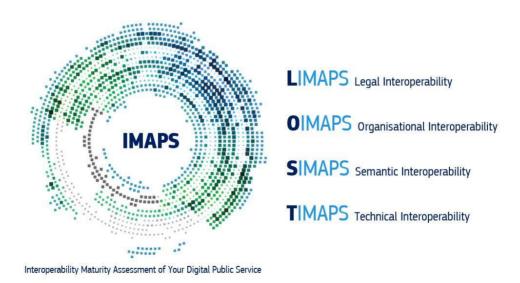
TIMAPS v1.1.0

Technical Interoperability Maturity Assessment of a Public Service

Release notes



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Table of Abbreviations

Table 1: Acronyms

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

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1 INTRODUCTION

1.1 Purpose of this document

This document contains the description of the release version 1.1.0 of the Technical Interoperability Maturity Assessment of a Public Service (TIMAPS).

1.2 Release date

Version 1.1.0 of the TIMAPS Survey has been released on the 9th of May 2022 on Joinup.

1.3 Description

The TIMAPS Survey is a highly user-friendly online questionnaire. Designed as a self-assessment tool, the TIMAPS survey is designed for public service owners to evaluate key technical behavioral interoperability aspects of their digital public service. On completion of the survey, the public service owners receive tailored, confidential feedback and recommendations on how to further improve their digital public service.

Details on the individual components of this release are provided in the below Chapter 2 "Release components".

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2 TIMAPS v1.1.0 RELEASE COMPONENTS

The TIMAPS v1.1.0 release consists of the following release components.

2.1 TIMAPS v1.1.0 EU Survey portal

The TIMAPS survey is available at the EU Survey portal.

Table 1: Updates at the EU Survey Portal

Table 1: Updates at the EU Survey Portal		
Modification	Details	
	Version 1.1.0	
TIMAPS URL at the EU Survey portal	The version 1.0.0 https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 0 0 has been replaced by the version 1.1.0 https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 1 0	
Included a reference on the GitHub for feedback purposes	Date: 03/05/2022 The reference "You can share your feedback on TIMAPS survey through the dedicated GitHub platform." has been added for feedback purposes in the 'Introduction' section of the TIMAPS questionnaire.	
	Date: 03/05/2022	
Replaced the phrase "digital public service"	The phrase "digital public service" has been replaced with "service" on the TIMAPS questionnaire.	
with "service" to reduce repetition	The disclaimer "The unit of assessment is the "Digital Public Service" and is referred to as "Service" in the survey that follows." has been added in the end of the Introduction page to indicate the replacement of this phrase.	
	Date: 29/04/2022	
Added a question for the applicant's traceability	New Item "A1E. Please provide your role in the organisation providing the service" has been added on the 'Introduction' section of the TIMAPS questionnaire as optional.	
	Date: 29/04/2022	
Added a question for statistics reasons	New Item "A1F. Please provide the address of the organisation providing the service" has been added on the 'Introduction' section of the TIMAPS questionnaire as optional.	
	Date: 29/04/2022	
Added a disclaimer on A2A question the public service catalogue name and the URI	The disclaimer "Please also provide the public service catalogue name and URI, if it is applicable for the digital public service." has been added on the item "A2A. A digital public service is a digital service rendered in the public interest. What is the name of the digital public service that you provide to the end users (citizens, businesses or other public	

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	administrations)?" in the 'Service Identification' section on the TIMAPS questionnaire.
Added a question for future contacting purposes	Date: 21/12/2021 New Item "A2D. Please specify the email address of the provided digital public service" has been added in the 'Introduction' section of the TIMAPS questionnaire as mandatory.
	Date: 03/05/2022
	The item "A3. Owner: Which public administration is primarily responsible for providing the digital public service?" has been rephrased as "A3A. Service provider: Which tier of public administration is primarily responsible for providing the service?" as optional.
	The following initial options of A3 item:
Rephrased A3 question and Updated the options to illustrate better the tiers of administration	 "Ministry e.g. Ministry of Public Administration, Ministry of Justice, Public Administration e.g. Tax Administration, Directorate-General of the European Commission e.g. DG COMM, DG JUST, DGIT, Government institution/agency/office e.g. National Agency for Information Society, National Centre for Public Administration and Local Government (EKDDA), EU inistitution/agency/office e.g. EU Publications Office, Other Legal Entity" have been updated as follows: "International Public Administration, Central Public Administration, Regional Public Administration, Local Public Administration,
	Other Legal Entity"
	In case of the "Other Legal Entity" option, a free text is available.
Added a question for the	Date: 03/05/2022
Directorate-General of the European Commission	The item "A3B. Please indicate the Directorate-General of the European Commission" has been added in the 'Introduction' section on the IMAPS questionnaire with a drop-down menu by including a list with EU DGs.
	Date: 03/05/2022
Updated D1 question to cover the asynchronous communication methods	The item "D1. To what extent does the service deliver data, information and knowledge using synchronous digital communication?" has been updated as "D1. To what extent does the service facilitate the delivery of data, information and knowledge to other services?" on the TIMAPS questionnaire.

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Date: 03/05/2022

The examples referring on the options of the item "D2. To what extent does the digital public service deliver data, information and knowledge via Machine to Machine (M2M) interfaces?" have been updated.

The following initial options of D2 item:

- "The digital public service delivers data, information and knowledge via a single, custom-built, non-open Machine to Machine (M2M) interface (e.g. via a data infrastructure specific to the service, not designed for reuse, including database interconnections, database links, database views, etc.),
- The digital public service delivers data, information and knowledge via a single open Machine to Machine (M2M) interface (e.g. via file transfer, exchange of flat files, documents, etc.),
- The digital public service delivers most data, information and knowledge via multiple, open Machine to Machine (M2M) interfaces (e.g. APIs, web services (REST, SOAP) etc.),
- The digital public service delivers any data, information and knowledge via multiple, open Machine to Machine (M2M) interfaces (e.g. APIs, web services (REST, SOAP) etc.),
- The digital public service delivers any data, information and knowledge via multiple, open Machine to Machine (M2M) interfaces (e.g. APIs, web services (REST, SOAP) etc.) using an openAPI specification"

any ambiguity and confusion

Updated the options on

D2 question to remove

have been updated as follows:

- "The digital public service delivers data, information and knowledge via a single, custom-built non-open Machine to Machine (M2M) interface (e.g. via a data infrastructure specific to the service, not designed for reuse, including database interconnections, database links, database views, etc.),
- The digital public service delivers data, information and knowledge via a single open standard Machine to Machine (M2M) interface for direct exchange of files (e.g. using Telnet, SFTP, HTTP, etc.),
- The digital public service delivers data, information and knowledge via multiple open standard Machine to Machine (M2M) interfaces for direct exchange of files (e.g. a combination of Telnet, SFTP, HTTP, etc.),
- The digital public service delivers any data, information and knowledge via a single open API format for Machine to Machine (M2M) direct data exchange (e.g. SOAP, REST, gPRC, etc.),
- The digital public service delivers any data, information and knowledge via multiple open API formats for Machine to Machine (M2M) direct data exchange (e.g. SOAP, REST, gPRC, etc.),

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- Such interfaces are not applicable or are not necessary (according to the scope of the digital public service),
- No answer".

Date: 03/05/2022

The options of the item "D3. To what extent does the service deliver data, information and knowledge via multiple service delivery modes? (mobile (Android, iOS), tablets, GUI PC base, voice, sms, video, email)" have been updated.

The following initial options of D3 item:

- "The digital public service delivers data, information and knowledge via a single, non-open service delivery mode (i.e. via a menu-based interface (GUI PC base or equivalent),
- The digital public service delivers data, information and knowledge via a single, open service delivery mode (e.g. via a single device, platform and/or browser, like sms-only, emailonly, voice-only, etc.),
- The digital public service delivers data, information and knowledge via a limited set of service delivery modes (i.e. via limited mobile devices e.g. only on iOS, or via limited platforms and/or browsers e.g. only via Chrome browser, etc.),
- The digital public service delivers most data, information and knowledge via multiple service delivery modes, using different app versions, Android versions, third-party library versions, as well as touchscreen GUIs,
- The digital public service delivers any data, information and knowledge via multiple service delivery modes using different app versions, Android versions, third-party library versions, as well as touchscreen GUIs"

have been updated as follows:

- "The service delivers data, information and knowledge via a single, non-open service delivery mode (i.e. via a menu-based interface (GUI PC base or equivalent),
- The service delivers data, information and knowledge via a single, open service delivery mode (e.g. via a single device, web application, platform and/or browser, like sms-only, email-only, voice-only, etc.),
- The service delivers data, information and knowledge via a limited set of service delivery modes (i.e. via limited mobile devices e.g. only on iOS, or via limited platforms and/or browsers e.g. only via Chrome browser or web application, etc.),
- The service delivers most data, information and knowledge via multiple service delivery modes, using different app versions, Android versions, web applications, third-party library versions, as well as touchscreen GUIs,

Updated the options on D3 question to include the web application

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- The service delivers any data, information and knowledge via multiple service delivery modes using different app versions, Android versions, web application, third-party library versions, as well as touchscreen GUIs,
- Such delivery modes are not applicable or are not necessary (according to the scope of the digital public service),
- No answer".

Date: 05/05/2022

The options of the item "D4. To what extent does the service provide technical documentation on how to integrate the data, information and knowledge delivered with the data, information and knowledge of other services?" have been updated.

The following initial options of D4 item:

- "The digital public service provides no technical documentation on how to integrate the data, information and knowledge delivered,
- The digital public service provides limited technical documentation on how to integrate the data, information and knowledge delivered (e.g. ad-hoc information on service capability),
- The digital public service provides high level technical documentation on how to integrate the data, information and knowledge delivered (e.g. it lacks clarity on how to reuse them),
- The digital public service provides adequate technical documentation (e.g. service capability, service usage, data sources)on how to integrate the data, information and knowledge delivered,
- The digital public service provides detailed technical documentation about the consumed services (e.g. service capability, service usage, data sources) on how to integrate the data, information and knowledge delivered, using an open expression language (e.g. ODRL)"

have been updated as follows:

- The service provides no technical documentation on how to integrate the data, information and knowledge delivered
- The service provides technical documentation only for the core service(s)
- The service provides technical documentation for the core service(s) plus interoperability with additional services and linked services / plugins (where applicable)
- The service provides technical documentation for all above services plus local testing environment
- The service provides technical documentation for all above services plus online testing environment

Updated the options on D4 item

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- Such technical documentation is not applicable or is not necessary (according to the scope of the digital public service)
- No answer

Date: 03/05/2022

The options of the item "D6. To what extent does the public provide data verification means for the data, information and knowledge delivered?" have been updated.

The following initial options of D6 item:

- "The digital public service does not provide any data verification means for the data, information and knowledge delivered,
- The digital public service provides ad-hoc data verification means to give information about the origin and integrity of the data, information and knowledge delivered,
- The digital public service provides a custom 'electronic seal', to ensure the origin and integrity of the data, information and knowledge delivered,
- The digital public service provides a custom 'electronic seal', following a standard baseline profile, compatible to eIDAS, in order to ensure the origin and integrity of the data, information and knowledge delivered,
- The digital public service provides an open-source software library for electronic signature creation and validation (e.g. CEF e-Signature / e-Seal building blocks)"

Updated the options on D6 question

have been updated as follows:

- "The service does not provide any data verification means for the data, information and knowledge delivered,
- The service provides an unencrypted channel, and data, information and knowledge delivered is digitally signed, using an electronic certificate and a signature from a trusted authority,
- The service provides an encrypted connection, and data, information and knowledge delivered is digitally signed, using an electronic certificate and a signature from a trusted authority,
- The service provides an unencrypted channel, and data, information and knowledge delivered is digitally signed, using an electronic certificate and a signature from a trusted authority, while the user is authenticated and authorised to access and distribute the data between endpoints,
- The service provides an encrypted connection and data, information and knowledge delivered is digitally signed, using an electronic certificate and a signature from a trusted authority, while the user is authenticated and authorised to access and distribute the data between end points,

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	 Not applicable or not necessary (according to the scope of the digital public service), No answer".
Updated the options on D7 question	 Date: 03/05/2022 The options of the item "D7. To what extent does the service deliver data, information and knowledge in compliance with web accessibility specifications?" have been updated. The following initial options of D7 item: "The digital public service does not publish any data, information and knowledge in compliance with web accessibility specifications, The digital public service publishes limited data, information and knowledge in compliance with some web accessibility specifications (e.g. alternative text linked to images), The digital public service publishes certain data, information and knowledge in line with most web accessibility specifications (e.g. documents, pdf files, alternative text linked to images, etc.), The digital public service publishes certain data, information and knowledge in compliance with all web accessibility specifications (e.g. documents, pdf files, alternative text linked to images, etc.) and there is continuous improvement in this amount, The digital public service delivers any data, information and knowledge in compliance with all web accessibility specifications (i.e. Web Content Accessibility of individuals with disabilities" have been updated as follows: "The digital public service does not publish any data, information and knowledge in compliance with any web accessibility specifications, The digital public service publishes data, information and knowledge in compliance with custom proprietary guidelines for the accessibility of web content, The digital public service publishes data, information and knowledge in compliance with Web Content Accessibility Guidelines 2.0 (WCAG) Level A (basic features), The digital public service publishes publishes data, information and knowledge in compliance with Web Content Accessibility Guidelines 2.0 (WCAG) Level AA (most frequently requested features), The digital public service publishes publishes data,

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Updated the option on D9 item	The option "The digital public service is made discoverable towards its end users or other services through digital service registries along with its specifications (description, publication details, etc.), and it is described based on a formal standard (e.g. Universal Description, Discovery, and Integration (UDDI))" has been updated as "The service is made discoverable towards its end users or other services through digital service registries (client-side server discovery) along with its specifications (description, publication details, etc.), as well as, server-side service discovery (e.g. through a router)" on the item "D9. To what extent is the service made discoverable towards its end users or other services?" for TIMAPS questionnaire.
Added a question for activation and disable the 'Service Consumption'	Date: 29/04/2022 New Item "Does the service consume data from other services?" has been added at the beginning of the 'Service Consumption' of the TIMAPS questionnaire without including scoring. This item activates and disables the 'Service Consumption' section.
section	New item "I confirm that the service does not consume data from other services." has been added below the item ""Does the service consume data from other services?" with the option "Yes, I confirm". The option will take the highest score (3000/3000) in order not to penalise the digital public service under assessment.
Added a free text question for any comment	Date: 29/04/2022 New Item "Please provide your comments and/or summarize your options, if necessary." has been added at the end of each section on the TIMAPS questionnaire.
Added a section for rating purposes	Date: 21/12/2021 A new 'Rating' section has been added on the final page allowing rating in the survey by including the item "How would you rate this questionnaire?".
Included a disclaimer on results report for the responsibility from the side of the Commission on any post-processing of output produced by the solution	Date: 03/05/2022 The following disclaimer for the responsibility reference regarding the implementation of the recommendations from the digital public service owner has been included in the 'Results Message'. "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."

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The following changes have been performed to the TIMAPS questionnaire:

Date: 20/12/2021

- The 'Service Identification' (A) annotating the scope of the digital public service has been merged in the Introduction section of TIMAPS questionnaire.
- The interoperability maturity levels have been included without implement the scoring in the Introduction section of TIMAPS questionnaire.
- The item "A1D. Please indicate the country of the organisation providing the service" related to the geographical area has been updated from single choice type as a drop-down menu by keeping the list of countries and the "Other" option. In case of the "Other" option, a free text is available.
- The display of legal and license information, as well as user content inputs have been grouped.

Date: 10/01/2022

- A reference to the IQAT license has been included alongside legal notices on the TIMAPS questionnaire.
- The 'ISA2 Programme' has been replaced with 'Interoperable Europe' in the Introduction section of TIMAPS questionnaire.

Date: 12/04/2022

The keywords on the options of TIMAPS questionnaire have been highlighted in bold to facilitate the user reading experience.

Date: 13/04/2022

All ABBs are hyperlinked (PURIs) with the most common terms used throughout the questionnaires to the EIRA Glossary.

Date: 19/04/2022

The spelling of the word "inistitution" has been corrected as "institution" in the options of the item "A3A. Service provider: Which tier of public administration is primarily responsible for providing the service?" on the TIMAPS questionnaire.

Date: 29/04/2022

- The word 'owner' has been replaced with the phrase 'service provider' on the item "A3A. Service provider: Which tier of public administration is primarily responsible for providing the service?" and overall, on TIMAPS questionnaire.
- A reference to the IMAPS User Guide has been included alongside legal notices on the TIMAPS questionnaire.
- The following items on the "Service Identification" section have been updated as optional based on the feedback from the expert reviews:

Updated TIMAPS
Questionnaire

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- o The item "A1A. Please provide your name",
- o The item "A1B. Please provide your email address",
- o The item "A1C. Please provide your phone number",
- The item "A1D. Please indicate the country of the organisation providing the service",
- The item "A1F. Please provide the address of the organisation providing the service",
- The item "A2A. A digital public service is a digital service rendered in the public interest. What is the name of the digital public service that you provide to the end users (citizens, businesses or other public administrations)? Please also provide the public service catalogue name and URI, if it is applicable for the digital public service",
- The item "A2B. Use the following criteria to define a service: i) Process and underlying activities, ii) Appearance, iii) Provider (see A3). Please describe the process and underlying activities of the service. The service always has three phases (1. initiation, 2. processing and 3. delivery of an outcome). Focus on the public decision that is the outcome of the service. If there is no public decision and/or outcome, focus on the benefits the service provides to the target audience",
- The item "A2C. Appearance: How does the service deliver the outcome towards the end user group?",
- The item "A3A. Service provider: Which tier of public administration is primarily responsible for providing the service?",
- The item "A3B. Please indicate the Directorate-General of the European Commission",
- The item "A4. Please indicate in which sector is the service provided",
- The item "A5. What is the end user group to whom the service is delivered?",
- The item "A6. At what administrative level is the service provided (multiple answers are possible)?".
- The item "Would you like to be contacted for evaluation purposes?" has been updated as bold in the 'Introduction' section of the TIMAPS questionnaire.
- The "More info" functionality has been added including the examples on the A2A, A2B, A2C, A3 and A5 items for the TIMAPS questionnaire.

Date: 05/05/2022

- The EIRA ABB on the item "D5. To what extent is the service able to invoke other services to deliver data, information and knowledge?" has been updated from "Interoperable European Solution Service" to "Machine to Machine Interface".
- The EIRA ABB on the item "D6. To what extent does the public provide data verification means for the data, information and

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	knowledge delivered?" has been updated from "e-Signature Verification and Validation Service" to "Data Validation Service".
	Date: December – March 2021-2022
	 Updated the binary questions in TIMAPS. Updated the levels of questionnaires and implemented 5 responses.
	Date: 03/05/2022
	Updated the ABB "Interoperable European Solution Service" as "Machine to Machine Interface" on the More Info for the D4 item.
	Date: 17/03/2022
Accessibility by visually impaired or blind people	The "Accessibility Mode" has been activated on TIMAPS assessment to increase survey readability and help visually impaired readers.
	Date: 29/04/2022
Applicability	Based on the feedback from the expert reviews, the option 'Not applicable' should be included in the options of all TIMAPS items. As such, the project team added the 'Not applicable' option to all TIMAPS items as an option. The "N/A" options will take the highest score (100/100) in order not to penalize the digital public service under assessment.
	Date: 29/04/2022
No answer	Based on the feedback from the expert reviews, the option 'No answer' should be included in the options of all TIMAPS items. As such, the project team added the 'No answer' option to all TIMAPS items as the last option. The 'No answer' will take the lowest score (0/100).
	Date: May 2022
Scoring model	The existing scoring model of TIMAPS version 1.1.0 is maintained meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service Delivery/Consumption Manifestations have 40%, 40% and 20% respective weights in the whole questionnaire.
	However, the scoring per item has been adapted based on the 5 interoperability maturity levels of IMAPS (ad-hoc, opportunistic, essential, sustainable, and seamless), reflecting also the level of granularity mentioned above.
	Date: 22/12/2021
IMAPS to TIMAPS user journey	The project team created a simple illustration of a "user journey" to give more context and explanation to the end-user on how the TIMAPS survey can be used and to its connection to the IMAPS survey. This visual is shown before the assessment, as part of the introduction to the

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	survey at the EU Survey portal. It describes the structure and logic behind the TIMAPS survey, starting from the IMAPS questionnaire, explaining the TIMAPS model and structure.	
Previous contract change requests	Date: March 2022 All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the TIMAPS version 1.1.0.	
	Version 1.0.0	
Updated conceptual model of TIMAPS	Updates have been applied to the TIMAPS conceptual model. These updates include: • Added the 'Service Identification' section (A) annotating the scope of the digital public service The updated conceptual model is illustrated in the 'Introduction' section of the online TIMAPS survey.	
TIMAPS URL at the EU Survey portal	The version 1.0.0 beta https://ec.europa.eu/eusurvey/runner/timaps-beta has been replaced by the https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 0 0	
Added a question of future contacting purpose	New Item "Would you like to be contacted for evaluation purposes?" has been added in the 'Introduction' section of the TIMAPS questionnaire.	
TIMAPS user journey	The project team created a simple "user journey" to give more context and explanation to the user how the TIMAPS survey can be used. This visual is shown before the assessment, as part of the introduction to the survey at the EU Survey portal, it describes the structure, and the logic behind the TIMAPS survey starting from the IMAPS questionnaire and it explains the TIMAPS model and structure.	
Updated TIMAPS items	 Some TIMAPS items from version 1.0.0 beta were highly complex and according to the experts, their terminology and language needed to be simplified. As such, some items have been removed from TIMAPS and they have been added either to SIMAPS (item D3 'Does the public service align the data, information and knowledge delivered with any core vocabularies?'), or they have been deleted at all, as their scope of assessment was covered by other 1.0.0 beta items. The following items have been deleted from TIMAPS version 1.0.0 beta: Item D3: Does the public service align the data, information and knowledge delivered with any core vocabularies? Item D10: Does your public service support multiple devices, platforms or browsers? Item D12: Please indicate if the public service is delivered to its end users based on existing reusable solutions. Item D13: Does the digital public service support the processing and exchange of certifications digitally, providing a digital outcome? Item C3: What are the technical means for the data, information and knowledge consumption by the public service from other services? 	

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Item C4. Does the public service use any data exchange patterns for the data, information and knowledge consumed from other services? Similarly, the following items have been added to TIMAPS version 1.0.0: Item D7: To what extent does the digital public service deliver data, information and knowledge in compliance with web accessibility specifications? Item C4: To what extent does the digital public service has access to technical documentation about the consumed services and guidelines on how to integrate the data, information and knowledge consumed? Item C6: To what extent does the digital public service consume multilingual data, information and knowledge? The project team has updated the language and the terminology of all TIMAPS items by including the terminology specificities (structure, EIRA ABBs, etc.) in the "More info" section to enhance end-user digest. This way we maintain the internal structure and the alignment with other actions, facilitating the end user (i.e. who replies the questionnaire) understanding. In this context, examples have been added in the "More info" section facilitating the end user understanding. Based on the feedback from the experts, the option 'Not applicable' should be included in all options of all TIMAPS items. As such, the Applicability project team added the 'Not applicable' option to all TIMAPS items as the first option. The "N/A" options will take the highest score (100/100) in order not to penalize the digital public service in question. Unit of analysis: the digital public service. Whatever item assessed manual vs. electronic has been removed; The electronic, as term, has been replaced by digital; Applicability across geographies and sectors, has been removed; In the context of TIMAPS, the CAMSS terminology, ELIS requirements and **Conceptual corrections** ELAP principles have been used as basis and guidance to design the items and options of the questionnaire, as well as the respective interoperability aspects, linked to each item. These interoperability aspects will serve as the basis to design the High Level Solution Architecture Template (HL SAT) of TIMAPS, a specification that extends EIRA and provides high level requirements on how to design a technically interoperable digital public service Items' options have been reworked to cover a 5-level extent of replies Items' level of granularity that reflect each one of the 5 interoperability maturity levels of IMAPS (ad-hoc, opportunistic, essential, sustainable, and seamless). The existing scoring model of TIMAPS version 1.0.0 beta is maintained Scoring model meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service

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	Delivery/Consumption Manifestations have 40%, 40% and 20% respective weights in the whole questionnaire.
	However, the scoring per item has been adapted based on the 5 interoperability maturity levels of IMAPS (ad-hoc, opportunistic, essential, sustainable, and seamless), reflecting also the level of granularity mentioned above.
	The weight (percentage) of items has changed due to items being added and/or removed.
	The no-scoring questions have been removed and they will be added to IMAPS.
Previous contract change requests	All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the TIMAPS version 1.0.0.
	Version 1.0.0 beta

2.2 TIMAPS v1.1.0 User Guide

A PDF document describing the user guide of TIMAPS including the TIMAPS model, the TIMAPS survey and the recommendations of each TIMAPS question.

Table 2: Updates at TIMAPS User Guide

Modification	Details		
	Version 1.1.0		
Updated TIMAPS	Date: May 2022		
user guide	The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".		
	Date: 22/12/2021		
Updated conceptual model of TIMAPS	The project team created a simple illustration of a "user journey" to give more context and explanation to the end-user on how the TIMAPS survey can be used and to its connection to the IMAPS survey. This visual is shown before the assessment, as part of the introduction to the survey at the EU Survey portal. It describes the structure and logic behind the TIMAPS survey, starting from the IMAPS questionnaire, explaining the TIMAPS model and structure.		
	Date: 20/12/2021		
TIMAPS URL at the EU Survey portal	The version 1.0.0 https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_0_0 has been replaced by the version 1.1.0 https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_1_0		
	The following items have been added to TIMAPS version 1.1.0:		
Updated LIMAPS items on Questionnaire	 Item A1E: Please provide your role in the organisation providing the service 		
Questionnanc	 Item A1F: Please provide the address of the organisation providing the service 		

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	 Item A2D: Please specify the email address of the provided digital public service Item A3B: Please indicate the Directorate-General of the European Commission Item: Does the service consume data from other services? Item: I confirm that the service does not consume data from other services has been added below the item "Does the service consume data from other services?".
	Date: 29/04/2022
Applicability	Based on the feedback from the expert reviews, the option 'Not applicable' should be included in the options of all TIMAPS items. As such, the project team added the 'Not applicable' option to all TIMAPS items as an option. The "N/A" options will take the highest score (100/100) in order not to penalize the digital public service under assessment.
	Date: 29/04/2022
No answer	Based on the feedback from the expert reviews, the option 'No answer' should be included in the options of all TIMAPS items. As such, the project team added the 'No answer' option to all TIMAPS items as the last option. The 'No answer' will take the lowest score (0/100).
	Date: May 2022
Scoring model	The existing scoring model of TIMAPS version 1.1.0 is maintained meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service Delivery/Consumption Manifestations have 40%, 40% and 20% respective weights in the whole questionnaire.
	However, the scoring per item has been adapted based on the 5 interoperability maturity levels of IMAPS (ad-hoc, opportunistic, essential, sustainable, and seamless), reflecting also the level of granularity mentioned above.
Previous contract	Date: March 2022
change requests	All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the TIMAPS version 1.1.0.
	Version 1.0.0
Updated TIMAPS user guide	The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
Updated conceptual model of TIMAPS	Updates have been applied to the TIMAPS conceptual model. These updates include: • Added the 'Service Identification' section (A) annotating the scope of the digital public service

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The updated conceptual model is illustrated in the 'Introduction' section of the online TIMAPS survey. The project team created a simple illustration of a "user journey" to give more context and explanation to the end-user on how the TIMAPS survey can be used **IMAPS to TIMAPS** and to its connection to the IMAPS survey. This visual is shown before the assessment, as part of the introduction to the survey at the EU Survey portal. It user journey describes the structure and logic behind the TIMAPS survey, starting from the IMAPS questionnaire, explaining the TIMAPS model and structure. TIMAPS URL at the The version 1.0.0 beta https://ec.europa.eu/eusurvey/runner/timaps-beta has been replaced by the https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 0 0 **EU Survey portal** Some TIMAPS items from version 1.0.0 beta were highly complex and according to the experts, their terminology and language needed to be simplified. As such, some items have been removed from TIMAPS and they have been added either to SIMAPS (item D3 'Does the public service align the data, information and knowledge delivered with any core vocabularies?'), or they have been deleted at all, as their scope of assessment was covered by other 1.0.0 beta items. The following items have been deleted from TIMAPS version 1.0.0 beta: Item D3: Does the public service align the data, information and knowledge delivered with any core vocabularies? Item D10: Does your public service support multiple devices, platforms or browsers? Item D12: Please indicate if the public service is delivered to its end users based on existing reusable solutions. Item D13: Does the digital public service support the processing and exchange of certifications digitally, providing a digital outcome? Item C3: What are the technical means for the data, information and knowledge consumption by the public service from other services? **Updated TIMAPS** Item C4. Does the public service use any data exchange patterns for the items data, information and knowledge consumed from other services? Similarly, the following items have been added to TIMAPS version 1.0.0: Item D7: To what extent does the digital public service deliver data, information and knowledge in compliance with web accessibility specifications? Item C4: To what extent does the digital public service has access to technical documentation about the consumed services and guidelines on how to integrate the data, information and knowledge consumed? Item C6: To what extent does the digital public service consume multilingual data, information and knowledge? The project team has updated the language and the terminology of all TIMAPS items by including the terminology specificities (structure, EIRA ABBs, etc.) in the "More info" section to enhance end-user digest. This way we maintain the internal structure and the alignment with other actions, facilitating the end user (i.e. who

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replies the questionnaire) understanding. In this context, examples have been

added in the "More info" section facilitating the end user understanding.

Applicability	Based on the feedback from the experts, the option 'Not applicable' should be included in all options of all TIMAPS items. As such, the project team added the 'Not applicable' option to all TIMAPS items as the first option. The "N/A" options will take the highest score $(100/100)$ in order not to penalize the digital public service in question.
	Date: 29/4/2022
Repetition	According to the feedback received during pilot workshops, the term "Service" replaced the term "digital public service" in all TIMAPS items with a view to reduce repetition. A relevant disclaimer added in the Identification Section of the questionnaire.
	Unit of analysis: the digital public service. Whatever item assessed manual vs. electronic has been removed;
	The electronic, as term, has been replaced by digital;
	Applicability across geographies and sectors, has been removed;
Conceptual corrections	In the context of TIMAPS, the CAMSS terminology, ELIS requirements and ELAP principles have been used as basis and guidance to design the items and options of the questionnaire, as well as the respective interoperability aspects, linked to each item. These interoperability aspects will serve as the basis to design the High Level Solution Architecture Template (HL SAT) of TIMAPS, a specification that extends EIRA and provides high level requirements on how to design a technically interoperable digital public service.
Items' level of granularity	Items' options have been reworked to cover a 5-level extent of replies that reflect each one of the 5 interoperability maturity levels of IMAPS (ad-hoc, opportunistic, essential, sustainable, and seamless).
	The existing scoring model of TIMAPS version 1.0.0 beta is maintained meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service Delivery/Consumption Manifestations have 40%, 40% and 20% respective weights in the whole questionnaire.
Scoring model	However, the scoring per item has been adapted based on the 5 interoperability maturity levels of IMAPS (ad-hoc, opportunistic, essential, sustainable, and seamless), reflecting also the level of granularity mentioned above.
	The weight (percentage) of items has changed due to items being added and/or removed.
Previous contract change requests	The no-scoring questions have been removed and they will be added to IMAPS. All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the TIMAPS version 1.0.0.
	Version 1.0.0 beta

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2.3 TIMAPS v1.1.0 Publication on Joinup

The public web page (https://joinup.ec.europa.eu/collection/imaps-interoperability-maturity-assessment-public-service/solution/timaps) describing TIMAPS version 1.1.0.

Table 3: Changes in Joinup

Modification	Details	
	Version 1.1.0	
	Date: 20/12/2021	
TIMAPS URL at the EU Survey portal	The version 1.0.0 https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_0_0 has been replaced by the version https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_1_0	
TIMAPS Release components	Date: 6/5/2022 The version 1.1.0 includes the following release components: • TIMAPS v1.1.0 EU Survey portal • TIMAPS v1.1.0 User Guide; • TIMAPS v1.1.0 Publication on Joinup; • TIMAPS v1.1.0 Value proposition; • TIMAPS v1.1.0 Release package; ISA product license.	
Version 1.0.0		
Updated conceptual model of TIMAPS	Updates have been applied to the TIMAPS conceptual model. These updates include: • Added the 'Service Identification' section (A) annotating the scope of the digital public service The updated conceptual model is illustrated in the 'Introduction' section of the online TIMAPS survey.	
TIMAPS URL at the EU Survey portal	The version 1.0.0 beta https://ec.europa.eu/eusurvey/runner/timaps-beta has been replaced by the https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_0_0	
TIMAPS Release components	 The version 1.0.0 includes the following release components: TIMAPS v1.0.0 EU Survey portal TIMAPS v1.0.0 User Guide; TIMAPS v1.0.0 Publication on Joinup; TIMAPS v1.0.0 Value proposition; TIMAPS v1.0.0 Release package; ISA product license. 	
	Version 1.0.0 beta	

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2.4 <u>TIMAPS v1.1.0 Value Proposition</u>

A PDF document, which provides the value proposition of TIMAPS v1.1.0.

Table 4: Changes in TIMAPS value proposition

Modification	Details	
Version 1.1.0		
TIMAPS URL at the EU Survey portal	Date: 20/12/2021 The version 1.0.0 https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 0 0 has been replaced by the version https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 1 0	
	Version 1.0.0	
Updated conceptual model of TIMAPS	Updates have been applied to the TIMAPS conceptual model. These updates include: • Added the 'Service Identification' section (A) annotating the scope of the digital public service The updated conceptual model is illustrated in the 'Introduction' section of the online TIMAPS survey.	
TIMAPS URL at the EU Survey portal	The version 1.0.0 beta https://ec.europa.eu/eusurvey/runner/timaps-beta has been replaced by the https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_0_0	
Updated layout	 The layout of the TIMAPS value proposition has been updated following the same look and feel of IMAPS "one pager". In addition, the following sections have been added for an optimal user experience: What is TIMAPS: describes the logic of the TIMAPS survey What is in for you: describes the benefits for the users by using TIMAPS For whom is TIMAPS relevant: describes the target users (profiles) of the users that should take the TIMAPS assessment TIMAPS conceptual model & structure: describes the TIMAPS conceptual model and its structure Digital Public Service Components: describes the three different service areas i.e. Service Identification, Service Delivery and Service Consumption that the TIMAPS assessment captures 	
	Version 1.0.0 beta	

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2.5 TIMAPS v1.1.0 Release

An archive containing each of the above-mentioned files.

Table 5: Changes in TIMAPS release

Table 3. Changes III Thirder 3 Telease		
Modification	Details	
Version 1.1.0		
Release package of all release components – TIMAPS v1.1.0	Date: 6/5/2022 The version 1.1.0 includes the following release components: • TIMAPS v1.1.0 EU Survey portal • TIMAPS v1.1.0 User Guide; • TIMAPS v1.1.0 Publication on Joinup; • TIMAPS v1.1.0 Value proposition; • TIMAPS v1.1.0 Release package; • ISA product license.	
Version 1.0.0		
Release package of all release components – TIMAPS v1.0.0	 The version 1.0.0 includes the following release components: TIMAPS v1.0.0 EU Survey portal TIMAPS v1.0.0 User Guide; TIMAPS v1.0.0 Publication on Joinup; TIMAPS v1.0.0 Value proposition; TIMAPS v1.0.0 Release package; ISA product license. 	
	Version 1.0.0 beta	

2.6 ISA Product License v1.4

The license under which the TIMAPS v1.1.0 is released.

Table 6: Changes in TIMAPS release

Details		
Version 1.1.0		
Version 1.0.0		
Version 1.0.0 beta		

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