

Activities and Workflows

EMBL Archive, 2020



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1. Document Statement of Purpose

The purpose of this document is to document the procedures, workflows and standards in place in the EMBL Archive. These are the basis for all work going forward. This document complements the *EMBL Archive Terms of Reference* by providing information on how the vision, mission and objectives of the EMBL Archive are implemented.

1.1. Organisation of this Document

This document is divided in three sections, according to the three objectives of the EMBL Archive, which are to capture EMBL's documentary heritage, to manage EMBL's archival holdings and to make these holding accessible. Each section includes a list of the activities under each objective, and then a description of the relevant procedure, workflows and standards is provided.

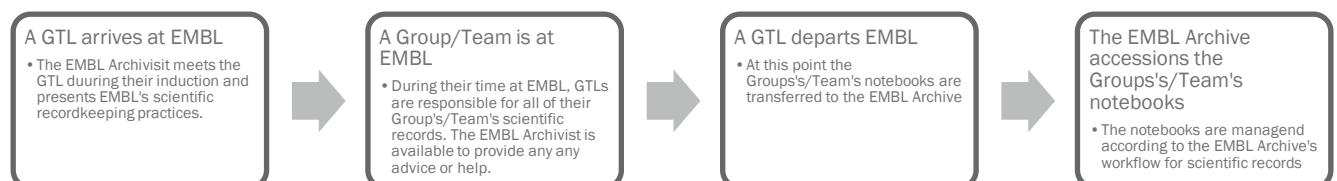
2. Capture EMBL's Documentary Heritage

The activities undertaken by the EMBL Archive to deliver this objective are:

- Overseeing EMBL's Scientific Records
- Managing the Internal Transfer of Records
- Running the EMBL Oral Histories Programme
- Curating the EMBL Herbarium

2.1. Overseeing EMBL's Scientific Records

The EMBL Archive is responsible for overseeing EMBL's scientific recordkeeping practices. This activity is directed by the EMBL Directorate, discussions with Group/Team Leaders (GTL) at EMBL and work by the EMBL Archivist with the archival community specialising in this area. The *EMBL Guidelines for Scientific Recordkeeping* and a complementary document *Scientific Recordkeeping for Bioinformaticians and Computational Biologists* detail the reasons for and the contents of scientific records at a high level, as well as the responsibilities of the different parties. The general framework for scientific recordkeeping in the EMBL Archive are as follows:



Please note that this workflow is not finalized and that further discussions are ongoing with EMBL's scientific leadership.

2.2. Managing the Internal Transfer of Records

Internal material transferred to the EMBL Archive falls into one of three categories: scientific records, institutional records and administrative records. They are dealt with as follows:

- **Scientific records** are transferred to the EMBL at the point when a GTL departs EMBL. The transfer includes all of the Group's/Team's scientific notebooks, and no records are destroyed at this time. (Some might be destroyed at a later stage during the appraisal of the records; see [Archival Appraisal](#) and [Workflow for Scientific Records](#).) The transfer is documented with a *Transfer Form for Scientific Records*, which is signed by both the departing GTL and the EMBL Archivist. The EMBL Archive retains the signed form, which is stored in the office of the EMBL Archivist.
- **Institutional records** include records created by the departments including Internal Audit, DG Office, International Relations and the Staff Association. These records are transferred to the EMBL Archive at a time mutually agreed by the department in question and the EMBL Archivist. At the time of transfer, records can be either adequately destroyed or transferred to the EMBL Archive for further management. The transfer is documented with a *Transfer Form for Institutional Records* and/or a *Destruction Form for Institutional or Administrative Records*, as appropriate, which are signed by both the Head of Department and the EMBL Archivist. The EMBL Archive retains the signed form, which is stored in the office of the EMBL Archivist.
- **Administrative records** include records created by administrative departments including Finance, Human Resources, Legal Services, Purchase and Facility Management. At the end of the retention period set by EMBL Administration the records will either adequately destroyed or transferred to the EMBL Archive for further management. The transfer or destruction is documented with a *Transfer Form for Administrative Records* and/or a *Destruction Form for Institutional or Administrative Records*, as appropriate, which are signed by both the Head of Department and the EMBL Archivist. The EMBL Archive retains the signed form, which is stored in the office of the EMBL Archivist.

The above procedures ensure that EMBL's records are managed in a comprehensive way and that decisions are appropriately documented. [Appendix 1](#) summarizes these workflows.

2.3. Running the EMBL Archive Oral Histories Programme

The EMBL Archive Oral Histories Programme started in 2016 to create, store and share interviews that, together, capture the development, history and on-going missions and achievements of EMBL and its people specifically and the (European) molecular biology landscape more generally. The Oral Histories collection provides interested parties with coherent and comprehensive first-person interviews that will

inform about EMBL as a European scientific institution. It is intended to be a place where varied perspectives and experiences are recorded.

The EMBL Oral Histories programme is defined in the document entitled *Oral Histories in the EMBL Archive*. An additional form, the *EMBL Oral History – Consent Form*, documents consent from project participants and records any limitations imposed on access to the recorded interviews. The completed forms are stored in the office of the EMBL Archivist.

2.4. Curating the EMBL Herbarium

The EMBL Herbarium is a collaborative project, run by the EMBL Archive, to document the plant life at all of EMBL's sites. The EMBL Herbarium consists of dried plant samples, which are labelled. It started in 2020.

Its procedures and an ethics statement are detailed in the document entitled *The EMBL Herbarium*.

3. Manage EMBL's Archival Holdings

The activities undertaken by the EMBL Archive to deliver this objective are:

- Archival Administration
- Documenting Accessions
- Describing Archival Holdings
- Archival Appraisal
- Conservation Actions, Including Repackaging
- Logging Physical Storage
- Digital Preservation
- Deaccession
- Disaster Preparedness
- Environmental Control
- Overseeing IT Systems
- Security Matters
- Managing Personal and Sensitive Data

3.1. Archival Administration

Archival administration involves managing the manner in which the EMBL Archive is governed and its relationships within EMBL. It includes writing and maintaining all of the documents that govern the EMBL Archive, such as the *EMBL Archive Terms of Reference*, this document outlining their implementation, reports on financial spending and time accounts (e.g. *Summary of Financial Spending and Time Accounts, 2015-2019*) and all forms necessary to carry out all the activities described in this paper.

3.2. Documenting Accessions

Accessions are materials (analogue or digital) which, following their transfer to the EMBL Archive, become the responsibility (physical and intellectual) of the EMBL Archive. The EMBL Archive creates an accession record for each new accession. The accession record typically includes the immediate source of acquisition, where the accession is stored, information about scope and content, and information about planned appraisal actions (if known).

From 2020, accession records are created by using the accessions module of the EMBL Archive instance of the AtoM application (archive.embl.org). This information entered in the accession record can then be used as the basis of that material's archival description and the accession record and the archival description can be linked.

With each accession, a *Processing Plan* will also be completed, laying out the planned actions (e.g. description, appraisal, and conservations and preservation).

3.3. Describing Archival Holdings

This activity builds on the one above ([Documenting Accessions](#)) and is linked to the [Metadata and Taxonomies](#) and [Managing Personal and Sensitive Data](#) activities described below.

The purpose of this activity is to create archival descriptions, catalogued in the EMBL Archive catalogue, that facilitate discovery of and access to the holdings of the EMBL Archive and provide information about their availability for consultation.

Archival descriptions are created and maintained within the EMBL Archive instance of the AtoM application (archive.embl.org). The cataloguing standard used by the EMBL Archive is based on the General International Standard Archival Description ([ISAD\(G\)](#)) maintained by the International Council on Archives. When appropriate, the ICA's complementary standards are also used. These include the International Standard for Describing Functions ([ISDF](#)), the International Standard Archival Authority Record for Corporate Bodies, Persons and Families ([ISAAR \(CPF\)](#)) and the: International Standard for Describing Institutions with Archival Holdings ([ISDIAH](#)).

Information on the creation of reference codes in the EMBL Archive catalogue can be found in [Appendix 3](#).

3.3.1. Fonds and Collections

Though all other levels of description are aligned with ISAD(G), the EMBL Archive has both Fonds and Collections. The term ‘fonds’ is used for material that has been created and/or accumulated from a single origin, such as a person or a department. The term ‘collection’ is used when material has been artificially grouped together according to a subject matter or theme but originates from a variety of sources or unidentified sources.

3.4. Archival Appraisal

Archival appraisal is carried out after accessioning, during the process of archival description (see: [Describing Archival Holdings](#)).

The purpose of appraisal is to retain material that is aligned with the scope of the EMBL Archive, as described in the *EMBL Archive Terms of Reference*. Appraisal decisions will sometimes lead to material being destroyed, for example, if an accession includes duplicates or material that does not fall within the scope of the EMBL Archive. When this is the case, it is recorded directly within the archival description of the holdings at fonds or collection level as a bare minimum.

3.5. Conservation Actions, Including Repackaging

The EMBL Archive carries out basic conservation actions on all analogue material.

When possible, material is repackaged in archival storage boxes that comply with the current relevant ISO standards. The standards observed by the supplier for archival material comply with [ISO 9706:1994](#) (Information and documentation – Paper for documents – Requirements for permanence) and [ISO 16245:2009](#) (Information and documentation – Boxes, file covers and other enclosures, made from cellulosic materials, for storage of paper and parchment documents). Materials used for photographic archival storage additionally comply with [ISO 18916:2007](#) (Imaging materials – Processed imaging materials – Photographic activity test for enclosure materials).

3.5.1. Material in the *Zwischenarchiv*

The *Zwischenarchiv* refers to a physical section of the EMBL Archive storage room (B14A-005) which is dedicated to the storage of accessioned records that have not been archived.

Unless immediate conservation and/or preservation actions are necessary, material in the *Zwischenarchiv* (see the workflows detailed in [Appendix 1](#)) will not be repackaged upon accession but stored in document boxes if needed. This is to keep costs down.

3.6. Logging Physical Storage

The management of physical storage and all the archival boxes is done through the EMBL Archive AtoM application. This allows for boxes to be numbered and linked to specific material, and facilitates retrieval of archival material by EMBL Archive staff.

3.7. Digital Preservation

Digital preservation is defined as a series of activities that seek to ensure continued access to digital assets. It includes the policies, workflows, people and systems involved in endeavouring to make sure that digital assets are accessible and reliable in the long term. It aims to ensure that information that exists in digital format remains accessible, usable and reliable in the medium and long terms. This activity within the EMBL Archive is guided by the *EMBL Archive Digital Preservation Framework*, which outlines the strategic principles of digital preservation in the EMBL Archive and details responsibilities. In addition, it also provides details on the two models that guide this activity in the EMBL Archive, namely:

- The Open Archival Information Systems Reference Model ([ISO 14721:2012](#) – Space data and information transfer systems – Open archival information system (OAIS) – Reference model), which describes different components of a system responsible for long-term digital preservation.
- The Digital Curation Centre's [Digital Curation Lifecycle Model](#), which presents sequentially the activities that are needed in the process of preserving digital assets.

This document will be complemented by another one, currently in preparation, which will provide information on processes, software and hardware.

3.8. Deaccession

Deaccession is the process by which an item which has been accessioned and described by the EMBL Archive is permanently removed from the holdings.

The deaccession of material from the EMBL Archive can only happen with approval of the EMBL Director General and the EMBL Archivist. The deaccession is documented in a form (*EMBL Archive Deaccession Form*) which includes the reason for the deaccession and the date of the deaccession.

3.9. Disaster Preparedness

The EMBL Archive is a founding member of NARN, the Notfallverbund Archive Rhein-Neckar e.V. (Emergency Network for Archives in the Rhine-Neckar Region, <https://narn.eu>). The mission of NARN is the protection and salvage of cultural assets in the event of a disaster impacting any member institution. The activities of the group include knowledge exchange, drills, liaising with the fire service, purchasing insurance services and sharing salvage equipment (stored in the Heidelberg Stadtarchiv). As a registered association, NARN has statutes (*Satzung des Notfallverbundes Archive Rhein-Neckar*), agreed to by all the founding members in 2018.

In case emergency access to the EMBL Archive storage room is needed, a key to B14A-005 (the storage room) is kept at EMBL Reception.

3.9.1. In Case EMBL (or Its Successor Institute) Ceases to Exist

The EMBL Archive's holdings bear witness to one of humanity's greatest adventures: the scientific study of the natural world. In case EMBL, or any institute that might come to replace it, ceases to exist, these holdings should be transferred to an adequate place for long-term preservation and access. In March 2020, the EMBL Archive and EMBL Legal Services started exploring ideas of how to best address this. This paper will be updated in due course to document any decisions made in this regard.

3.10. Environmental Control

The temperature and relative humidity inside the EMBL Archive storage room (B14A-005) is regulated to optimise the long-term preservation of the EMBL Archive's analogue holdings, which include papers, objects, photographs and photographic film. Thanks to the equipment in the storage room, the temperature is maintained between 18°C and 20°C, whereas the relative humidity is maintained between 35% and 45%. This is in accordance with the relevant standard, namely ISO 11799:2015 (Information and documentation – Document storage requirements for archive and library materials).

The environment within room B14A-005 is monitored by the EMBL Archivist, but recorded and managed by EMBL Facility Management.

3.11. Overseeing IT Systems

The EMBL Archive uses three specialised software to deliver its missions:

- AtoM (<https://www.accessmemory.org/en/>) is an application for archival description. The EMBL Archive instance is accessible at archive.embl.org and is the EMBL Archive Catalogue.
- Archivematica (<https://www.archivematica.org/en/>) is an application for digital preservation. The EMBL Archive instance is accessible internally only at digipres.embl.org.

- The Archivematica Storage Service, which is used by Archivematica to manage archival storage, transfer locations and packages. The EMBL Archive instance is accessible internally only at <https://digipres.embl.org:8000>.

All three software are hosted and maintained at EMBL by IT Services, but the EMBL Archivist has administrative rights for all of them. It is the responsibility of the EMBL Archivist to manage these IT systems as much as possible, and liaise with IT Services as and when needed.

3.11.1. Email Address

The EMBL Archive email address (archive@embl.org) is accessible to the EMBL Archivist and to the Head of the DG Office.

3.12. Security Matters

To ensure its trustworthiness and reliability of the EMBL Archive, its holdings must be kept safe and secure. To this end, several measures are taken to limit access to the analogue and digital holdings.

The physical space occupied by the EMBL Archive consists of a reading room (B14A-004), the EMBL Archivist's office (B14A-006) and the storage room (B14A-005). The entire area is accessed via the door to B14-004, which is kept locked at all times, unless EMBL Archive staff are present. There is a glass partition between the B14A-004 and B14A-006, enabling supervision of material while it is in use. B14A-005 has its own key which only EMBL Archive staff and DG Office possess: this room cannot be accessed with a master key.

Access to the EMBL Archive server (<smb://ad-fs01.admin.embl.de/Archive>) is password protected to ensure that only authorised individuals can access it. This server is managed and backed up by EMBL IT Services.

3.13. Managing Personal and Sensitive Data

Due to their nature, archival holdings often contain personal and sensitive data (such as dates of birth, private correspondence or evidence of personal opinions) and the EMBL Archive is no different. To ensure that this type of data is well managed and that the identity of individuals and sensitive data about the institution are protected, the EMBL Archivist works with the EMBL Data Protection Officer to ensure that robust procedures are in place and that these are documented. To this effect, the EMBL Archive prepared in 2018 the *EMBL Archive - Record of Processing Activities*, in pursuance of EMBL Internal Policy 68 on General Data Protection. This document was [published online](#) in 2019.

When access to archival holdings are restricted because they contain personal or sensitive data, this is indicated in the EMBL Archive catalogue.

The management of personal and sensitive data within an archive is an activity that needs to be constantly monitored and regularly reviewed. Therefore, the EMBL Archivist and the EMBL Data Protection Officer meet on a regular basis to discuss any matters arising.

4. Make EMBL's Archival Holdings Accessible

The activities undertaken by the EMBL Archive to deliver this objective are:

- The EMBL Archive Reading Room
- Metadata and Taxonomies
- Digitisation
- Displaying Archival Holdings
- Communication and Outreach Activities

4.1. The EMBL Archive Reading Room

The EMBL Archive reading room (B14A-004) is open to any member of the public who wishes to consult archival material. Appointments should be made ahead of time. Persons consulting material will always be supervised.

Some reference material is accessible on the open shelves in the reading room, but must not be removed. In addition, a desktop computer is available for public use in the reading room: an Archive Guest log-on and password can be obtained from the EMBL Archivist.

No food or drink is allowed in the EMBL Archive reading room.

4.2. Metadata and Taxonomies

Archival metadata helps describe archival holdings, making them discoverable and accessible. All metadata and taxonomies used in the EMBL Archive are managed via its AtoM application instance.

The AtoM application can generate Dublin Core 1.1 XML and EAD 2002 XML for all archival descriptions, regardless of their level.

The application also allows for the management of taxonomies. The two taxonomies that are currently used classify:

- Places (which appears as “EMBL sites” on the menu): Each EMBL site has been allocated a term in this taxonomy.

- Subjects: This is for general areas relevant to the EMBL Archive holdings. Each Subject term has a scope note.

In addition, seven functions are defined and have a scope note.

Finally, an authority record is created for the creators of material transferred to the EMBL Archive.

4.3. Digitisation

The digitisation of archival material is currently carried out on an ad-hoc basis in the EMBL Archive. The most common reasons for digitising material are:

- Preservation purposes, such as when archival material exists in an obsolete format. In this case, the material is migrated to a current digital format. The original is then destroyed after the digital version has been created and checked. These new digital versions created for preservation are managed through the [Digital Preservation](#) activity described above. Information about this digitization is documented in the archival description associated to the material.
- To increase accessibility. Creating digital surrogates of material which is often requested and for which there are no rights issues. Digital surrogates are managed through the [Digital Preservation](#) activity described above.

4.4. Displaying Archival Holdings within EMBL

If appropriate, some archival holdings from the EMBL Archive will be displayed across EMBL's sites. When this happens, it is done with the supervision of the EMBL Archivist, who sets and monitors the conditions of display in accordance with the current relevant standards. Displaying archival material is considered a good way of making the archival material more accessible, but it should also be limited to situations that provide effective learning opportunities and can still provide adequate context for the materials on display.

4.5. Communication and Outreach Activities

The EMBL Archivist works with EMBL Communications to help ensure that news about the EMBL Archive is shared with the EMBL community, the archival community and the wider world. News stories about the EMBL Archive are collated on the EMBL News website with the tag 'EMBL Archive' and can be accessed through this link: <https://www.embl.org/news/tag/embl-archive/>.

In addition to news stories, the EMBL Archivist reaches out to the archival community and professional associations through mailing lists and social media, as and when relevant. On Twitter, the hashtag #EMBLArchive is used to reference the EMBL Archive, and all tweets can be accessed here: <https://twitter.com/hashtag/emblarchive>.

5. Further Activities

5.1. Institutional Committees

The EMBL Archivist currently sits on two internal committees/working groups:

- The Library Committee, which supports the running of the Szilárd Library at EMBL.
- The Open Science Working Group, which is exploring ways to improve how EMBL disseminates its research outputs.

In these groups, the EMBL Archivist provides an archival perspective to the matters arising, and can complement the discussions with information about work in similar fields from the archival and records management profession.

5.2. Associations and Collaborations

As in many institutes, the EMBL Archive maintain connections with colleagues and organisations outside of EMBL. This ensures staff keep their professional development up to date through knowledge exchange, professional practice and standards. Membership to professional organisations also means agreement to the association's professional code of ethics. Importantly, the EMBL Archivist, as a member of the International Council on Archives, is bound by its Code of Ethics (available at: <https://www.ica.org/en/ica-code-ethics>).

5.3. Project Work

The EMBL Archive will, occasionally, lead or take part in internal or external projects. The role of the EMBL Archive in these should be to support others in making use of the EMBL Archive holdings. In these projects, it is only expected that all holdings used be appropriately referenced and that the EMBL Archive be credited with providing access to the materials used.

5.4. Administrative Duties

As in any department, running the EMBL Archive entails a certain number of administrative tasks (e.g. purchasing, accounting, expenses filing), which need to be undertaken in a timely manner.

5.4.1. Budget Monitoring

The EMBL Archive has its own budget, which the EMBL Archivist monitors on a monthly basis by consulting the internal Web Budget View application and recording expenses in a spreadsheet. This helps

dividing expenditure in several categories (e.g. staffing, material, services and travel costs) which can then be used to prepare the reporting documentation required (see [Archival Administration](#)).

6. Revision of this Document

This document was prepared in between February and June 2020 by the EMBL Archivist and the Library and Archive Assistant. It will be reviewed annually.

7. Appendices

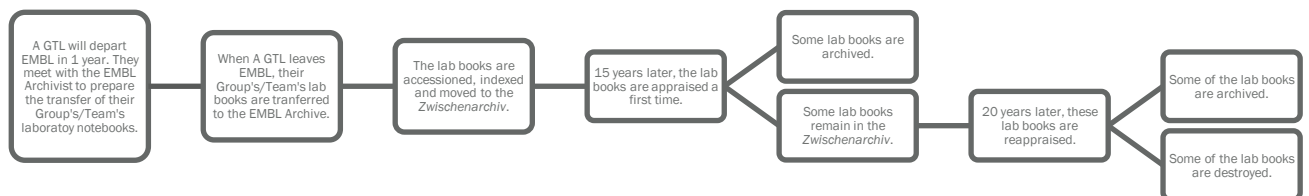
This section contains three appendices:

- Appendix 1: Summary flowcharts for the principal workflows in the EMBL Archive
- Appendix 2: List of Additional Documents and Forms
- Appendix 3: Reference Codes

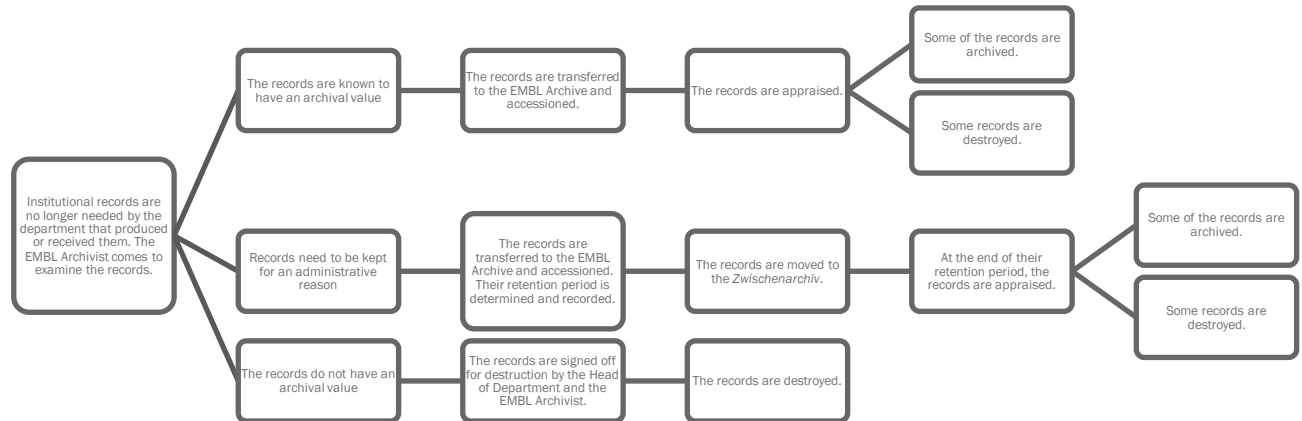
7.1. Appendix 1: Summary flowcharts for the principal workflows in the EMBL Archive

7.1.1. Workflow for Scientific Records

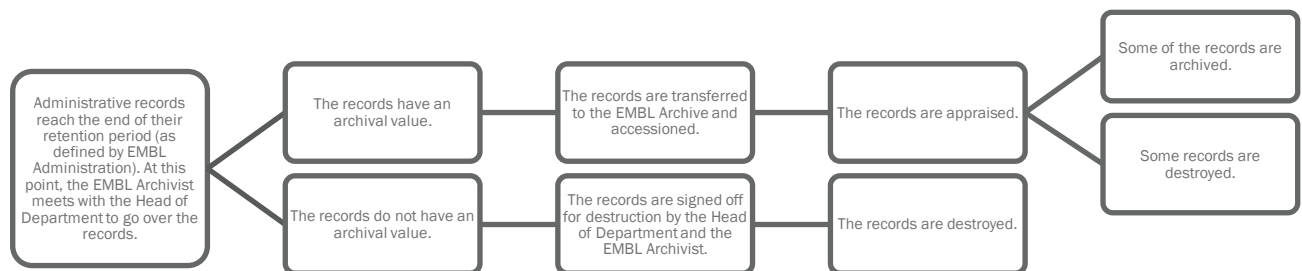
Please note that this workflow is not finalized and that further discussions are ongoing with EMBL's scientific leadership.



7.1.2. Workflow for Institutional Records



7.1.3. Workflow for Administrative Records



7.2. Appendix 2: List of Additional Documents and Forms

The following documents, listed in the order in which they are mentioned, support the activities and workflows of the EMBL Archive:

- EMBL Archive Terms of Reference
- EMBL Guidelines for Scientific Recordkeeping [in preparation]
- Scientific Recordkeeping for Bioinformaticians and Computational Biologists [in preparation]
- Transfer Form for Scientific Records
- Transfer Form for Institutional Records
- Destruction Form for Institutional or Administrative Records
- Transfer Form for Administrative Records
- Oral Histories in the EMBL Archive
- EMBL Oral History – Consent Form
- The EMBL Herbarium
- Processing Plan
- Summary of Financial Spending and Time Accounts, 2015-2019 [internal only]
- EMBL Archive Digital Preservation Framework
- Deaccession Form
- EMBL Archive - Record of Processing Activities
- Satzung des Notfallverbundes Archive Rhein-Neckar [in German]

7.3. Appendix 3: Reference Codes

The reference code consists of a unique identifier for every fonds or collection and their respective subsets. Reference codes for the EMBL Archive catalogue, which are created as part of the activity Describing Archival Holdings, follow a general, top-to-bottom structure. The top-level reference code is always created at the fonds or collection level first, starting with the first few letters of the associated individual, departmental or institutional name, preceded by a 'C-' in the case of a collection or 'P-' in the case of a fonds from a specific individual (eg. SEC; P-BOU; C-MFS). Then, numbers or letters are

successively added to denote lower levels. 'DE 2324,' a unique ISIL identifier for the EMBL Archive, precedes every reference code automatically once the material is linked to the EMBL Archive.