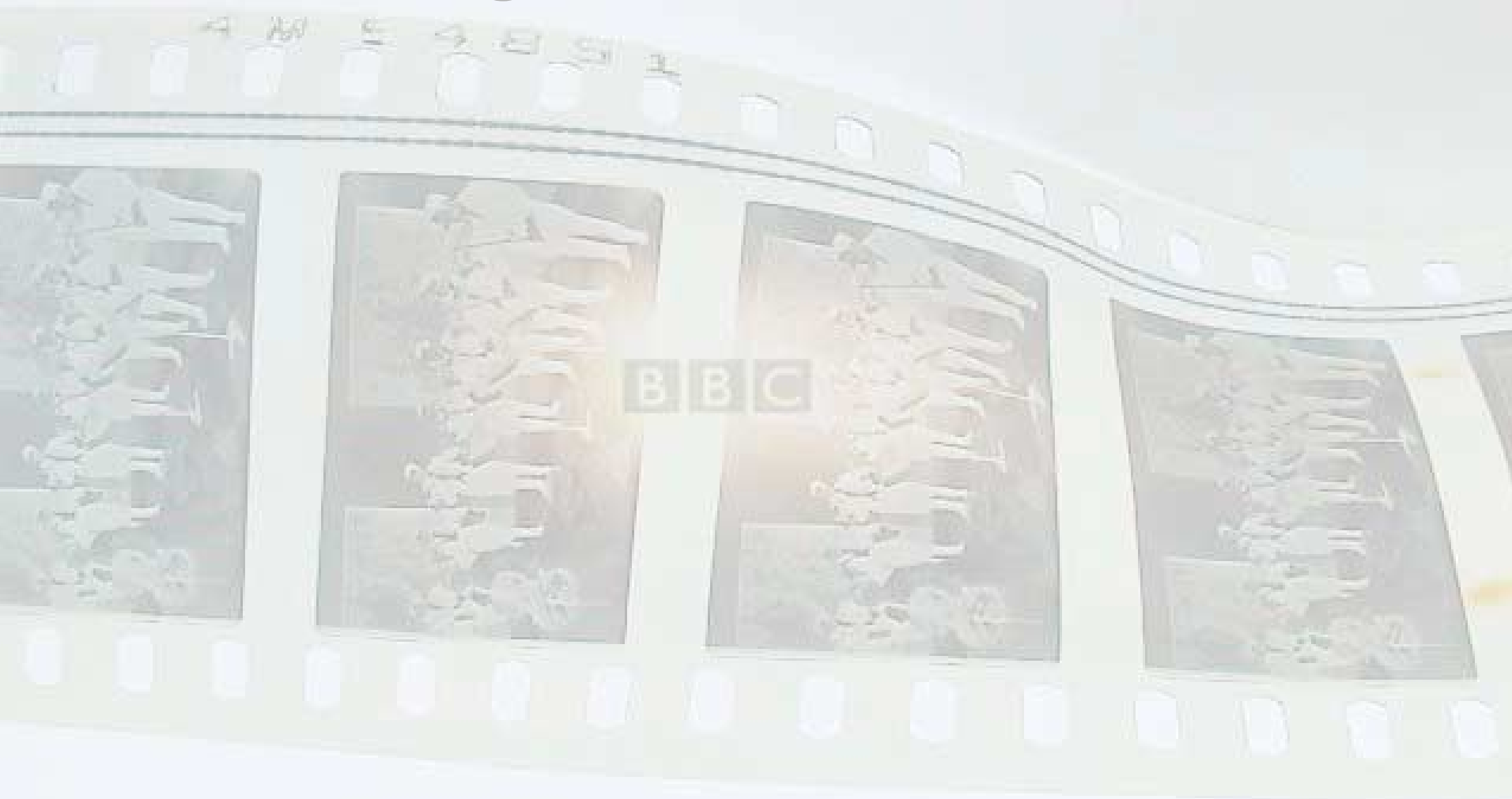


Preserving TV & Broadcast Archives

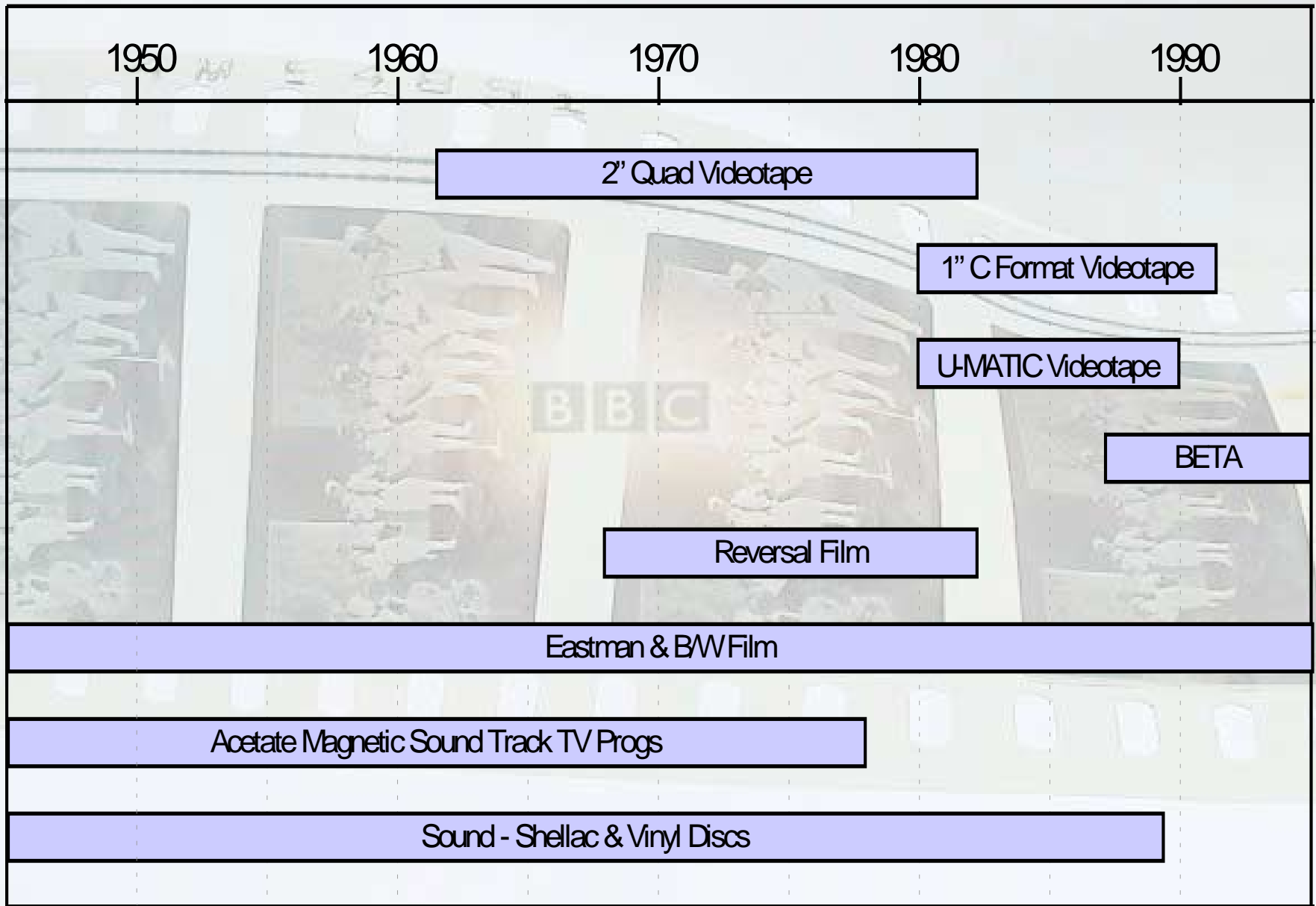


June 2002
Adrian Williams

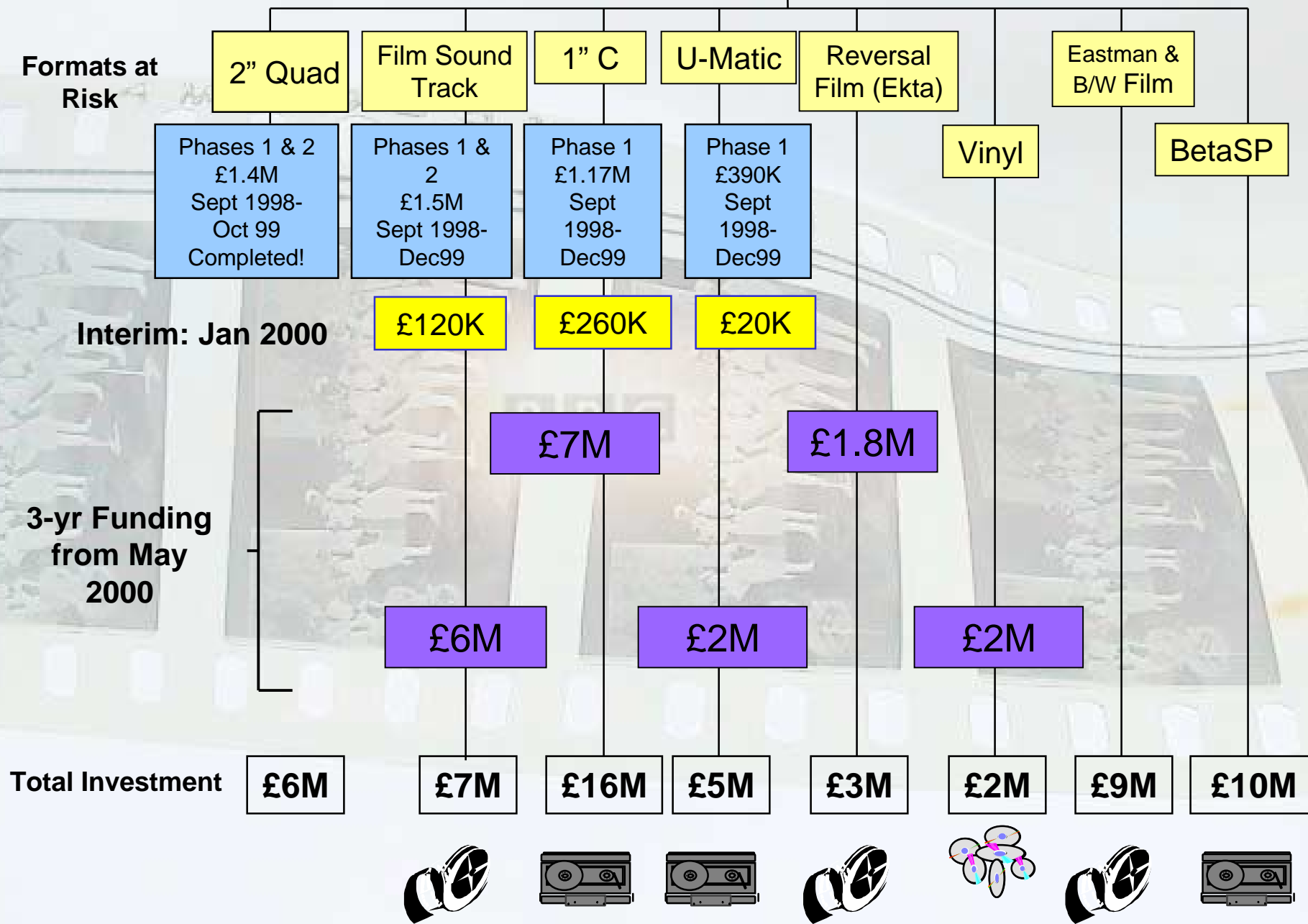
Size of the Archive

- The BBC has one of the largest multi-media archives in the world
- 1.75 million items of film and videotape
- 800,000 radio recordings
- 3 million photographs
- 1.2 million commercial recordings
- 4 million items of sheet music
- 22.5 million newspaper cuttings
- 600,000 document files
- 20,000 rolls of microfilm
- 500,000 phonetic pronunciations

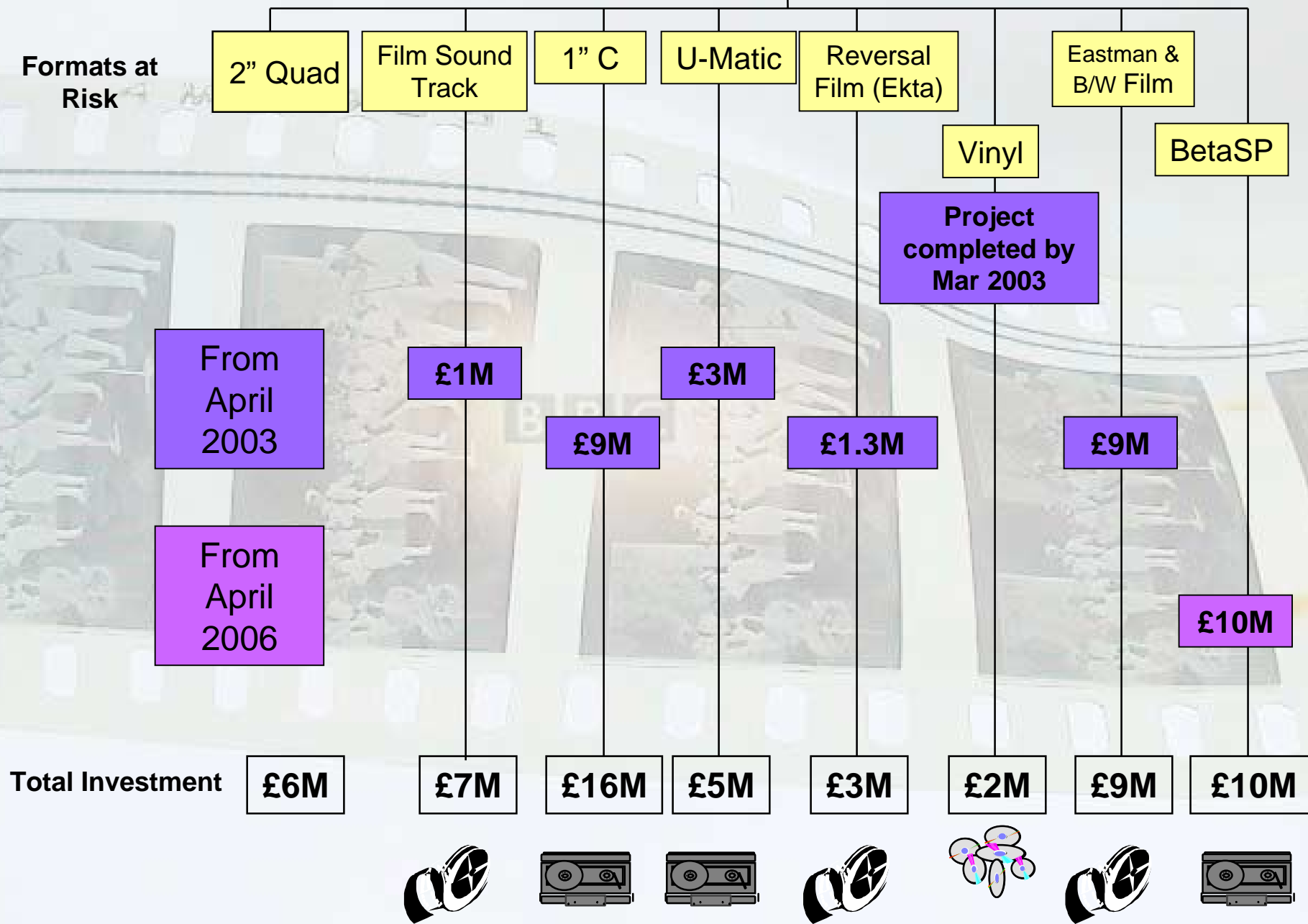
Usage of Formats



Preservation of the Archives – total estimated spend £60M



Preservation of the Archives – total estimated spend £60M



PREPARATION & RESEARCH

Internet

IDEA & PLANNING

CAPTURE

DESIGN

EDITING & GRAPHICS

MANIPULATION

PLAY-OUT

ARCHIVE RE-USE

Offline editing

PREPARATION & RESEARCH

Internet

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<http://presto.joanneum.ac.at/index.asp>



Vectracom

Presto
preservation technology

EC Project Presto

GOAL: reduce preservation cost 30%

- 24 months, 10 partners, 4.8 M€

- BBC, INA, RAI

- 7 technology partners

 - Audio: ACS

 - Video: e-vod, S&W, Vectracom

 - Film: NTEC

 - Subcontracts: Bertin; ITK

 - General: JOANNEUM, ITC/IRST

- 7 other major broadcast archives in
user group

SVT, ORF, SWR, NRK, YLE, NAA, TTR

Project Management

Analysis Phase

Implementation Phase

Break point !



WP 4 Audio Digitisation

WP7: Metadata

Key Link Technology

Integration

WP 5 Film Digitisation

WP7: Metadata

Key Link Technology

Integration

WP 6 Video Digitisation

WP7: Metadata

Key Link Technology

Integration

System
Integration
& Test

Evaluation, Exploitation & Dissemination

WP 2 - User
Requirements

Size and urgency
of problem

Organisational
Models Analysis

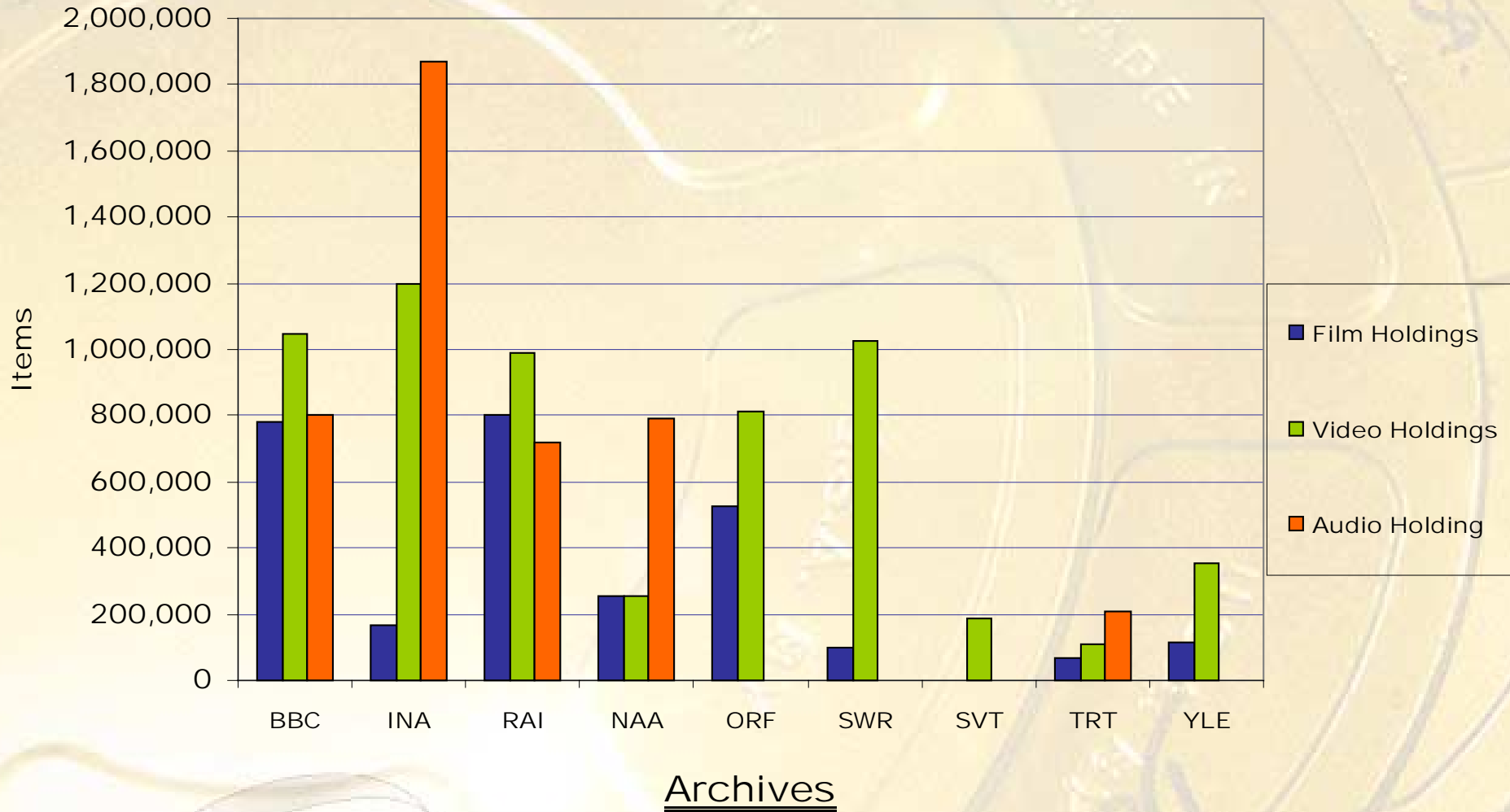
User and Market
functional
Requirements

WP 3 - System
Requirements

Technologies
state of the art

Process
Analysis

System
Specifications



1 million hrs film
1.6 million hrs video
2 million hrs audio

Process Requirements

- End to end process
- Identification of costs
- Development of cost effective approaches to batch processing
Examples are:-
- automatic quality-checking equipment
- software for overall control of end to end process
- purpose built preservation areas to optimise equipment and streamline movement of material
- investment in in-house rather than contracted facilities
- Links to the wider business process (part of the overall information & media flow of a broadcaster)
- Link to future business (the future archive)

It is vital to the future of broadcasting and broadcast archives to have an increased appreciation of the value, not just the cost, of new technology

Cost per use: true cost of an asset is a total life-cycle cost

	Like for like preservation life cycle cost p/hr	Usage over life cycle	Cost per use	Mass storage preservation life cycle cost p/hr	Usage over life cycle	Cost per use
Film	2000€	5	400€	3000€	10	300€
Video	200€	5	40€	300€	10	30€
Audio	120€	5	24€	180€	10	18€

Digitisation and mass storage is about 50% more expensive, but is expected to double usage of an asset

The value of an item must be four times the preservation cost to be financially viable

One minute of sold or re-used archive material will pay for preservation of one hour of archive material

Key links developed by PRESTO

- Audio
- Film
- Video
- Metadata

14 Detailed Reports; all on the Workshop
Proceedings CD & Website

Audio

- Software: Audio Quality Monitor (ITC-irst)
- Document: Audio Transfer Process (ACS)
- Device: Audio Playback Improvement (RAI)
- Tests: Audio Lossless Compression (RAI)

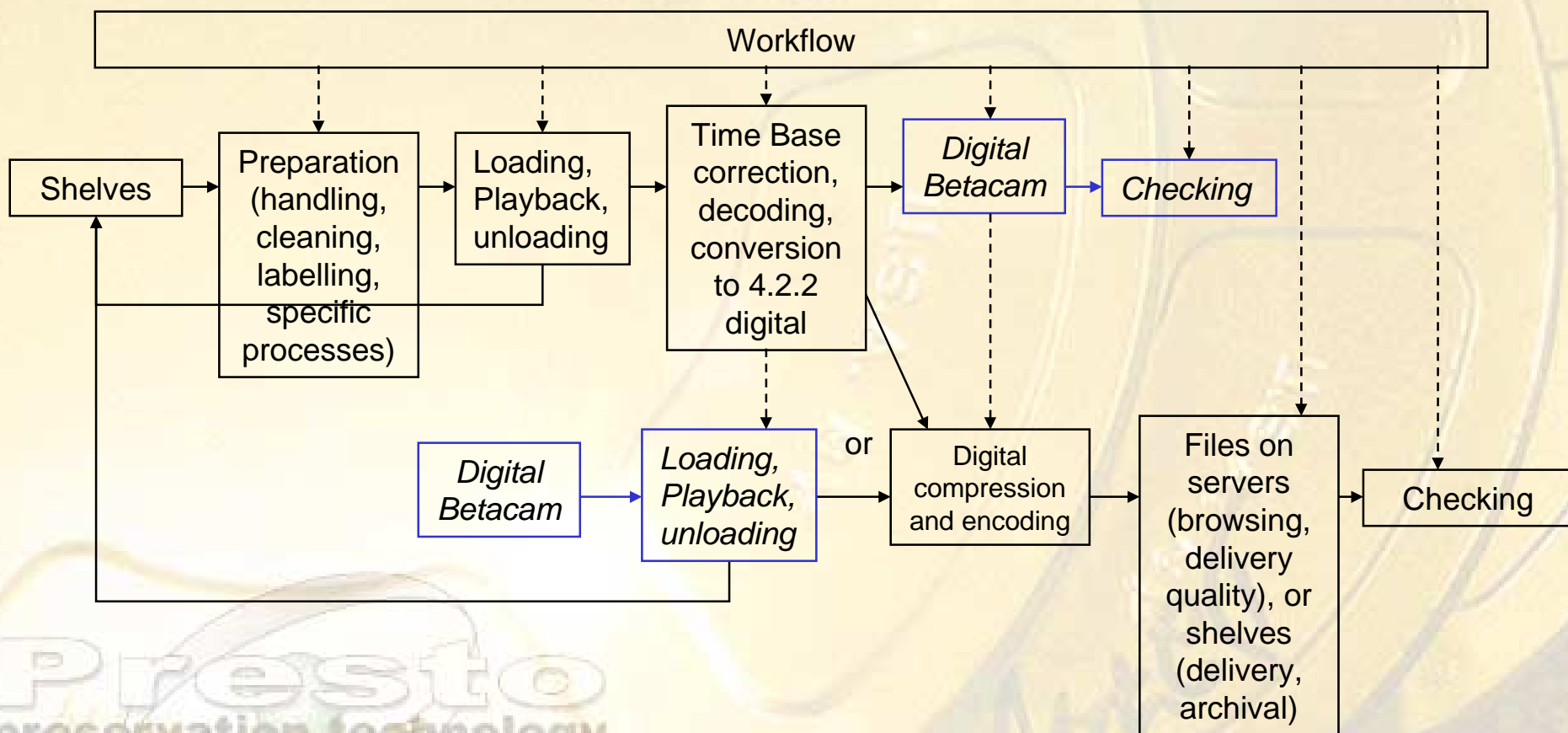
Film

- Device: Auto-resplice machine (INA; Bertin)
- Document: Sustainability of Broadcast Film Archives (ITK)
- Software and Specification: High Quality Format Conversion (JOANNEUM)
- Tests: Lossless and near-lossless compression for film (and video) (JOANNEUM)

Video

- Devices: Digitisation quality monitoring / logging (INA, Vectracom, ITC-irst)
- Device: Time base corrector with drop out detection and compensation (S&W)
- System Integration, Tests and Document: Multi-level encoding (e-vod)

Preservation and Distribution : the video transfer chain



Metadata management

- Documents
 - Metadata and the Preservation Workflow
(the workflow IS metadata management)
 - Guide to Metadata **(how to use metadata to reduce costs and increase quality, and not get lost in the maze of metadata standards)**
- Software: Common access to broadcast archives
(Broadcast OPAC; **using standards**)

Conclusion

- Everything online now is impossible
- Browsing quality within seconds starts to be possible on large databases
- Usable quality within minutes on selected samples possible
- When transferring
 - Make a high quality copy
 - Make a browsing quality copy, put it on line
 - Put effort on indexing
 - Work to prepare a near-on-line copy
- Have a 10-20 years plan...

Conclusion

Europe requires a dedicated preservation factory





<http://presto.joanneum.ac.at/index.asp>



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preservation technology