IMAPS v2.2.0

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

1   INTRODUCTION

1.1   Purpose of this document

This document contains the description of the release version 2.2.0 of the Interoperability Maturity Assessment of a Public Service (IMAPS).

1.2   Release date

Version 2.2.0 of the IMAPS Survey has been released on the 30th of November 2022 on Joinup.

1.3   Description

The IMAPS Survey is a highly user-friendly online questionnaire. Designed as a self-assessment tool, the IMAPS survey is designed for public service owners to evaluate **key behavioural 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 service.

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

2   IMAPS v2.2.0 RELEASE COMPONENTS

The IMAPS v2.2.0 release consists of the following release components.

2.1   IMAPS v2.2.0 Online Survey

The IMAPS questionnaire is available as an online survey at the EU Survey portal.

The following table presents the changes from the IMAPS release 1.1.0 to the IMAPS release 2.2.0.

Table 2: Updates at IMAPS 2.2.0 questionnaire

Modification	Details
Version 2.2.0	
IMAPS URL at the EU Survey portal	Date: November 2022 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.2.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_2_0/management/overview.
Updated the IMAPS logo	Date: November 2022 The IMAPS 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 regarding the Study on user experience documentation and it includes the following: • The purpose of the IMAPS survey, • The expected output of the IMAPS survey, • A note that the IMAPS 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 IMAPS questionnaire has been updated regarding the Study on user experience documentation 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 IMTs user journey	Date: November 2022 The updated IMTs user journey has been added on the Introduction section of the IMAPS questionnaire and illustrates the structure, and the logic behind the IMTs survey starting from the IMAPS questionnaire and continues with SIQAT and GIQAT.

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Updated the conceptual model of IMAPS	Date: November 2022 Updates have been applied to the IMAPS 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 IMAPS survey.
Included reference for the IMTs solutions	Date: November 2022 A reference for all the Interoperability Maturity Tools (IMTs) has been added in the Introduction section of IMAPS questionnaire.
Included reference for the EIRA version	Date: November 2022 The reference "The IMAPS survey is based on the European Interoperability Reference Architecture, in particular to the version **EIRA v5.0.0**. The EIRA was created in the context of Action 2016.32 of the ISA² Programme and is being maintained under the Interoperable Europe public initiative. The EIRA provides a common terminology that can be used by people working for public administrations in various architecture and system development tasks." has been added in the Introduction section of IMAPS questionnaire.
Removed the reference to the GitHub page	Date: November 2022 The reference "*You can share your feedback on IMAPS survey through the dedicated GitHub platform*" has been removed by the Introduction page of IMAPS questionnaire due to the low end user feedback.
Added the Legal notices section	Date: November 2022 The IMAPS survey's Introduction section should be followed by the Legal notices section regarding the Study on user experience documentation. 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.
Included disclaimer for the responsibility of European Commission	Date: November 2022 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 IMAPS© 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 IMAPS questionnaire.
Updated the Service Identification section	Date: November 2022 The Service Identification section of the IMAPS questionnaire has been separated from the Introduction section.

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Updated the alongside information	Date: November 2022 The alongside information has been updated on the IMAPS questionnaire and includes the following links and documents: • Useful links: ISA Product License v1.4, Introduction to IMAPS, IMAPS in practice, Share your feedback, • Background Documents: IMAPS User Guide, IMAPS User Journey.
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 IMAPS 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 IMAPS questionnaire and in case of the "*Yes*" option, the A3C item "*A3C. Please indicate the Directorate-General of the European Commission*" will be activated.
Updated the D4 question and its	Date: November 2022

options to be aligned regarding the Data Act Regulation	The item "*D4. To what extent does the service provide transparently the data privacy considerations to the user (such as scope of data stored, purpose of usage of data, rights to request changes or lodge complaints, applicable data privacy regulation, preservation policy)?*"
	has been updated, regarding the Data Act Regulation, as "*D4. To what extent does the service provide transparently the data privacy considerations to the user (such as scope of data stored, purpose of usage of data, scope of data shared with third parties, rights to request changes or log complaints, right to request data shared with third parties, applicable data privacy regulation, preservation policy)?*".
	The following initial options:
	"*Not applicable, the service does not require personal data (e.g. only information provisioning, search functionality)* *The service provides no information on data privacy considerations* *The service provides ad-hoc information on data privacy considerations (e.g. on demand)* *The service provides limited information on data privacy considerations* *The service provides full information on data privacy considerations* *The service provides fully & adaptable information on data privacy, in the sense that the user can manage (some of his) data privacy settings online* *No answer*",
	have been updated as follows:
	"*Not applicable, the service does not require personal data (e.g. only information provisioning, search functionality)* *The service provides no information on data privacy considerations* *The service provides ad-hoc information on data privacy considerations (e.g. on demand), including usage of data from third parties* *The service provides limited information on data privacy considerations* *The service provides full information on data privacy considerations* *The service provides fully & adaptable information on data privacy, in the sense that the user can manage (some of his) data privacy settings online, and/or may request the data generated from the DPS and shared with third parties* *No answer*".
Added the item B2	Date: November 2022
	The item "*B2. To what extent does the service address the following cloud interoperability aspects for data processing in accordance with the Data Act regulation?*" has been added to the IMAPS questionnaire based on the Data Act Regulation without scoring.
	The options of B2 item are the following:
	"Transport interoperability - Syntactic interoperability - Semantic data interoperability - Behavioural interoperability - Policy interoperability - Data syntactic portability

	• Data semantic portability • Data policy portability • Application syntactic portability • Application instruction portability • Application metadata portability • Application behaviour portability • Application policy portability • No answer/Not applicable".
Updated the item and the options of the B4 question	Date: November 2022 The initial item "*B4. To what extent has the service been designed considering the EIRA view (Legal, Technical, Organisational, Semantic)?*" has been updated as "*B4. To what extent is the service architecture compliant with the EIRA behavioural ABBs (Legal, Technical, Organisational, Semantic)?*". The options for the B4 item have been updated as follows: • *"The service architecture is not compliant with any of the EIRA behavioural ABBs* • *The service architecture is compliant with EIRA ABBs from only one interoperability view* • *The service architecture is compliant with EIRA ABBs from two interoperability views* • *The service architecture is compliant with EIRA ABBs from three interoperability views* • *The service architecture is compliant with any of the EIRA behavioural ABBs* • *No answer".*
Updated the B6 question to be aligned regarding the Data Act Regulation	Date: November 2022 The item "*B6. To what extent does the service perform any of the following options to share its release components?* • *Sharing documentation to provide other (related) organisations valuable insights into processes, organisation, governance, technology choices, etc.* • *Sharing source code or downloadable software to enable other organisations to effectively build their services* • *Making available open Web-API services to enable other organisations and individuals to (re)use functionality and/or gain access to data via web and/or mobile apps* • *Providing support to organisations leveraging the resources provided.*" has been updated, regarding the Data Act Regulation, as "*B6. To what extent does the service perform any of the following options to share its release components?* • *Sharing documentation to provide other (related) organisations valuable insights into processes, organisation, governance, technology choices, etc.* • *Sharing source code or downloadable software to enable other organisations to effectively build their services* • *Sharing terms of use of the service*

	• *Making available open Web-API services, data structure, data formats, vocabularies, classification shemes, taxonomies and code lists to enable other organisations and individuals to (re)use functionality and/or gain access to data via web and/or mobile apps* • *Providing support to organisations leveraging the resources provided.".*
Updated the B7 question and its options to be aligned regarding the Data Act Regulation	Date: November 2022 The item "*B7. To what extent does the service handle data in conformity with industry standard data protection policies?*" has been updated, regarding the Data Act Regulation, as "*B7. To what extent does the service handle data in conformity with industry standard data protection policies and sensitive data pseudonymisation practises?*". The following initial options: • *"Data protection measures are not applicable for the specific service* • *The service does not handle data protection, although it is applicable for the specific digital public service* • *The service handles data protection, following industry standard data protection policies* • *No answer",* have been updated as follows: • *"Data protection measures are not applicable for the specific service* • *The service does not handle data protection and pseudonymisation, although it is applicable for the specific digital public service* • *The service handles data protection and speudonymisation, including protection from unathorised access, following industry standard data protection policies* • *No answer".*
Updated the B9 question to be aligned regarding the Data Act Regulation	Date: November 2022 The item "*B9. To what extent does the service provide information on terms and conditions?*" has been updated, regarding the Data Act Regulation, as "*B9. To what extent does the service provide information on terms and conditions including the dataset content, use restrictions, licences, data collection methodology?*".
Updated the Rating section	Date: November 2022 The reference "*Contact: For any general or technical questions, please send an email to DIGIT-IMAPS@ec.europa.eu.*" has been added for contacting purposes at the end of the Rating section of the IMAPS questionnaire.
Alignment regarding the uniqueness and overlapping across the IMTs	Date: November 2022 The surveys of the IMTs have been compared against each other in terms of uniqueness and overlapping in the items.

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EIRA v5.0.0 alignment	Date: November 2022 EIRA v5.0.0 alignment performed across the items of the IMAPS questionnaire.
EIF principles alignment	Date: November 2022 EIF alignment on the principles and recommendations performed across the IMAPS questionnaire.
CAMSS vocabulary alignment	Date: November 2022 CAMSS vocabulary alignment performed across the IMAPS questionnaire.
Scoring model	Date: November 2022 The existing scoring model of IMAPS version 2.1.0 is maintained, meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service Delivery/Consumption Manifestations have weights 40%, 40% and 20% respectively across 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: November 2022 All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the IMAPS version 2.2.0.
Version 2.1.0	
IMAPS URL at the EU Survey portal	Date: 20/12/2021 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.0.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_0_0/management/overview
Included a reference on the GitHub for feedback purposes	Date: 03/05/2022 The reference "You can share your feedback on IMAPS survey through the dedicated GitHub platform." has been added for feedback purposes in the 'Introduction' section of the IMAPS questionnaire.
Replaced the phrase "digital public service" with "service" to reduce repetition	Date: 03/05/2022 The phrase "digital public service" has been replaced with "service" on the IMAPS questionnaire. 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.

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Added a question for the applicant's traceability	Date: 29/04/2022 New Item "*A1E. Please provide your role in the organisation providing the service*" has been added on the 'Introduction' section of the IMAPS questionnaire as optional.
Added a question for statistics reasons	Date: 29/04/2022 New Item "*A1F. Please provide the address of the organisation providing the service*" has been added on the 'Introduction' section of the IMAPS questionnaire as optional.
Added a disclaimer on A2A question for the public service catalogue name and the URI	Date: 29/04/2022 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 service that you provide to the end users (citizens, businesses or other public administrations)?*" in the 'Service Identification' section on the IMAPS questionnaire.
Added a question for future contacting purposes	Date: 21/12/2021 New Item "*A2D. Please specify the email address of the provided service*" has been added in the 'Introduction' section of the IMAPS questionnaire as mandatory.
Added a question for activation and disable the 'Service Consumption' section	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 IMAPS 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 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 IMAPS questionnaire.
Rephrased A3 question and updated the options to illustrate better the tiers of administration	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: • *"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 Directorate-General of the European Commission	Date: 03/05/2022 The item "*A3B. Please indicate the Directorate-General of the European Commission (if applicable)*" has been added in the 'Introduction' section on the IMAPS questionnaire with a drop-down menu by including a list with EU DGs.
Updated the D2 question and its options to adapt the five levels	Date: 12/05/2022 The item "D2. In which format does the digital public service publish open data?" has been updated as "D2. To what extent does the service publish open data in a structured format?". The following initial options: • "*Not applicable, open data is not relevant for the solution,* • *Open data is published in non-structured formats (e.g. pdf, jpeg),* • *Open data is published in structured formats (e.g. MS Excel),* • *Open data is published in structured formats with semantic metadata / ontologies (e.g. rdf, linked open data)",* have been updated as follows: • "*Not applicable, open data are not relevant for the solution* • *The service publishes data, information and knowledge in non-structured formats (e.g. pdf, jpeg)* • *The service publishes data, information and knowledge structured formats for a limited amount of the data, information and knowledge delivered.* • *The service publishes data, information and knowledge structured formats for most of the data, information and knowledge delivered.* • *The service publishes data, information and knowledge structured formats for any data, information and knowledge delivered.* • *The service publishes data, information and knowledge as linked open data (LOD).* • *No answer".*

Updated the options on D3 question	Date: 12/05/2022 The options on the item "*D3. To what extent does the service use semantic standards and specifications for the data delivered?*" have been updated. The following initial options: • *"Not applicable, there is no machine-to-machine interfacing,* • *The digital public service is only using proprietary standards and is not leveraging existing (open) semantic standards for data delivery,* • *Some (open) semantic standards are used for data delivery, combined with proprietary standards,* • *The data delivery is entirely based on existing (open) semantic standards and specifications",* have been updated as follows: • *"Not applicable, there is no machine-to-machine interfacing* • *The digital public service does not use any standards or specifications for the data, information and knowledge delivery* • *The digital public service is only using proprietary standards and is not leveraging existing (open) semantic standards for the data, information and knowledge delivery* • *The digital public service is using a mix of existing (open) semantic standards and specifications, combined with proprietary standards for the data, information and knowledge delivery* • *The digital puvlic service is using mainly (open) semantic standards and specifications, and only a few proprietary standards for the data, information and knowledge delivery* • *The digital public service is using entirely (open) semantic standards and specifications for the data, information and knowledge delivery* • *No answer".*
Updated the D4 question and its options	Date: 12/05/2022 The item "*D4. To what extent are data privacy considerations transparent to the user (such as scope of data stored, purpose of usage of data, rights to request changes or lodge complaints, applicable data privacy regulation, preservation policy)?*" has been updated as "*D4. To what extent does the service provide transparently the data privacy considerations to the user (such as scope of data stored, purpose of usage of data, rights to request changes or lodge complaints, applicable data privacy regulation, preservation policy)?*". The following initial options: • *"Not applicable, the digital public service does not require personal data (e.g. only information provisioning, search functionality),* • *No, there is no information on data privacy available,* • *Partly, there is limited information on data privacy available,* • *Fully, there is detailed information on data privacy available,* • *Fully & adaptable, there is detailed information on data privacy available and the user can manage (some of his) data privacy settings online",* have been updated as follows:

<table>
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- *"Not applicable, the digital public service does not require personal data (e.g. only information provisioning, search functionality)*
- *The digital public service provides no information on data privacy considerations*
- *The service provides ad-hoc information on data privacy considerations (e.g. on demand)*
- *The service provides limited information on data privacy considerations*
- *The service provides full information on data privacy considerations*
- *The service provides fully & adaptable information on data privacy, in the sense that the user can manage (some of his) data privacy settings online*
- *No answer".*

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Updated the options on D5 question

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Date: 12/05/2022

The options on the item "*D3. To what extent does the service support multilingualism?"* have been updated.

The following initial options:

- *"The digital public service is only available in a single language and it is not applicable to be available in more languages,*
- *The digital public service is only available in a single language. It could be applicable to be available in other languages, but there are no provisions in place,*
- *Multilingualism is considered partially and only at a technical level,*
- *Multilingualism is considered adequately at a technical level and/or partially at a semantic level,*
- *Multilingualism is considered fully both at a semantic and technical level",*

have been updated as follows:

- *"Not applicable, the service does not support multilingualism,*
- *The service supports multilingualism in only one language,*
- *The service supports multilingualism in some of the officially recognised languages by the public administration delivering the service, for a certain volume of data,*
- *The service supports multilingualism in all officially recognised languages by the public administration delivering service, for a certain volume of data,*
- *The service supports multilingualism in all officially recognised national languages, as well as in English, French and German, while covering the full data volume,*
- *The service supports multilingualism in all EU officially recognised languages, while covering the full data volume*
- *No answer".*

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Updated the D6 question

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Date: 12/05/2022

The item "*D6. Is the digital public service included in a service catalogue?"* has been updated as "*D6. To what extent is the service included in a service catalogue?".*

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Updated the options on D7 question	Date: 12/05/2022 The options on the item "*D7. To what extent does the service provide authentication mechanisms for people identification?*" have been updated. The following initial options: • *"Not applicable, authentication is not required for users to access the service,* • *No authentication mechanisms are in place. It could be applicable but there are no provisions in place yet,* • *Login authentication mechanism (username, password) is in place for people identification,* • *Formalised authentication mechanisms e.g. EU Login based on Single sign-on principle are in place for people identification",* have been updated as follows: • *"Not applicable, authentication is not required for users to access the service* • *The service does not provide any authentication mechanisms although it is applicable for the specific digital public service* • *The service provides login authentication mechanisms (username, password) for people identification* • *The service provides formalised authentication mechanisms e.g. EU Login based on Single sign-on principle for people identification* • *The service provides formalised authentication mechanisms with two-factor authentication (e.g. both password and sms token)* • *The service provides formalised, multi factor authentication mechanisms, including also biometric data* • *No answer".*
Updated the D9 question and its options	Date: 12/05/2022 The item "*D9. Through which delivery channels is the digital public service made available to the user(s)?*" has been updated as "*D9. To what extent does the service deliver data, information and knowledge via multiple digital interfaces?*". The following initial options: • *"One digital channel,* • *One digital and one traditional channel,* • *Multiple digital and traditional channels,* • *Multiple digital (including interactive digital collaboration M2M) and traditional channels",* have been updated as follows: • *"The service delivers data, information and knowledge only via human interfaces,* • *The service delivers data, information and knowledge mainly via human interfaces and some machine to machine interfaces,* • *The service delivers data, information and knowledge via a mix of human interfaces and machine to machine interfaces,*

	• *The service delivers data, information and knowledge mainly via machine to machine interfaces and some human interfaces,* • *The service delivers data, information and knowledge fully via machine to machine interfaces,* • *No answer".*
Updated the options on D10 question	Date: 12/05/2022 The options on the item "*D10. To what extent does the service use pre-filling for the data and information requested?*" have been updated. The following initial options: • *"Not applicable, the digital public service does not require data entries,* • *No pre-filling is used for the data and information requested. It could be applicable but there are no provisions in place yet,* • *Partly, pre-filling is used but only for some data fields that are digitally available,* • *Fully, pre-filling is used for all data fields that are digitally available",* have been updated as follows: • *"Not applicable, the service does not require data entries,* • *The service does not use pre-filling is used for the data and information requested. It could be applicable but there are no provisions in place yet,* • *The service uses pre-filling for the data and information requested only in an ad-hoc manner (e.g. on demand),* • *The service uses pre-filling for some of the data and information that are digitally available,* • *The service uses pre-filling for most of the data and information that are digitally available,* • *Fully, the service uses pre-filling for all data fields that are digitally available,* • *No answer".*
Updated the options on D11 question	Date: 12/05/2022 The options on the item "*D11. To what extent are the administrative rules and processes underlying the service (such as decision mechanisms, lead times, information sources used, reporting obligations) transparent to the end user(s) and explained in a simple and clear way?*" have been updated. The following initial options: • *"Not applicable, the digital public service does not need to provide insight into administrative rules and processes (e.g. only information provisioning, search functionality),* • *There is no information on rules and processes available before, during and / or after usage of the digital public service. This information resides somewhere else (i.e. is not imminently discoverable),* • *Partly, there is limited information on rules & processes available before, during and / or after usage of the digital public service,* • *Fully, there is detailed information on rules & processes available before, during and/or after usage of the digital public service",*

	have been updated as follows: • *"Not applicable, the service does not need to provide insight into administrative rules and processes (e.g. only information provisioning, search functionality),* • *There is no or limited information on rules and processes available before, during and / or after usage of the service. This information resides somewhere else (i.e. is not imminently discoverable),* • *Fully, there is detailed information on rules & processes available before, during and/or after usage of the service,* • *No answer".*
Updated the options on D12 question	Date: 12/05/2022 The options on the item "*D12. To what extent does the service provide to the end user the necessary means to contribute to its further development and continuous improvement?*" have been updated. The following initial options: • *"The digital public service does not provide such capabilities,* • *The digital public service provides tracking and/or feedback mechanisms, but the feedback is considered in an ad-hoc manner,* • *The digital public service provides tracking and/or feedback mechanisms, but and all feedback is fully considered for the further development and continuous improvement of our digital public service",* have been updated as follows: • *"Not applicable,* • *The service does not provide such capabilities,.* • *The digital public service provides a single tracking and/or feedback mechanism, and feedback is considered in an ad-hoc manner,* • *The service provides multiple tracking and/or feedback mechanisms (including e.g. a rating mechanism), and feedback is considered in an ad-hoc manner,* • *The service provides multiple tracking and/or feedback mechanisms, and feedback is fully considered for the further development and continuous improvement of the digital public service,* • *The service provides multiple tracking and/or feedback mechanisms, feedback is fully considered for the further development and continuous improvement of the digital public service, and feedback is provided back to the end users,* • *No answer".*
Updated the D13 question and its options	Date: 12/05/2022 The item "*D13. To what extent is the service accessible to people with disabilities (e.g. visual, auditory, physical, cognitive) at a comparable level to other users?*" has been updated as "*D13. To what extent is the service provide accessbility features for people with disabilities (e.g. visual, auditory, physical, cognitive) at a comparable level to other users?*". The following initial options:

	• *"Not applicable, the digital public service does not utilize a graphical user interface,* • *The digital public service does not provide any accessibility features,* • *Partly, the digital public service provides some accessibility features,* • *Fully, the digital public service is compliant with an accessibility standard such as Web Content Accessibility (WAI) Guidelines 2.0, level AA, ISO/IEC 40500:2012",* have been updated as follows: • *"Not applicable, the service does not utilize a graphical user interface* • *The service does not provide accessibility features for people with disabilities* • *The service provides accessibility features for people with disabilities* • *No answer".*
Updated the C3 question and its options	Date: 12/05/2022 The item *"C3. To what extent does the digital public service provide legal means (e.g. tracing and logging mechanisms, legal agreements, legal rules, etc.) to handle service consumption?"* has been updated *"C3. To what extent does the service apply measures to handle the legal implications related to service consumption? (e.g. tracing and logging mechanisms, legal agreements, legal rules, etc.)".* The following initial options: • *"There are no applicable legal means or legal rules for the specific digital public service,* • *The digital public service does not have in place any legal means or rules to handle the service consumption,* • *Partially, the digital public service has in place some of the applicable legal means and rules to handle the service consumption,* • *Fully, the digital public service has in place all the applicable legal means and rules to handle the service consumption",* have been updated as follows: • *"There are no applicable legal implications related to service consumption for the specific digital public service,* • *The service does not apply any measures to handle the legal implications that are related to service consumption,* • *The service applies only the legally binding measures to handle the legal implications that are related to service consumption (e.g. compliance to regulations),* • *The service applies some measures to facilitate the human interface certainty with regards to the legal implications that are related to service consumption (e.g. preservation policies),* • *The service applies some measures to facilitate the human interface certainty and machine to machine comunication with regards to the legal implications that are related to service consumption (e.g. reusability of consumed services and data),* • *The service applies all the applicable measures that enhnace human interface certainty and machine to machnie communication with regards*

	to the legal implications that are related to service consumption (e.g. tracing and logging mechanisms), • *No answer".*
Updated the options on C4 question	Date: 12/05/2022 The options on the item "*C4. To what extent does the service handle the data that it consumes?*" have been updated. The following initial options: • *"The digital public service only collects data,* • *The digital public service accesses (and consequently collects) more than half of the total data handled,* • *The digital public service reports (and consequently collects and accesses) more than half of the total data handled,* • *The digital public service analyses (and consequently collects, access and reports) more than half of the total data handled",* have been updated as follows: • *"Not applicable, the service does not collect any data,* • *The service only collects data,* • *The service accesses (and consequently collects) more than half of the total data handled,* • *The service reports (and consequently collects and accesses) more than half of the total data handled,* • *The service analyses (and consequently collects, access and reports) more than half of the total data handled,* • *The service analyses (and consequently collects, access and reports) all of the total data handled,* • *No answer".*
Updated the C6 question and its options	Date: 12/05/2022 The item "*C6. Does the digital public service consume services from different administrative levels (geographies or sectors)?*" has been updated as "*C6. To what extent does the service consume services from different administrative levels (geographies or sectors)?*". The following initial options: • *"No, the digital public service does not consume services from different administrative levels,* • *Yes, the digital public service consumes services from different administrative levels (e.g. services from different MS, services from different organisations)",* have been updated as follows: • *"Not applicable,* • *The service does not consume services from different administrative levels,* • *The service consumes services from different administrative levels (e.g. services from different MS, services from different organisations),*

	• *No answer".*
Updated the B1 question and its options	Date: 12/05/2022 The options on the item "B1. To what extent does the digital public service apply a data and metadata management process?" have been updated. The following initial options: • *"The digital public service does not apply any data or metadata management processes,* • *The digital public service applies custom data or management processes, but not compliant to any common standard,* • *The digital public service applies custom data or metadata management processes, that are compliant to common standards,* • *The digital public service applies both data and metadata management processes and at least one of them is compliant to common standards",* have been updated as follows: • *"The digital public service does not apply any data or metadata management processes,* • *The digital public service applies custom data or metadata management processes that are compliant to well known data magagement maturity models (e.g. DCAM, CMMI Data Management Maturity Model, IBM Data Governance Council Maturity model, Stanford Data Governance Maturity Model) without having full level model maturity,* • *The digital public service applies custom data or metadata management processes that are compliant to well known data magagement maturity models (e.g. DCAM, CMMI Data Management Maturity Model, IBM Data Governance Council Maturity model, Stanford Data Governance Maturity Model) with full level model maturity,* • *No answer".*
Updated the B2 question and its options	Date: 12/05/2022 The item "*B2. To what extent has the service been designed considering the EIF layers (Legal, Technical, Organisational, Semantic)?*" has been updated as *" To what extent does the service fulfil the EIF principles that are applicable (reusability, transparency, security, etc.)?".* The following initial options: • *The service has not been designed considering any of the EIF layers,* • *The service has been designed considering partially the EIF layers,* • *The service has been designed considering fully the EIF layers,* • *No answer",* have been updated as follows: • *"The service does not fulfil any of the applicable EIF principles* • *The service fulfils the applicable EIF principles in an ad-hoc way* • *The service fulfils some of the applicable EIF principles* • *The service fulfils most of the applicable EIF principles* • *The service fulfils all of the applicable EIF principles* • *No answer".*

Updated the B3 question and its options	Date: 12/05/2022 The item *"B3. To what extent has the service been designed considering the EIRA views (Legal, Technical, Organisational, Semantic)?"* has been updated as "B3. To what extent is the service architecture compliant with the EIRA behavioural ABBs (Legal, Technical, Organisational, Semantic)?". The following initial options: *"The service has not been designed considering any of the EIRA views,* *The service has been designed considering partially the EIRA views,* *The service has been designed considering fully the EIRA views,* *No answer",* have been updated as follows: *"The service architecture is not compliant with any of the EIRA behavioural ABBs* *The service architecture is compliant with EIRA ABBs from only one interoperability view* *The service architecture is compliant with EIRA ABBs from two interoperability views* *The service architecture is compliant with EIRA ABBs from three interoperability views* *The service architecture is compliant with any of the EIRA behavioural ABBs* *No answer".*
Updated the B4 question and its options	Date: 12/05/2022 The item *"B4. To what extent does the service perform any of the following procedures to validate the consistency of the data, information and knowledge it manages?"* has been updated as "*B4.* To what extent does the service perform any of the following procedures to validate the consistency of the data, information and knowledge it manages? The following initial options: "None of the listed procedures is applicable for the specific service, *The service does not perform any of the listed procedures, although some of them are be applicable for the specific service,* *The service performs partially some of the listed procedures that are applicable,* *The service performs all of the listed procedures that are applicable,* *No answer",* have been updated as follows: *"None of the listed options are applicable for the specific digital public service,* *The digital public service does not perform any of the listed options that are applicable,* *The digital public service performs the listed options that are applicable in an ad hoc manner,*

	• *The digital public service performs some of the listed options that are applicable,* • *The digital public service performs most of the listed options that are applicable,* • *The digital public service performs all of the listed options that are applicable,* • *No answer".*
Updated the B5 question and its options	Date: 12/05/2022 The item *"B5. To what extent does the service perform any of the following options to share its release components?"* has been updated as *"B5. To what extent does the digital public service perform any of the following options to share its release components?".* The following initial options: • *"None of the listed options are applicable for the specific service,* • *None of the listed options are considered for the specific service. Although some of the listed options could be applicable for the specific service, there are no provisions in place for those that are applicable,* • *Partially. More of the listed options could be applicable for the specific service, but there are no provisions in place for all that are applicable,* • *Fully, for all the listed options that are applicable for the specific service,* • *No answer",* have been updated as follows: • *"None of the listed options are applicable for the specific digital public service,* • *The digital public service does not perform any of the listed options that are applicable,* • *The digital public service performs the listed options that are applicable in an ad hoc manner,* • *The digital public service performs some of the listed options that are applicable,* • *The digital public service performs most of the listed options that are applicable,* • *The digital public service performs all of the listed options that are applicable,* • *No answer".* In case option 3 has been selected, please indicate in the text field below which options are considered to share the digital public service's components and knowledge with the external environment."
Removed the B1, B6 and B8 questions	Date: 12/05/2022 The following items have been removed. • "B1. To what extent is the integrated public service compliant to a reference architecture framework?", • "B6. To what extent has the service been designed considering a catalogue of specifications and standards?",

	• *"B8. To what extent has the digital public service established a security profile?"*, These items have been deleted as it was focusing on structural or governmental interoperability aspects and not on behavioural interoperability ones.
Removed the B6 question for	Date: 12/05/2022 The item *"B6. To what extent does the digital public service handle data protection?"* has been updated as *"To what extent does the digital public service handle data in conformity with industry standard data protection policies?"*. The following initial options: • *"Data protection measures are not applicable for the specific digital public service,* • *The digital public service does not handle data protection, although it is applicable for the specific digital public service,* • *The digital public service handles data protection under custom policies and regulations,* • *The digital public service handles data protection under formalised regulations e.g. GDPR",* have been updated as follows: • *"Data protection measures are not applicable for the specific digital public service* • *The digital public service does not handle data protection, although it is applicable for the specific digital public service* • *The digital public service handles data protection, following industry standard data protection policies* • *No answer".*
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 IMAPS Questionnaire	The following changes have been performed to the IMAPS 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 IMAPS questionnaire.
- The interoperability maturity levels have been included without implement the scoring in the Introduction section of IMAPS 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 IMAPS questionnaire.
- The 'ISA2 Programme' has been replaced with 'Interoperable Europe' in the Introduction section of IMAPS questionnaire.

Date: 12/04/2022

The keywords on the options of IMAPS 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 IMAPS 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 IMAPS questionnaire.
- A reference to the IMAPS User Guide has been included alongside legal notices on the IMAPS questionnaire.

Date: 03/05/2022

- The following items on the "Service Identification" section have been updated as optional based on the feedback from the expert reviews:
- The item "*A1A. Please provide your name*",
- The item "*A1B. Please provide your email address*",
- 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 (if applicable)*", - 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 IMAPS questionnaire. - The "More info" functionality has been added including the examples on the A2A, A2B, A2C, A3 and A5 items for the IMAPS questionnaire.
Updated the EIRA ABBs	Date: 12/05/2022 - The EIRA ABB on the item *"D1. To what extent does the digital public service publish open data?"* has been updated from "Open Data Policy" to "Interoperable Digital Public Services Implementation Orientation". - The EIRA ABB on the item *"D2. To what extent does the digital public service publish open data in a structured format?"* has been updated from "Open Data Policy" to "Representation". - The EIRA ABB on the item *"D4. To what extent does the digital public service provide transparently the data privacy considerations to the user (such as scope of data stored, purpose of usage of data, rights to request changes or lodge complaints, applicable data privacy regulation, preservation policy)?"* has been updated from "Privacy Service" to "Shared legal framework". - The EIRA ABB on the item "*D6. To what extent is the digital public service included in a service catalogue?*" has been updated from "Public Service Catalogue" to "Shared Governance Framework". - The EIRA ABB on the item "*C1. To what extent does the digital public service consume data information and knowledge via digital channels?*"

has been updated from "Orchestration Service" to "Machine to Machine Interface".

- The EIRA ABB on the item "C2. To what extent does the digital public service reuse or self-produce consumed services?" has been updated from "Machine to Machine Interface" to "Orchestration Service".
- The EIRA ABB on the item "*C3. To what extent does the digital public service apply measures to handle the legal implications related to service consumption? (e.g. tracing and logging mechanisms, legal agreements, legal rules, etc.)*" has been updated from "Legal Interoperability Agreement" to "Shared Governance Framework".
- The EIRA ABB on the item "*C4. To what extent does the digital public service handle the data that it consumes?*" has been updated from "Data Policy" to "Interoperable Digital Public Services Implementation Orientation".
- The EIRA ABB on the item *"C6. To what extent does the digital public service consume services from different administrative levels (geographies or sectors)?"* has been updated from "Public Service Consumer" to "Interoperable Digital Public Services Implementation Orientation".
- The EIRA ABB on the item "*C7. To what extent does the digital public service subscribe to automatic updates of services (e.g. life events) to trigger its execution and/or update information?*" has been updated from "Digital Service Infrastructure" to "Orchestration Service".
- The EIRA ABB on the item "*B3. To what extent is the digital public service architecture compliant with the EIRA behavioural ABBs (Legal, Technical, Organisational, Semantic)?*" has been updated from "Interoperability Governance" to "Interoperable Digital Public Services Implementation Orientation".
- The EIRA ABB on the *item "B5. To what extent does the digital public service perform any of the following options to share its release components?"* has been updated from "Interoperability Governance" to "Shared Governance Framework".
- The EIRA ABB on the item *"B6. To what extent does the digital public service handle data in conformity with industry standard data protection policies?"* has been updated from "Legislation on Knowledge Information and Data Exchange" to "Interoperable Digital Public Services Implementation Orientation".
- The EIRA ABB on the item *"B7. To what extent is the digital public service mandated by a Service Level Agreement?"* has been updated from "Legal Interoperability Agreement" to "Shared legal framework".

Accessibility by visually impaired or blind people	Date: 17/03/2022 The "Accessibility Mode" has been activated on IMAPS assessment to increase survey readability and help visually impaired readers.
Applicability	Date: 29/04/2022 Based on the feedback from the expert reviews, the option 'Not applicable' should be included in the options of all IMAPS items. As such, the project team added the 'Not applicable' option to all IMAPS 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 IMAPS items. As such, the project team added the 'No answer' option to all IMAPS items as the last option. The 'No answer' will take the lowest score (0/100).
Repetition	Date: 29/04/2022 According to the feedback received during pilot workshops, the term "Service" replaced the term "digital public service" in all IMAPS items with a view to reduce repetition. A relevant disclaimer added in the Identification Section of the questionnaire.
Items' level of granularity	Date: May 2022 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).
IMAPS user journey	Date: 22/12/2021 The project team created a simple "user journey" to give more context and explanation to the user how IMAPS survey and its specialisations are linked and can be used. This visual is shown before the specialisations' assessment, as part of the introduction to the survey at the EU Survey portal, it describes the structure, and the logic behind the IMAPS survey starting from the IMAPS questionnaire and it explains the specialisations' model and structure, target stakeholders, etc.
Scoring model	Date: May 2022 The existing scoring model of IMAPS version 2.1.0 is maintained, meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service Delivery/Consumption Manifestations have weights 40%, 40% and 20% respectively across 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: December 2021 All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the IMAPS version 2.1.0.
Version 2.0.0	
Updated conceptual model of IMAPS	Updates have been applied to the IMAPS 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 IMAPS survey.
IMAPS URL at the EU Survey portal	The version 1.2.0 https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0 has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS_v_2_0_0
Added a question of future contacting purposes	New Item "*Would you like to be contacted for evaluation purposes?*" has been added in the 'Introduction' section of the SIMAPS questionnaire.
IMAPS user journey	The project team created a simple "user journey" to give more context and explanation to the user how IMAPS survey and its specialisations are linked and 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 IMAPS survey starting from the IMAPS questionnaire and it explains the specialisations' model and structure, target stakeholders, etc.
IMAPS items' updates to trigger IMAPS specialisations **(L, O, S, T)**	After the update of the IMAPS specialisations (LIMAPS, OIMAPS, SIMAPS and TIMAPS), the IMAPS items have been edited accordingly, to trigger (i.e. to link) to each one of the specialisations' surveys. To address these updates, the following changes have been made to the IMAPS questionnaire: • New IMAPS items have been created i.e. items D1, B9 • Existing IMAPS items have been updated, along with their recommendations, to point to the respective IMAPS specialisation survey. • Item D12 from IMAPS v1.2.0 '*Can users give feedback on the quality of the digital public service?*' has been moved to OIMAPS and has been replaced by the following one '*Do you offer to the end user the necessary means to contribute to the further development and continuous improvement of your digital public service?*'. • More 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 IMAPS items. As such, the project team added the 'Not applicable' option to the IMAPS items (where applicable) 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.
Previous contract change requests	All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the IMAPS version 2.0.0.
Scoring model	The existing scoring model of IMAPS version 1.2.0 is maintained and the sections Data, information and knowledge delivered/consumed/management, Service Delivery/Consumption/Management Enablers and Service

	Delivery/Consumption/Management Manifestations have 40%, 40% and 20% respective weights in the whole questionnaire.
Version 1.2.0	

Updated conceptual model of IMAPS	Updates have been applied to the IMAPS conceptual model. These updates include:
	
	• Renamed Service Management from D to B and Service Delivery from B to D.
	• Transformed Service Management arrow into a bidirectional one, as its items assess bidirectional aspects across the public service.
	• Annotated all kinds of end-users, i.e. Public Administrations, Citizens, Businesses
	• Applied a horizontal categorization of items in specific attributes:
	    ○ Data, information and knowledge delivered/consumed/management
	    ○ Service Delivery/Consumption/Management Enablers
	    ○ Service Delivery/Consumption/Management Manifestations.
	
	The updated conceptual model is illustrated in the Introduction section of the online IMAPS survey.

Restructure IMAPS Service Management Section	IMAPS Service Management Component has been updated to include all Service Management items that have been removed from IMAPS specialisations (it is noted that they have been removed from all specialisations during their design phase, while in SIMAPS, they belonged in the respective section that was called Data Management). The reason for this removal has been the observation that service management items had commonalities and overlaps across all specialisations. A merged section has been created that included a compilation of: • IMAPS existing items; • SIMAPS existing items; • All service management items that stemmed during the design of the IMAPS specializations (ref.: LIMAPS, OIMAPS, SIMAPS and TIMAPS); It is noted that, similarly to all items in IMAPS, these items have an L, O, S, T annotation to show to which interoperability view they (mainly) refer to. This merge, resulted into: • The creation of new items; • The merge of existing items into a single item that assessed similar aspects; • The deletion of some items that were similar to others or not in scope.
Updated IMAPS Attributes' Structure	All items of IMAPS included in the Service Delivery section have been mapped into the following categories: • Data, information and knowledge delivered; • Service Delivery Enablers; • Service Delivery Manifestations. Similarly, all items of IMAPS included in the Service Consumption section have been mapped into the following categories:

	• Data, information and knowledge consumed; • Service Consumption Enablers; • Service Consumption Manifestations. Finally, all items of IMAPS included in the Service Management section have been mapped into the following categories: • Data, information and knowledge management; • Service Management Enablers; • Service Management Manifestations.
IMAPS items' updates to trigger IMAPS specialisations **(L, O, S, T)**	After the creation (LIMAPS, OIMAPS, TIMAPS) and update (SIMAPS) of IMAPS specialisations, the IMAPS items have been edited accordingly, to trigger (i.e. to link) to each one of the specialisations' surveys. To address this change request: • New IMAPS items have been created (especially to point to LIMAPS and OIMAPS surveys); • Existing IMAPS items have been updated, along with their recommendations, to point to the respective IMAPS specialisation survey.
SIMAPS items	Some SIMAPS items from version 1.0.0 beta, were data-oriented and not purely semantically-oriented. As such, they have been removed from SIMAPS and they have been added either to IMAPS or to TIMAPS, or they have been deleted at all, as their scope of assessment was covered by other items. However, there are some SIMAPS items related to behavioural interoperability aspects which were not already covered by the IMAPS itself or the IMAPS specialisations (L, O, S, T) and thus, they have been included in the IMAPS version 1.2.0. The following items have been added in IMAPS version 1.2.0: • D1: To what extent is data perceived as a valuable public asset? • D22: Are standard methodologies used for implementing data management? • D23: Are standard methodologies used for implementing metadata management? (merged with D22)
Improving the section 'Service Context'	The previous (v1.1.1) structure of IMAPS questions, options and input fields in "Service Context" section did not ensure concrete and meaningful information about the digital public service assessed and the responsible organisation. To facilitate the review and analysis of IMAPS responses, it has been critical to enhance the questionnaire structure and user experience by guiding users to fill in specific questions with explicit, and in some cases, pre-defined information. More specifically, the following updates have been performed to IMAPS Section A: • Rename the section into "Service Identification" • New item A2A "What is the name of the digital public service that you provide to the end users (citizens, businesses or other public administrations)?" has been added; • New item A2C "Appearance: How does the digital public service deliver the outcome towards the end user group?" has been added, based on previous A2 item;

	• New options for item A3 has been added, in order to help the end user to better define the public service owner e.g. Ministry , Public Administration, Directorate-General of the European Commission, etc.; • New item A4 "Please indicate in which sector is the digital public service provided." has been added • New options for item A5 to be added to cover the three types of end users (Administrations, Businesses, and Citizens): Administration to Administration A2A), Administration to Business (A2B) and Administration to Citizens (A2C).
IMAPS URL at the EU Survey portal	The version 1.0.0 URL https://ec.europa.eu/eusurvey/runner/IMAPS has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0.
IMAPS alignment with IQAT	IQAT questionnaire, originally including items to assess both structural and behavioural interoperability, has been adapted to include only items that assess structural interoperability (ref. to its latest version that can be found here). The respective items that assessed behavioural interoperability (machine to machine and human to machine) have been mapped (added) to IMAPS, TIMAPS and SIMAPS surveys, with IMAPS and IQAT items to serve as trigger surveys to enable TIMAPS and SIMAPS surveys. This mapping and subsequent alignment among surveys, resulted into one new item in IMAPS questionnaire, inspired from IQAT, as follows: D1: In which format does your digital public service publish its open data?
Previous contract change requests	All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the IMAPS version 1.2.0.
Scoring model	The existing scoring model of IMAPS version 1.1.1 is maintained and the new sections Data, information and knowledge delivered/consumed/management, Service Delivery/Consumption/Management Enablers and Service Delivery/Consumption/Management Manifestations have 40%, 40% and 20% respective weights in the whole questionnaire.
Version 1.1.1	

2.2   IMAPS v2.2.0 User Guide

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

Table 3: Updates in User Guide

Modification	Details
Version 2.2.0	
Updated IMAPS user guide	Date: November 2022 The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
IMAPS user journey	Date: November 2022 The project team updated the IMAPS user journey to be aligned with the Interoperable Europe identity. This visual is shown before the specialisations' assessment, as part of the introduction to the survey at the EU Survey portal, it describes the structure, and the logic behind the IMAPS survey starting from the IMAPS questionnaire and it explains the specialisations' model and structure, target stakeholders, etc. The project team, also, created a new version of user journey included each of the IMTs surveys. This visual is shown before the IMAPS assessment, as part of the introduction to the survey at the EU Survey portal, it describes the structure, and the logic behind the IMTs survey starting from the IMAPS questionnaire and continues with SIQAT and GIQAT. It also explains the specialisations' model and structure, target stakeholders, etc.
IMAPS URL at the EU Survey portal	Date: November 2022 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.2.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_2_0/management/overview.
Updated the IMAPS logo	Date: November 2022 The IMAPS logo has been updated in order to be aligned with the Interoperable Europe identity.
Updated IMAPS items on Questionnaire	Date: November 2022 The following items have been added to IMAPS version 2.2.0: • Item A3B: Are the solutions provided by a Directorate-General of the European Commission. • item B2: To what extent does the service address the following cloud interoperability aspects for data processing in accordance with the Data Act regulation?" has been added to the IMAPS questionnaire based on the Data Act Regulation.
Scoring model	Date: November 2022

	The existing scoring model of IMAPS version 2.1.0 is maintained, meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service Delivery/Consumption Manifestations have weights 40%, 40% and 20% respectively across the whole questionnaire.
Previous contract change requests	Date: November 2022 All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the IMAPS version 2.2.0.
	Version 2.1.0
Updated IMAPS user guide	Date: 5/5/2022 The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
IMAPS user journey	Date: 22/12/2021 The project team created a simple "user journey" to give more context and explanation to the user how IMAPS survey and its specialisations are linked and can be used. This visual is shown before the specialisations' assessment, as part of the introduction to the survey at the EU Survey portal, it describes the structure, and the logic behind the IMAPS survey starting from the IMAPS questionnaire and it explains the specialisations' model and structure, target stakeholders, etc.
IMAPS URL at the EU Survey portal	Date: 20/12/2021 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.0.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_0_0/management/overview
Updated IMAPS items on Questionnaire	The following items have been added to IMAPS version 2.1.0: • 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 (if applicable) • 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?".
Applicability	Date: 29/04/2022 Based on the feedback from the expert reviews, the option 'Not applicable' should be included in the options of all IMAPS items. As such, the project team added the 'Not applicable' option to all IMAPS 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 IMAPS items. As such, the project team added the 'No answer' option to all IMAPS 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 IMAPS version 2.1.0 is maintained, meaning that the sections Data, information and knowledge delivered/consumed, Service Delivery/Consumption Enablers and Service Delivery/Consumption Manifestations have weights 40%, 40% and 20% respectively across the whole questionnaire.
Previous contract change requests	Date: December 2021 All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the IMAPS version 2.1.0.
Version 2.0.0	
Updated IMAPS user guide	The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
Updated conceptual model of IMAPS	Updates have been applied to the IMAPS 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 IMAPS survey.
IMAPS user journey	The project team created a simple "user journey" to give more context and explanation to the user how IMAPS survey and its specialisations are linked and 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 IMAPS survey starting from the IMAPS questionnaire and it explains the specialisations' model and structure, target stakeholders, etc.
IMAPS URL at the EU Survey portal	The version 1.2.0 https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0 has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS_v_2_0_0
IMAPS items' updates to trigger IMAPS specialisations **(L, O, S, T)**	After the update of the IMAPS specialisations (LIMAPS, OIMAPS, SIMAPS and TIMAPS), the IMAPS items have been edited accordingly, to trigger (i.e. to link) to each one of the specialisations' surveys. To address these updates, the following changes have been made to the IMAPS questionnaire: • New IMAPS items have been created i.e. items D1, B9

	• Existing IMAPS items have been updated, along with their recommendations, to point to the respective IMAPS specialisation survey. • Item D12 from IMAPS v1.2.0 '*Can users give feedback on the quality of the digital public service?*' has been moved to OIMAPS and has been replaced by the following one '*Do you offer to the end user the necessary means to contribute to the further development and continuous improvement of your digital public service?*'. • More 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 IMAPS items. As such, the project team added the 'Not applicable' option to the IMAPS items (where applicable) 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.
Previous contract change requests	All Change Requests (CRs) based on JIRA tickets collected during the previous contract, have been included in the IMAPS version 2.0.0.
Scoring model	The existing scoring model of IMAPS version 1.2.0 is maintained and the sections Data, information and knowledge delivered/consumed/management, Service Delivery/Consumption/Management Enablers and Service Delivery/Consumption/Management Manifestations have 40%, 40% and 20% respective weights in the whole questionnaire.
Version 1.2.0	

Updated conceptual model of IMAPS	Updates have been applied to the IMAPS conceptual model. These updates include:
	
	• Renamed Service Management from D to B and Service Delivery from B to D.
	• Transformed Service Management arrow into a bidirectional one, as its items assess bidirectional aspects across the public service.
	• Annotated all kinds of end-users, i.e. Public Administrations, Citizens, Businesses
	• Applied a horizontal categorization of items in specific attributes:
	    o Data, information and knowledge delivered/consumed/management
	    o Service Delivery/Consumption/Management Enablers
	    o Service Delivery/Consumption/Management Manifestations.
	
	The updated conceptual model is illustrated in the Introduction section of the online IMAPS survey.

Updated IMAPS Attributes' Structure	All items of IMAPS included in the Service Delivery section have been mapped into the following categories: • Data, information and knowledge delivered; • Service Delivery Enablers; • Service Delivery Manifestations. Similarly, all items of IMAPS included in the Service Consumption section have been mapped into the following categories: • Data, information and knowledge consumed;

	• Service Consumption Enablers; • Service Consumption Manifestations. Finally, all items of IMAPS included in the Service Management section have been mapped into the following categories: • Data, information and knowledge management; • Service Management Enablers; • Service Management Manifestations.
IMAPS URL at the EU Survey portal	The version 1.0.0 URL https://ec.europa.eu/eusurvey/runner/IMAPS has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0.
Version 1.1.1	

2.3 IMAPS v2.2.0 Publication on Joinup

The public web page (https://joinup.ec.europa.eu/collection/interoperability-assessment-tools-iats-digital-public-services/solution/imaps) containing information on the IMAPS.

Table 4: Changes in IMAPS Joinup page

Modification	Details
Version 2.2.0	
IMAPS URL at the EU Survey portal	Date: November 2022 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.2.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_2_0/management/overview.
IMAPS Release components	Date: November 2022 The version 2.2.0 includes the following release components: • IMAPS v2.2.0 EU Survey portal • IMAPS v2.2.0 User Guide; • IMAPS 2.2.0 Publication on Joinup; • IMAPS v2.2.0 Value proposition; • IMAPS v2.2.0 Release package; • ISA product license.
Version 2.1.0	
IMAPS URL at the EU Survey portal	Date: 20/12/2021 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.0.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_0_0/management/overview
IMAPS Release components	The version 2.1.0 includes the following release components: • IMAPS v2.1.0 EU Survey portal • IMAPS v2.1.0 User Guide; • IMAPS 2.1.0 Publication on Joinup; • IMAPS v2.1.0 Value proposition; • IMAPS v2.1.0 Release package; • ISA product license.
Version 2.0.0	
Updated conceptual model of IMAPS	Updates have been applied to the IMAPS 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 IMAPS survey.
IMAPS URL at the EU Survey portal	The version 1.2.0 https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0 has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS_v_2_0_0
IMAPS Release components	The version 2.0.0 includes the following release components: • IMAPS v2.0.0 EU Survey portal • IMAPS v2.0.0 User Guide; • IMAPS 2.0.0 Publication on Joinup; • IMAPS v2.0.0 Value proposition; • IMAPS v2.0.0 Release package; • ISA product license.
Version 1.2.0	
Updated conceptual model of IMAPS	Updates have been applied to the IMAPS conceptual model. These updates include: • Renamed Service Management from D to B and Service Delivery from B to D. • Transformed Service Management arrow into a bidirectional one, as its items assess bidirectional aspects across the public service. • Annotated all kinds of end-users, i.e. Public Administrations, Citizens, Businesses • Applied a horizontal categorization of items in specific attributes: o Data, information and knowledge delivered/consumed/management o Service Delivery/Consumption/Management Enablers o Service Delivery/Consumption/Management Manifestations. The updated conceptual model is illustrated in the Introduction section of the online IMAPS survey.
Updated IMAPS Attributes' Structure	All items of IMAPS included in the Service Delivery section have been mapped into the following categories: • Data, information and knowledge delivered; • Service Delivery Enablers; • Service Delivery Manifestations. Similarly, all items of IMAPS included in the Service Consumption section have been mapped into the following categories: • Data, information and knowledge consumed; • Service Consumption Enablers; • Service Consumption Manifestations. Finally, all items of IMAPS included in the Service Management section have been mapped into the following categories: • Data, information and knowledge management; • Service Management Enablers;

	• Service Management Manifestations.
IMAPS URL at the EU Survey portal	The version 1.0.0 URL https://ec.europa.eu/eusurvey/runner/IMAPS has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0.
Version 1.1.1	

2.4 IMAPS v2.2.0 Value Proposition

A PDF document, which provides the value proposition of IMAPS v2.2.0.

Table 5: Changes in IMAPS value proposition

Modification	Details
Version 2.2.0	
IMAPS URL at the EU Survey portal	Date: November 2022 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.2.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_2_0/management/overview.
Updated the IMAPS Value proposition in term of look and feel	Date: November 2022 The IMAPS Value proposition has been updated in order to be aligned with the Interoperable Europe identity.
Updated the conceptual model of IMAPS	Date: November 2022 Updates have been applied to the IMAPS 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 IMAPS survey.
Version 2.1.0	
IMAPS URL at the EU Survey portal	Date: 20/12/2021 The version 2.1.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_1_0/management/overview has been replaced by the version 2.0.0 https://ec.europa.eu/eusurvey/IMAPS_v_2_0_0/management/overview
Version 2.0.0	

IMAPS version 2.2.0 release notes

Updated conceptual model of IMAPS	Updates have been applied to the IMAPS 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 IMAPS survey.
IMAPS URL at the EU Survey portal	The version 1.2.0 https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0 has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS_v_2_0_0
Updated layout	The layout of the IMAPS 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 IMAPS*: describes the logic of the IMAPS survey • *What is in for you*: describes the benefits for the users by using IMAPS • *For whom is IMAPS relevant:* describes the target users (profiles) of the users that should take the IMAPS assessment • *IMAPS conceptual model & structure*: describes the IMAPS conceptual model and its structure • *Digital Public Service Components*: describes the four different service areas i.e. Service Identification, Service Delivery, Service Consumption and Service Management that the IMAPS assessment captures
Version 1.2.0	

Updated conceptual model of IMAPS	Updates have been applied to the IMAPS conceptual model. These updates include:
	
	• Renamed Service Management from D to B and Service Delivery from B to D.
	• Transformed Service Management arrow into a bidirectional one, as its items assess bidirectional aspects across the public service.
	• Annotated all kinds of end-users, i.e. Public Administrations, Citizens, Businesses
	• Applied a horizontal categorization of items in specific attributes:
	   ○ Data, information and knowledge delivered/consumed/management
	   ○ Service Delivery/Consumption/Management Enablers
	   ○ Service Delivery/Consumption/Management Manifestations.
	
	The updated conceptual model is illustrated in the Introduction section of the online IMAPS survey.

Updated IMAPS Attributes' Structure	All items of IMAPS included in the Service Delivery section have been mapped into the following categories: • Data, information and knowledge delivered; • Service Delivery Enablers; • Service Delivery Manifestations. Similarly, all items of IMAPS included in the Service Consumption section have been mapped into the following categories:

	• Data, information and knowledge consumed; • Service Consumption Enablers; • Service Consumption Manifestations. Finally, all items of IMAPS included in the Service Management section have been mapped into the following categories: • Data, information and knowledge management; • Service Management Enablers; • Service Management Manifestations.
IMAPS URL at the EU Survey portal	The version 1.0.0 URL https://ec.europa.eu/eusurvey/runner/IMAPS has been replaced by the https://ec.europa.eu/eusurvey/runner/IMAPS-v1_2_0.
Version 1.1.1	

2.5 IMAPS v2.2.0 Release

An archive containing each of the above mentioned files.

Table 6: Changes in IMAPS Release package

Modification	Details
Version 2.2.0	
Release package of all release components – IMAPS v2.2.0	Date: November 2022 The package of IMAPS version 2.2.0 does not include the IMAPS Recommendations as a separate file from the User Guide. The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
Version 2.1.0	
Release package of all release components – IMAPS v2.1.0	The package of IMAPS version 2.1.0 does not include the IMAPS Recommendations as a separate file from the User Guide. The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
Version 2.0.0	
Release package of all release components – IMAPS v2.0.0	The package of IMAPS version 2.0.0 does not include the IMAPS Recommendations as a separate file from the User Guide. The User Guide is a consolidated document that includes the previous release components "User guide", "Questionnaire" and "Recommendations".
Version 1.2.0	

Release package of all new components – IMAPS v1.2.0	
Version 1.1.1	

2.6   ISA Product License v1.4

The license under which the IMAPS is released.

Table 7: Changes in ISA Product License

Modification	Details
Version 1.4.0	
Replacement of specific ISA Product licenses by a generic license.	
Version 1.3.0	