## 7.1 STANDARDS-BASED ARCHIVAL DATA MANAGEMENT, EXCHANGE AND PUBLICATION (2017.01)

### 7.1.1 IDENTIFICATION OF THE ACTION

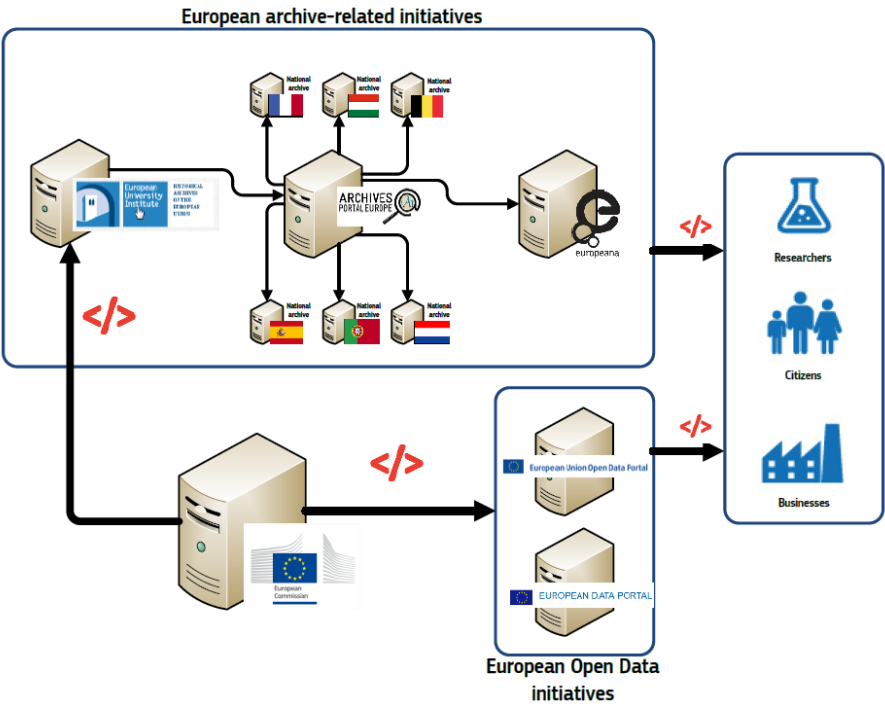| Service in charge | OIB.OS.1.002, DIGIT.B2.004 |
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| Associated Services | SG.C1, Publications Office of the EU |

### 7.1.2 EXECUTIVE SUMMARY

Open Data (making available machine-readable information, especially by governments to third parties) is expected to increase economic growth and enhance both collaboration between administrations and citizen participation and engagement. In line with the revised Archives Regulation (Regulation (EEC, Euratom) No 354/83, as amended by Council Regulation 1700/2003 and Regulation 496/2015), the European Commission, as well as the other institutions of the European Union have to offer, via the European University Institute (EUI) located in Florence, a single, authoritative, multilingual, accessible "go-to" online platform for exploring the archives of the Institutions, thus stimulating research into the history of European integration and the European Institutions. This online platform should offer access to both digitised and born-digital content, as well as information regarding the paper holdings and contextual background material. Ideally the archives should be made available to the public in a way that fits the public of the 21st century, following Open Data principles, so they can be re-used by other administrations, business and citizens and/or exchanged with other existing platforms and initiatives that make documents and archives of the institutions available, such as Europeana, Archives Portal Europe (the hub grouping the European national, regional and local archives), the European Union Open Data portal giving access to data from the European Institutions and other bodies of the EU, the European Data portal, which harvest metadata of Public Sector Information across European countries, and the Public Register of Commission documents, among others.

To achieve this main goal, the European Commission has to implement services and tools that will enable the multilingual description of its archives content and the exchange of multilingual content and metadata with European archive-related initiatives (like the European University Institute and other initiatives that enhance transparency and accountability of the Institutions). These services and tools should follow best practices and established standards in the domain of archives management. Therefore, there is a need of information which internationally accepted specific business domain standards exist in the area of management of archives and whether IT services and tools, being them open source, commercial or developed by public administrations, already exist at regional, national or European level that support these standards and could be re-used.

Based on the foregoing, the business case for this action will start with a study aiming at identifying existing data standards in archival information management and exploring IT tools and services supporting those. The results of this analysis will also allow determining how

these standards are applied in different national and European contexts and how they can be used in the context of born-digital files. The second part of the business case will deal with the analysis of the interoperability requirements among Archives Portal Europe, Europeana, and the Historical Archives of the European Union (run by European University Institute), on one hand, and the Historical Archives of the European Commission on the other. Finally, the business case will analyse available options to publish the relevant part of the content of EU archives in an Open Data format, following LODLAM (Linked Open Data in Libraries, Archives and Museums) recommendations, through the different available platforms (like the Open Data and the European Data portals) allowing Member States, citizens and researchers to interoperate with them and reuse them in different contexts. The following picture tries to depict the interoperability scenario to be covered by this action:



As a final remark, it is important to stress that all elements of the below described proposal that might not be directly related to the resolution of cross-border or cross-sector issues will be funded by European Commission's own budget and not by ISA2 budget.

### 7.1.3 OBJECTIVES

This action has the goal of identifying standards to ensure that the archived born-digital public documents and files are properly managed, exchanged and opened to the public, with the following detailed objectives:.

- Facilitate cross-border interactions related to archival data by identifying standards regarding description of information on records/archives, including its multilingual aspect, and eliciting the requirements related to their exchange.

- Enhance cross-sector and cross-border interactions between Commission archives and businesses and citizens, by providing the grounds to develop a multilingual catalogue allowing to access and re-use the records of the European Institutions based on Open Data principles and LODLAM recommendations.

### 7.1.4 SCOPE

It includes the study of digital archive management standards and IT solutions supporting them, with the goal of allowing standards-based archival information management. It will also analyse the interoperability requirements to exchange information between Commission archives and European archiving initiatives, and will study how this information can be made available to the public in Open Data formats, focusing on user-centric solutions. Detailed activities are:

- Assessment of standards relevant to digital and mixed archives management and identification of IT solutions supporting them.
- Assessment on making available Commission archives to the public using Open Data.
- Assessment of interoperability requirements to exchange Commission archival information with EUI and Archives Portal Europe.
- Implementation of a pilot / proof of concept for archival data exchange
- Implementation of a pilot / proof of concept for publishing archival information as Open Data
- Assessment of the most appropriate archives management solution available as candidate to replace the existing outdated solution in the European Commission
- Implementation of an interoperability solution for archival data exchange between the Historical Archives Service of the European Commission and the Historical Archives of the European Union
- Implementation of a solution for the publication of European Commission's archives as Open Data

## 7.1.5   ACTION PRIORITY

### 7.1.5.1   Contribution to the interoperability landscape

| Question | Answer |
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| *How does the proposal contribute to improving interoperability among public administrations and with their citizens and businesses across borders or policy sectors in Europe?* <br><br> *In particular, how does it contribute to the implementation of:* <br><br> • *the new European Interoperability Framework (EIF),* <br><br> • *the Interoperability Action Plan and/or* <br><br> • *the Connecting European Facility (CEF) Telecom guidelines* <br><br> • *any other EU policy/initiative having interoperability requirements?* | The memory of any organization consists in its archives. The way the archival information is represented, stored and managed influence the capacity of an organization to share archival information with other organizations and to expose its archives to the external world. This is of an utmost importance where it comes to public administrations where the founding principles of openness and transparency are at stake. <br><br> A set of principles and guidelines based on standards can greatly facilitate the exchange of archival information not only amongst public administrations but also between public administrations and the business and citizens. <br><br> In line with the twelve principles of the European Interoperability Framework this action aims at creating a set of recommendations and guiding principles for an effective description and managem ent of archives in order to facilitate the exchange of archival information amongst public administrations and between public administrations and the business and citizens. <br><br> The action follows the line of the second pillar of EIF (Core interoperability principles: Openness, Transparency, Reusability, Technological neutrality and data portability) and of the fourth pillar of EIF (Foundation principles for cooperation amongst public administrations: Preservation of information, Effectiveness and Efficiency) by proposing the creation of a standard-based approach for facilitating the preservation and the exchange of archival information of the public administrations in an open, transparent and reusable way. <br><br> It also aims at creating a set of recommendations for the publication of archival information as open data mainly for the usage of citizens focusing thus on the principles of the third pillar of EIF (Principles related to generic user needs and expectation: User-centricity, Inclusion and accessibility, Multilingualism). |

| Question | Answer |
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| *Does the proposal fulfil an interoperability need for which no other alternative action/solution is available?* | Yes, in the following ways: <br>• As mentioned, the proposal tries to tackle a semantic interoperability issue, by clarifying the standards landscape on digital archival information management. The clarification on standards will help Member States administrations to use them, improving archival data management and archival data exchange between the different actors at European and national level. <br>• It also addresses a technical interoperability issue, by identifying the standards support level of the different IT tools and services available in the market, and by defining an assessment model for the national administrations to evaluate them by themselves. <br>• Finally, as the proposal intends to define the best way to offer the Commission archival information to the general public in an Open Data format, it will support an interoperability need of: <br>    ○ Citizens, by increasing transparency on how the policy making process of the Institutions works the level of trustworthiness of citizens on their administration will be increased. It will also enhance accountability and prestige of the institutions. <br>    ○ Business, by making available the data on historical archives, the information can be reused by business in new and creative ways. <br>    ○ Researchers, by facilitating them the access to historical information, it will increase the quality of their research. |

### 7.1.5.2 Cross-sector

| Question | Answer |
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| *Will the proposal, **once completed** be useful, from the interoperability point of view and utilised in two (2) or more EU policy sectors? Detail your answer for each of the concerned sectors.* | Yes, our proposal will be useful at least for the implementation of the following EU policy areas:<br>• Digital economy and society policy: (Digital Single Market strategy) by supporting technical standards and their implementation, and better access to digital goods and services. In particular we can mention the new eGovernment Action Plan 2016-2020 foreseen by the Digital Single Market Strategy, aiming to remove existing digital barriers to the Digital Single Market and to prevent further fragmentation arising in the context of the modernisation of public administrations).<br>• Culture policy: (art. 3 of EU treaty) by ensuring the long term preservation and safeguard of the European cultural heritage, making it also accessible to the general public and allowing its reuse by creative industries and the digital industry. An example is the Digital Agenda addressing digitisation and preservation of Europe's cultural memory and the Commission recommendation (2011/71/EU) of 27/10/2011 on digitisation and online accessibility of cultural material and digital preservation.<br>• Human rights policy: (art. 6 of EU treaty) by fostering openness and transparency towards citizens. Some examples are the open government and the Cloud of Public Services; CIP/PSP Projects as Immigration Policy 2.0 and PARTERRE.<br>• EU citizenship policy: (EU treaty, part II, art. 20 and Charter of fundamental rights of the European Union art. 41 Right to good administration, art. 42 Right to access to documents): In particular |

| Question | Answer |
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| | ePrivacy domain, the protection of the confidentiality and the security of communications, rooted in the fundamental right to the respect of private and family life (including communications). |
| | • Institutional affairs policy: (EU treaty art 15 on the Functioning of the European Union and art 16 on Transparency and data protection), like for instance Regulation 1049/2001, and new regulation on Data protection. |
| | • Transparency and data openness: (Directive 2013/37/EU of the European Parliament and of the Council) by making available government archives to the general public in Open Data formats, as stated by the, which stresses that public sector bodies should, where possible and appropriate, make documents available through open and machine-readable formats, together with their metadata, at the best level of precision and granularity, in a format that ensures interoperability, re-use and accessibility |
| *For proposals completely or largely **already in operational phase,** indicate whether and how they have been utilised in two (2) or more EU policy sectors.* | Not yet applicable |

### 7.1.5.3 Cross-border

| Question | Answer |
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| *Will the proposal, **once completed,** be useful from the interoperability point of view and used by public administrations of three (3) or more EU Members States? Detail your answer for each of the concerned Member State.* | Yes, in three main ways:<br>• As the proposed action will allow tackling the semantic interoperability issue of how to describe archives (records/files description, electronic exchange of these metadata…), by means of the identification of existing standards for archives description and management (like CEN/CENELEC standards, ISO standards or the ones of the International Council for Archives (ICA)) and clarify its application and use, it will be useful for any of the (also regional and local) public archives of all the 28 EU Member States, as they will be able to re-use the conclusions of the study and apply them for the management of their own archives.<br>• Also the market survey on IT tools supporting the identified standards will be re-usable, as it tackles the already mentioned technical interoperability issue, it intends to analyse the many existing solutions in the market (commercial, open source and custom-developed by public administrations). The different archives of the 28 Member States will benefit from the results of this survey by applying its conclusions directly to their own projects thus implementing robust, standards-based and cost-efficient interoperable archive management solutions.<br>• As the proposed action will study current interoperability requirements between the different European archive-related initiatives (like Archives Portal Europe, Europeana, the Historical Archives of the European Union), for the management and accessibility of archives it will support potentially any of the (national) public archives and archives |

| Question | Answer |
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| | of other organisations of all the 28 EU Member States |
| *For proposals completely or largely **already in operational phase**, indicate whether and how they have been utilised by public administrations of three (3) or more EU Members States.* | Not yet applicable |

### 7.1.5.4 Urgency

| Question | Answer |
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| *Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?* | Yes, as the EU legislation foresees provisions on preservation, management and distribution of archival information, in particular the one of the European institutions, more precisely by its regulations related to archives:<br><br>• Council Regulation (EEC, Euratom) 354/83: Whereas the processing and critical analysis of Community archives is not only of value to historical research in general but can at the same time facilitate the activities of bodies involved in Community affairs and thereby contribute to the better attainment of all the Communities' objectives.<br><br>• Council Regulation (EU) 2015/496 Wherever possible, the institutions shall make their archives available to the public by electronic means, including digitised and born-digital archives, and facilitate their consultation on the internet. They shall also conserve documents which are available in forms meeting special needs. |

| Question | Answer |
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|  | In addition to the legal requirements, the quick obsolescence of electronic data affects to the capacity of European administration to keep in good order information related to their business continuity and memory needs also to be taken into account. The analysis of the current existing standards on electronic archive management and how to implement them will help them to tackle this problem. |
| *How does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?* | The proposed action tries to solve semantic and technical interoperability issues at European level, as currently historical information regarding the policy making process is scattered between national and European archives. Citizens and researchers that would like to know how a particular European policy was decided, designed and implemented have to visit and contact several archives (at regional and national levels and also the EU historical archives). The identification and promotion of standards, and the definition of an assessment model for the related tools supporting them will help interoperability and foster data openness and reuse.<br>Based on the foregoing, our proposal fulfils all the ISA2 eligibility criteria:<br>• Its objectives are within the ISA2 objectives, in particular:<br>   o Facilitate cross-border interaction between European public administrations, which will be done by solving the semantic interoperability issue related to archival data management.<br>   o Facilitate cross-border and cross-sector interactions between European public administrations and business and citizens, by analysing ways of offering the Commission archival information to the public in Open Data formats |

| Question | Answer |
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| | • Its activities fall under the ISA2 activities, in particular:<br>    ○ The assessment, updating and promotion of existing common specification and standards, by analysing the current "state-of-play" in the archives management domain and by identifying tools supporting them.<br>• Its principles accord to the ISA2 general principles, in particular:<br>    ○ User-centricity, multilingualism, transparency, preservation of information, openness and reusability<br>Related to the proposal funding, it is important to note that all its elements not directly related to cross-border and cross-sector interoperability issues will be funded by the EC own budget. |

### 7.1.5.5 Reusability of action's outputs

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| Name of reusable solution to be produced (for new proposals) or produced (for existing actions) | Analysis of current standards for management of archival data and its application and use. |
| Description | This analysis will try to identify existing standards for archives management.<br>As an initial task, the analysis will identify business requirements for archival data management, defining a set of high level business needs and requirements. Based on the identified business requirements, the analysis will select existing standards supporting the different business needs, with recommendations on applying them. |

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| | It will also identify how the different standards are used and applied, in order to understand how they can be utilized in the particular scope of the action. For the standards assessment, the CAMSS method (Common Assessment Method for Standards and Specifications) will be used, in order to ensure selected standards are supporting interoperability and avoiding lock-in situations. This analysis can be reused by any of the existing public and private archives in the different Member States, and also be a basis to promote standardisation in the archive management domain. |
| Reference | |
| Target release date / Status | 2018Q1 / Released (June 2018) |
| Critical part of target user base | <ul><li>Public and private archives from Member States, as they will be able to reuse the results of the study to identify which standards are supporting the different business needs related to management of digital-born archives.</li><li>Archives of the EU institutions, as the historical archives of other Institutions, like the European Parliament or the Council of the EU can also reuse the study the same way than national archives.</li></ul> |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | Technical solution not yet applicable. The study itself has been consulted/re-used by various archives services. |

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| Name of reusable solution to be produced (for new proposals) or produced (for existing actions) | Market study on IT tools for archives management supporting the relevant business domain standards |
| Description | Based on the results of the previous analysis of the "state-of-play" regarding standards (including the definition of business needs and the identification of |

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| | applicable standards) a market analysis will be performed evaluating existing tools (either commercial, open source or developed "in-house" by public administrations).<br><br>The analysis should assess the support to the different recommended archive management standards, archive management tasks and be based on a comparative assessment template.<br><br>The result of the work should enable the target user base to define minimal requirements for archive management systems, identify the possible implementation alternatives and tools and estimate the associated costs. To do so, among the deliverables will be a template that includes:<br><ul><li>definition of an assessment model,</li><li>list of business needs,</li><li>assessment criteria with weighting of each criterion</li><li>a "checklist" to help archives with setting up a "Proof of Concept" (PoC) system in order to assess in practice solution alternatives, covering business and user needs, objectives, conditions and expected deliverables of this PoC.</li></ul>This output will be of interest to all Member States public archives, as they can reuse it to set up their own PoC based on one of the proposed IT solutions. |
| Reference | |
| Target release date / Status | 2018Q1 / Released (June 2018) |
| Critical part of target user base | <ul><li>Public archives from Member States, as they will be able to reuse the results of the study to perform their own analysis based on the assessment model and choose the solution better suiting their needs.</li><li>Archives of the EU institutions, as the historical archives of other Institutions, like the European Parliament or the Council of the</li></ul> |

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| | EU can also reuse the assessment model in the same way than the public archives from the Member States. |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | Technical solution not yet applicable. The study itself has been consulted/re-used by various archives services. |

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| Name of reusable solution to be produced (for new proposals) or produced (for existing actions) | Study on options to develop a multilingual Open Data catalogue providing access to EU archives |
| Description | This study will analyse, based on the identified standards and tools, how the archived digital records of the Commission can be made available to the general public using Open Data formats. It will analyse in details the feasibility of this task, will recommend technical standards and implementations, will analyse existing Open Data initiatives at EU level and describe how they should be applied to publish digital records. It will also relate with the conclusions of the analysis on interoperability requirements, exploring ways to reuse already existing archival data exchange standards. It will pay special attention and try to reuse SEMIC conclusions, especially those related to DCAT-AP (application profile for data portals in Europe). The results of the study can be seen as an example for other public archives when launching similar initiatives, with the Commission taking the lead in the openness and transparency field. Also the results will be of the general interest, as the publication of the historical information in Open Data format will allow researchers, citizens and business to reuse it in different and creative ways. |
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| Target release date / Status | 2018Q1 / Released (June 2018) |
| Critical part of target user base | <ul><li>European citizens, as by providing access to historical information of the Institutions their transparency and accountability increases, increasing also EU prestige among citizens.</li><li>Business, as by providing access to historical information, it can be reused by companies processing historical data in new and creative ways.</li><li>Researchers, as by facilitating on-line access to historical information, barriers are removed, increasing the number and quality of the research results.</li></ul> |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | Technical solution not yet applicable. The study itself has been consulted/re-used by various archives services. |

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| Name of reusable solution to be produced (for new proposals) or produced (for existing actions) | Proofs of Concept on archives management systems and exchange of archival data |
| Description | Proposed pilots (or proofs of concept) will put into practice the results obtained in the first (study) phase of this action. To this extent, the specific situation of the Historical Archives Service of the European Commission will have to be taken into account on mainly two levels:<br>- standards used, business domains covered and technical constraints of the EC's IT environment;<br>- direct relationships with other archives services (of other EU institutions and the HAEU in Florence) and related legal obligations for exchanging archival data (archival description, producers, etc…). |

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| | The way the Historical Archives Service of the European Commission is organised and interacts with other archive services is not a unique situation (European level) as similar needs exist on local, regional and member states level (e.g. between regional and national archives) or even amongst other (international) organisations when it comes to interoperability on the level of archival data exchange.<br><br>The work to be carried out will be organised in relation to the following possible deliverables:<br>- Based on the results of the first phase, detailed identification of criteria specific for the Historical Archives Service of the European Commission: standards to be used, business domains to be covered and technical issues to be taken into account. Current practices existing on the level of archival data exchange need to be taken into account and if necessary new approaches need to be identified and proposed.<br>- Following a phased approach (translation of needs, installation, configuration, data migration, customization, testing and approval) and, using the assessment tool created in the first phase of the action, systems need to be selected and deployed in order to proof the feasibility of the selected solution.<br>- Define reference architecture for the solution emphasising especially on data exchange re-useable for other stakeholders. |
| Reference | |
| Target release date / Status | 2019Q1 / To be concluded Q3/Q4 2019 |
| Critical part of target user base | The results of the proofs of concepts could be used by archive services in: |

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| | • Member states at local, regional and national level<br>• European Institutions<br>• International organizations |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | Not yet applicable |

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| Name of reusable solution to be produced (for new proposals) or produced (for existing actions) | Proofs of Concept for solutions for turning archival data into (linked) open data |
| Description | The pilot (or proofs of concept) will put into practice the results obtained in the first (study) phase of this action. To this extent, the specificities of the archival data managed by the Historical Archives Service of the European Commission and its direct stakeholders will have to be taken into account:<br>- Levels of archival description (in accordance with the ISAD standard): fonds groups, fonds, sub-fonds, series, files;<br>- Description of identified producers (in accordance with the ISAAR standard);<br>- Business specific metadata existing on several levels like files and documents;<br>- Currently used keywords and several kinds of named entities;<br>- Full text indexes.<br>The archival data being managed at European level are not necessarily unique as on local, regional and member states level similar information exists.<br><br>The work to be carried out will be organised in relation to the following possible deliverables:<br>- Detailed identification of archival data relevant for being enriched turned into linked open data |

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| | and identification of datasets relevant for being published on the European Open Data portal;<br>- Following a phased approach (translation of needs, development and configuration, data cleaning and manipulation, testing and approval), mechanisms need to be deployed in order to produce linked data and dataset to be published in order to proof feasibility;<br>Define reference architecture for the proposed solution. |
| Reference | |
| Target release date / Status | 2019Q1 / To be concluded Q3/Q4 2019 |
| Critical part of target user base | The results of the proofs of concepts could be used by archive services in:<br>• Member states at local, regional and national level<br>• European Institutions<br>• International organizations |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | Not yet applicable |

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| Name of reusable solution to be produced (for new proposals) or produced (for existing actions) | An interoperability solution for archival data exchange |
| Description | Based on the conclusions of the proofs of concept, a standards-based solution for the exchange of archival information (relating to archival descriptions and data enriching by making use of controlled vocabularies), between the Historical Archives Service of the European Commission and the Historical Archives of the European Union will be put in place.<br>The solution will take into account the gaps identified during the proofs of concept phase between the requirements and the functionalities offered by the |

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| | existing tools and will define strategies to fill these gaps either by custom development, adaptation of business processes or both.<br><br>The need for interoperability regarding the exchange of archival information between archival services exists at local, regional or member states level but also amongst international organizations so that a solution based on standards aims at fulfilling this need and can be extended to any interested organization. |
| Reference | |
| Target release date / Status | 2020 Q2 / to start Q4 2019 |
| Critical part of target user base | The solution could be re-used by archival organizations of the European Institutions. |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | Not yet applicable |

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| Name of reusable solution to be produced (for new proposals) or produced (for existing actions) | A solution for the publication of archival descriptions and digital-born/digitised archives of the European public administration |
| Description | Following the conclusions and the recommendations of the proofs of concept, a solution for the publication of archival descriptions and digital-born/digitised archives of the European Commission will be put in place so that the archives are accessible to the public in various forms (from traditional ways of publication to open data publication).<br><br>The publication of the archives will bring benefits to a large population of interested parties:<br>• European citizens, as by providing access to the historical information of the Institutions their transparency and accountability increases, increasing also EU prestige among citizens. |

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| | • Business, as by providing access to historical information, this can be reused by companies processing historical data in new and creative ways.<br><br>• Researchers, as by facilitating their on-line access to historical information, the geographical barriers are removed increasing the interest in European History. |
| Reference | |
| Target release date / Status | 2020 Q2 / to start Q4 2019 |
| Critical part of target user base | The solution could be re-used by archival organizations of the European Institutions to make their archival date accessible to the public. |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | Not yet applicable |

### 7.1.5.6 Level of reuse of existing solutions

| Question | Answer |
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| *Does the proposal intend to make use of any ISA², ISA or other relevant interoperability solution(s)? Which ones?* | Regarding ISA/ISA2 solutions, in the framework of standards assessments, our proposal plans to reuse CAMSS (Common Assessment Method for Standard and Specifications), which is a comprehensive method to select standards with the main goal of avoiding vendor lock-in situations. Also the study on Open Data will take into account and try to align its proposal to the main European Open Data initiatives, especially the European Union Open Data portal and the European Data portal, by reusing as much as possible the DCAT application profile for data portals in Europe.<br><br>Finally, the works to be done within the scope of this action will be aligned and take into account the |

| Question | Answer |
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| | conclusions and recommendations of the E-ARK project which is a multinational big data research project that aims to improve the methods and technologies of digital archiving, in order to achieve consistency on a Europe-wide scale. E-ARK is co-funded by the European Commission under its ICT Policy Support Programme (PSP) within its Competitiveness and Innovation Framework Programme (CIP). |
| *For proposals completely or largely **already in operational phase**: has the action reused existing interoperability solutions? If yes, which ones and how?* | Not yet applicable |

### 7.1.5.7 Interlinked

| Question | Answer |
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| *Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?* | From the 10 high-level political priorities, it will contribute to the following ones:<br>• Democratic change, in the following way:<br>    o One of the goals of this priority has to do with bringing the EU closer to its citizens. One way of doing so is providing better access to the Institutions history and memory by facilitating the access to its historical archives.<br>    o Digital Single Market, in two ways:<br>• By clarifying and supporting technical standards for archival management, it will ensure better access to digital goods and services.<br>• By providing access to Commission archives in Open Data format it will generate value, |

| | allowing the reuse of this information producing new products and services. |
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### 7.1.6 PROBLEM STATEMENT

| The problem of | Properly managing archives and related archival activities |
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| affects | European public administrations as well as public administrations in the member states |
| the impact of which is | difficulties in exchanging archival information between different European public organizations |
| a successful solution would be | • a set of recommendations based on standards allowing public administrations as well as any other interested organization to organize the management of their archives;<br>• an evaluation framework based on standards allowing public administrations as well as any other interested organization to effectively evaluate information systems for archive management for easy integration with archival services of other European public organizations;<br>• a pilot implementation in form of proofs of concept applied to the specific case of the Historical Archives Service of the European Commission in order to validate the recommendations and proof their utility in selecting and adopting good practices in archival data management, exchange and publication.<br>• implementation of an interoperability solution for archival data exchange between the Historical Archives Service of the European Commission and the Historical Archives of the European Union |

| The problem of | making the archival information of the European public administrations available to the public |
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| affects | citizens, researchers and business |
| the impact of which is | difficult access and limited reuse of the archival information of the European public administrations |
| a successful solution would be | • a set of recommendation based on open standards for making archival information of European public administrations available to the public in order to enhance transparency and accountability of the public institutions and to allow the re-use of the information<br>• implementation of a solution for the publication of the European Commission's archives as Open Data |

## 7.1.7 IMPACT OF THE ACTION

### 7.1.7.1 Main impact list

| Impact | Why will this impact occur? | By when? | Beneficiaries |
|---|---|---|---|
| (+) Savings in money | • The results related to "archives management systems and data exchange" will allow the target user base to define minimal requirements for archive management systems, identify the possible implementation alternatives and tools and estimate the associated costs. This means an easier in depth product | Partially after the study phase when reports will be delivered (2017Q4-2018Q1) and after the setup of proofs of concept by 2018Q4. | Archives services in general (national or regional archives) and of (international) organisations. Archives services of |

| Impact | Why will this impact occur? | By when? | Beneficiaries |
|---|---|---|---|
| | analysis when tools have to be assessed and hence less money to be invested.<br><br>• The results related to "linked open data" can be seen as an example for other public archives when launching similar initiatives. The overview provided including best practices for turning archival data into linked open data will prevent users for investing additional money to analyse similar activities. | | EU institutions. Historical Archives of the European Union of Florence. Open data community. Archives users (as end users). |
| (+) Savings in time | • The results related to "archives management systems and data exchange" will allow the target user base to define minimal requirements for archive management systems, identify the possible implementation alternatives and tools and estimate the associated costs. This means an easier in depth product analysis when tools have to be assessed and hence less time to be dedicated.<br><br>• The results related to "linked open data" can be seen as an example for other public archives when launching similar initiatives. The overview provided including | Idem | Idem |

| Impact | Why will this impact occur? | By when? | Beneficiaries |
|---|---|---|---|
| | best practices for turning archival data into linked open data will prevent users spending time to analyse similar activities. | | |
| (+) Better interoperability and quality of digital public service | The provided solutions for exchange of archival data will help EU institutions in cooperating with the Historical Archives of the European Union (Florence). The ideas and proof of concepts related to (linked) open data will help other archives services to implement similar initiatives. In a broader sense, archives services of all kind will be able to pick up ideas in order to advance towards more cooperation in the field of data exchange e.g. in the light of duties in relation to their respective national archives or towards the Archives Portal Europe. | Idem | Idem |

### 7.1.7.2 User-centricity

Several elements listed in section "1.1.5.5 Reusability of action's outputs"

The action's output will mainly impact two types of users: institutional users and end users. The output of the studies and the solutions put in place (Proofs of Concept and beyond) will facilitate:

- the selection of IT tools,
- the launching of initiatives for data exchange and open data
- the re-use of archives
- the consumption of archives by end users

Overview of beneficiaries and anticipated benefits

| Beneficiaries | Anticipated benefits |
| --- | --- |
| European citizens | The assessment on the feasibility of creating an Open Data based catalogue of Commission digital archives will increase the involvement of European citizens having as a benefit:<br>• Increase of Institutions accountability, allowing taxpayers to have a better view on how policies where designed, developed and implemented.<br>• Increase of Institutions transparency and prestige, reducing the "legitimacy gap" that some European citizens feel. |
| European business | The assessment on the feasibility of creating an Open Data based catalogue of Commission archives will help European business, resulting in:<br>• Maximum re-use of the information, including new business opportunities based on the historical data re-use.<br>• Sharing of knowledge and possibility to network.<br>• Easy clustering of the expertise of different businesses. |
| Researchers | In the particular case of researchers, the Open Data catalogue of Commission digital archives will also allow them to better perform their work, by:<br>• Providing a better view on the history and memory of the Institutions, resulting on increased and improved research results.<br>• Easy access |
| EU institutions and Member States archives (national, regional, local levels) | The review on digital archival data management standards and the market analysis of the existing IT tools providing support to them will:<br>• Save resources to the different archives by providing a benchmarking of the available standards and IT solutions. |

| Beneficiaries | Anticipated benefits |
|---|---|
| | • Promote the reuse of standards and standards-based existing solutions, guaranteeing interoperability between different archives.<br>• Ensure a coherent way to evaluate standards and archive management tools.<br>• Foster modernization of archive services to better address the expectations of their stakeholders. |

### 7.1.8  EXPECTED MAJOR OUTPUTS

| | |
|---|---|
| Output name | Analysis of the interoperability requirements to exchange Commission archival management data with the European archiving initiatives |
| Description | This analysis will identify the current semantic and technical interoperability requirements established by the different European archiving institutions (Historical Archives of the European Union) and initiatives (Archives Portal Europe, Europeana) for archives data exchange, and what the possible options are to technically implement them.<br>The analysis will include assessment of elements like the used and required standards; required metadata and existing gaps; metadata transformation, etc.<br>It will also provide conclusions on recommended options to implement those requirements, taking into account the conclusions of the market survey on standards-based IT tools and services for archives management.<br>As the study will help making archives of the Commission available to the public, it will also be of the general interest for European businesses and citizens. |
| Reference | |
| Target release date / Status | 2018Q1 / Released (June 2018) |

| Output name | Proofs of Concept on archives management systems and exchange of archival data |
|---|---|
| Description | Proposed pilots (or proofs of concept) will put into practice the results obtained in the first (study) phase of this action. To this extent, the specific situation of the Historical Archives Service of the European Commission will have to be taken into account on mainly two levels:<br>- standards used, business domains covered and technical constraints of the EC's IT environment;<br>- direct relationships with other archives services (of other EU institutions and the HAEU in Florence) and related legal obligations for exchanging archival data (archival description, producers, etc…).<br>The way the Historical Archives Service of the European Commission is organised and interacts with other archive services is not a unique situation (European level) as similar needs exist on local, regional and member states level (e.g. between regional and national archives) or even amongst other (international) organisations when it comes to interoperability on the level of archival data exchange.<br><br>The work to be carried out will be organised in relation to the following possible deliverables:<br>- Based on the results of the first phase, detailed identification of criteria specific for the Historical Archives Service of the European Commission: standards to be used, business domains to be covered and technical issues to be taken into account. Current practices existing on the level of archival data exchange need to be taken into account and if necessary new approaches need to be identified and proposed.<br>- Following a phased approach (translation of needs, installation, configuration, data migration, customization, testing and approval) and, using the assessment tool created in the first phase of the action, |

| | |
|---|---|
| | systems need to be selected and deployed in order to proof the feasibility of the selected solution.<br>- Define reference architecture for the solution emphasising especially on data exchange re-useable for other stakeholders. |
| Reference | |
| Target release date / Status | 2019Q1 / To be concluded Q3/Q4 2019 |

| | |
|---|---|
| Output name | Proofs of Concept for solutions for turning archival data into (linked) open data |
| Description | The pilot (or proofs of concept) will put into practice the results obtained in the first (study) phase of this action. To this extent, the specificities of the archival data managed by the Historical Archives Service of the European Commission and its direct stakeholders will have to be taken into account:<br>- Levels of archival description (in accordance with the ISAD standard): fonds groups, fonds, sub-fonds, series, files;<br>- Description of identified producers (in accordance with the ISAAR standard);<br>- Business specific metadata existing on several levels like files and documents;<br>- Currently used keywords and several kinds of named entities;<br>- Full text indexes.<br>The archival data being managed at European level are not necessarily unique as on local, regional and member states level similar information exists.<br><br>The work to be carried out will be organised in relation to the following possible deliverables:<br>- Detailed identification of archival data relevant for being enriched turned into linked open data and identification of datasets relevant for being published on the European Open Data portal;<br>- Following a phased approach (translation of needs, development and configuration, data cleaning and |

| | manipulation, testing and approval), mechanisms need to be deployed in order to produce linked data and dataset to be published in order to proof feasibility;<br>- Define a reference architecture for the proposed solution. |
|---|---|
| Reference | |
| Target release date / Status | 2019Q1 / To be concluded in Q3/Q4 2019 |

| | |
|---|---|
| Output name | Implementation of a standard-based solution for archival data management, exchange and publication |
| Description | The solution implementation will put into practice the results and lessons learned during the proofs of concepts phase of the action.<br>At the core of the solution, a new archives management system (AMS) will be put in place able to manage and coordinate the activities covering a maximum of business processes and ultimately leading to the publication and exchange of archival data in various ways.<br>At EC level, the AMS will need to be integrated with different existing (corporate) information systems: a-REP and HAN (digital preservation repository), ARCHIS-Scanning (digitisation system), HistOrga (application managing organisational reference data).<br>At EU institutional level, integration will be needed towards a new module allowing data exchange between EU institutions archives services and the Historical Archives of the European Union (Florence). In addition to this, integration will be needed with the solution (Vocbench) allowing the various stakeholders to manage in a shared way selected controlled vocabularies.<br>Finally, solutions are to be implemented allowing not only the traditional ways of archival data publication but also via open data taking into account open data standards for archival data currently being developed. |
| Reference | |
| Target release date / Status | 2020 Q2 / to start Q4 2019 |

### 7.1.9 ORGANISATIONAL APPROACH

#### 7.1.9.1 Expected stakeholders and their representatives

| Stakeholders | Representatives | Involvement in the action |
|---|---|---|
| Historical Archives Service of the European Commission (OIB) | Sven CARNEL, Julie URBAIN, Lieven BAERT, Emmanuel DERVAUX | Service in charge |
| Directorate General for Informatics (DIGIT) | Béla HARSANYI, Sorin BOBEICĂ | Service in charge |
| Secretariat General of the European Commission (SG) | Annemieke VANLAER, Antonio PALMA GOMEZ | Associated services |

#### 7.1.9.2 Identified user groups

- Institutional:
  - Archives services in general (national or regional archives) and of (international) organisations.
  - Archives services of EU institutions.
  - Historical Archives of the European Union (European University Institute in Florence).
  - Open data community.
- End users – consumers of archives
  - European citizens
  - Business
  - Researchers (students, legal advisors, academic community)

#### 7.1.9.3 Communication and dissemination plan

Currently the following is foreseen for the first phase (2017-2018) of the action:

- A project wiki (Confluence) in order to allow the stakeholders to interact;
- Interactions with various stakeholders for data collection either directly (phone, video conferencing, email) or by making use of survey tools;

- Reflection committee to assess results intermediary.

For the pilot phase (2018-2019):

- A common project space will be set up in order to facilitate communication between the main stakeholders;
- Regular meetings with the main stakeholders for the project progress will be organised.

For the implementation phase (2019-2020)

- Interactions with vendors, EC IT teams, and other EC stakeholders offering re-usable tools;
- Extensions of the pilot for the data exchange in LOD format in order to cover the entire data model and relevant eligible archival content;
- Interactions with other EU institutions archives services and the HAEU in Florence;
- A common project space will be set up in order to facilitate communication between the main stakeholders;
- Regular meetings with the main stakeholders for the project progress will be organised.
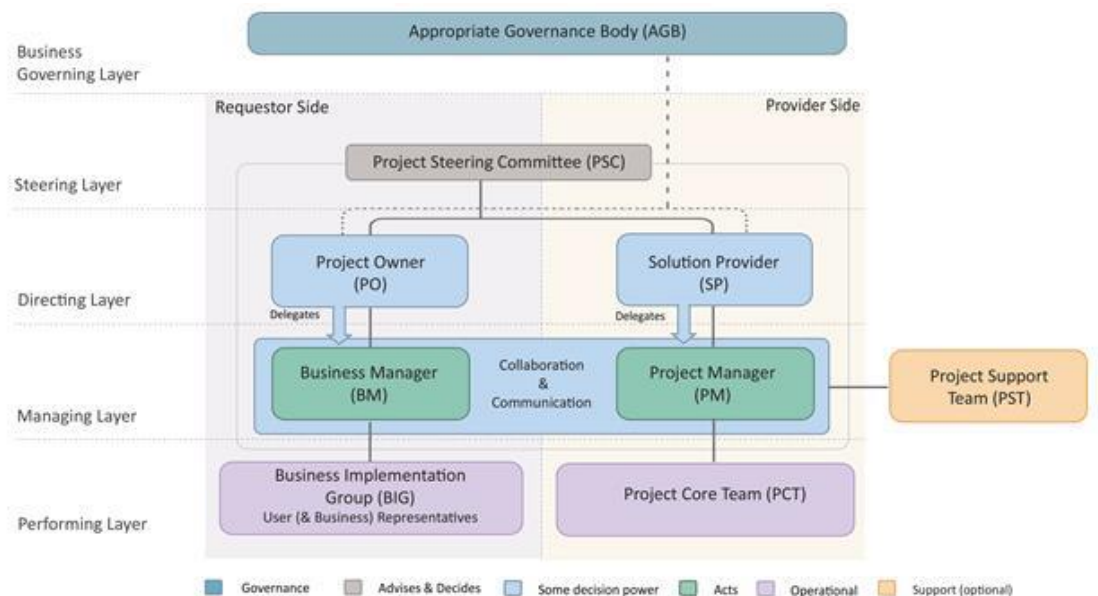
### 7.1.9.4 Key Performance indicators

| Description of the KPI | Target to achieve | Expected time for target |
|---|---|---|
| Phase 1: Definition of templates for description of 4 specific deliverables | 4 | Q4 2017 |
| Phase 1: Collect, analyse and report on information collected for 4 specific deliverables | 4 | Q4 2017 |
| Phase 1: Design and test assessment tool | 1 | Q4 2017 – Q1 2018 |
| Phase 1: Conclusions and recommendations for proofs of concept | 2 | Q4 2017 – Q1 2018 |
| Phase 2: The various stakeholders are contacted and practices are taken into account into the PoC's needs specifications | 3 | Q4 2018 |

| Description of the KPI | Target to achieve | Expected time for target |
|---|---|---|
| Phase 2: A report is made available setting out the boundaries of the specific situation of the Historical Archives Service of the European Commission | 1 | Q4 2018 |
| Phase 2: 3 Proofs of Concept (or variants) must be set up. | 3 | Q1 2019 |
| Phase 2: In order to assess the proposed solutions, test scenario's and evaluation criteria must be proposed. | 1 | Q1 2019 |
| Phase 2: Results should be delivered in line with the proposed calendar (to be defined at the start of the PoC-phase). | 1 | Q1 2019 |
| Phase 2: A report describing the PoCs methodology and lessons learned is published for re-use by the archival community | 1 | Q4 2019 |
| Phase 2: Based on the PoCs, solution(s) for the next phase is(are) selected. | 1 | Q4 2019 |
| Phase 3: A project plan is defined with the various stakeholders | 1 | Q4 2019 |
| Phase 3: A new AMS enabling the EC Historical Archives Service to publish and exchange archival data in an interoperable and standardised way is put in place | 1 | Q2 2020 |
| Phase 3: A module allowing efficient data exchange between EU institutions archives services and the Historical Archives of the European Union (Florence) is developed. | 1 | Q2 2020 |
| Phase 3: The AMS and the new module are integrated with VocBench allowing the various stakeholders to manage in a shared way selected controlled vocabularies | 1 | Q2 2020 |

| Description of the KPI | Target to achieve | Expected time for target |
|---|---|---|
| Phase 3: The EC Historical Archives Service is able to publish archival data as open data to be re-used by the archival community as well as citizens | 1 | Q4 2020 |

### 7.1.9.5 Governance approach

The action governance will be based on what PM$^2$ methodology proposes, as displayed in the following picture:



The proposed governance approach might be adapted depending on the project evolution.

The Steering Committee is composed by the following persons (for the content of the roles see attached document):

- Directing layer
  - Project Owner: OIB.OS.1 represented by  Sven Carnel as HoS of the HAS
  - Solution Provider: DIGIT.B.2 represented by Willy Van Puymbroeck as HoU and Béla Harsányi as HoS

The PSC will be chaired by OIB.OIS.1 and will meet on a regular basis (every three months approximately) to ensure the project is progressing satisfactorily and to take strategic decisions. In case any critical risk or issue is raised, the PSC may also meet, in order to decide on actions to be launched.

- Execution layer
  - Business Managers (on the Project Owner side): the persons delegated by OIB.OS.1 to follow-up the project on a daily basis: Lieven Baert, Julie Urbain and Emmanuel Dervaux
  - Project Manager (on the Solution Provider side): Sorin Bobeica;
  - Associated service (SG) : Annemieke Vanlaer
  - Other contractors: Numen, Infeurope
  - The Project Support Team
    - The members of the current HPS III working party (OIB, DIGIT + SG )
    - Possibly, extension by "ad hoc members" (called upon for "peer" related activities)
      - Members coming from EBNA (European Board of National archives), EAG (European Archives Group) , IIAG (Inter Institutional Archives Group), DLM (Document Life cycle management), HAEU (Historical archives of the European union) (to deliver feedback on archives management tool and metadata exchange (content format))
      - Members from OP, COMM, CNECT ( to deliver feedback on interoperability requirements (metadata formats- technical requirements) (e.g. Cordis, Horizon 2020) and effects for Open Data)

## 7.1.10  TECHNICAL APPROACH AND CURRENT STATUS

Regarding the identified deliverables, they will be prepared in collaboration with external consultancy companies. In order to speed up the procurements, existing framework contracts will be used as much as possible. The definition of the technical architecture of the future solutions will be done later on, once the conclusions of the study are available.

The scope of the project will be divided in two different work packages: one dealing with standards clarification and IT tools assessment, and the second one tackling the identification of interoperability requirements and Open Data. The two work packages can run in parallel, producing their results independently.

Details about deliverables can be found in document with reference Ares(2017)2610424.

## 7.1.11  COSTS AND MILESTONES

### 7.1.11.1 Breakdown of anticipated costs and related milestones

| Phase: Initiation Planning Execution Closing/Final evaluation | Description of milestones reached or to be reached | Anticipated Allocations (KEUR) | Budget line ISA/ others (specify) | Start date (QX/YYYY) | End date (QX/YYYY) |
|---|---|---|---|---|---|
| Planning | Definition of work packages and procurement procedure | n/a | n/a | Q2 2017 | Q3 2017 |
| Execution | Study on archive management standards and supporting IT tools | 100 | ISA² | Q3 2017 | Q1 2018 |
| Execution | Analysis on interoperability requirements and Open Data publication feasibility | 100 | ISA² | Q3 2017 | Q1 2018 |
| Execution | Pilot on Open Data publication | 150 | ISA² | Q3 2018 | Q3 2019 |
| Execution | Pilot on archival data exchange | 300 | ISA² | Q3 2018 | Q4 2019 |
| Execution | Implementation of a solution for archival data management, exchange and publication | 300 | ISA² | Q3 2019 | Q2 2020 |
| | **Total** | 950 | | | |

### 7.1.11.2 Breakdown of ISA$^2$ funding per budget year

| Budget Year | Phase | Anticipated allocations (in KEUR) | Executed budget (in KEUR) |
|---|---|---|---|
| 2017 | Execution:<br>• Study on archive management standards and supporting IT tools<br>• Analysis on interoperability requirements and Open Data publication feasibility | 200 | 157 |
| 2018 | Execution:<br>• Pilot on Open Data publication<br>• Pilot on archive management data exchange | 450 | |
| 2019 | Execution:<br>• Implementation of a solution for archival date exchange and publication | 300 | |

## 7.1.12 ANNEX AND REFERENCES

| Description | Reference link | Attached document |
|---|---|---|
| Results of the first phase (study) are available on the actions web page | https://ec.europa.eu/isa2/actions/facilitating-archive-management-across-europe_en | |
| Framework Contract ABC III / Lot 2 – fixed price. Technical annex (Description of the work for the first phase). | Ares(2017)2610424 23/05/2017 | |
| Hermes Preservation Services (HPS) Vision document | Ares(2009)270285 8/10/2009 | Ares(2009)270285 |
| Business case HPS II-HPS III | Ares(2013)69564 21/01/2013 | |
| Reg 2015/496 + Dec 47/2002 and 563/2004 | http://eur-lex.europa.eu/eli/reg/2015/496/oj | |
| ISO OAIS Reference Model for an OAIS (Open Archival Information System). This reference model is defined by recommendation CCSDS 650.0-B-1 of the Consultative Committee for Space Data Systems (2012) | ISO 14721:2003 which is superseded by ISO 14721:2012.<br><br>http://public.ccsds.org/publications/archive/650x0m2.pdf | |
| ISAD(G) General International Standard Archival Description | ISAD(G): General International Standard Archival Description (PDF) (2 ed.), International Council on Archives | |

| Description | Reference link | Attached document |
|---|---|---|
| approved by the International Council on Archives (ICA/CIA) as a standard to register archival documents produced by corporations, persons and families | Committee on Descriptive Standards, *2000* | |
| ISAAR (CPF) International Standard Archival Authority Record for Corporate Bodies, Persons and Families | ISAAR (CPF): International Standard Archival Authority Record For Corporate Bodies, Persons and Families" *(PDF). International Council on Archives. October 2003*. Retrieved 2012-07-06. | |
| e-ARK | http://www.eark-project.com/ | |
| Data, information and Knowledge management | COMMUNICATION TO THE COMMISSION Data, information and knowledge management at the European Commission | |
| European Union Open Data Portal | https://data.europa.eu/euodp/en/data | |
| European Data Portal | https://www.europeandataportal.eu/ | |