the definition of the data structure, model and semantics formats ?
	LEGAL	To what extent does the service apply measures to handle the legal implications related to service consumption? (e.g. tracing and logging mechanisms, legal agreements, legal rules, etc.)		To what extent is the service compliant with the legal obligations that define the specifications of the data, information and knowledge consumed from other services?		To what extent legal agreements regulate the share of the service?	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 ?