Acknowledgements: This strategy document has been produced by the IFI Irish Film Archive team, and was written up by Kasandra O’Connell, following a lengthy period of research and development, devising systems and analysing workflows as part of our ongoing collections management activities. We would like to acknowledge the contribution of our colleagues in other departments within the IFI, specifically Irish Film Programming and the invaluable input of our partners Mike Whelan of Digital Garage and particularly Simon Factor of Moving Media.
Introduction
This document outlines the IFI Irish Film Archive’s strategy for the management of its digital collections, specifically in relation to preservation and access. The document does not detail our policy and procedures in these areas, but rather provides a strategic overview and describes the principles and framework that will guide their development over the next six years. The IFI uses Spectrum, the Collections Trust’s standard for collections management and for consistency is using Spectrum Digital Asset Management (DAM) produced by Nick Poole and Alex Dawson (2013) as a framework for its digital strategies and policies.

Context
Over the last two decades, in its role as custodian of the nation’s moving image heritage, the IFI Irish Film Archive has built up extensive expertise, equipment, and procedures that allow it to preserve and provide access to its analogue film and tape collections. However, in the last 5 years moving image production and distribution has changed from being almost entirely analogue to being predominantly digital. The IFI, along with other archives around the world, is now faced with the challenge of collecting, cataloguing, preserving and giving access to these digital collections.

This fundamental change in the IFI Irish Film Archive’s activity and remit was recognised in the Irish Film Institute Strategy (2013 - 2016) which outlined the Archive’s strategic priorities and actions for this period. In line with this strategy the IFI Irish Film Archive has developed a Digital Preservation and Access strategy to support it in achieving its goal to become a world class Digital Archive, ensuring Ireland’s moving image heritage is protected in the long term, regardless of its format.

Mission
As part of the IFI Ireland’s national cultural institution for film, the mission of the IFI Irish Film Archive is to acquire, preserve and provide access to Ireland’s moving image collections and associated materials, for the benefit of current and future generations.

Objectives
In order to fully achieve its mission the IFI must be able to preserve and make available the digital collections in its care, according to the highest international standards.

In order to achieve this objective the IFI Irish Film Archive aims to:

- Upgrade the Archive’s technology and equipment to facilitate digital activities.
- Develop policies and procedures to support the digital strategy and digital asset management activities.
- Develop a trusted digital repository to house digital collections.
- Increase access to the collections through the utilisation of new technological solutions.
- Secure adequate funding to ensure digital preservation and access activities are fully supported and sustainable.
- Develop specialist digital management and preservation skills in the IFI, through training, upskilling etc.
- Develop the Archive’s existing database to allow the recording of the technical, administrative, preservation and rights metadata necessary for digital preservation and access.
- Follow international examples of best practice relating to digitisation, file formats, metadata standards, storage and access technology.
Create and maintain on-going partnerships with sector specialists, peer organisations and expert groups to ensure that we are up to date as technology and standards develop.

**Principles**
While developing digital strategies and solutions, the IFI will apply the following principles, to ensure efficiency and cost effectiveness:

- **Flexibility:** Systems will be designed on a modular basis with each component capable of functioning as an independent unit or within a larger network. Each work station will be capable of performing a number of discrete activities in order to maximise operational efficiency.

- **Scalability:** Processes will be designed to take into consideration the rapidly changing digital landscape and will allow for the integration of future technologies and additional capacity for storage and operations, when technology becomes available and as funding permits.

- **Sustainability:** The IFI’s digital infrastructure and equipment will require ongoing investment and upgrading to ensure it remains fit for purpose and the skillsets necessary for digital preservation and collections management will need to be developed within the organisation. Therefore it is essential that the Archive selects solutions that can be maintained within organisational resources, and that beneficial sectoral relationships are created and maintained in order to support the IFI in implementing the DPAS and developing its capabilities.

**Risks/challenges**

The IFI’s Digital Preservation & Access Strategy must consider the following:

- **Technical obsolescence:** Digital technologies are constantly evolving; therefore it is essential that the IFI keeps abreast of changing formats and industry developments, re-evaluating our preservation solutions to ensure they remain valid. In tandem we must implement a planned media and format migration programme to ensure the ongoing authenticity, accessibility and integrity of data.

- **Lack of Standards:** The lack of internationally agreed digital preservation standards means there is a level of uncertainty attached to any preservation approach or technological solution the Archive may choose. Ongoing research and monitoring is essential in addition to maintaining ongoing partnerships with technology specialists, peer organisations and expert groups as standards develop.

- **Expense:** Installing and maintaining the infrastructure, equipment and skillsets necessary for digital archiving will be an ongoing, costly and resource-heavy activity, but it is vital to ensure the availability of digital collections to future generations. An efficient DPA strategy cannot be achieved with sporadic investment, but must be supported by regular and predictable funding.
Benefits/ opportunities
Digital technologies bring a range of benefits:

- **Preservation**: no deterioration of data with use, original material is protected when digital surrogates are created for exhibition and access and the cost of depositing archival material is reduced.
- **Access**: Faster and easier access, cheaper wider & distribution, potential to use new technologies such as video-on-demand and virtual viewing rooms to provide remote access for commercial, cultural and educational purposes.
- **Funding opportunities**: Potential new income streams, through online distribution, grants, public/private partnerships, licensing agreements and collaborations with peer organisations.

Users/ Stakeholders
As the national repository for moving image the IFI must be able to cater for the needs of a large variety of user groups and stakeholders. It must be able to accommodate the public, the film and television industries, user groups from within the IFI, its key partners and organisations for whom it provides archiving services. The main stakeholders have been identified as:

**Internal:**
- IFI Departments: IFI Projection, Irish Film Programming, IFI Education, IFI Marketing
- Areas within IFI Irish Film Archive: Ingest, Digitisation, Access, Cataloguing, Library

**External:**
- Partners: Broadcasting Authority of Ireland, Irish Film Board, Arts Council
- Commercial users / programme makers
- Public
- Depositors of collections
- External exhibitors

Strategic Fit
IFI Irish Film Archive’s Digital strategic goals reflect the IFI’s Strategic objectives as outlined in the Preserve section of the IFI Strategy (2013-2016) document which are:

- To maintain the IFI Irish Film Archive to the highest international standards
- To improve resources within the Archive
- To improve access to the collections
- To heighten awareness of the collections and the importance of their preservation for current and future generations
- Provide public access to IFA material

Strategic Priorities
The IFI Irish Film Archive’s Digital Preservation and Access Strategy considers the short-, medium- and long-term needs of the organisation in safeguarding and sharing digital collections.

Phase One – Short Term (2014)
The first phase of the DPAS is the installation of core digital infrastructure, which is the technical foundation upon which all digital policies and procedures will be built. This infrastructure includes a fibre optic network, high-volume digital storage, and the upgrade of the Archive’s digital restoration capabilities. This upgrade will radically improve the Archive’s ability to care for the digital collections.
for which it is increasingly responsible, by expanding its capacity to take in born digital material and to create high-resolution digital copies of the film and tape materials that it already holds. In parallel, the Archive staff will also analyse the IFI’s operational needs, identifying all user groups and mapping current activities in preparation for developing new digital workflows, collections management procedures and policies according to professionally recognised standards. This will be an evolving process, requiring ongoing additions and review as our systems become increasingly automated over the next six years.

**Phase Two – Medium Term (2015-2016)**
In the medium term the IFI Irish Film Archive, in collaboration with its technical partners, will design technical and operational solutions to mitigate the risks associated with media fragility and obsolescence. In addition to further developing its equipment, the Archive will design digital collections management policies and procedures according to Spectrum DAM, which will ensure the digital collections in our care can be managed, stored and retrieved into the future.

The IFI will investigate open source Digital Asset Management solutions with a view to adapting an open source system to fulfil our specific collections management requirements. This will help safeguard against the risks associated with locking into proprietary a DAM, and also provide a solution that is cost effective and thus sustainable within the Archive’s limited budget. At this juncture we will also explore the potential to make collections more widely available by developing and piloting a variety of technology based access solutions, such as IFI Player and a virtual Archive viewing room, VoD (Video on Demand) and using commercially established platforms. During phase 2 we will also be able to undertake efficient digital delivery of films for theatrical exhibition, both at the IFI and other venues nationally and internationally.

**Phase Three – Long Term (2017-2019)**
In the long term the IFI intends to have an established secure digital repository supported by a Digital Asset Management System to ensure the ongoing preservation of our moving image collections and digital documents. In this final phase of the DPAS, the IFI will formalise all of the policies and procedures developed in the preceding phases. The first large-scale migration of material held within the digital repository will also take place during this period and this will be an ongoing activity throughout the life cycle of all digital preservation assets. The Archive will consolidate the access opportunities it previously piloted, reviewing the success of the tools trialled in phase 2 and revising them accordingly. This will ensure that we deliver digital content via a wide range of digital platforms, broadening the reach of the IFI and ensuring that access to our national moving image heritage is not restricted by location.

**Conclusion**
The IFI Digital Preservation & Access Strategy Document will be an essential tool in assisting the IFI to achieve its ambition to become a Digital Archive that meets internationally recognised standards of excellence. Although the DPAS takes a long-term strategic view of the Archive’s Preservation and Access requirements, it is also a live document that will be revisited yearly, with a review at the end of each phase to ensure that it still supports the IFI’s strategic objectives. It will also take into consideration any changes in access or preservation technology, internal, national or EU policy, or budgets and funding. The DPAS is not designed to stand alone, it will be supplemented over the next six years by a variety of policy and procedural documents that will govern the creation, description, storage, discovery, reuse and preservation of digital objects* held by the IFI Irish Film Archive, as the IFI develops increasingly sophisticated processes and practices to ensure the longevity and usability of our national digital heritage.  

* Spectrum DAM, Version 2.0, pg 7, Collections Trust, March 2013