TIMAPS v1.2.0

Technical Interoperability Maturity Assessment of a Public Service

Release notes



LIMAPS Legal Interoperability

OIMAPS Organisational Interoperability

SIMAPS

Semantic Interoperability

TIMAPS

Technical Interoperability

Disclaimer

The information and views set out in this publication are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this document. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use, which may be made of the information contained therein.

© European Union, 2023

TIMAPS v1.2.0 Release notes Page 2 of 40

TABLE OF CONTENTS

1 1	NTRODUCTION	5
1.1 1.2 1.3	Purpose of this document	5 5
2 T	TIMAPS V1.2.0 RELEASE COMPONENTS	6
2.1	TIMAPS v1.2.0 EU SURVEY PORTAL	6
2.2		_
2.3		
2.4		
2.5		
2.6	ISA Product License v1.4	40

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
IMAPS	Interoperability Maturity Assessment of a Public Service
IMTs	Interoperability Maturity Tools
IQAT	Interoperability Quick Assessment Toolkit
ISA	Interoperability Services for Public Administrations
MS	Member State
PA	Public Administration
TIMAPS	Technical Interoperability Maturity Assessment of a Public Service

TIMAPS v1.2.0 Release notes Page 4 of 40

1 INTRODUCTION

1.1 Purpose of this document

This document contains the description of the release version 1.2.0 of the Technical Interoperability Maturity Assessment of a Public Service (TIMAPS).

1.2 Release date

Version 1.2.0 of the TIMAPS Survey has been released on the 30th of November 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".

TIMAPS v1.2.0 Release notes Page 5 of 40

2 TIMAPS v1.2.0 RELEASE COMPONENTS

The TIMAPS v1.2.0 release consists of the following release components.

2.1 TIMAPS v1.2.0 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 1.2.0	
TIMAPS URL at the EU Survey portal	Date: November 2022 The version 1.1.0 https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_1_0 has been replaced by the version 1.2.0 https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_2_0 .	
Updated the TIMAPS logo	Date: November 2022 The TIMAPS logo has been updated in order to be aligned with the Interoperable Europe identity.	
Updated the Welcome page	Date: November 2022 The Welcome page has been updated based on the Study on user experience documentation¹ and it includes the following: • The purpose of the TIMAPS survey, • The expected output of the TIMAPS survey, • A note that the TIMAPS survey can be completed incrementally, • The version of the survey has been removed.	
Updated the structure of the Introduction page	Date: November 2022 The Introduction page of the TIMAPS questionnaire has been updated regarding the Study on user experience documentation ¹ and provides rich information about the solution's positioning, context, approach to complete, preparation information, version, contact approach, and relevant solutions. The introduction page is not required user input and allows users to skip it as needed.	
Updated the conceptual model of TIMAPS	Date: November 2022	

TIMAPS v1.2.0 Release notes Page 6 of 40

¹ 'D08.01.01 Strategy for ISA's interoperability assessment solutions' regarding the project DIGITTM-012203-6000176696 – CAMSS (Common Assessment Method for Standards and Specifications)

	Updates have been applied to the TIMAPS conceptual model. These updates are based on the design part, in order to be aligned with the Interoperable Europe identity.
	The updated conceptual model is illustrated in the Introduction section of the online TIMAPS survey.
	Date: November 2022
Included reference for the IMTs solutions	A reference for all the Interoperability Maturity Tools (IMTs) has been added in the Introduction section of TIMAPS questionnaire.
	Date: November 2022
Included a reference on the EIRA version	The reference "The TIMAPS 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 ISA ² 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." has been added in the Introduction section of TIMAPS questionnaire.
	Date: November 2022
Removed the reference to the GitHub page	The reference "You can share your feedback on TIMAPS survey through the dedicated <u>GitHub</u> platform" has been removed by the Introduction page of TIMAPS questionnaire due to the low end user feedback.
	Date: November 2022
Added the Legal notices section	The TIMAPS survey's Introduction section should be followed by the Legal notices section regarding the Study on user experience documentation ¹ . The Legal notices section includes clearly communicating legal information, licencing information and disclaimers, generally anything linked to user approval and consent. This page also collects the user's consent on the sharing and processing of data, any relevant publishing of information, as well as the user's willingness to be contacted.
	Date: November 2022
Included disclaimer for the responsibility of European Commission	The EC's logo and the disclaimer "By no means will the Interoperability assessment imply any endorsement of the EC to the assessed specification. Likewise, the use of TIMAPS© 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." has been added in the Legal notices section of TIMAPS questionnaire.
Updated the Service	Date: November 2022
Identification section	The Service Identification section of the TIMAPS questionnaire has been separated from the Introduction section.

TIMAPS v1.2.0 Release notes Page 7 of 40

Updated the alongside information	Date: November 2022 The alongside information has been updated on the LIMAPS questionnaire and includes the following links and documents: • Useful links: ISA Product License v1.4, Share your feedback, • Background Documents: IMAPS User Guide, TIMAPS User Guide.
Removed the question A1F	Date: November 2022 The item "A1F. Please provide the address of the organisation providing the service" has been removed from the Service Identification section of the TIMAPS questionnaire.
Updated the question A2A	Date: November 2022 The item "A2A. 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)? Please also provide the public service catalogue name and URI, if it is applicable for the digital public service." has been updated and separated into the two following items: • "A2A. 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)?", • "A2B. Please provide the public service catalogue name and URI, if it is applicable for the digital public service.".
Updated the question A2B	Date: November 2022 The item "A2B. Use the following criteria to define a digital public service: i) Process and underlying activities, ii) Appearance, iii) Owner (see A3). Please describe the process and underlying activities of the digital public service. The digital public service always has three phases (1. initiation, 2. processing and 3. delivery of an outcome). Focus on the public decision that is the outcome of the service. If there is no public decision and/or outcome, focus on the benefits the service provides to the target audience." has been updated and simplified as "A2C. Please give a brief description of the service.". Additional information for the A2C item has been added as help message.
Added the question A3B	Date: November 2022 The item "A3B. Are the solutions provided by a Directorate-General of the European Commission?" has been added in the Service Identification section for the TIMAPS questionnaire and in case of the "Yes" option,

TIMAPS v1.2.0 Release notes Page 8 of 40

the A3C item "A3C. Please indicate the Directorate-General of the European Commission" will be activated.

Date: November 2022

The options for the levels 1, 2 and 3 have been updated in the D1 item "To what extent does the service facilitate the delivery of data, information and knowledge to other services?" as follows:

- "Level 1: The service delivers data, information and knowledge using ad-hoc asynchronous digital communication without any ETL actions (e.g. other services have to specifically request, filter, sort, and aggregate data from internal service sources, etc.)
- <u>Level 2</u>: The service delivers data, information and knowledge using ad-hoc asynchronous digital communication with some ETL actions (e.g. basic filtering, sorting, and aggregation of data of data is provided to requests from other services, etc.)
- <u>Level 3</u>: The service delivers data, information and knowledge using asynchronous digital communication with scheduled batch processing (e.g. ETL scheduled jobs that provide data to other services, etc.)".

The recommendations for the levels 1, 2 and 3 in the D1 item have been updated as follows:

Updated the options and the recommendations of the D1 question

- "Level 1: Currently, the service delivers data, information and knowledge using ad-hoc asynchronous digital communication without any ETL actions. 'Consider performing the necessary actions so as to enable the service to deliver data, information and knowledge using ad-hoc asynchronous digital communication with some ETL actions (e.g. basic filtering, sorting, and aggregation of data of data is provided to requests from other services, etc.)
- <u>Level 2</u>: Currently, the service delivers data, information and knowledge using ad-hoc asynchronous digital communication with some ETL actions. 'Consider performing the necessary actions so as to enable the service to deliver data, information and knowledge using asynchronous digital communication with scheduled batch processing (e.g. ETL scheduled jobs that provide data to other services, etc.)
- <u>Level 3</u>: Currently, the service delivers data, information and knowledge using asynchronous digital communication with scheduled batch processing.
- 'Consider performing the necessary actions so as to enable the service to deliver most data, information and knowledge via synchronous digital communication (e.g. through web services, APIs, etc.).".

TIMAPS v1.2.0 Release notes Page 9 of 40

Date: November 2022

The recommendations for the levels 2, 3 and 4 in the D2 item "D2. To what extent does the service deliver data, information and knowledge via multiple open Machine to Machine (M2M) interfaces?" have been updated as follows:

 <u>Level 2</u>: Currently, the service delivers data, information and knowledge via a single open M2M interface (e.g. via file transfer, exchange of flat files, documents, etc.). Consider performing the necessary actions so as to enable the service to deliver most data, information and knowledge via multiple, open M2M interfaces (e.g., a combination of Telnet, SFTP, HTTP, etc.).,

<u>Level 3</u>: Currently, the service delivers most data, information and knowledge via multiple, open M2M interfaces (e.g., a combination of Telnet, SFTP, HTTP, etc.). Consider performing the necessary actions so as to enable the service to deliver any data, information and knowledge viaa single open API format for Machine to Machine (M2M) direct data exchange (e.g. SOAP, REST, gPRC, etc.)

<u>Level 4</u>: Currently, the 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.).
 Consider performing the necessary actions so as to enable the service to deliver any data, information and knowledge via multiple open API formats for Machine to Machine (M2M) direct data exchange (e.g. SOAP, REST, gPRC, etc.)".

Date: November 2022

The options for the levels 1 and 2 have been updated in the D3 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)" as follows:

"<u>Level 1</u>: 'The service delivers data, information and knowledge via a single, unique, non-open service delivery mode (i.e. via a menu-based interface (GUI PC base or equivalent)

 <u>Level 2</u>: 'The service delivers data, information and knowledge via a single, unique, 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 recommendations for the levels 1 and 2 in the D3 item have been updated as follows:

"Level 1: Currently, the service delivers data, information and knowledge via a single, unique, non-open service delivery mode (i.e. via a menu-based interface (GUI PC base or equivalent). Consider performing the necessary actions so as to enable the service to deliver data, information and knowledge via a single,

Updated the recommendations of the D2 question

Updated the options and the recommendations of the D3 question

- open service delivery mode (e.g. via a single device, platform and/or browser, like sms-only, email-only, voice-only, etc.).
- Level 2: Currently, the service delivers data, information and knowledge via a single, unique, open service delivery mode (e.g. via a single device, platform and/or browser, like sms-only, email-only, voice-only, etc.). Consider performing the necessary actions so as to enable the service to deliver 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.)".

Date: November 2022

The recommendations for the levels 1, 2, 3 and 4 in the D4 item "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 from other services?" have been updated as follows:

- <u>Level 1</u>: Currently, the service provides no technical documentation on how to integrate the data, information and knowledge delivered. Consider performing the necessary actions so as to enable the service to provide technical documentation on how to integrate the data, information and knowledge delivered for the core services.
- <u>Level 2</u>: Currently, the service provides technical documentation on how to integrate the data, information and knowledge delivered only for the core services. Consider performing the necessary actions so as to enable the service to provide technical documentation on how to integrate the data, information and knowledge delivered for the core services plus interoperability with additional services and linked services / plugins (where applicable)
- <u>Level 3</u>: Currently, the service provides technical documentation on how to integrate the data, information and knowledge delivered for core and additional services. Consider performing the necessary actions so as to enable the service to also provide a local testing environment.
- <u>Level 4</u>: Currently, the service provides adequate technical documentation and a local testing environment. Consider performing the necessary actions so as to enable the service to provide detailed technical documentation, a local and an online testing environment to facilitate data integration with other services."

Updated the recommendations of the D4 question

Updated the D5 question to be aligned regarding the Data Act Regulation

Date: November 2022

The item "D5. To what extent is the service able to invoke other services to deliver data, information and knowledge?" has been updated, regarding the Data Act Regulation, as "D5. To what extent is the service

TIMAPS v1.2.0 Release notes Page 11 of 40

able to invoke other services to deliver data, information and knowledge in a performance oriented way i.e. align data synchronization between different services?".

The options for the levels 2, 3, 4, and 5 of the D5 item have been updated as follows:

- "<u>Level 2</u>: The service invokes other services to deliver data, information, knowledge to other services in an asynchronous manner (e.g., intermediate backend manual steps might be required),
- <u>Level 3</u>: The service uses an orchestration service to invoke other services to deliver data, information and knowledge (e.g, other services will be automatically coordinated and invoked),
- <u>Level 4</u>: The service uses an orchestration service described in a standardised format (e.g. written in WS-BPEL) to invoke some other services to deliver data, information and knowledge,
- <u>Level 5</u>: The service uses an orchestration service described in a standardised format (e.g. written in WS-BPEL) to invoke all other services to deliver data, information and knowledge".

The recommendations for the levels 1, 2, 3 and 4 in the D6 item have been updated as follows:

- "<u>Level 1</u>: Currently, the service does not invoke any other service to deliver data, information, knowledge to other services. Consider performing the necessary actions so as to enable the service to invoke other services to deliver data, information, knowledge to other services in an asynchronous manner (e.g., intermediate backend manual steps might be required).,
- <u>Level 2</u>: 'Currently, the service invokes other services to deliver data, information, knowledge to other services in an in an asynchronous manner (e.g., intermediate backend manual steps might be required). Consider performing the necessary actions so as to enable the service to use an orchestration service to invoke other services to deliver data, information and knowledge (e.g, other services will be automatically coordinated and invoked)
- <u>Level 3</u>: Currently, the service uses an orchestration service to invoke other services to deliver data, information and knowledge (e.g, other services will be automatically coordinated and invoked). Consider performing the necessary actions so as to enable the service to use an orchestration service described in a standardised format (e.g. WS-BPEL) to invoke some other services to deliver data, information and knowledge.
- <u>Level 4</u>: Currently, the service uses an orchestration service described in a standardised format (e.g. WS-BPEL) to invoke other services to deliver data, information and knowledge. Consider performing the necessary actions so as to enable the service to use an orchestration service described in a

TIMAPS v1.2.0 Release notes Page 12 of 40

standardised format (e.g. written in WS-BPEL) to invoke all other services to deliver data, information and knowledge."

Date: November 2022

The options for the levels 2, 3, 4 and 5 in the D6 item "D6. To what extent does the service provide data verification means for the data, information and knowledge delivered?" have been updated as follows:

- <u>"Level 2</u>: The service provides ad-hoc data verification means to give information about the origin and integrity of the data, information and knowledge delivered.
- <u>Level 3</u>: The service provides a custom 'electronic seal' in electronic form, to ensure the origin and integrity of the data, information and knowledge delivered.
- <u>Level 4</u>: The service provides a custom 'electronic seal' in electronic form, following a standard baseline profile, compatible to eIDAS, in order to ensure the origin and integrity of the data, information and knowledge delivered.
- <u>Level 5</u>: The service provides a custom 'electronic seal' in electronic form, following a standard baseline profile, compatible to eIDAS, in order to ensure the origin and integrity of the data, information and knowledge delivered, while also the user is authenticated and authorised to access the requested data, information and knowledge delivered".

Updated the options and the recommendations of the D6 question

The recommendations for the levels 2, 3, 4 and 5 in the D6 item have been updated as follows:

- Level 2: Currently, the service provides ad-hoc data verification means to give information about the origin and integrity of the data, information and knowledge delivered. Consider performing the necessary actions so as to enable the service to provide a custom 'electronic seal' in electronic form, to ensure the origin and integrity of the data, information and knowledge delivered.
- <u>Level 3</u>: Currently, the service provides a custom 'electronic seal' in electronic form, to ensure the origin and integrity of the data, information and knowledge delivered. Consider performing the necessary actions so as to enable the service to provide a custom 'electronic seal' in electronic form, following a standard baseline profile, compatible to eIDAS, in order to ensure the origin and integrity of the data, information and knowledge delivered.
- Level 4: Currently, the service provides a custom 'electronic seal' in electronic form, following a standard baseline profile, compatible to eIDAS, in order to ensure the origin and integrity of the data, information and knowledge delivered. Consider performing the necessary actions so as to enable the service to provide an open-source software library for electronic signature

TIMAPS v1.2.0 Release notes Page 13 of 40

creation and validation (e.g. CEF e-Signature / e-Seal building blocks)". Date: November 2022 The recommendations for the levels 3 and 4 in the D7 item "D7. To what extent does the service deliver data, information and knowledge in compliance with web accessibility specifications?" have been updated as follows: Level 3: Currently, the service publishes certain data, information and knowledge in line with Web Content Accessibility Guidelines 2.0 (WCAG) Level A (basic features). Consider performing the necessary actions so as to enable the service to publish certain data, information and knowledge in compliance with Web Updated the recommendations of the Content Accessibility Guidelines 2.0 (WCAG) Level AA (most frequently requested features). This refinement will establish **D7** question essential accessibility of individuals with disabilities. Level 4: Currently, the service publishes certain data, information and knowledge in compliance with Web Content Accessibility Guidelines 2.0 (WCAG) Level AA (most frequently requested features). Consider performing the necessary actions so as to enable the service to deliver any data, information and knowledge in compliance with Web Content Accessibility Guidelines 2.0 (WCAG) Level AAA (highest level of web accessibility). This refinement, will establish full accessibility of individuals with disabilities.". Date: November 2022 The recommendations for the levels 3 and 4 in the D8 item "D8. To what extent does the service deliver multilingual data, information and knowledge?" have been updated as follows: Level 3: Currently, the service delivers certain data, information and knowledge in all officially recognised languages by the public administration delivering the service. Consider performing the necessary actions so as to enable the service to deliver all data in **Updated** the all officially recognised national languages, as well as in English, recommendations of the D8 question French and German. This refinement will establish more robust technical behavioral interoperability maturity with its end users. Level 4: Currently, the service delivers all data in all officially recognised national languages, as well as in English, French and German. Consider performing the necessary actions so as to enable the service to deliver all data, information and knowledge in all EU officially recognised languages. This refinement, will enable seamless technical behavioral interoperability maturity with its end users.".

TIMAPS v1.2.0 Release notes Page 14 of 40

Date: November 2022

The options for the levels 4 and 5 in the D9 item "D9. To what extent is the service made discoverable towards its end users or other services?" have been updated as follows:

- "Level 4: The service is made discoverable towards its end users or other services through communication on the website of the public service or other related websites, as well as digital service registries along with its specifications (description, publication details, etc.)
- Level 5: The service is made discoverable towards its end users or other services through communication on the website of the public service or other related websites, as well as digital service registries (client-side server discovery) along with its specifications (description, publication details, etc.), and serverside service discovery (e.g. through a router)".

the recommendations of updated as follows: the D9 question

Updated the options and The recommendations for the levels 4 and 5 in the D6 item have been

- Level 4: Currently, the service is made discoverable towards its end users or other services through communication on the website of the public service or other related websites (e.g. Joinup). Consider performing the necessary actions so as to enable the service to also be made discoverable towards its end users or other services through digital service registries along with its specifications (description, publication details, etc.).
- Level 5: Currently, the service is made discoverable towards its end users or other services through communication on the website of the public service or other related websites, as well asll digital service registries along with its specifications (description, publication details, etc.). Consider performing the necessary actions so as to enable the service to also be made discoverable towards its end users or other services through digital service registries along with its specifications (description, publication details, etc.) following a formal standard (e.g. Universal Description, Discovery, and Integration (UDDI)).".

Date: November 2022

Updated the options and the recommendations of the C1 question

The options for the levels 1, 2, 3, 4 and 5 in the C1 item "C1. To what extent does the service facilitate the consumption of data, information and knowledge from other services?" have been updated as follows:

- "Level 1: The service consumes data, information and knowledge using manual backend intervention for content discovery (e.g. the service retrieves and downloads data with explicit data source set from a human)
- Level 2: The service consumes data, information and knowledge for most content using automatic content discovery (e.g. the

TIMAPS v1.2.0 Release notes Page 15 of 40

- service retrieves and downloads data through content catalogue registries)
- <u>Level 3</u>: The service consumes data, information and knowledge for any content using automatic content discovery (e.g. the service retrieves and downloads data through content catalogue registries)
- <u>Level 4</u>: The service consumes most data, information and knowledge for most content using automatic content discovery via synchronous digital communication (e.g. through web services, APIs, etc.)
- <u>Level 5</u>: The service consumes most data, information and knowledge for any content using automatic content discovery via synchronous digital communication (e.g. through web services, APIs, etc.)".

The recommendations for the levels 4 and 5 in the D6 item have been updated as follows:

- "Level 1: Currently, the service consumes data, information and knowledge using manual backend intervention for content discovery (e.g., the service retrieves and downloads data with explicit data source set from a human). Consider performing the necessary actions so as to enable the service to consume data, information and knowledge for most content using automatic content discovery (e.g. the service retrieves and downloads data through content catalogue registries).
- <u>Level 2</u>: Currently, the service consumes data, information and knowledge for most content using automatic content discovery (e.g., the service retrieves and downloads data through content catalogue registries). Consider performing the necessary actions so as to enable the service to consume data, information and knowledge for any content using automatic content discovery (e.g., the service retrieves and downloads data through content catalogue registries).
- <u>Level 3</u>: Currently, the service consumes data, information and knowledge for any content using automatic content discovery (e.g., the service retrieves and downloads data through content catalogue registries). Consider performing the necessary actions so as to enable the service to consume most data, information and knowledge for most content using automatic content discovery via synchronous digital communication (e.g. through web services, APIs, etc.).
- <u>Level 4</u>: Currently, the service consumes most data, information and knowledge for most content using automatic content discovery via synchronous digital communication (e.g., through web services, APIs, etc.). Consider performing the necessary actions so as to enable the service to consume most data, information and knowledge for most content using automatic

TIMAPS v1.2.0 Release notes Page 16 of 40

	content discovery via synchronous digital communication (e.g. through web services, APIs, etc.)."
	Date: November 2022
	The recommendations for the levels 2, 3 and 4 in the C2 item "C2. To what extent does the service consume data, information and knowledge via multiple open Machine to Machine (M2M) interfaces?" have been updated as follows:
Updated the recommendations of the C2 question	 Level 2: Currently, the service consumes data, information and knowledge via a single open M2M interface (e.g. via file transfer, exchange of flat files, documents, etc.). Consider performing the necessary actions so as to enable the service to consume most data, information and knowledge via multiple, open M2M interfaces for direct exchange of files (e.g. using Telnet, SFTP, HTTP, etc.). Level 3: Currently, the service consumes some data, information and knowledge via multiple, open M2M interfaces for direct exchange of files (e.g. using Telnet, SFTP, HTTP, etc.). Consider performing the necessary actions so as to enable the service to consume 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.). Level 4: Currently, the service consumes any data, information and knowledge mostly via a single open API format for Machine to Machine (M2M) direct data exchange (e.g. SOAP, REST, gPRC, etc.). Consider performing the necessary actions so as to enable the service to consume any data, information and knowledgevia multiple open API formats for Machine to Machine (M2M) direct data exchange (e.g. SOAP, REST, gPRC, etc.)".
	Date: November 2022
	The options for the 5 th level in the C3 item "C3. To what extent is the service able to discover services to consume data, information and knowledge?" have been updated as follows:
the C3 question	 "The service is able to discover services to consume data, information and knowledge via digital service registries (client- side server discovery) along with its specifications (description, publication details, etc.) on a formal standard (e.g. UDDI, RDF, etc.).".
Replaced the mouse-over	Date: November 2022
maccaga	The mouse-over More Info has been replaced by the help message across the items of the TIMAPS questionnaire.

TIMAPS v1.2.0 Release notes Page 17 of 40

	 The following updates on the EIRA ABBs have been implemented on the LIMAPS questionnaire based on the alignment with new version of EIRA v5.0.0: The EIRA ABB on the item "D6. To what extent does the service provide data verification means for the data, information and knowledge delivered?" has been updated from "Data Validation Service" to "Legal Act" and "Trust Service Provisioning Component". The EIRA ABB on the item "D9. To what extent is the service made discoverable towards its end users or other services?" has been updated from "Service Discovery Service" to "Service Discovery and Registry Service". The EIRA ABB on the item "C3. To what extent is the service able to discover services to consume data, information and knowledge?" has been updated from "Service Discovery Service" to "Service Discovery and Registry Service".
	Date: November 2022
Updated the Rating section	The reference "Contact: For any general or technical questions, please send an email to <u>DIGIT-IMAPS@ec.europa.eu</u> ." has been added for contacting purposes at the end of the Rating section of the TIMAPS questionnaire.
Alignment regarding the	Date: November 2022
uniqueness and	The surveys of the IMTs have been compared against each other in
overlapping across the IMTs	terms of uniqueness and overlapping in the items.
	Date: November 2022
EIRA v5.0.0 alignment	
	EIRA v5.0.0 alignment performed across the items of the TIMAPS questionnaire.
	Date: November 2022
EIF principles alignment	EIF alignment on the principles and recommendations performed across
	the TIMAPS questionnaire.
CAMSS vocabulary	Date: November 2022
alignment	CAMSS vocabulary alignment performed across the TIMAPS questionnaire.
Previous contract change	Date: November 2022
requests	All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the TIMAPS version 1.2.0.
	Version 1.1.0
TIMADS LIDE at the FLI	The version 1.0.0
TIMAPS URL at the EU Survey portal	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

TIMAPS v1.2.0 Release notes Page 18 of 40

Included a reference on	Date: 03/05/2022
the GitHub for feedback purposes	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 administrations)?" in the 'Service Identification' section on the TIMAPS questionnaire.
Added a question for	Date: 21/12/2021
future contacting purposes	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
to illustrate better the	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.
tiers of administration	The following initial options of A3 item:
	 "Ministry e.g. Ministry of Public Administration, Ministry of Justice,

TIMAPS v1.2.0 Release notes Page 19 of 40

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. Date: 03/05/2022 Added a question for the **Directorate-General of** The item "A3B. Please indicate the Directorate-General of the European the European Commission" has been added in the 'Introduction' section on the IMAPS Commission questionnaire with a drop-down menu by including a list with EU DGs. Date: 03/05/2022 The item "D1. To what extent does the service deliver data, information Updated D1 question to and knowledge using synchronous digital communication?" has been cover the asynchronous updated as "D1. To what extent does the service facilitate the delivery of communication methods data, information and knowledge to other services?" on the TIMAPS questionnaire. 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 Updated the options on knowledge via a single, custom-built, non-open Machine to D2 question to remove Machine (M2M) interface (e.g. via a data infrastructure specific any ambiguity and to the service, not designed for reuse, including database confusion 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.),

TIMAPS v1.2.0 Release notes Page 20 of 40

- 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"

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.),
- 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.

Updated the options on D3 question to include the web application

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.),

TIMAPS v1.2.0 Release notes Page 21 of 40

- 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,
- 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.

Updated the options on D4 item

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.

TIMAPS v1.2.0 Release notes Page 22 of 40

- 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
- 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:

Updated the options on D6 question

- "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,

TIMAPS v1.2.0 Release notes Page 23 of 40

- 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)"

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

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

Updated the options on D7 question

TIMAPS v1.2.0 Release notes Page 24 of 40

- (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 Guidelines (WCAG) 2.0 and 2.1), facilitating the 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, information and knowledge in compliance with Web Content Accessibility Guidelines 2.0 (WCAG) Level AAA (highest level of web accessibility),
- Not applicable or not necessary (according to the scope of the digital public service),
- No answer".

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, serverside 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.

Date: 29/04/2022

Added a question for 'Service Consumption' section

New Item "Does the service consume data from other services?" has been added at the beginning of the 'Service Consumption' of the activation and disable the TIMAPS questionnaire without including scoring. This item activates and disables the 'Service Consumption' 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

TIMAPS v1.2.0 Release notes Page 25 of 40

	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."
Updated TIMAPS Questionnaire	 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.

TIMAPS v1.2.0 Release notes Page 26 of 40

 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:
 - 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",

TIMAPS v1.2.0 Release notes Page 27 of 40

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?". o 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 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 The "Accessibility Mode" has been activated on TIMAPS assessment to impaired or blind people increase survey readability and help visually impaired readers. Date: 29/04/2022 Based on the feedback from the expert reviews, the option 'Not **Applicability** applicable' should be included in the options of all TIMAPS items. As such, the project team added the 'Not applicable' option to all TIMAPS

TIMAPS v1.2.0 Release notes Page 28 of 40

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.	
No answer	Date: 29/04/2022 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).	
Scoring model	Date: May 2022 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.	
IMAPS to TIMAPS user journey	Date: 22/12/2021 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.	
Previous contract change requests	All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the TIMAPS version 1.1.0.	
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 ebeen added in the 'Introduction' section of the TIMAPS questionnaire.	

TIMAPS v1.2.0 Release notes Page 29 of 40

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.

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?
- Item C4. Does the public service use any data exchange patterns for the data, information and knowledge consumed from other services?

Updated TIMAPS items

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.

TIMAPS v1.2.0 Release notes Page 30 of 40

	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;
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.
	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
requests	previous contract, have been included in the TIMAPS version 1.0.0. Version 1.0.0 beta
	Version 1.0.0 beta

TIMAPS v1.2.0 Release notes Page 31 of 40

2.2 TIMAPS v1.2.0 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	Table 2: Updates at TIMAPS User Guide Details
	Version 1.2.0
Updated TIMAPS	Date: November 2022
user guide	The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
	Date: November 2022
IMAPS to TIMAPS user journey	The project team updated the IMAPS user journey to be aligned with the Interoperable Europe identity. 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 OIMAPS model and structure.
	Date: November 2022
TIMAPS URL at the EU Survey portal	The version 1.1.0 https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 1 0 has been replaced by the version 1.2.0 https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 2 0.
	Date: November 2022
Updated the SIMAPS logo	The SIMAPS logo has been updated in order to be aligned with the Interoperable Europe identity.
	Date: November 2022
Updated LIMAPS items on	The following item has been added to TIMAPS version 1.2.0:
Questionnaire	 Item A1E: Please provide your role in the organisation providing the service
	Date: November 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.

TIMAPS v1.2.0 Release notes Page 32 of 40

	Datas Nassankan 2022
Previous contract change requests	Date: November 2022 All Change Requests (CRs) based on JIRA tickets collected during the previous
onange requests	contract, have been included in the TIMAPS version 1.1.0.
	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
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 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 Item A1F: Please provide the address of the organisation providing the service 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

TIMAPS v1.2.0 Release notes Page 33 of 40

	'No answer' option to all TIMAPS items as the last option. The 'No answer' will take the lowest score (0/100).
Scoring model	Date: May 2022 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 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 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 The updated conceptual model is illustrated in the 'Introduction' section of the online TIMAPS survey.
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 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.
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 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?

TIMAPS v1.2.0 Release notes Page 34 of 40

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? 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 project team added the **Applicability** '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 According to the feedback received during pilot workshops, the term "Service" Repetition 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; Conceptual Applicability across geographies and sectors, has been removed; 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

TIMAPS v1.2.0 Release notes Page 35 of 40

	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.
	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

2.3 TIMAPS v1.2.0 Publication on Joinup

The public web page (https://joinup.ec.europa.eu/collection/interoperability-assessment-tools-iats-digital-public-services/solution/timaps) describing TIMAPS version 1.2.0.

Table 3: Changes in Joinup

Tube 5. Changes in some	
Modification	Details
Version 1.20	
TIMAPS URL at the EU	Date: November 2022 The version 1.1.0

Survey portal	https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 1 0 has been
	replaced by the version 1.2.0
	https://ec.europa.eu/eusurvey/runner/TIMAPS_v_1_2_0
TIMAPS Release components	Date: November 2022
	The version 1.2.0 includes the following release components:
	TIMAPS v1.2.0 EU Survey portal
	TIMAPS v1.2.0 User Guide;

TIMAPS v1.2.0 Release notes Page 36 of 40

	 TIMAPS v1.2.0 Publication on Joinup; TIMAPS v1.2.0 Value proposition; TIMAPS v1.2.0 Release package; ISA product license.
	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
TIMAPS Release components	https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 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
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

TIMAPS v1.2.0 Release notes Page 37 of 40

2.4 <u>TIMAPS v1.2.0 Value Proposition</u>

A PDF document, which provides the value proposition of TIMAPS v1.2.0.

Table 4: Changes in TIMAPS value proposition

	Table 4: Changes in TIMAPS value proposition
Modification	Details
	Version 1.2.0
	Date: November 2022
TIMAPS URL at the EU Survey portal	The version 1.1.0 https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 1 0 has been replaced by the version 1.2.0 https://ec.europa.eu/eusurvey/runner/TIMAPS v 1 2 0.
Updated the TIMAPS Value proposition in term of look and feel	Date: November 2022 The TIMAPS Value proposition has been updated in order to be aligned with the Interoperable Europe identity.
	Date: November 2022
Updated the conceptual model of TIMAPS	Updates have been applied to the TIMAPS conceptual model. These updates are based on the design part, in order to be aligned with the Interoperable Europe identity.
	The updated conceptual model is illustrated in the Introduction section of the online TIMAPS survey.
	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
	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

TIMAPS v1.2.0 Release notes Page 38 of 40

 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

2.5 TIMAPS v1.2.0 Release

An archive containing each of the above-mentioned files.

Table 5: Changes in TIMAPS release

Modification	Details
	Version 1.2.0
Release package of all release components – TIMAPS v1.2.0	Date: November 2022 The version 1.2.0 includes the following release components: • TIMAPS v1.2.0 EU Survey portal • TIMAPS v1.2.0 User Guide; • TIMAPS v1.2.0 Publication on Joinup; • TIMAPS v1.2.0 Value proposition; • TIMAPS v1.2.0 Release package; • ISA product license.
	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	

TIMAPS v1.2.0 Release notes Page 39 of 40

2.6 ISA Product License v1.4

The license under which the TIMAPS v1.2.0 is released.

Table 6: Changes in TIMAPS release

Modification	Details
	Version 1.2.0
	Version 1.1.0
	Version 1.0.0
	Version 1.0.0 beta

TIMAPS v1.2.0 Release notes Page 40 of 40