

Digital Preservation: A Rapid Assessment Model

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Digital**P**reservationCoalition

Workshop Program

- 11:00 Welcome
- 11:05 Introduction to Continuous Improvement
- 11:10 The DPC's Rapid Assessment Model (RAM)
- 11:30 ***Scoping your Assessment: Discussion***
- 11:40 ***Try it out!***
- 12:10 Reconvene and feedback
- 12:20 Next steps
- 12:30 Wrap up

<https://www.dpconline.org/digipres/implement-digipres/dpc-ram>

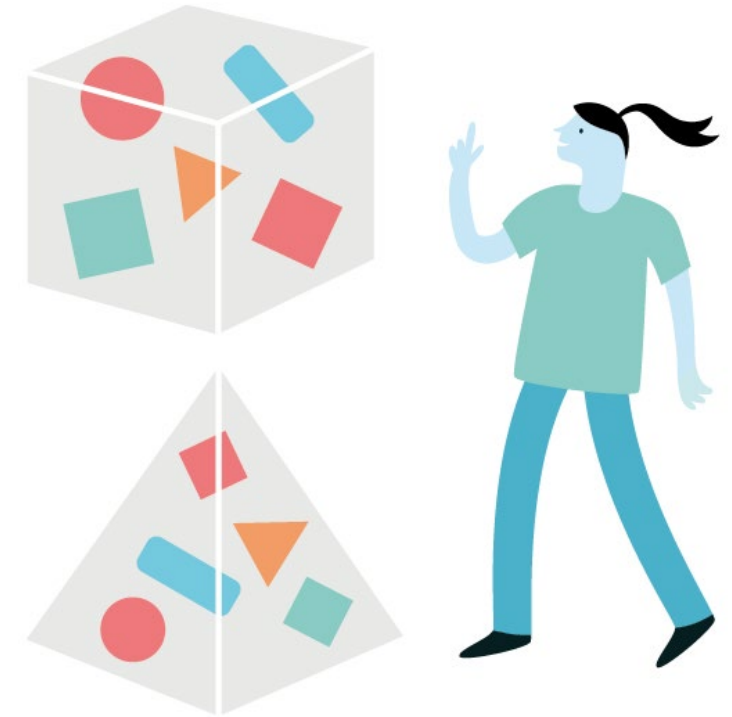
What is Continuous Improvement ?

- An ongoing effort to improve products, services, or processes
- Facilitates an incremental approach to planning and development
- Useful when tackling a multi-faceted issue like digital preservation
- Allows the setting of achievable targets
- Particularly where resources are limited
- Smaller wins but quicker progress/results
- Can be beneficial to advocacy activities



Good versus Best...

- Aiming for “best practice” can end up being self-defeating
- Thinking instead in terms of “good practice” allows more scope to consider:
 - Organizational context
 - Resources available
 - Preservation aims/requirements
 - Ultimately “what is good enough?”

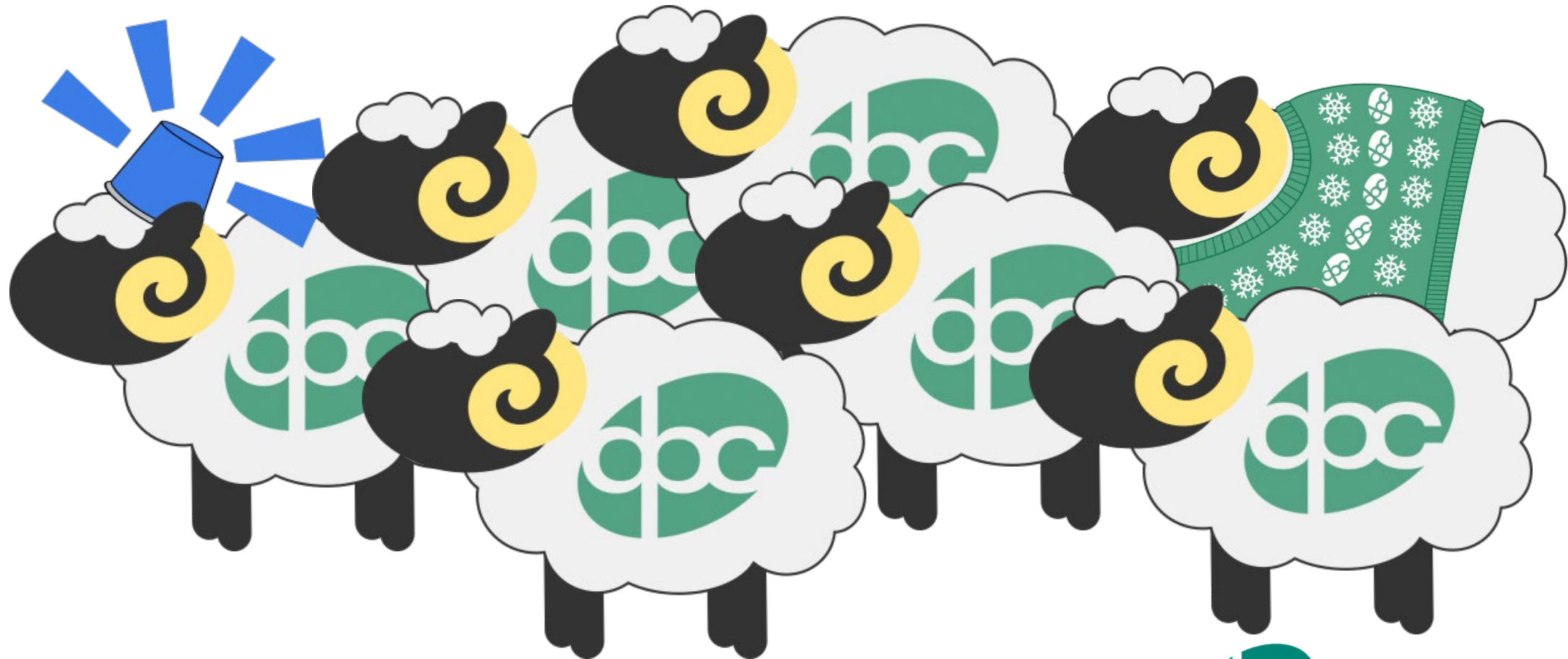


Maturity Modelling for good practice

- Align well with the principles of continuous improvement
 - Levels to progress through rather than the pass/fail of certification
- Users can set their own targets
- Allow the identification of gaps
- Results can be used for:
 - Advocacy (e.g. for additional resources)
 - To help establish trust



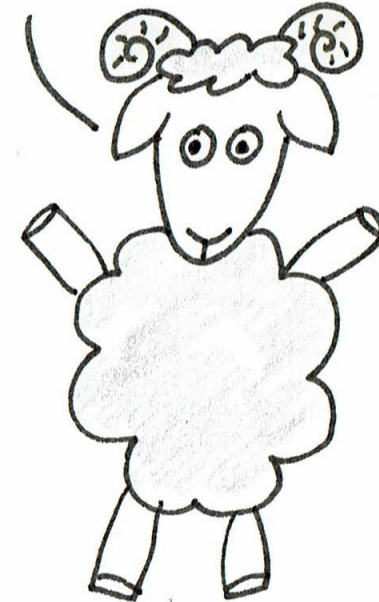
Introducing the DPC's Rapid Assessment Model (RAM)



DPC RAM is...

- A maturity model for digital preservation
- RAM can help you to work out:
 - Where you are
 - Where you would like to be
- Can also help with:
 - Communicating with colleagues
 - Forward planning
 - Making the case

The DPC Rapid Assessment Model is a digital preservation maturity modelling tool



Measuring Good Practice

Functional Area	Level			
	Level 1 (Know your content)	Level 2 (Protect your content)	Level 3 (Monitor your content)	Level 4 (Sustain your content)
Storage	Have two complete copies in separate locations Document all storage media where content is stored Put content into stable storage	Have three complete copies with at least one copy in a separate geographic location Document storage and storage media including the resources and dependencies they require to function	Have at least one copy in a geographic location with a different disaster threat than the other copies Have at least one copy on a different storage media type Track the obsolescence of storage and media	Have at least three copies in geographic locations, each with a different disaster threat Minimize storage diversification to avoid single points of failure Have a plan and execute actions to address obsolescence of storage hardware, software, and media
Integrity	Verify integrity information if it has been provided with the content Generate integrity information if not provided with the content View check all content; isolate content for quarantine as needed	Verify integrity information when moving or copying content Use write-blockers when working with original media Back up integrity information and store copy in a separate location from the content	Verify integrity information of content at fixed intervals Document integrity verification processes and outcomes Perform audit of integrity information on demand	Verify integrity information in response to specific events or activities Replace or repair corrupted content as necessary
Control	Determine the human and software agents that should be authorized to read, write, move, and delete content	Document the human and software agents authorized to read, write, move, and delete content and apply them	Maintain logs and identify the human and software agents that performed actions on content	Perform periodic review of authorization logs
Metadata	Create inventory of content, also documenting current storage locations Backup inventory and store at least one copy separately from content	Show enough metadata to know what the content is (this might include some combination of administrative, technical, and structural)	Determine what metadata standards to apply Find and fill gaps in your metadata to meet those standards	Record preservation actions associated with content and when those actions occur Implement metadata standards chosen
Content	Document file formats and other essential content characteristics including how and when these were identified	Verify file formats and other essential content characteristics Build relationships with content creators to encourage sustainable file choices	Monitor for obsolescence, and changes in technologies on which content is dependent	Perform migrations, normalizations, emulation, and similar activities that ensure content can be accessed



ICS > 49 > 49.140

ISO 16363

Less complex

More complex

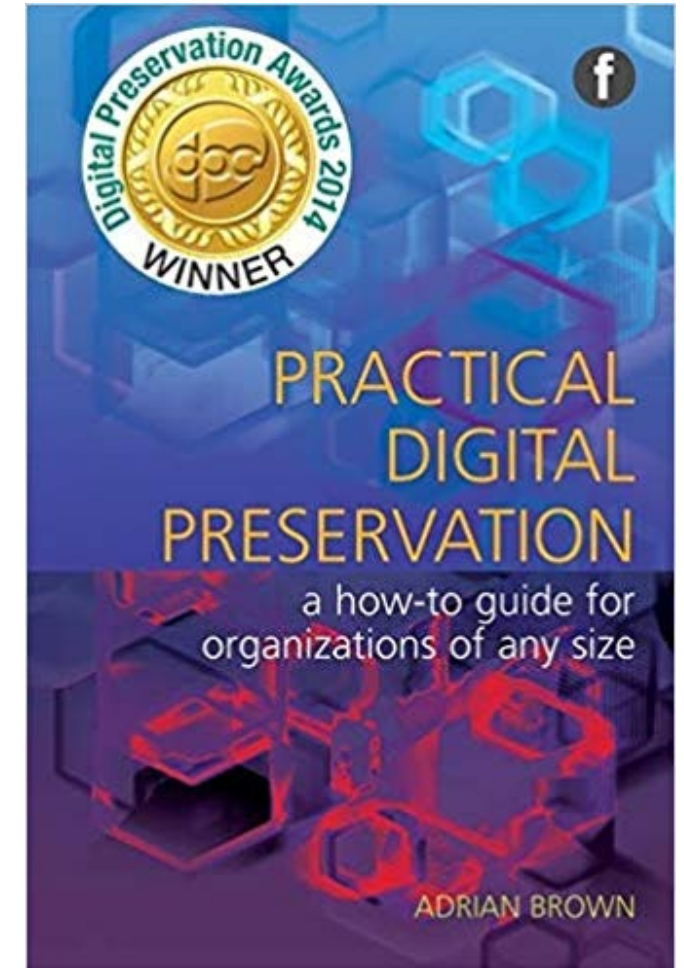


Lighter weight standards and **maturity models**:
e.g. DPC's Rapid Assessment Model (RAM),
Digital Preservation Capability Maturity Model
(DPCMM) and the NDSA Levels of Preservation

Formal **certification** standards: e.g.
CoreTrustSeal and ISO 16363: Audit and
certification of trustworthy digital repositories

DPC RAM: a short history

- Developed as part of a collaborative project with UK Nuclear Decommissioning Authority
 - Launched at iPRES 2019
- Based on a model by Adrian Brown
 - In “Practical Digital Preservation”
- Developed with feedback from Adrian & the wider DPC membership



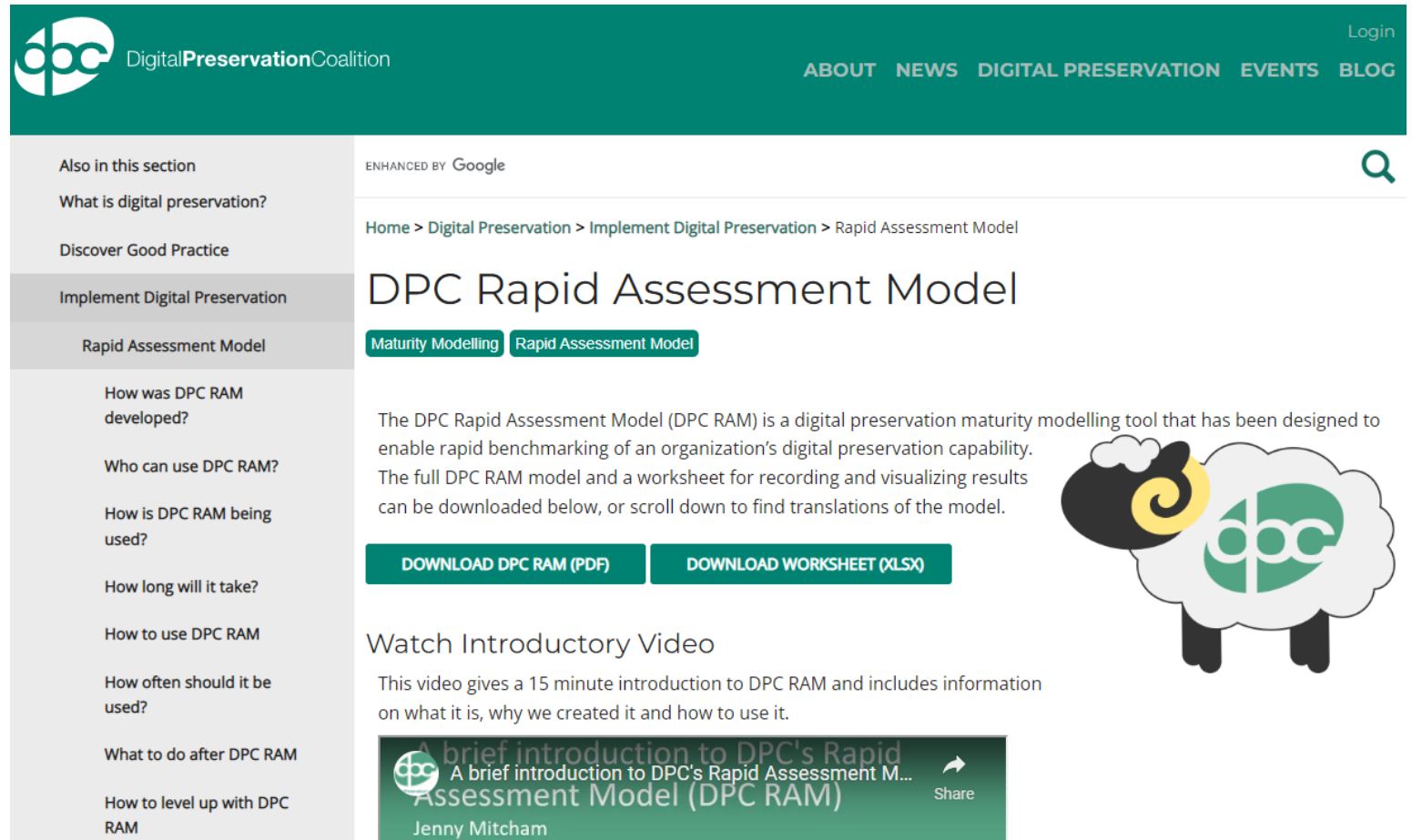
Guiding Principles

- Developed based on a set of guiding principles
- It should be:
 - Applicable for organizations of any size and in any sector
 - Applicable for all content of long-term value
 - Preservation strategy and solution agnostic
 - Based on existing good practice
 - Simple to understand and quick to apply
 - Also, continuous improvement is central and essential



Freely available to all!

- Find the Rapid Assessment Model on the DPC website
- Scroll down to see translations of RAM in several different languages!



The screenshot shows the DPC website interface. At the top, there is a green header with the DPC logo and the text "Digital Preservation Coalition". Navigation links include "ABOUT", "NEWS", "DIGITAL PRESERVATION", "EVENTS", and "BLOG". A search icon is visible in the top right corner. The main content area is titled "DPC Rapid Assessment Model" and includes a breadcrumb trail: "Home > Digital Preservation > Implement Digital Preservation > Rapid Assessment Model". Below the title, there are two buttons: "Maturity Modelling" and "Rapid Assessment Model". The main text describes the DPC Rapid Assessment Model (DPC RAM) as a digital preservation maturity modelling tool. It states: "The DPC Rapid Assessment Model (DPC RAM) is a digital preservation maturity modelling tool that has been designed to enable rapid benchmarking of an organization's digital preservation capability. The full DPC RAM model and a worksheet for recording and visualizing results can be downloaded below, or scroll down to find translations of the model." Below this text are two buttons: "DOWNLOAD DPC RAM (PDF)" and "DOWNLOAD WORKSHEET (XLSX)". To the right of the main text is a cartoon sheep with the DPC logo on its side. Below the main text, there is a section titled "Watch Introductory Video" with a description: "This video gives a 15 minute introduction to DPC RAM and includes information on what it is, why we created it and how to use it." Below the video description is a video player thumbnail titled "A brief introduction to DPC's Rapid Assessment Model (DPC RAM)" by Jenny Mitcham, with a "Share" button.

<https://www.dpconline.org/digipres/dpc-ram>

What Does RAM Look Like?

Organizational capabilities		
A	Organizational viability	Governance, organizational structure, staffing and resourcing of digital preservation activities.
B	Policy and strategy	Policies, strategies, and procedures which govern the operation and management of the digital archive.
C	Legal and ethical	Management of legal, social and cultural rights and responsibilities, compliance with relevant regulation and adherence to codes of ethics related to acquiring, preserving and providing access to digital content.
D	IT capability	Information Technology capabilities for supporting digital preservation activities.
E	Continuous improvement	Processes for the assessment of current digital preservation capabilities, the definition of goals and the monitoring of progress.
F	Community	Engagement with and contribution to the wider digital preservation community.

Service capabilities		
G	Acquisition, transfer and ingest	Processes to acquire or transfer content and ingest it into a digital archive.
H	Bitstream preservation	Processes to ensure the storage and integrity of digital content to be preserved.
I	Content preservation	Processes to preserve the meaning, usability and functionality of the digital content over time.
J	Metadata management	Processes to create and maintain sufficient metadata to support preservation, discovery and use of preserved digital content.
K	Discovery and access	Processes to enable discovery of digital content and provide access for users.

- 0 - Minimal awareness
- 1 – Awareness
- 2 – Basic
- 3 – Managed
- 4 – Optimized

Selecting Maturity Levels

Each maturity level for each section has a basic definition

Maturity score	Basic definition for 'Organizational Viability'
0 – Minimal awareness	The organization has minimal awareness of the need to support digital preservation activities.
1 - Awareness	The organization is aware of the need to support digital preservation activities.
2 - Basic	Digital preservation activities are supported and resourced at a basic level within the organization...
3 - Managed	Digital preservation activities are managed and supported within the organization...
4 - Optimized	Digital preservation activities are proactively managed , enhanced and developed within the organization...



...but what might this actually look like in practice?!?

...There Are Examples To Help

- What might the 'Basic' level look like for Organizational Viability?

2 – Basic	<p>Digital preservation activities are supported and resourced at a basic level within the organization, for example:</p> <ul style="list-style-type: none">• There is some engagement from senior management.• Staff have assigned responsibilities and the time to undertake them.• A budget for digital preservation has been allocated (may be time-limited).• Staff development requirements have been identified.
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- But remember, these are only examples. Use them to help you define where you are but note they may not all be applicable to you.

How To Use DPC RAM

- Work out where you sit currently
 - Be honest and realistic
 - There are no half marks
 - Don't take the examples too literally
- Work out where you would like to be
 - Again...be realistic
 - **Don't assume you must aim for the top**
 - Consider time frame you are working to

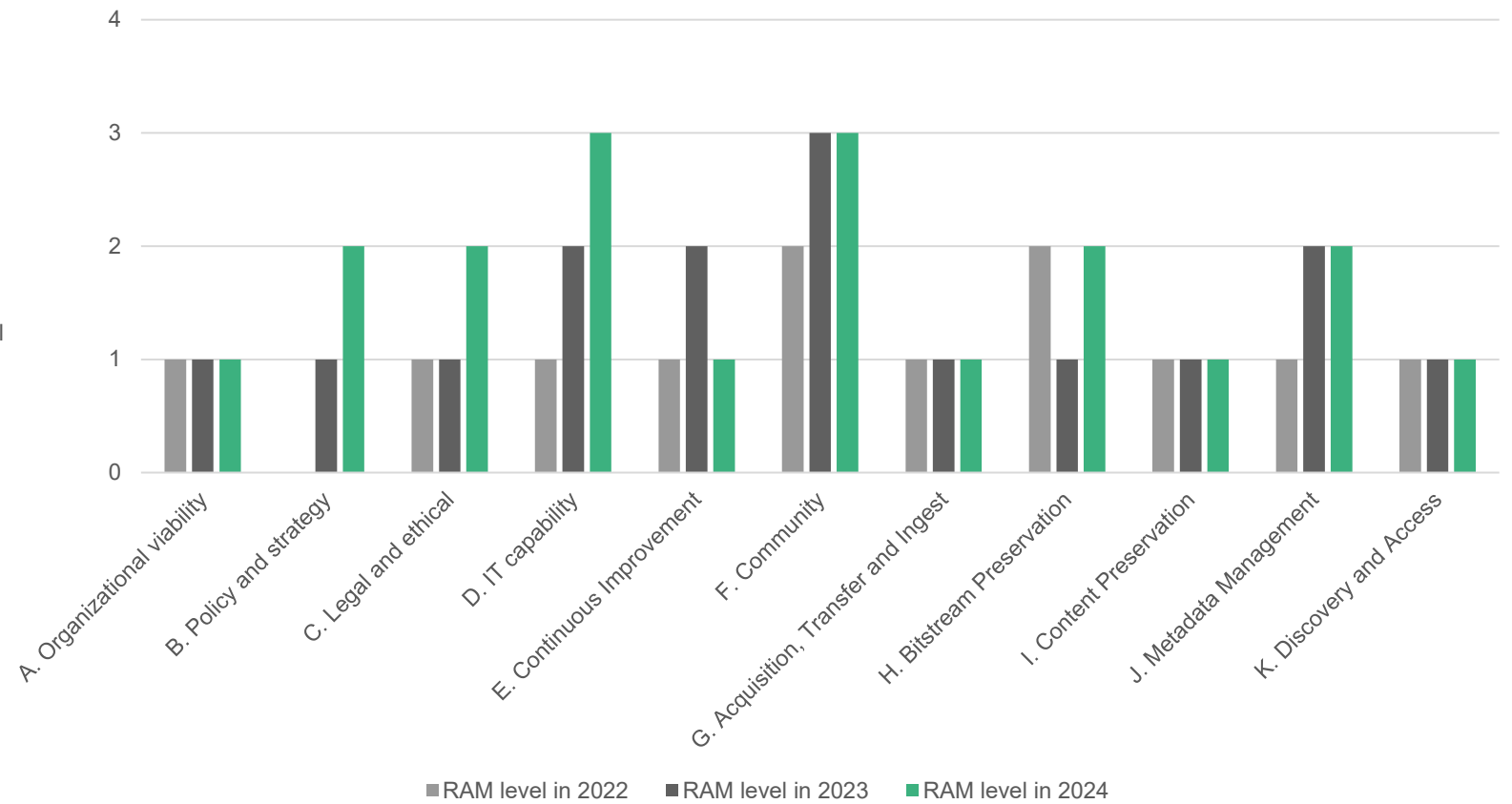
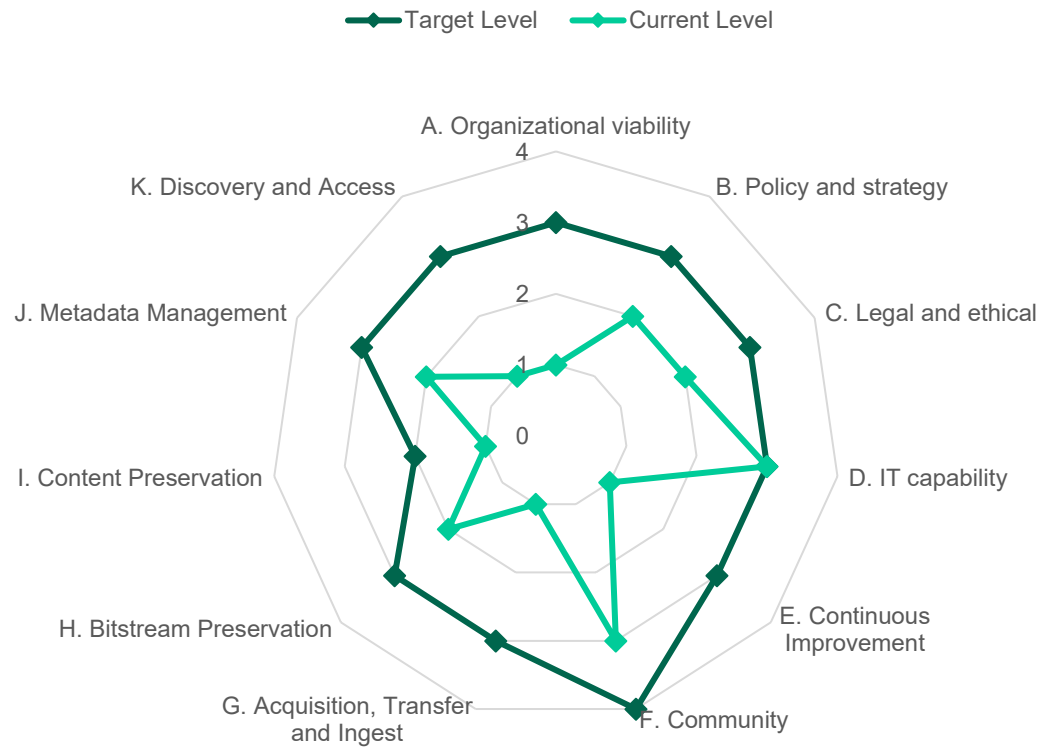


The RAM Worksheet

Digital Preservation Coalition Rapid Assessment Model (DPC RAM)				
Assessment Worksheet				
Organization:				
Number of employees:				
Type of organization:	Archive / Business / Higher Education & Research / Library / Museum or Gallery / Other (Delete as appropriate)			
Scope of assessment:				
Type of content being assessed:	Born digital archives / Digitised document collections / Digitised AV collections / Email / Ebooks / Etheses / Research data / Websites / Other (Delete as appropriate)			
Number of TB of digital content being assessed:				
Time frame used for target levels (e.g. 1/3/5 years)				
Assessment completed by:				
Assessment complete on:				
ORGANIZATIONAL CAPABILITIES				
	Current Level	Why did you select this level?	Target Level	What needs to be in place to get there?
A. Organizational viability: Governance, organizational structure, staffing and resourcing of digital preservation activities.				
B. Policy and strategy: Policies, strategies, and procedures which govern the operation and management of the digital archive.				
C. Legal and ethical: Management of legal, social and cultural rights and responsibilities, compliance with relevant regulation and adherence to codes of ethics related to acquiring, preserving and providing access to digital content.				
D. IT capability: Information Technology capabilities for supporting digital preservation activities.				
E. Continuous Improvement: Processes for the assessment of current digital preservation capabilities, the definition of goals and the monitoring of progress				

<https://www.dpconline.org/digipres/implement-digipres/dpc-ram>

Visualize Your Results



Discussion: Before you start...

- First, consider the scope of your assessment: which part of your organization you are measuring?

- Establish which digital assets are in scope e.g.:

- All digital archives

- Research data

- Business records

- Digitised content

- Websites

...if you change your mind as you work through the model you can adjust this later

- Next consider the time frame you would like to work to for any targets you will set:

- 1 year

- 3 years?

- 5 years?

- Unspecified

- Aligned with planning period, strategy or annual review cycle?

Time to have a go!

info@dpconline.org
www.dpconline.org



Digital Preservation Coalition

Reconvene and feedback

info@dpconline.org
www.dpconline.org



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Next steps

info@dpconline.org
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Self-assessment is the first step!

- After completing a RAM assessment, you may want to:
 - Share with colleagues – start a conversation!
 - Include it in a business case for digital preservation
 - Set priorities: which areas to progress first?
 - Establish a roadmap or a plan for moving forward
 - Create an aspirational preservation policy that reflects your goals



...and Repeat...

- Useful to do a RAM assessment once...
- But even more useful to repeat regularly
- We recommend an annual check in on the current status and targets
- Re-visiting should be a quick task
 - Hugely valuable to keep an eye on progress
 - Don't be too surprised/worried about decreases in scores!



RAM for DPC Members

- Help with completing RAM assessment
- Events every year to help Members with RAM
 - RAM-balance (We're here to help!)
 - RAM-Jam (Case studies, lessons learned and more!)
- Members share their results with us
- More [free to all] complementary resources!
 - DPC CAT
 - Novice to Know-How online training
 - Toolkits for Advocacy, Business Cases, Policy Making and more



Find all DPC Resources at:
www.dpconline.org

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