



ARCHIVING AND PRESERVATION FOR RESEARCH ENVIRONMENTS

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**Abstract:** This strategic plan covers all the activities related to communication and outreach across the multiple target groups. This plan also defines performance measures that can subsequently be used to monitor the effectiveness of it. An updated version of this document is foreseen at month 35.



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## Executive Summary

The overarching objective of **WP5 “Communication, Dissemination and Outreach”** is to ensure a coordinated communication, strategy and plan are delivered for the ARCHIVER project and its Pre-Commercial Procurement (PCP) scheme, providing adequate visibility to all stakeholders. As stated in the Grant Agreement Article 38.1, *“The beneficiaries must promote the action and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner”*. In line with this, this **strategic plan** covers all the activities related to communication and outreach across the multiple target groups. This plan also defines performance measures that can subsequently be used to monitor the effectiveness of it. Both, communication activities as well as dissemination activities contribute fundamentally to the project’s visibility, outreach, and impact.

As a PCP, the implementation of the overall procurement process follows a precise scheme articulated around different phases. **All these phases have different objectives and outcomes, and therefore different communication, dissemination, and stakeholder engagement purposes.** This plan outlines the main objectives and outcomes of the PCP phases and the specific communication, dissemination, and stakeholder engagement activities that will be set to ensure the successful achievement of the project objectives.

ARCHIVER **main target stakeholder groups** are identified in this plan and specific engagement channels are envisaged for each of them:

1. The **ARCHIVER procurers (as multipliers) and Users** including **publicly funded research organisations** (large, medium & small organisations & infrastructures operating in the High-energy Physics, Astronomy and Cosmology, Life Sciences, Photon/Neutron Sciences and the long tail of science).
2. The **Digital Preservation Coalition, Libraries and Documentation** Centres, and National Repositories to be considered prime stakeholders and a target for the Early Adopters’ programme.
3. **SMEs and large companies specialised in archiving and data preservation, data management, system integration, cloud service providers (CSPs) are key stakeholders as potential bidders** of the tender.
4. **Policy Makers & Funding Bodies (European and National)** as actors defining the strategy and actions for the establishment of the European Open Science Cloud (EOSC), in particular towards the FAIR management of research data within the Digital Single Market strategy.

5. **International initiatives and Standardisation bodies** interested in the ARCHIVER topics and results or that can influence the uptake and sustainability of the services developed in ARCHIVER.

The ARCHIVER communication strategy is a S.M.A.R.T. (Specific, Measurable, Achievable, Relevant, and Time-bound) and KPI-driven approach to successfully pursue community building and stakeholder engagement, content creation and development of the communication activities (the Communication Toolbox), and social media campaigns.

An updated version of the report which will include all of the results is foreseen at **month 35**.

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## 1. Communication, dissemination & stakeholder engagement objectives

Currently, many research projects struggle to preserve their data, as the archiving and preservation services are inadequate and fall below expectations while data stewardship costs are frequently underestimated during the planning phase. Using the EC Pre-Commercial Procurement (PCP) instrument, the ARCHIVER project goal is to fulfil these data management promises in a multi-disciplinary environment, allowing each research group to retain total stewardship of their data whilst leveraging best practices, standards and economies of scale. The objective is to address the critical gaps between what is increasingly required by funding agencies, requested by data creators and eventual (re-)users and what is currently commercially available.

An effective and efficient communication, dissemination, and stakeholder engagement strategy is fundamental for the relevant ARCHIVER stakeholders to become actively involved in the PCP process and to ensure that sufficient interest in the tender is generated.

Timely communication and dissemination activities<sup>1</sup> is vital to:

- Raise awareness about the ARCHIVER project.
- Make sure that the tender is appropriately disseminated in all the EU member states and H2020 associated countries.
- Engage Early Adopters, accessing the R&D results and testing the services deployed in the ARCHIVER project.
- Disseminate the results of the pilot phase and stimulate the uptake of the solutions developed.

The communication & dissemination plan implementation has the following main objectives:

- **Community building & Stakeholder Engagement:** Identifying key target stakeholders for engagement in ARCHIVER activities and events, timely and user-friendly communication of information, highlighting the benefits for each target group.
- **Communication & Outreach:** Regular awareness raising activities for ARCHIVER target stakeholders on the mission, vision, services and main results and promotion of events & initiatives. The results of each phase of the PCP will be disseminated in a timely manner.

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<sup>1</sup> In particular: For Dissemination, focusing on a portfolio of results from a project group, to maximise the uptake of project results. For Exploitation, going beyond the exploitation plan providing analysis and market support uptake, as well as for accessing follow-up public and private financing.

- **Knowledge transfer:** Targeting procurers and end users on the usage and the benefits of the developed solutions to speed the uptake of the archiving and preservation services, with a particular emphasis on European research organisations with similar data archiving and preservation requirements and constraints to be enrolled as Early Adopters.
- **Best Practices & Socio-economic Impact:** Documenting & showcasing the value-add features of the standards-based, cost-effective archiving and preservation services to be developed by the ARCHIVER project for smarter approaches that result in socio-economic benefits.

In a PCP, the implementation of the overall procurement process follows a precise approach articulated around different phases. All these phases have different objectives and outcomes, and therefore different communication, dissemination and stakeholder engagement purposes.

**Phase 0 - Preparation:** the Buyers Group will analyze the requirements, assess the innovation potential versus risks related to the deployment scenarios foreseen and carry an analysis of the state-of-the-art technologies currently available on the market.

**Phase 1 - Solution Design:** selected contractors will provide a design report including architecture and technical design of components. The activity during this phase, will produce the results to be taken into account in the selection process that allows a contractor to proceed to the subsequent project phase.

**Phase 2 - Prototype Development:** selected contractors from the Design Phase will build prototypes of the designed solutions and make them available to the procurer organisations forming the Buyers Group. During the Prototype Phase, basic functionality testing will be performed by specialists from the procurer organisations.

**Phase 3 – Pilot Deployment:** Selected contractors will deploy expanded prototype services. These pilots will be essentially pre-production services to be tested in aspects such as performance, scalability and robustness. These services will potentially be exposed to end users and Early Adopters, in order to determine if the resulting services are suitable for their needs. ARCHIVER will also promote the development of the business model of the resulting services across all phases of the project, requesting contractors to provide Total Cost of Services (TCS) starting at the design phase and also commercialisation plans of the future solutions. This aspect is considered fundamental in order to provide a clear cost perspective to organisations that envisage the purchase of the resulting services by the end of the project.





Figure 1: ARCHIVER PCP structure

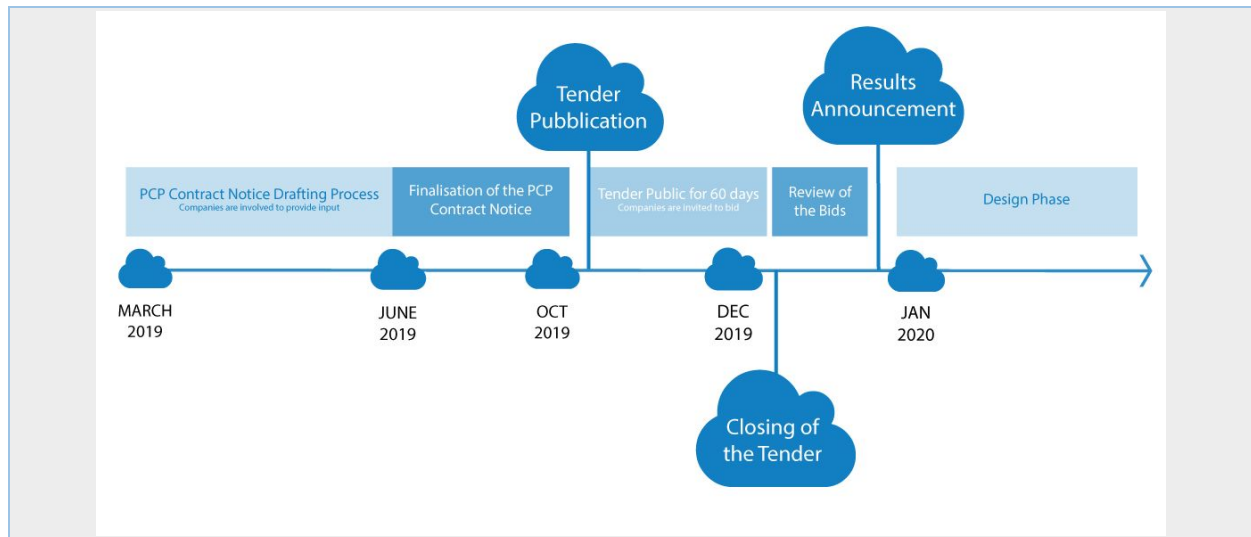
### 1.1. Communication, dissemination & stakeholder engagement principal plan

The table below summarizes the consortia’s **principal plan and strategy** to display the outcomes of the PCP phases and the specific communication, dissemination, and stakeholder engagement activities that will be set to ensure the successful achievement of the project objectives.

In addition, the main target stakeholder groups for each phase are also identified. As mentioned earlier, the preparatory phase (phase 0) and the implementation phase (phase 1, 2, and 3), have different objectives and outcomes, and therefore different communication, dissemination, and stakeholder engagement purposes.

**Table 1 PCP preparation phase: Main Outcomes; Communication, Dissemination and Stakeholder Engagement objectives & Primary stakeholders**

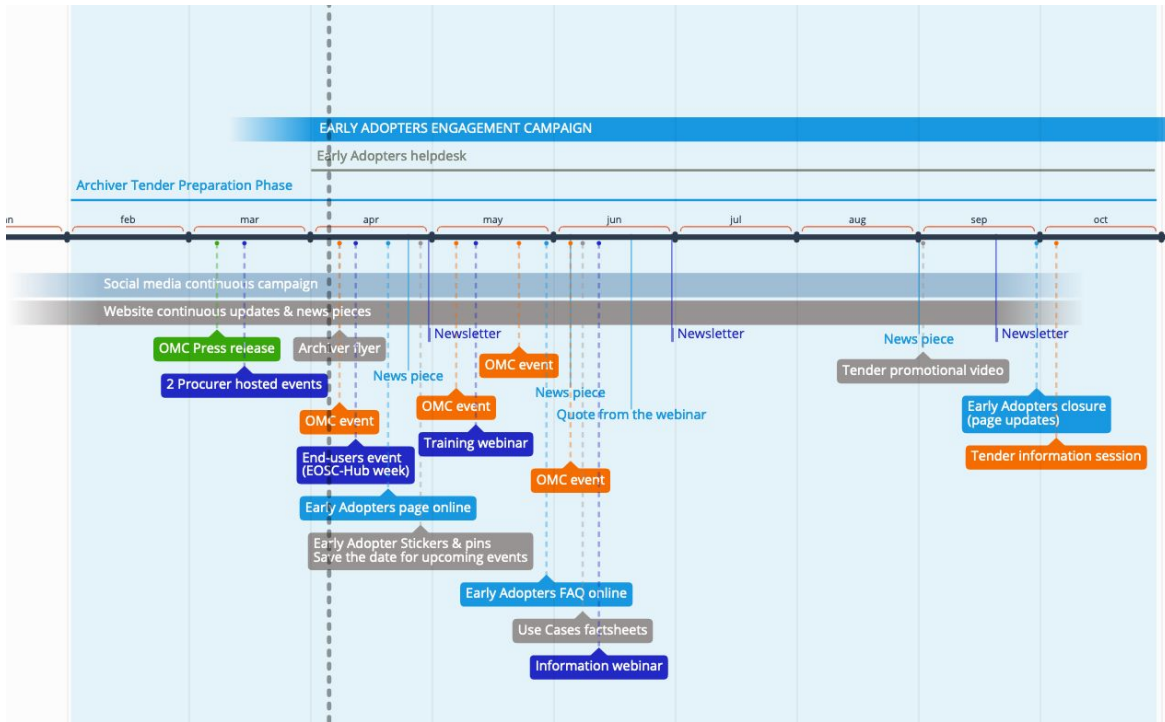
|   |
|---|
| <p><b>Preparation phase</b></p> <p>The preparation phase covers the first ten months of the project, from <b>January 2019 to December 2019</b>.</p> <p>During the preparation phase, the communication, dissemination, and engagement activities will be focused on spurring the supply-side to participate in the procurement process. The following table reports the communication, dissemination, and engagement activities that will be performed to achieve the objectives.</p> |
|---|



|   |  |
|---|--|
| <p><b>Main outcomes</b></p>   | <ul style="list-style-type: none"> <li>● Kick-off meeting &amp; tender announcement (8 April 2019)</li> <li>● Open Market consultation (April – June 2019)</li> <li>● Publication of the invitation to tender (October 2019)</li> <li>● Webinar information session on the Tender Documents (October or November 2019)</li> <li>● Award contracts to the tender winners (December 2019 -January 2020)</li> </ul>   |
| <p><b>Comm., Diss., &amp; Stakeholder Engagement Objectives</b></p> | <ul style="list-style-type: none"> <li>● <b>OB1:</b> Actively supporting the PCP tender promotion to ensure high visibility of the tender among its key stakeholders and to make sure that the maximum number of EU private companies, Research Centres, Industry sector organisations, have access to the tender</li> <li>● <b>OB2:</b> Facilitating the dialogue across demand and supply sides in the preparation phase of the PCP to ensure that suppliers have a complete understanding of the specifications</li> <li>● <b>OB3:</b> Raising awareness on the ARCHIVER project and the expected results</li> </ul>            |
| <p><b>Comm., Diss., &amp; Stakeholder Engagement Activities</b></p> | <ul style="list-style-type: none"> <li>● Promotion of the tender via a web marketing &amp; social media campaigns</li> <li>● Creation &amp; update of <b>tender dedicated web pages</b> (OMC process, OMC events, Tender information and launch, winners of the tender)</li> <li>● Maintenance of a permanent <b>help desk</b></li> <li>● Participation to <b>external events</b></li> <li>● Design, creation and dissemination of <b>promotional material</b></li> <li>● Dissemination of the ARCHIVER <b>OMC press release</b></li> <li>● Organization of <b>4 OMC events</b> targeting potential bidders (companies)</li> </ul> |

|                             |  |
|-----------------------------|--|
|                             | <ul style="list-style-type: none"> <li>● <b>1 information webinar</b> targeting National repositories</li> <li>● 1 training webinar on OAIS<sup>2</sup> targeted to procurers and opened to relevant stakeholders</li> <li>● Dissemination of the <b>Tender launch press release</b></li> <li>● Organisation of a <b>public Info-webinar</b> on the Tender Documents</li> <li>● Creation of an animated video to advertise the Tender</li> <li>● Publication of the <b>recording</b> of the public information session on the ARCHIVER website and dissemination via a newsletter and social networks</li> <li>● <b>Organisation of the bidders' award event &amp; webcast at the beginning of each of the project implementation phases.</b> During these events the award winning suppliers of the tender call-offs will be announced together with some early lessons learned related to the subsequent phases.</li> <li>● <b>Interviews with the providers</b> and publication on the website</li> <li>● Creation of a tender announcement message to be used in <b>direct email marketing and LinkedIn campaigns</b> targeting SMEs &amp; public sector entities together with cloud service providers (CSPs)</li> <li>● Tender winners Press release</li> <li>● Weekly posts on social media to announce the OMC events, the publication of the Tender &amp; outputs resulting from the participation in events, the winners of the Tender and potentially engaging some Early Adopters</li> </ul> |
| <b>Primary stakeholders</b> | <ul style="list-style-type: none"> <li>▪ Specialist ICT companies active in archiving and digital preservation, willing to introduce innovative services capable of supporting the expanding needs of research communities, &amp; public sector entities together with cloud service providers (CSPs), grouped in consortia</li> </ul>   |
| <b>KPIs</b>                 | <ul style="list-style-type: none"> <li>● 1 direct email marketing campaign for the tender promotion (multiple sendings)</li> <li>● 1,000+ overall social media followers – LinkedIn, Facebook, Slideshare &amp; Twitter [M18]; 2500+ by end of Project [M36]</li> <li>● Average 500 monthly visits to ARCHIVER web platform</li> <li>● 1 press release/ tender phase + launch &amp; bidders award (6 in total);</li> <li>● 2 news items per month on average;</li> <li>● generation of 50 press clippings [M36]</li> <li>● 3 fliers; 3 posters; 2 pop up banners</li> <li>● Early Adopters' Kit</li> </ul>   |

<sup>2</sup> <http://www.oais.info/>



**Table 2 PCP implementation phase: Main Outcomes; Communication, Dissemination and Stakeholder Engagement objectives & Primary stakeholders**

**Implementation phases**

- Phase 1: Solution Design
- Phase 2: Prototype Development
- Phase 3: Pilot Deployment.

The implementation phase covers the twenty-four months after the award of the tender, from January 2020 to December 2021.

The following table reports the communication, dissemination, and engagement macro activities that will be performed to achieve the objectives of the period keeping in mind that during the implementation phase, the communication, dissemination, and engagement activities will be focused on generating interest on the demand side to have the buy-in of future users.

|  |   |
|--|---|
| <p><b>Main outcomes of phase 1</b></p> | <ul style="list-style-type: none"> <li>● Bidders award ceremony &amp; kick-off phase 1</li> <li>● Summary report of the design stage: lessons learnt</li> </ul> |
|--|---|

|  |  |
|--|--|
| <b>Main outcomes of phase 2</b>                              | <ul style="list-style-type: none"> <li>● Kick-off meeting phase 2</li> <li>● Summary Report of the prototype stage: lessons learnt</li> </ul>  |
| <b>Main outcomes of phase 3</b>                              | <ul style="list-style-type: none"> <li>● Kick-off meeting phase 3</li> <li>● Summary report of the pilot stage: lessons learnt</li> <li>● Best Practices Report</li> <li>● Demonstration to the EC of the test services resulting from the procured services</li> <li>● PCP final event</li> </ul>   |
| <b>Comm., Diss., &amp; Stakeholder Engagement Objectives</b> | <ul style="list-style-type: none"> <li>● <b>OB1:</b> Raising awareness of the ARCHIVER future offer among key stakeholders to stimulate the adoption of the dynamic and scalable solutions offered by ARCHIVER, creating an international network of potential users, including research organisations, industry, and suppliers</li> <li>● <b>OB2:</b> Training users on the usage and the benefits of the ARCHIVER services</li> <li>● <b>OB3:</b> Building an international, multi-disciplinary community and educating it on the pros and cons, lessons learned, and best practices related to the usage of PCP instruments, to the procurement of data archiving and preservation services</li> <li>● <b>OB4:</b> Promoting the impact that the resulting services can have at a European socio- economic level, highlighting their potential positioning in the market, and how they can contribute to a scalable and cost-effective data preservation</li> <li>● <b>OB5:</b> Providing continuous updates on the progress and the results of the PCP phases and widely disseminating documents and templates that can help and facilitate the work of similar initiatives in the future</li> </ul> |
| <b>Comm., Diss., &amp; Stakeholder Engagement Activities</b> | <ul style="list-style-type: none"> <li>● Regular awareness-raising activities on the ARCHIVER offer via web marketing &amp; social media campaigns</li> <li>● Participation to <b>external events</b></li> <li>● Design, creation and dissemination of <b>promotional material</b></li> <li>● Promotion of the results of the design, prototype and pilot stages through the dissemination of articles and publications</li> <li>● Organization of <b>outreach events and policy workshops</b></li> <li>● Publication of <b>news related to the results of each tender phase</b></li> <li>● <b>Bi-Monthly Newsletters to the Database of Potential Suppliers</b> on the results of each tender phase</li> <li>● <b>Continued social media campaigns</b> to promote the PCP-tender and results</li> <li>● <b>Interviews with the interested suppliers</b></li> <li>● <b>Interviews with the tender winners</b></li> </ul>   |

|                             |  |
|-----------------------------|--|
|                             | <ul style="list-style-type: none"> <li>● <b>Publication on the lessons learnt</b> from each PCP phases via the ARCHIVER website</li> <li>● <b>Weekly posts on social media</b> to promote the results of each phase and lessons learnt</li> <li>● <b>Kick-off event for each phase</b> and announcement of contractors for the following phase.</li> <li>● <b>Distribution of a Press release</b> announcing the results of each phase and disseminating the material produced</li> <li>● Creation of an <b>animated video</b> to give users the incentive to adopt the new services and explain them in a clear and simple way, and promotion on Youtube, the ARCHIVER website, and the social networks</li> <li>● <b>Revamp of the ARCHIVER website.</b> The website will be revamped to reflect the transition into the following phases.</li> <li>● Organisation of the <b>Business Showcase event</b> aimed at demonstrating the tangible benefits for the industry sector in adopting the smart archiving services provided by ARCHIVER.</li> <li>● Production of an <b>easy to read publication</b> based on D4.1, 4.2 and 4.3 Lessons learnt from the tender phases</li> </ul> |
| <b>Primary stakeholders</b> | <ul style="list-style-type: none"> <li>● ESFRIs and related research infrastructures as well short-term research projects funded at the regional, national and European-level</li> <li>● Europe’s research communities active in the European Open Science Cloud (EOSC)</li> <li>● Funding agencies</li> <li>● Policy makers, government agencies, and private sector buyers will be also targeted with the outreach campaigns.</li> </ul>   |
| <b>KPIs</b>                 | <ul style="list-style-type: none"> <li>● 1 newsletter / tender phase + launch &amp; bidders award, + following the marketing campaigns time plan (up to 5 newsletters in total)</li> <li>● 6 events &amp; 1 video production [M36].</li> <li>● Visibility in at least 15 events having strict relation with the topic field (20 by end of Project, with coverage of all EU Member States and Associated Countries</li> <li>● 6 procurer hosted events</li> <li>● 1 interview / adoption group, up to 10 interviews;</li> <li>● 1 Early Adopter Engagement kit</li> <li>● Training material deployed as stand-alone and training material via the web platform</li> </ul>   |

The aforementioned communication, dissemination, and stakeholder engagement objectives will contribute to achieve the overall project results. In addition, they will support the achievement of the project Key Performance Indicators (KPI) reported in the Table below:

Table 3 ARCHIVER project major KPIs

| KPI   | Metric  | Target Value  |
|---|---|---|
| Research Community engagement KPIs  | Number of Research Infrastructures engaged with ARCHIVER                        | 5   |
|   | Number of use-cases that can make use of the archival and preservation services | 8 use-cases (2 per procurer)  |
|   | Number of services integrated with the EOOSC –                                  | 3 services (3 prototypes integrated with core services provided by EOOSC-Hub)   |
| KPIs for the joint procurement action (Buyers Group of public organisations from 4 countries) | Reduce procurement time for commercialised archival and preservation services   | by 50%  |
|   | Number of companies engaged in the PCP process and # suppliers contacted        | 30 participating in the OMC of which 50% will be SMEs (with specific target of NACE classification 63 for Knowledge Intensive Business Services [KIBS] SMEs)<br>10 will be part of the bidding consortia in response to the Tender<br>5 selected designs (design)<br>4 selected prototypes (prototype)<br>3 selected pilots (pilot) |
| Demand side KPIs  | Increase preservation cost transparency   | Be able to accurately estimate the TCS in TB/year   |
|   | Increase the number of service levels available                                 | Varying time to respond to data recall requests, service availability, etc.   |
|   | Increase quality of preservation service  | i.e. reduced data loss & corruption   |
|   | Increase elasticity of preservation capacity                                    | from TBs to PBs   |
|   | Increase regulatory conformance   | Preservation system is GDPR compatible and archive systems follow best practices as foreseen by   |

|  |   |   |
|--|---|---|
|  |   | CoreTrustSeal <sup>3</sup> and ISO 16363 certifications |
|  | Increase long term data mgmt. awareness | 4 training events organized                             |

## 2. Stakeholder engagement plan

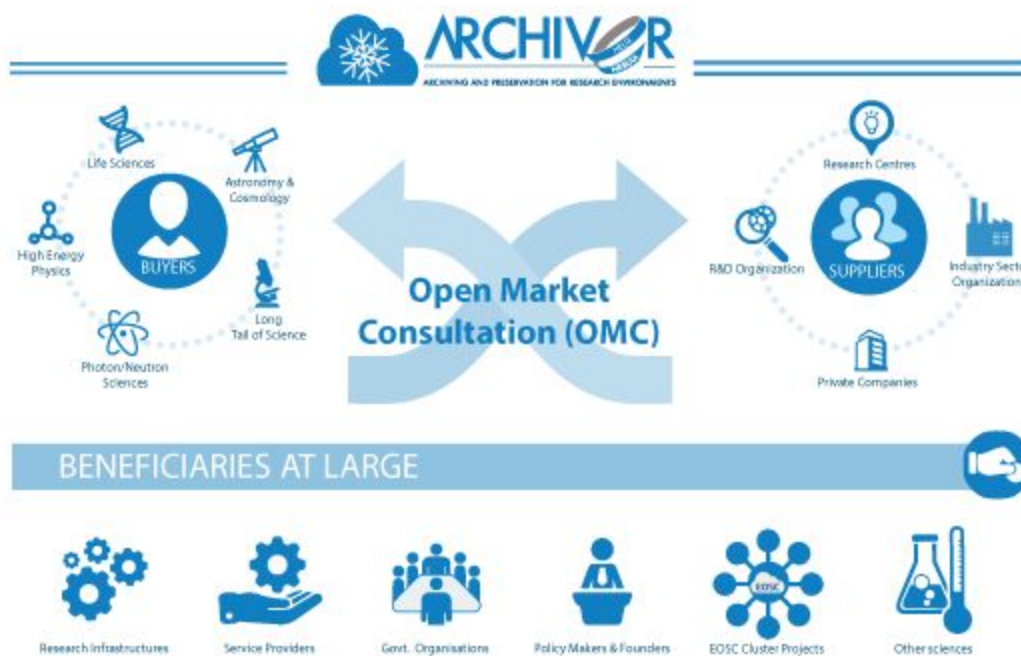


Figure 3 ARCHIVER stakeholders at a glance

ARCHIVER stakeholders may be clustered into the following main groups:

**ARCHIVER procurers (as multipliers).** The ARCHIVER procurers have a key role in the communication, dissemination, and stakeholder engagement activities: they are the

<sup>3</sup> <https://www.coretrustseal.org/>



ambassadors of the ARCHIVER project towards their domain-specific communities (Astronomy and Cosmology, High Energy Physics, Life Science, Photon- Neutron Sciences, Long Tail of Science).

**ARCHIVER Users.** This group includes the **ARCHIVER procurers** (that will act as the first customers of the platform), their related communities, and all the potential beneficiaries of the resulting services such as **publicly funded research organisations** (large, medium & small organisations operating in the Astronomy and Cosmology, High Energy Physics, Life Science, Photon-Neutron Sciences, Long Tail of Science and other domains) & infrastructures (e.g., the European Strategy Forum on Research Infrastructures, ESFRI), including the Long Tail of Science via the Eurodoc channel, including research organisations that have already expressed an interest in the early adopter model. **National Libraries and Repositories are amongst the prime stakeholders of this group** and will also be a target for the Early Adopters' programme.

**International initiatives and Standardisation bodies:** interested in the ARCHIVER topics and results or that can influence the uptake and sustainability of the services deployed in ARCHIVER. ☐

**SMEs & public sector entities together with cloud service providers (CSPs):** Small, medium, and large specialist ICT companies active in archiving and digital preservation, data management or system integration, willing to introduce innovative services capable of supporting the expanding needs of research communities, under a common innovative procurement activity for the advanced stewardship of publicly funded data in Europe.

**Policy Makers & Funding Bodies (European and National):** This group is composed by politicians, funding bodies, government departments, and government agencies, who can influence the level of support for continuation of the investment in research infrastructures. They are also involved in the definition of the strategy and actions for the establishment of the European Open Science Cloud within the Digital Single Market strategy. ☐

For each stakeholder group, a precise engagement plan is defined in the following pages.

## 2.1. The ARCHIVER procurers and their target user groups

The ARCHIVER users will be engaged through an incremental process: the first customers of the platform will be the four procurers with their affiliated communities. The group of procurers, also called “buyers”, includes Inter-governmental as well as national research organisations experts in the preparation, execution and promotion of the procurement. All the procurers will participate in the testing and validation of the innovative solutions. Each procurer has defined

two use-cases, as outlined below, that will drive the deployment and integration of the resulting services with their on-site preservation systems.

**How they can benefit from ARCHIVER :** The four procurers will have clear benefits from the ARCHIVER project: through the joint PCP, they share the risks and the costs of implementing such an innovative services designed to meet their requirements. **Their organisations, together with the communities in which they operate, will be the first customer references of the archiving services, which will integrate their in-house resources with the procured cloud services.** During the pilot phase, they will be able to test the innovative services with their use-cases, exploring all the expected benefits in terms of cost reduction, efficiency, interoperability, etc., offered by the resulting solution

#### Who they are:



**CERN.** CERN is the world’s largest particle physics lab and home of the Large Hadron Collider (LHC), the world’s most powerful accelerator providing research facilities for HEP researchers across the globe. LHC experiments will run up to 1 million computing tasks per day and generate around 15 petabytes of data per year over a 10-15 year period.



**The use cases & user communities.** CERN ARCHIVER deployments will promote the extension of the **Zenodo communities concept, by integrating the data repository with commercial providers.**



This will allow the download/upload of digital objects from/to commercial preservation services and respond to very large data set requests on the petabyte range that the service receives but that cannot be currently satisfied as most of them are out of scope to be provided directly by CERN.

Another deployment scenario is based on the CERN Open Data portal, which disseminates PBs of open particle physics data released by the LHC experiments. It is actively being used for both education and research purposes. It is necessary to establish a “passive” data archive for disaster-recovery purposes as well as an additional “active” data archive, exposed via protocols such as S3 and XRootD, which will allow users to run open data analysis examples.

In 2020, the BaBar collaboration infrastructure at SLAC will be decommissioned. As a result, BaBar data [2 PBs] can no longer be stored at the host laboratory and alternative solutions need to be found. Currently a copy of the data is being held by the CERN IT Department. However, it is

necessary to ensure that a complete copy of BaBar data will be retained for future reference, for possible comparisons with data from other experiments as well as sharing through the CERN Open Data Portal.

An additional deployment regards the requirement to archive the approximately 1 PB of CERN Digital Memory, containing analogue documents produced by the Organization in the 20th century as well as digital production of the 21st century, including new types like web sites, social media, emails, etc.



**EMBL-EBI.** The **European Bioinformatics Institute** (EMBL-EBI) is part of EMBL, Europe's flagship laboratory for the life sciences. EMBL-EBI aims at understanding how genetics affects the health of humans, plants and animals is essential to advances in disease prevention, food security and biodiversity. EMBL-EBI collaborates with scientists and engineers all over the world, and provide the infrastructure needed to share data openly in the life sciences.



**The use cases and their user communities.** EMBL-EBI provides a range of data archiving services to the **global molecular biology community**. The submitted data is then made available directly to the community for download (possibly following an embargo period or ethical approval) and through added value data resources that combine and link data across different archives. The larger data archives use an internal service FIRE: File REplication that stores the files reliably in two different storage systems – currently a distributed object store and tape – that is currently at 15PB and growing about 40% a year. EMBL-EBI is committed to establishing a hybrid model for its IT activities in order to deliver the most technically effective cost-efficient solution - regardless as to if the service is housed in our own leased data centre space or delivered through an external cloud provider. Such a hybrid model requires on premise compute/cloud to access data stored in the cloud and external cloud analysis to access on premise data. Both models can be inefficient due to network bandwidth and latency issues. **A technical solution that blurs the boundaries between on/off premise and local/remote cloud would be transformative.** Archiving data onto cloud-based storage would allow researchers planning to exploit the data to be able to access the data directly with no download or storage challenges. As research becomes more cloud based the Life Sciences community will expect to have access to the data currently housed by EMBL-EBI in cloud providers. The ARCHIVER project will allow EMBL-EBI to pilot this delivery model in direct collaboration with the **global molecular biology** user community.



**DESY** provides on-site archive and data preservation services to scientists following the PanData policy recommendations for the photon-science community.

**The use cases and their user communities.** The communities served by DESY fall into two main categories: **individual users or small user groups and large or very large scientific collaborations.**

For individual users, there is a need for a ‘hybrid’ archive service linking DESY and the commercial service providers with access management to archived data from outside the site exploiting wide area networks. This hybrid service must include a metadata component to make archived data ‘findable’ and ‘usable’. This new feature set combined with the establishment of a well-defined cost model will allow the site, the scientists and their collaborators to preserve the data of their science projects for many years (10 years minimum).

From the **individual end-user perspective**, the impact should be clear: make preservation of project data an easy ‘one click’ operation, fulfilling the obligations to funding agencies and the scientific community. It should also allow DESY to make long term planning and cost predictions for data preservation services as part of the set of lab’s core ICT services.

The second use-case concerns **large collaborations** with more than several hundreds of researchers that have their own computing expertise and services. The lifetime of these large collaborations is typically more than 10 years, require well-defined data policies and cost models agreed across their membership. These large, on-site collaborations, such as EuXFEL, have very high ingestion rates when in full operation and the archive size could be in the order of 100PB per year. For these high-volumes cases, ‘economy of scale’ is an additional requirement to ensure cost effectiveness.



**PIC** is a joint undertaking of the Spanish and Catalan governments through CIEMAT and IFAE. PIC has been designated by the Spanish government as its LHC Tier-1 centre, and it is the main (Tier-0) data centre for the MAGIC telescope and the PAU dark energy survey. PIC maintains a transversal innovation activity with many significant results over the years, related to software, hardware, monitoring and energy efficiency.



**The use cases and their user communities.** The primary use-case sponsored by PIC is to support **gamma-ray astrophysics data archiving, re-use and preservation.** Hundreds of Terabytes of internal raw and processed data from each astrophysics instrument must be adapted to be useful in the multi-instrument context. These data are consumed by dynamic, short-lived teams of scientists from multiple institutions and instruments, a sharp contrast to traditional long-lasting stable teams of scientists. The goal of this use-case is to

stimulate the industrial development of a data archive platform for astrophysics data where hundreds of Terabytes of data from hundreds of thousands of astrophysical observations can be stored under F.A.I.R. methodologies, allowing economical, sparse, on- demand access by teams of scientists. Currently, data is being stored at Scientific Information Port (PIC) in a manner that only scientists from each telescope can access. Finding and sharing data is done in an artisanal, manual manner which represents a large barrier for multi-instrument and multi-messenger astrophysics and latest generation instruments including the **Cherenkov Telescope Array (CTA)** and **Major Atmospheric Gamma Imaging Cherenkov Telescopes (MAGIC)**. If successful, the ARCHIVER platforms would remove this barrier and provide an affordable and flexible data sharing platform for these use cases. In addition, important benefits on business and cost sharing models will be derived, allowing the development of financial sustainability models appropriate for the new paradigm of usage of the data by short-term dynamically formed teams of scientists.



#### Main engagement channels & activities

The ARCHIVER procurers have a key role in the communication, dissemination, and stakeholder engagement activities: they are the ambassadors of the ARCHIVER project towards their domain-specific communities. Each of the procurers will be called upon to:

- Identify or co-organize relevant **events** for its target communities and resent ARCHIVER progress and results at these community events;
- **promote the adoption** of the ARCHIVER data archiving and preservation services among their communities and related domain communities, explaining how the users can benefit from it;
- work with the communication team to **disseminate** news, announcements, and press releases through their contact network, institutional websites, and social network accounts and via their media contacts;
- support the **production of communication and training material**.

**Table 4 Dissemination & Engagement activities targeting ARCHIVER Procurers**

| Dissemination & engagement item    | Release period | KPI  |
|------------------------------------|----------------|--|
| Procurer Use Case Scoping sessions | March 2019     | 2 procurer hosted events to finalize the Use Cases specifications and requirements           |
| ARCHIVER OMC press release         | April 2019     | 1 press release distributed via ARCHIVER dissemination networks with at least 3 publications |

|  |                      |  |
|--|----------------------|--|
| Newsletters  | April – October 2019 | 1 newsletters to ARCHIVER overall<br>Database of Suppliers   |
| “ARCHIVER for”:<br>Buyers Use case<br>pages online | April – May 2019     | 4 pages dedicated to each specific<br>procurer’s user communities  |
| Use Case Factsheets                                | April-October 2019   | 4 factsheets produced and included in the<br>Early Adopters’ kit (see D5.2)  |
| 4 OMC events<br>targeting potential<br>bidders     | April – June 2019    | 4 events to be organized between April<br>and June with 30 participants on average<br>+ 20 followers online for the livestreamed<br>ones |
| Social media<br>campaign                           | April – October 2019 | 2 Tweets / week<br>2 LinkedIn posts / week<br>At least 20 LinkedIn Connections coming<br>from the Buyers’ institutes by October<br>2019  |

## 2.2. Research sector organisations and infrastructures

Progressively, the buyers’ group will grow by encouraging wide deployment of solutions outside the consortium with a group of “Early Adopters”, including research organisations wishing to become procurers for the resulting ARCHIVER services and wanting to take advantage of all the benefits related to joint procurement<sup>4</sup>. Regardless of whether they will become or not Early Adopters, Research sector organisations and infrastructures are considered primary beneficiaries of the solutions developed.

**Who are they:** ARCHIVER is looking for research organisations from all scientific domains addressed by ARCHIVER PCP whose archiving departments are looking for extra resources or services that are new to the Pre Commercial Procurement Process and that are looking for new archiving and data preservations solutions, interested in testing new archiving processes and mechanisms.

**How they can benefit from ARCHIVER.** The advantages for a research organisation to become a member of the ARCHIVER Early adopter group include: 1) Be consulted for feedback on the tender documents before publication 2) Access to material produced by the Contractors across

<sup>4</sup> Details about the Early Adopters Engagement Campaign are provided in D5.2 Early Adopters’ Engagement Kit.

all phases of the project 3) Potentially profit from the same commercialisation conditions as the buyer group organisations participating in the project, in the case of purchase of services developed after the end of the project 4) Access to limited capacity made available by the buyers group organisations in the pilot phase to test the services developed 5) Benefit from the training sessions organised in the context of the project covering the solutions developed and aspects such as OAIS, FAIR, Open Data, etc. 6) Be able to use the procurement funds available foreseen by other EC projects in the EOSC context, to procure the resulting services developed in ARCHIVER

Several organisations have already expressed potential interest in the early adopter model and include:

- ESA (International European Interest Organisation) - Copernicus Processing and Archive Centres (currently archiving 2PB)
- INAF (Italian National Institute for Astronomy) – Astronomy archive
- SLAC (US National Accelerator Laboratory) – BaBar physics experiment
- SURFsara (ICT organisation for education and research in the Netherlands) – Long Tail of Science (LToS)
- Swiss National Research Network (SWITCH)
- The National Library of the Netherlands
- The European Synchrotron and Radiation Facility (ESRF)
- University of Bristol

**Some examples of stakeholders in this category:** the Centre National d'Etudes Spatiales (CNES)<sup>5</sup>; The Institute for Electromagnetic Sensing of the Environment (IREA) of the National Research Council (CNR)<sup>6</sup>; The Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)<sup>7</sup>; <sup>8</sup>; The European Centre for Medium-Range Weather Forecasts (ECMWF)<sup>9</sup>; The European Organisation for Astronomical Research in the Southern Hemisphere (ESO)<sup>10,11</sup>; the European XFEL; the European Gravitational Observatory (EGO)/VIRGO; Antares (Astronomy with a Neutrino Telescope and Abyss environmental REsearch) project; the ISIS Spallation Neutron Source; Diamond Synchrotron Light Source; the EIROforum organisations<sup>12</sup>, EPOS<sup>13</sup>, the European Plate

<sup>5</sup> <https://cnes.fr/en>

<sup>6</sup> <http://www.irea.cnr.it/en/>

<sup>7</sup> <http://www.dlr.de/dlr/desktopdefault.aspx/tabid-10002/>

<sup>8</sup> <http://www.esa.int/ESA>

<sup>9</sup> <http://www.ecmwf.int/>

<sup>10</sup> [www.eso.org](http://www.eso.org)

<sup>11</sup> CNER, CNR-IREA, DLR, ESA, ECMWF and ESO via the Helix Nebula Initiative have already shown some interest in the HNSciClod hybrid-cloud platform.

<sup>12</sup> <http://eiroforum.org/about/organisations/index.html>

<sup>13</sup> [www.epos-ip.org](http://www.epos-ip.org)

Observing System, Clearly, as the future services also aim to support the long tail of science, all the European researchers that need archiving and preservation services are part of this target group. Interaction with organisations and research infrastructures belonging to other regions of the world (Africa, Asia, Latin America, USA etc.) would also need to be addressed to satisfy the collaborative nature of global research communities.

### 2.3. The Digital Preservation Coalition



#### **The Digital Preservation Coalition (DPC).**

The DPC (<https://dpconline.org>) is a not-for-profit company limited by guarantee and registered in England and Wales. They enable their members to deliver resilient long-term access to digital content and services, helping them to derive enduring value from digital assets and raising awareness of the strategic, cultural and technological challenges they face. They achieve their aims through advocacy, community engagement, workforce development, capacity-building, good practice and good governance. ARCHIVER is cooperating with the **Digital Preservation Coalition** to engage with the community to assess its requirements, advertise the tender to potential bidders and early adopters, disseminate project results and provide training opportunities for the resulting services. The DPC will also be consulted to review the Tender material before publication.

**How they can benefit from ARCHIVER** Lots of DPC members are National archives, Universities and Universities libraries and archives, National repositories and Museums that hold data which are expected to be preserved and accessible beyond the commercial lifespan of any current technology or service provider. ARCHIVER will develop innovative archiving and preservation services that can be purchased by the DPC members by the of the project. In addition DPC members can join the Early Adopter programme and benefit from the aforementioned advantages.

### 2.4. Libraries and Documentation Centres



**LIBER** (Ligue des Bibliothèques Européennes de Recherche – Association of European Research Libraries) is the voice of Europe’s research library community. LIBER is a network of 450 national, university and other libraries and works to represent their interests in key topics such as Copyright Reform, Digital Humanities, Open Access, Metrics, and Research Data Management.





**LERU.** The League of European Research Universities (LERU) is a well-established network of research-intensive universities. We develop and disseminate our views on research, innovation and higher education through policy papers, statements, meetings and events helping to shape policy at the EU level. The League is a valued interlocutor for the European institutions and other policy stakeholders. It acts as a strong, outspoken voice of European research-intensive universities on a wide range of topics related to EU policies and initiatives.

## Preservation and Archiving Special Interest Group (PASIG)

*Change (Y)our World*

**PASIG.** The Preservation and Archiving Special Interest Group (PASIG - <https://preservationandarchivingsig.org/>) is dedicated to advancing the practice of digital preservation and archiving. It brings together practitioners, industry experts and researchers to share experience in a vendor-neutral forum on how to put preservation and archiving into practice, including guidelines, best practice, assessment/audit criteria and standards, architectures, designs, workflows and deployments, tools, systems and services, trends, directions and emerging products/solutions, case studies, reviews and practical findings, comparisons and choices such as community or proprietary, onsite or hosted, customized or standardized solutions.

The network of national repositories is being consulted via the OpenAIRE project to provide input during Tender preparation. Other national networks and *Virtual Center of Excellence (VCoE)* in the archiving and digital preservation domain, such as the Italian Centre on Digital Preservation (Centro Italiano sulla Conservazione digitale<sup>14</sup>, are also part of this stakeholder community.

**How they can benefit from ARCHIVER.** Libraries and documentation centres will be targeted as part of the Stakeholder Engagement Plan. This will offer the opportunity for libraries and documentation centres to participate with different roles, such as providing input during the tender preparation phase as well as users of the resulting services by becoming members of the early adopter programme in the pilot phase.

**Table 5 Dissemination & Engagement activities targeting Libraries and Documentation Centres**

| Dissemination & engagement item | Release period | KPI |
|---------------------------------|----------------|-----|
|---------------------------------|----------------|-----|

<sup>14</sup> <http://www.conservazionedigitale.org/>

|   |                      |   |
|---|----------------------|---|
| <b>ARCHIVER OMC press release</b>                         | April 2019           | 1 press release circulated to the stakeholders above for publication in their websites  |
| <b>“ARCHIVER for”: Libraries and Archives page online</b> | April – May 2019     | 1 page dedicated to the digital repositories and archival user communities. Tentative Webinar to be organised to national repositories, via the OpenAIRE project. |
| <b>Early Adopters</b>                                     | Continuous           | Target Early Adopters’ campaign (See D5.2)  |
| <b>Social media campaign</b>                              | April – October 2019 | 2 Tweets / week<br>2 LinkedIn posts / week<br>Direct interaction with hashtags and handles from the target stakeholders   |

## 2.5. European e-infrastructures, global organisations and standardisation bodies



RESEARCH DATA ALLIANCE

The Research Data Alliance ( RDA - <https://www.rd-alliance.org>) builds the social and technical bridges that enable open sharing of data, and its guiding principles include harmonisation and consensus for data standards, policies, technologies, infrastructure, and communities. There are two RDA groups which are aimed specifically at library and records professionals: the **Archives and Records Professionals for Research Data Interest Group** (<https://rd-alliance.org/groups/archives-records-professionals-for-research-data.html>), and the **Libraries for Research Data Interest Group** (<https://rd-alliance.org/groups/libraries-research-data.html>). Some other groups may be of interest, such as the Data Rescue Interest Group, the Research Data Provenance Interest Group, the Research Data Collections Working Group, the Empirical Humanities Metadata Working Group, the RDA/CODATA Legal Interoperability IG. **RDA and Librarianship, Archival Science and Information Science page**



**FAIRSFair**  
Fostering Fair Data Practices in Europe

**FAIRsFAIR– Fostering Fair Data Practices in Europe** (<https://www.fairsfair.eu/>) aims to supply practical solutions for the use of the FAIR data principles throughout the research data life cycle. Emphasis is on fostering FAIR data culture and the uptake of good practices in making data FAIR. FAIRsFAIR plays a key role in the development of global standards for FAIR certification of repositories and the data within them contributing to those policies and practices that will turn the EOSC programme into a functioning infrastructure. Industry

stakeholders spamming data publishers and service providers are among FAIRsFAIR target stakeholders to approach. ARCHIVER will greatly simplify the task of implementing FAIR data management whilst simultaneously reducing the costs and making them more predictable and establishing and therefore establishing links with FAIRsFAIR will be important to actively contribute to the Landscape Analysis that FAIRsFAIR will implement as a starting point to define guidelines towards a FAIRness approach to data and service management for data repositories of all disciplines.

**Other European e-Infrastructures** beyond OpenAIRE such as GEANT, EGI, PRACE, EUDAT<sup>15</sup>, R&D national/EU/international projects and initiatives, standardization and certification bodies [CoreTrustSeal<sup>16</sup>, ISO/IEC joint technical committee, etc.]

**The ESFRI projects**<sup>17</sup>. All of the buyers provide service delivery and user support mechanisms for research communities working with ESFRI Research Infrastructures (including HL-LHC, ELIXIR, Eu-XFEL and CTA). The main focus of Research Infrastructures is to perform curiosity-driven fundamental research and to achieve excellence in science, nevertheless their potential to foster innovation is demonstrated through this consortium. The role Research Infrastructures can play in joint innovative procurement mechanisms is highlighted in a recent EC report: *“Procurement processes should be considered a mechanism to encourage a wider range of companies to engage more effectively with RI. Pre-commercial procurement enables the early involvement of industry in the preparation of calls for tender and support financing joint technology development between RI and industry and stimulates a close interaction with industry. At European level, there were recommendations on the creation of a coordination mechanism to stimulate joint procurement schemes to coordinate RI investments.”*

**How they can benefit from ARCHIVER:** ARCHIVER will provide commercialised solutions that implement the ESFRI recommendation by proposing a collective procurement model and transparent service pricing that will be of value to all Research Infrastructure Projects and Landmarks mentioned on the ESFRI roadmap. Some of the results coming out from ARCHIVER such as the templates developed for the tender phase, the reports documenting the lessons learnt and best practices, and the data made available on the platform, can be re-used by these organizations and initiatives that are potential users of the innovative cloud services. Standardisation bodies can benefit from the feedback on the deployment results in terms of standards at global level.

**Main engagement channels:** This stakeholder group will be mainly engaged through the establishment of liaisons that will allow ARCHIVER to spread the word about the achievements

<sup>15</sup> [www.eudat.eu](http://www.eudat.eu)

<sup>16</sup> <https://www.coretrustseal.org/>

<sup>17</sup> <http://www.esfri.eu/>

and results within the groups. The stakeholder’s part of this group will also be invited to take part in ARCHIVER events and trainings

**Table 6 Dissemination & Engagement activities targeting Research organisations, ESFRI and the Early Adopters**

| Dissemination & engagement item                    | Release period       | KPI   |
|--|----------------------|---|
| ARCHIVER OMC press release                         | April 2019           | 1 press release circulated to the stakeholders above for publication in their websites  |
| “ARCHIVER for”: Research Organisations page online | April – May 2019     | 1 page dedicated to research organisations user communities   |
| End Users Events                                   | Continuous           | 1 presentation at major stakeholder events such as the EC procurement events, ESFRI events, eIRG workshops, Science Europe, EOSC summits, EOSC-Hub workshops, WLCG workshops, Cloud Expo, Public Cloud World Forum, RDA Plenaries etc., |
| Social media campaign                              | April – October 2019 | 2 Tweets / week<br>2 LinkedIn posts / week<br>Direct interaction with hashtags and handles from the target stakeholders   |

## 2.6. EOSC and related initiatives



**EUROPEAN OPEN  
SCIENCE CLOUD**


ARCHIVER will contract ICT companies to perform the research and development of innovative services to archive and preserve scientific data of multiple scientific domains. These aspects combined with federated identity management services to support authentication and authorization to the archives and, the exploitation of a hybrid deployment model combining the resources of the scientific organisations on-premises and commercial archiving and preservation services, create the opportunity to innovate in a number of promising but un- tested aspects in order to develop the next generation of archiving and preservation services. **The services developed in the ARCHIVER project will be integrated in the European Open Science Cloud (EOSC) catalogue of services.**



The procurement process for production usage after this PCP will be linked to the European Open Science Cloud **via**

a specific task force within the EOSC Secretariat working on Industry uptake and led by CERN.

**INFRAEOSC: National Initiatives**



| EOSC National Initiatives call |   |
|--------------------------------|---|
| EOSC-Nordic                    | Facilitate the coordination of EOSC relevant initiatives within the Nordic and Baltic countries                         |
| EOSC-Pillar                    | Coordination and Harmonisation of National Initiatives, Infrastructures and Data services in Central and Western Europe |
| EOSC-synergy                   | European Open Science Cloud - Expanding Capacities by building Capabilities   |
| ExPaNDS                        | EOSC Photon and Neutron Data Services   |
| NI4OS-Europe                   | National Initiatives for Open Science in Europe (Southeast Europe/Balkans)  |

Research and Innovation

**How they can benefit from ARCHIVER.** As a result of participating in the ARCHIVER PCP project, suppliers will develop innovative data archiving and preservation services that are immediately useable by the public research sector in Europe. This will position the companies with offerings directly relevant to 18 pan-European infrastructures, and the 1,7 million European researchers and 70 million professionals in science and technology that are expected to make use of the European Open Science Cloud.

**Main engagement channels.** In order to interact successfully with the governance of the EOSC it is expected that ARCHIVER will play an active role via the **EOSC stakeholder forum**. The results of ARCHIVER, due to its concrete use cases, may have a strong impact on the governance via the interaction of ARCHIVER with the EOSC Stakeholder Forum. The **EOSC National initiatives** will also be a target since they will offer a privileged communication channel with clusters of national research infrastructure that could be potential procurers of the resulting services.

Table 7 Dissemination & Engagement activities targeting the EOSC initiatives

| Dissemination & engagement item | Release period | KPI |
|---------------------------------|----------------|-----|
|---------------------------------|----------------|-----|

|   |                      |   |
|---|----------------------|---|
| <b>ARCHIVER OMC press release</b>           | April 2019           | 1 press release circulated to the stakeholders above for publication in their websites                                  |
| <b>“ARCHIVER for”:<br/>EOSC page online</b> | April – May 2019     | 1 page dedicated to ARCHIVER and the EOSC initiatives   |
| <b>End Users Events</b>                     | Continuous           | 1 presentation at major EOSC stakeholder events such as the EOSC summits, EOSC-Hub workshops<br>2 Policy workshops      |
| <b>Social media campaign</b>                | April – October 2019 | 2 Tweets / week<br>2 LinkedIn posts / week<br>Direct interaction with hashtags and handles from the target stakeholders |

## 2.7. SMEs & public sector entities together with cloud service providers (CSPs)

A number of SMEs (see Table below) already offer higher-level data preservation services than simple cloud based ‘bit storage’. However, it is not demonstrated yet if any of the existing SME offerings can match the demands in terms of data volume in the petabyte region and/or complexity of large-scale scientific communities. **ARCHIVER will engage with SMEs to meet these wider needs and increase their market opportunities.**

**Table 8 SMEs already active in the data preservation service market**

| Company                    | Target Communities  |
|----------------------------|---|
| <b>Arkivum</b>             | Targets Life Sciences, Financial Services, Heritage, Libraries and Higher Education   |
| <b>Artefactual Systems</b> | Archivematica integrated suite of open-source software tools used in Canada, USA and internationally by public sector organisations |
| <b>DuraSpace</b>           | Universities, libraries etc., particularly in North America   |
| <b>Libnova</b>             | An OAIS (ISO 14721) “aligned” offering, targeting libraries and equivalent  |
| <b>Preservica</b>          | Financial services, government, pharmaceuticals   |
| <b>DocuTeam</b>            | Supports a wide range of organisations with their information management and archiving covering the whole life cycle of information |

**Who they are:** SMEs & public sector entities with specialised data preservation knowledge and the agility to develop new services, together with cloud infrastructure providers that can offer the storage capacity and economies of scale for basic ‘bit preservation’ services.



**BDVA.** The **Big Data Value Association** (BDVA) is an industry-driven international not-for-profit organisation with 200 members all over Europe and a well-balanced composition of large, small, and medium-sized industries as well as research and user organizations. BDVA is the private counterpart to the EU Commission to implement the **Big Data Value PPP program**. BDVA and the Big Data Value PPP pursue a common shared vision of positioning Europe as a world leader in the creation of Big Data value. BDVA associated companies are a strategic target for the promotion of the ARCHIVER tender since they might get direct benefit from the ARCHIVERs results to strengthen their competitiveness in the Big Data Value technology-based systems and services market.

**How they can benefit from ARCHIVER:** There are a number of advantages for SMEs to participate in the ARCHIVER PCP, including develop conformance with relevant standards, reference models and legislation (GDPR in what concerns data privacy, OAI specifically in the archiving and preservation domain) for their services, as well as gaining access to a well-defined, multi-disciplinary customer base with a good understanding of data preservation requirements. At the end of the project, they will be able to offer the developed services to customers other than the buyer's group.

**Main engagement channels & activities:** **4 OMC events** will be organized in the Tender preparation phase, targeted to potential bidders and open to end-users. They will be moderated by Addestino using a planning poker technique consisting in a “best practice” workshop moderation technique, used for estimating value, complexity, required effort etc., based on expert-estimation and consensus. SMEs & public sector entities and CSPs will also be engaged through **direct email marketing campaigns** leveraging on a database of potential suppliers part of the ARCHIVER database set up and populated during the first 6 months of the project. The tender and its results will be also promoted via external websites via social networks, and via Procurement and Data preservation networks such as the Digital Preservation Coalition or the Procurement Forum. The establishment of links with network of companies and organisations such as the EIT Digital<sup>18</sup>, DIGITALEUROPE<sup>19</sup>, and many others, will also be pursued. Communication campaigns and publication of news and articles via these networks will be additional engagement actions that will be performed.

**Table 9 Dissemination & Engagement activities targeting SMEs, CSPs and Public Sector entities**

| Dissemination & engagement item | Release period | KPI |
|---------------------------------|----------------|-----|
|---------------------------------|----------------|-----|

<sup>18</sup> This is the ex EIT ICT Labs <http://www.eitdigital.eu/>

<sup>19</sup> <http://www.digitaleurope.org/>

|   |                              |  |
|---|------------------------------|--|
| <b>ARCHIVER OMC press release</b>               | April 2019                   | 1 press release distributed via ARCHIVER dissemination networks with at least 3 publications   |
| <b>Find a partner page</b>                      | April 2019                   | 1 page online  |
| <b>ARCHIVER database of potential suppliers</b> | February-June 2019           | At least 100 contacts by June 2019   |
| <b>Newsletters</b>                              | April – October 2019         | 1 newsletters to ARCHIVER overall DB   |
| <b>Direct email marketing</b>                   | April – September 2019       | At least 30 individual emails sent to potential interested bidders   |
| <b>4 OMC events targeting potential bidders</b> | April – June 2019            | 4 events to be organized between April and June with 30 participants on average + 20 followers online for the livestreamed ones                                    |
| <b>Business showcase events</b>                 | January 2020 – December 2021 | 2 showcase events aimed to demonstrate the tangible benefits for the industry sector in adopting the data archiving and preservation services provided by ARCHIVER |
| <b>Social media campaign</b>                    | April – October 2019         | 2 Tweets / week<br>2 LinkedIn posts / week<br>At least 20 LinkedIn Connections coming from Industry players by October 2019  |

The ARCHIVER database of potential suppliers currently counts 64 companies that have been contacted and invited to the OMC events.

**Table 10 ARCHIVER DB of potential suppliers – April 2019**

|    | <b>Company</b>            | <b>Company's website</b>  |
|----|---------------------------|---|
| 1  | <b>OVH</b>                | <a href="https://www.ovh.com/">https://www.ovh.com/</a>   |
| 2  | <b>Google</b>             | <a href="https://cloud.google.com/storage/archival/">https://cloud.google.com/storage/archival/</a> |
| 3  | <b>CloudSigma</b>         | <a href="http://www.cloudsigma.com">www.cloudsigma.com</a>  |
| 4  | <b>Exoscale</b>           | <a href="https://www.exoscale.com/">https://www.exoscale.com/</a>                                   |
| 5  | <b>T-Systems</b>          | <a href="https://www.t-systems.com/">https://www.t-systems.com/</a>                                 |
| 6  | <b>IBM</b>                | <a href="https://www.ibm.com/">https://www.ibm.com/</a>   |
| 7  | <b>Amazon Web Service</b> | <a href="https://aws.amazon.com/">https://aws.amazon.com/</a>                                       |
| 8  | <b>Huawei</b>             | <a href="https://www.huawei.com/">https://www.huawei.com/</a>                                       |
| 9  | <b>Softwareone</b>        | <a href="https://www.softwareone.com/">https://www.softwareone.com/</a>                             |
| 10 | <b>Cyfronet</b>           | <a href="http://www.cyfronet.krakow.pl/">http://www.cyfronet.krakow.pl/</a>                         |
| 11 | <b>Oracle</b>             | <a href="http://oracle.com/">http://oracle.com/</a>   |



|        |                          |   |
|--------|--------------------------|---|
| 1<br>2 | <b>100 Percent IT</b>    | <a href="https://100percentit.com/">https://100percentit.com/</a>   |
| 1<br>3 | <b>TI Sparkle</b>        | <a href="https://www.tisparkle.com/">https://www.tisparkle.com/</a>   |
| 1<br>4 | <b>GMV</b>               | <a href="https://www.gmv.com/en/">https://www.gmv.com/en/</a>   |
| 1<br>5 | <b>Libnova</b>           | <a href="https://www.libnova.com/en/">https://www.libnova.com/en/</a>   |
| 1<br>6 | <b>Ex Libris Rosetta</b> | <a href="https://www.exlibrisgroup.com/products/rosetta-digital-asset-management-and-preservation/">https://www.exlibrisgroup.com/products/rosetta-digital-asset-management-and-preservation/</a> |
| 1<br>7 | <b>Preservica</b>        | <a href="https://preservica.com/">https://preservica.com/</a>   |
| 1<br>8 | <b>Arkivum</b>           | <a href="https://arkivum.com/">https://arkivum.com/</a>   |
| 1<br>9 | <b>cogapp</b>            | <a href="https://www.cogapp.com/">https://www.cogapp.com/</a>   |
| 2<br>0 | <b>figshare</b>          | <a href="https://figshare.com/">https://figshare.com/</a>   |
| 2<br>1 | <b>Resource Space</b>    | <a href="https://www.resourcespace.com/">https://www.resourcespace.com/</a>   |
| 2<br>2 | <b>Formpipe</b>          | <a href="http://www.formpipe.com/">http://www.formpipe.com/</a>   |
| 2<br>3 | <b>Mirrorweb</b>         | <a href="https://www.mirrorweb.com/">https://www.mirrorweb.com/</a>   |
| 2<br>4 | <b>Arkivum</b>           | <a href="https://arkivum.com/">https://arkivum.com/</a>   |
| 2<br>5 | <b>Brainserve</b>        | <a href="https://www.brainserve.ch/">https://www.brainserve.ch/</a>   |
| 2<br>6 | <b>Enidan</b>            | <a href="http://www.enidan.com/">http://www.enidan.com/</a>   |
| 2<br>7 | <b>Talan</b>             | <a href="https://www.talan.com/en/">https://www.talan.com/en/</a>   |
| 2<br>8 | <b>Brinel</b>            | <a href="https://www.brinel.com/">https://www.brinel.com/</a>   |
| 2<br>9 | <b>Docuteam</b>          | <a href="https://www.docuteam.ch/en/">https://www.docuteam.ch/en/</a>   |
| 3<br>0 | <b>Artefactual</b>       | <a href="https://www.artefactual.com/">https://www.artefactual.com/</a>   |

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| 3<br>1 | <b>Keep Solutions</b>                       | <a href="http://www.keep.pt">www.keep.pt</a>   |
| 3<br>2 | <b>Montala Limited</b>                      | <a href="https://www.montala.com/">https://www.montala.com/</a>  |
| 3<br>3 | <b>Everis</b>                               | <a href="https://www.everis.com/global/en">https://www.everis.com/global/en</a>  |
| 3<br>4 | <b>Picturae</b>                             | <a href="https://picturae.com/en/">https://picturae.com/en/</a>  |
| 3<br>5 | <b>Western Digital</b>                      | <a href="https://www.westerndigital.com/">https://www.westerndigital.com/</a>  |
| 3<br>6 | <b>Sabisu</b>                               | <a href="http://www.sabisu.co">www.sabisu.co</a>   |
| 3<br>7 | <b>Dropbox International</b>                | <a href="http://www.dropbox.com/">www.dropbox.com/</a>   |
| 3<br>8 | <b>Grau data</b>                            | <a href="https://www.graudata.com/en/">https://www.graudata.com/en/</a>  |
| 4<br>0 | <b>Tessella</b>                             | <a href="https://tessella.com/">https://tessella.com/</a>  |
| 4<br>1 | <b>ACCIO-Catalonia Trade and Investment</b> | <a href="http://www.acte.net/about/members/accio-catalonia-trade-investment">www.acte.net/about/members/accio-catalonia-trade-investment</a> |
| 4<br>2 | <b>Oodrive</b>                              | <a href="https://www.oodrive.com/">https://www.oodrive.com/</a>  |
| 4<br>3 | <b>CloudFerro</b>                           | <a href="http://www.cloudferro.com/en/">http://www.cloudferro.com/en/</a>  |
| 4<br>4 | <b>4Science</b>                             | <a href="https://www.4science.it/en/">https://www.4science.it/en/</a>  |
| 4<br>5 | <b>Atempo</b>                               | <a href="https://www.atempo.com/">https://www.atempo.com/</a>  |
| 4<br>6 | <b>MicrofocusAutonomy</b>                   | <a href="https://www.microfocus.com/en-us/home">https://www.microfocus.com/en-us/home</a>  |
| 4<br>7 | <b>Barracuda Cloud Archiving</b>            | <a href="https://www.barracuda.com/">https://www.barracuda.com/</a>  |
| 4<br>8 | <b>DuraCloud</b>                            | <a href="https://duraspace.org/duracloud/">https://duraspace.org/duracloud/</a>  |
| 4<br>9 | <b>Iron Mountain</b>                        | <a href="https://www.ironmountain.com">https://www.ironmountain.com</a>  |
| 5<br>0 | <b>Jatheon Archiving Suite</b>              | <a href="https://jatheon.com/">https://jatheon.com/</a>  |

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| 5<br>1 | <b>Micro Focus<br/>International Digital<br/>Safe</b> | <a href="https://www.microfocus.com/en-us/home">https://www.microfocus.com/en-us/home</a> |
| 5<br>2 | <b>Mimecast</b>                                       | <a href="https://www.mimecast.com">https://www.mimecast.com</a>                           |
| 5<br>3 | <b>Proofpoint Enterprise<br/>Archive</b>              | <a href="https://www.proofpoint.com/us">https://www.proofpoint.com/us</a>                 |
| 5<br>4 | <b>SMARSH Archiving<br/>Platform</b>                  | <a href="https://www.smarsh.com/">https://www.smarsh.com/</a>                             |
| 5<br>5 | <b>Veritas Enterprise<br/>Vault</b>                   | <a href="https://www.veritas.com/">https://www.veritas.com/</a>                           |
| 5<br>6 | <b>EXXOSS</b>   | <a href="https://www.exxoss.com/">https://www.exxoss.com/</a>                             |
| 5<br>7 | <b>Dedagroup</b>                                      | <a href="https://www.dedagroup.it/home">https://www.dedagroup.it/home</a>                 |
| 5<br>8 | <b><a href="http://www.dell.ch">Dell.ch</a></b>       | <a href="http://www.dell.ch">http://www.dell.ch</a>                                       |
| 5<br>9 | <b>IBSCY</b>  | <a href="http://www.ibs.com.cy">http://www.ibs.com.cy</a>                                 |
| 6<br>0 | <b>Puntinformatic</b>                                 | <a href="http://www.puntinformatic.com">http://www.puntinformatic.com</a>                 |
| 6<br>1 | <b>CDW Limited</b>                                    | <a href="https://www.uk.cdw.com/">https://www.uk.cdw.com/</a>                             |
| 6<br>2 | <b>AXIOME LABS</b>                                    | <a href="http://axiome-labs.com">http://axiome-labs.com</a>                               |
| 6<br>3 | <b>NET BRINEL</b>                                     | <a href="http://www.brinel.com">http://www.brinel.com</a>                                 |
| 6<br>4 | <b>CISILION</b>                                       | <a href="http://www.cisilion.com">http://www.cisilion.com</a>                             |

## 2.8. Government Agencies

**Who they are:** This group is composed of politicians, funding bodies, government departments, and government agencies that can influence the level of support for continuation of the investment in research infrastructures. The key bodies involved in the definition of the strategy and actions for the establishment of the European Open Science Cloud (EOSC Governing Board,

EOSC Task Forces, EOSC Secretariat, EOSC National Funded “5b” Initiatives) are also a prime target of this list

**How they can benefit from ARCHIVER:** It is important that national governments are aware of the services that will be built by ARCHIVER. They might be interested in testing them or building similar ones for the public administration. Governments could also learn a lot from the PCP experience and re-use some of the material produced by the project in terms of tender templates or cloud recommendations. In addition, as the research sector organisations will make their data available via the new platform, national governments could exploit them for other purposes.

**Main engagement channels & activities:** National governments will be mainly reached through participating in public sector events and through publications on European press and media channels. Interaction with policy bodies such as the EOSC National Initiatives will make member states’ national funding agencies aware of the opportunities that such a procurement model can provide. In addition, two specific policy workshops and a demonstrator event for the European Commission will be held.

### 3. Communication, Dissemination, and Stakeholder Engagement activities

#### 3.1. Visual identity and branding

A consistent visual identity will be used for all communication and dissemination activities. Templates for external communication and documents have already been provided at M2. There will be a final branding alignment across all formats and channels used to reach stakeholders, spanning the Marketplace and integrated news, social media, brochures, banners, posters, and other collaterals.

The logo consists of a blue snowflake emblem and the lettering “ARCHIVER – Archiving and Preservation for Research Environments”. The “e” recall the former Helix Nebula Logo, and a label explicitly refers to HNSciCloud legacy.



### 3.2. ARCHIVER Website

The ARCHIVER website, <https://www.archiver-project.eu/> is the unique access point for the ARCHIVER Pre-Commercial Procurement phases and for the tender launch.

A preliminary landing page of the website was already up in month 1 (MS4) at the start date of the project. The first version of ARCHIVER's website was launched in February 2019 and further evolved in March providing information about the Open Market Consultation Roadmap and the OMC events. GSuite forms are published on the website for registration to events.

The website will also serve as the main repository for all published content and allow access to project deliverables and external resources. It will have specific sections dedicated to events and workshops and it may contain sections to collect user feedback.

A draft website navigation tree is presented below:

- **About Us**
  - The consortium (Partners e buyers)
  - The PCP: HNSciCloud legacy
  - Communication kit
  - Dissemination Material
- **Open Market Consultation**
  - The Planning Poker technique
  - Draft tender documents
  - Find your partner
- **ARCHIVER offer for**
  - ARCHIVER Procurers and scientific communities
  - European e-infrastructures, global organisations and standardisation bodies
  - EOSC and EOSC related initiatives
  - SMEs & public sector entities together with big cloud service providers (CSPs)
- **The Early Adopter programme**
- **ARCHIVER Tender**
  - PCP Contract Notice Drafting process
  - Draft Tender Documents
  - Design Phase

- Prototype Phase
- Pilot Phase
- Tender materials
- Help Desk
- FAQ
- **Events**
  - Events (all events)
  - Webinars (all webinars)
- **News & Media**
  - Documents & reports
  - Press releases
  - Newsletters
  - Videos & Interviews
- **Contact us**

The ARCHIVER website will have different iterations during the project's lifetime aligned with the forthcoming results.

**ARCHIVER Open Market Consultation**  
Kick-off meeting in Geneva 8 April 2019

**Live Webcast**

**Boilers:** CERN, EMBL-EBI, INFN

**Experts:** Trust-IT Services, addestine

ARCHIVER combines multiple ICT technologies, including extreme data-scaling, network connectivity, service interoperability and business models, in a hybrid cloud environment to deliver end-to-end archival and preservation services that cover the full research lifecycle. Its design as a collective of processes, ARCHIVER creates an eco-system for specialist ICT companies active in archiving, who would like to introduce new services capable of supporting the expanding needs of research communities.

**About | The Consortium | Get in touch**

Commercial services for Digital Preservation that are currently available have not been proven to scale to the "terabyte region and beyond", nor address the complex data types, often across multiple, that are needed by many scientific disciplines, in-house services - where they exist - have often not explored the rigour of "openness" or interoperability through multi-faceted clients.

Using a Pre-Commercial Procurement instrument, the ARCHIVER project will introduce radical improvements in the area of archiving and digital preservation services, thus identifying gaps between what is currently required by leading agencies, supported by data creators and national or regional level, and what is currently commercially available. ARCHIVER will combine multiple ICT technologies, including extreme data-scaling, network connectivity, service interoperability and business models, in a hybrid cloud environment to deliver end-to-end archival and preservation services that cover the full research lifecycle. By acting as a collective of processes, the consortium will create an eco-system for specialist ICT companies active in archiving, who would like to introduce new services capable of supporting the expanding needs of research communities. ARCHIVER will create an eco-system for specialist ICT companies active in archiving, who would like to introduce new services capable of supporting the expanding needs of research communities. ARCHIVER will create an eco-system for specialist ICT companies active in archiving, who would like to introduce new services capable of supporting the expanding needs of research communities.

**The Pre-Commercial procurement phases:**

Open market consultation | Tender Drafting process | Design Phase | Prototype Phase | Pilot Phase

Project over 3 years - 3 competitive phases

**Preparation:** Requirement Analysis, Innovation Potential / Risk, Open Market Consultation, Relevant Existing Standards, Engage Potential Suppliers (JAN 2019)

**Execution:** Q4 2019 (N Design ~30%), Q2 2020 (N-1 Prototypes ~40%), Q2 2021 (N-2 Pilots ~50%)

Call Off: Q4 2019, Q2 2020, Q2 2021, Q4 2021

Cost effective, innovative solutions, reduced fragmentation

**ARCHIVER for the Buyers:**

- What's missing:** Present functionalities for PB range scalable data archives, long term data services including migration and portability
- Required R&D:** Provide missing functionalities using common solutions under the OASIS reference model
- Market potential:** Supply increasing demand from research communities for greater long term data management functionalities and capacity

**ARCHIVER for the Suppliers:**

- Support long-term data management in a hybrid-cloud model at the PB range (up to 100 exabyte maximum data size, 100 TB day)
- Optimized data access and ingestion for high rates (1-10 Gbps per day) (up to 100 TB day, 100 TB per project per day)
- Efficient content distribution as cloud access becomes more common and data volumes grow
- Cost effectiveness taking into account various use-case access patterns and foreseen archive longevity
- Network connectivity via the GEANT network, Federated Identity and Access Management (IAM) for authentication and access control
- Storage capacity in excess of 1 PB for a minimum of 3 years

**Get Ready:**  
The Open Market Consultation will start in April 2019

ARCHIVER - Archiving and Preservation for Research Environments project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824516.

Figure 4: First release of the ARCHIVER platform in February 2019

### 3.3. ARCHIVER events: related & knowledge transfer

ARCHIVER will organize, co-organize or contribute to at least the following events:

- Two Procurer hosted events, to be webcast for further dissemination
- **Three joint buyers' group and contractor EOSC related events** such as those organised by the EOSC- Hub project and ESFRI cluster projects funded via call INFRAEOSC-04-2018. The first one is already planned during the EOSC-Hub week 2019 edition, from 8-12 April in Prague, Czech Republic
- Participation at **PV2020 conference** which will bring together Scientific Archives and Data Service Providers.
- **Demonstrations and webinars** will be organised during the pilot phase of the PCP project, webcast and recorded to maximize impact. These events will target research communities (end-users) and their funding organisations (potential future members of the buyers' group).
- **Business Showcases:** 2 showcase events aimed to demonstrate the tangible benefits for the industry sector in adopting the data archiving and preservation services provided by ARCHIVER
- **Related events:** ARCHIVER will also ensure to be present at relevant events such as: EC procurement events, ESFRI events, eIRG workshops, Science Europe, EOSC summits, EOSC-Hub workshops, WLCG workshops, Cloud Expo, Public Cloud World Forum, RDA Plenaries, Open Science conferences, etc.

Every ARCHIVER related event, workshop, or webinar will be communicated and posted on the dedicated section of ARCHIVER's website and social media channels, covering pre-, during-, and post-event activities. Collaterals will help in building the ARCHIVER identity and implementing the Dissemination & Outreach strategy.





Figure 5 ARCHIVER Flyer for the OMC events

ARCHIVER related events will be promoted through social media activities and through dedicated campaigns. Prior to the event, we will promote “save the date” posts, publish the event and the agenda on ARCHIVER’s website, track all links involved in the campaign, formulate dedicated hashtags and create articles, videos, and banners. These events will receive an appropriate follow-up through PPT publication, wrap-up posts, and video interviews from the event.

Events that are directly related to ARCHIVER as well as those that represent a promotion opportunity for the consortium will be listed in a dedicated event database, shared with all partners and linked third parties.

### 3.4. Media & Dissemination channels

Engaging the maximum number of media and dissemination channels will be fundamental to spreading the word about the tender and the resulting archiving services. We report below some of the relevant media & press channels that will be exploited both via email marketing campaigns as well as via social media engagement. This list will be enriched and updated during the project.

#### European & International press/media channels

MyScienceWork, sciDev, Digital Meets Culture, CORDIS Wire & CORDIS News, DSM Newsletter, EC Research and Innovation Press Centre, EU Agenda & European Agenda, EurActiv, PRLog and PRWeb, DG CNECT newsletter, Noodles, Europost, Tom's Hardware, Firmenpresse.de, Startupbusiness Network, Wallstreet Online, NUANCE (Newsletter of UbuntuNet Alliance), CONNECT (Magazine from the GEANT Community), CAAST-Net PLUS Magazine, CG Channel, Make, Technology News, DCI, WorldNewsPress.net, Webnuz, New

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| <p>York Social Diary, Before It's News, Sina English, Voices - Sun Times, The Central News Agency, Bizcommunity.com, Copernicus Observer, International innovation, ComputerWeekly, 24n.biz (UK) , Computer World UK, eWeek Europe, EUObserver, EURACTIV, Government Technology, Hostingtechnews.com, HPC in the cloud, HPC Wire, Innovations report, InfoWorld. DataCenterDynamics</p>  |
| <p><b>Procurement channels</b></p>   |
| <p>The European Procurement Forum, PROCUREMENT.ORG, Procurement Forum, Innovation Procurement, PPI Platform, #Procure2Innovate, Procurement Leaders, Public Procurement Review, EU Tenders (TED)</p>   |
| <p><b>Archives &amp; Digital Repositories, Archiving companies</b></p>   |
| <p>Digital Preservation Coalition, Preservika, Bibliothèque Nationale de Luxembourg, British Library (BL), Cambridge University Library, Digital Curation Centre, The National Archives, National Library of Scotland (NLS), National Library of Wales (NLW), National Records of Scotland (NRS), The Nuclear Decommissioning Authority (NDA), Public Record Office Northern Ireland (PRONI, Unilever Archives and Records Management, University of Glasgow, University of London, University of Oxford</p> |
| <p><b>ICT clusters and SMEs associations</b></p>   |
| <p>ERRIN, CAP Digital, Systematic, SCS, Medicen, Euratechnologies, PRE (regional innovation agency) and the European Institute of Innovation and Technology (EIT ICT Labs) with its nodes located in the biggest ICT hotspots in Europe, INSME (International Network of SMEs), DIGITAL Europe, PIN-SME, UEAPME, Enterprise, Europe Network, Alliance Big Data, Big Data Value Association</p>   |
| <p><b>e-infrastructure projects &amp; research initiatives</b></p>   |
| <p>European e-Infrastructures : GEANT, EGI, PRACE, EUDAT, OpenAIRE, RDA, FAIRsFAIR, OCRE, ESFRI thematic Clusters (Panosc, SSHOC, ENVRI FAIR, EOSC-Life, ESCAPE), GO FAIR, ANDS, FREYA</p>   |
| <p><b>IT, policy and scientific journals</b></p>   |
| <p>Science Business, Science Europe, INASP, e-IRG, Research EU Magazine, Journal of Web Engineering, Journal of Web Semantics (JWS), Journal on Digital Libraries (IJDL), ScienceNode, Nature.</p>   |
| <p><b>Policy Channels</b></p>  |
| <p>The e-Infrastructure Reflection Group (eIRG) and National Governments for e-Infrastructure, the European Strategy Forum on Research Infrastructures (ESFRI), the EIROforum organisations, EOSC-Hub and EOSC-portal, EOSC Secretariat.</p>   |
| <p><b>Other initiatives</b></p>  |
| <p>Helix-Nebula, PICSE, WLCG, CloudWATCH, all of the cloud related projects funded under DG Connect unit E2. The new ICT-15 RIA projects funded in 2019.</p>   |

**Table 11: Examples of media and dissemination channels**

### 3.5. Scientific publications within the ARCHIVER project

Publications prepared within the ARCHIVER project will be public to the extent possible. The project aim is to make all publications and the data collected publicly available (gold model), unless this is in conflict with privacy issues or the future commercial activities of the suppliers. All the main deliverables of the project will be made available publicly via the project website. All results related to the PCP process and to the scientific preparatory work with regard to PCP phases will be proposed for publication in key scientific journals.

### 3.6. Social media channels

ARCHIVER will leverage on many channels to reach out to a wider audience and build a community of relevant stakeholders. The channels are building upon the already established Helix Nebula initiative channels and on the most relevant procurement channels in Europe. In doing this, ARCHIVER will take advantage of this network of relevant contacts and followers to expand it throughout the duration of the project.

- **SMART Twitter campaigns** will include the definition of campaign start and end dates, best time to tweet. DB of potential followers and hashtags, e.g @EGAarchive, #digitalhumanities, #archiving, @DCP\_chat etc...
- **SMART LinkedIn campaigns** will look for membership and contributions to the procurers LinkedIn groups – engaging in debate and drawing attention to new solutions, thereby extending stakeholder reach. The Set-up of a specific LinkedIn group on Data Archiving, currently missing in Europe, will be also taken into consideration.
- **SMART LinkedIn Campaigns:** Youtube will be the social media channel for the promotion of the streamed events, webinars and for the tender videos.

**Table 12 Sample list of relevant Twitter accounts**

| Relevant EU twitter accounts in the domain of the PCP/PPI for Horizon 2020   |
|--|
| @EU_Health,@EU_eHealth, @EIP_AHA (For health/ageing); @EU_ENV, @eip_water (For environment/water); @EUHomeAffairs, @EU_Justice, @Frontex (For security); @Energy4Europe, @EUSmartCities, @EU_ICT4Cities, @euenergyweek; @eumayors (For energy);@EU_eGov (For e-government/public administration); @dlearningEU; @Transport_EU (For transport); @RightMixEU, @ERSCharter, @EMSA_LISBON, @mobilityweek, @EU_ICT4Cities; @Horizon2020EU, @EU_H2020 , @H2020SME; @ICTinnovEU @DigitalAgendaEU (For H2020/research/innovation); @EU_Regional (For projects with regional/local impact); @ICT_IDEALIST ; @CloudforEurope @PEPPOL_EU @Procureinno @Preservica @DPC_chat |
| <b>EU twitter accounts relevant in the ICT policy field</b>  |

@DSMeu, @eInfraEU, @ViolaRoberto, @DIGITconf, @EU\_Commission, @EU\_ScienceHub, @JunckerEU, @ICTscienceEU, @Inno4Europe, @EU\_DataPortal, @EUDataEcosystem, @OpenForumEurope

#### SMEs and ICT service providers

@DigitaliansEU; @weconnectdata; @DIGITALEUROPE, @EuroCloud, @HuaweiEU, @IBMEuropePolicy, @MicrosoftEU, @Oracle, @SAP, @IndraCompany, @MSEurope, @EAchannel, @TheDigitalHub, @opendatacenter, @EIT\_Digital, Cloud 28+, @libnova, @Arkivum, @duraspace @Preservica

#### ICT journals

@DataconomyMedia, @ert\_eu, @WSJD, @tech\_eu, @digital\_eu, @FigaroTech, @ReutersTech, @ResearchGate, @EUhorizon2020, @EU\_RESEARCH, @PublicTech, @BBCTech, @euronewsknowledge, @SciNode, @ScienceInEurope, @cordiseurope, @myCORDIS, @WIRED, @HPCwire, @TomTaborHPC @JRussonHPC @TiffanyTrader@Computing\_News, @Cloud\_Zone, @cloudcompath, @CloudBlogs  
@TheCloudNetwork, @CloudComputing3 @EduCloud

#### EU twitter accounts relevant in the research sector

@LibrariesEU @resdatall, @FAIRSFAR\_EU, @SSHOC, @Panosc @LIBEREurope @Ditigalcuration @BDVA\_PPP

#### Relevant EU twitter accounts for start up

@euroinvestnews, @Allied4Startups, @StartupScaleup, @ODIncubator, @BeTech\_, @StartUpEU

#### Cloud computing & Standards

@enisa\_eu, @HolaCloud @Joinup\_eu @

#### High Energy Physics, Astronomy, Life Sciences, Photon/Neutron Science

##### Organisations & initiatives:

@CERN, @NASA, @PhysicsNews, @esa, @EPSRC, @APSphysics, @SLAClab, @ALICEexperiment, @CMSexperiment, @cardiffPHYSX, @ChemandPhys\_LR, @LHCPhysics, @EPS\_HEP2011 @AMSIS, @HEPPboardEPS, @inspirehep, @Labex\_ILP, @ESO, @emblebi, @EMBLorg, @ELIXIREurope, @isatools, @LifeSciencesUoM, @DTL\_nl, @GQLifeSciences, @LifeSciencesLib @Isn\_events, @PaN\_data, @ESFRI\_EU

##### Journals & Online magazines:

@Newscientist<sup>20</sup>, @PhysicsWorld, @sciam<sup>21</sup>, @WIREDScience, @PhysicsToday, @NatureNews, @NaturePhysics, @physorg\_com, @ScienceNews, @NatureComms, @ScienceChannel, @guardianscience, @sciencemagazine, @APSPHysics, @PhysicsTweet, @ElsevierPhysics, @JPhysB, @scienmag, @HEPExperPapers, @thphysnews, @AstronomyNow @Newscientist @ScienceChannel, @Real\_Staffing, @EHSLifeSciences, @IEEELifeScience, @lifesciencenet

<sup>20</sup> @jjaron

<sup>21</sup> Scientific American, source for the science discoveries and technology innovations

### 3.7. Webinars

During the preparation phase of the project, two webinar will be organised for the demand-side:

- A training webinar on OAIS targeted to the Buyers Group and opened to any relevant stakeholders. This training is organised with the support of the Digital Preservation Coalition and will be delivered by experts in OAIS and digital preservation.
- An info-webinar for National Repositories. This webinar is organised in collaboration with OpenAIRE, the european organisation that facilitates openness in scholarly communication.

In addition, an information webinar will be held between October and November 2019 to provide answers and clarification to the potential bidders of the ARCHIVER tender on the Tender documents and the tender process. More webinars might be organised during the execution phase of the project.

## 4. Measuring impact and monitoring the activities

The impact of the activities described in this plan will be measured through a core set of key performance indicators (KPIs) wherever they are quantifiable. A continuous activity of monitoring will be carried out by Trust-IT Services, as WP5 leader. The table below shows the ARCHIVER Communication Toolbox and the end-of-project targets.

**Table 13 ARCHIVER Communication Toolbox**

| Activity  | Target End of the Project   |   |
|---|---|---|
|   | Activities  | Impact  |
| Stakeholder analysis to identify the key targeted communities | 1 Engagement and Communication Plan   | To establish a coordinated communication and engagement strategy within the project   |
| Marketing campaign to promote the tender publication          | <ul style="list-style-type: none"> <li>• 1 OMC Press release</li> <li>• 1 press release related to the launch of the tender</li> <li>• 1 promotional video to advertise the tender</li> </ul> | Number suppliers participating in the OMC: 30 of which 50% will be SMEs; 10 will be part of the bidding consortia in response to the Tender |

|   |  |   |
|---|--|---|
|   | <ul style="list-style-type: none"> <li>• Posts on social networks to engage potential bidders</li> </ul>   | <p>Publication of the OMC announcement on at least 3 relevant external channels</p> <p>Publication of the tender announcement on at least 10 relevant external channels</p> |
| Organise 12 pre-tender workshops targeting procurers, end users and potential bidders with a target audience of 40 participants           | <ul style="list-style-type: none"> <li>• 1 Kick off meeting</li> <li>• 2 Procurer use case scoping sessions</li> <li>• 4 Open Market Consultation events</li> <li>• 2 End users' events</li> <li>• 2 webinars during the preparation phase</li> <li>• 1 Info-webinar to answer questions on the tender</li> <li>• 1 Tender award ceremony &amp; kick-off of phase 1</li> </ul> | 40 participants on average per workshop   |
| Organise 7 workshops targeting Early Adopters, end users and policy makers with a target audience of 30 participants (post tender launch) | <ul style="list-style-type: none"> <li>• 1 public event to kick off phase 2</li> <li>• 1 public event to kick off phase 3</li> <li>• 2 Business showcase events</li> <li>• 2 Policy workshops</li> <li>• 1 Final event</li> </ul>  | 30 participants on average per workshop   |
| Generate a service-oriented, responsive, attractive, content rich web platform integrated with social networks                            | <ul style="list-style-type: none"> <li>• 1 website</li> <li>• 2 news posts per month on average</li> </ul>   | Average 500 monthly visits to ARCHIVER web platform   |
| Set-up and maintenance of ARCHIVER social media channels  | <ul style="list-style-type: none"> <li>• weekly updates</li> <li>• 4 Tweets / week</li> <li>• 2 LinkedIn post per week</li> </ul>  | Twitter: 500 followers;<br>LinkedIn: 500 connections;   |

|   |   |   |
|---|---|---|
| (Twitter, LinkedIn, YouTube)  | <ul style="list-style-type: none"> <li>• 10 LinkedIn articles (overall)</li> </ul>  |   |
| Produce content for the website & media coverage  | <ul style="list-style-type: none"> <li>• 5 press releases</li> <li>• 3 blog posts</li> <li>• Bi-monthly newsletters</li> <li>• 2 videos</li> <li>• Deliverables</li> <li>• 10 Interviews</li> </ul> | Domain ranking constantly increasing, up to at least 30/100 at the end of the project (to be mapped with tools such as SEMrush or Checkmoz.com) |
| Promotional material (design & content) to increase the visibility of ARCHIVER at events and promote its main results | <ul style="list-style-type: none"> <li>• 3 fliers;</li> <li>• 3 posters;</li> <li>• 4 pop up banners;</li> <li>• ARCHIVER stickers</li> </ul>   | Dissemination of the promotional material to at least 15 external events  |
| Early adopters' kit   | <ul style="list-style-type: none"> <li>• ARCHIVER overall flyer;</li> <li>• Use case factsheets;</li> <li>• Save the date for upcoming ARCHIVER events;</li> <li>• ARCHIVER stickers</li> </ul>     | Dissemination of the promotional material to at least 5 ARCHIVER & external events  |
| Production of best practices & lessons learnt reports   | <ul style="list-style-type: none"> <li>• 4 reports</li> </ul>   | 500 tracked download via Google Analytics Tag Manager   |