

DRAMBORA interactive

# TIMBUS Crash Course

## 14 September 2011

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HATII, University of Glasgow

With slight modifications by Angela Dappert

TIMBUS Crash Course, Lisbon, Sept. 2011 |

# Preservation risk is real

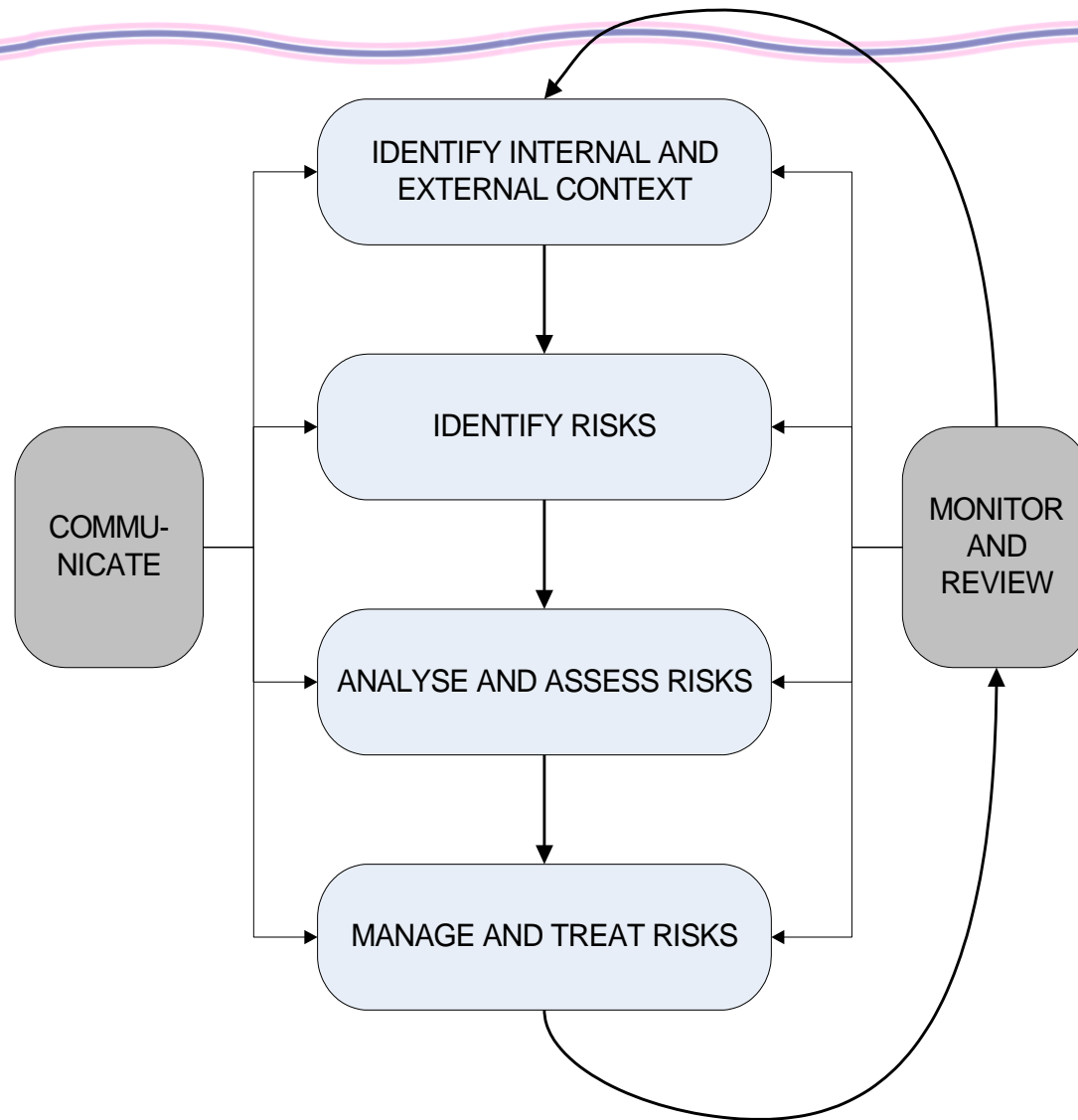
- Technological
- Physical
- Organisational
- Socio-cultural
- Legal
- Economic
- Financial
- Political
- Contractual
- Environmental



# Risk Impact in the repository context

- Impact can be considered in terms of:
  - impact on repository staff or public well-being
  - impact of damage to or loss of assets
  - impact of statutory or regulatory breach
  - damage to reputation
  - damage to financial viability
  - deterioration of product or service quality
  - environmental damage
  - loss of ability to ensure digital object authenticity and understandability is ultimate expression of impact

# Risk Management Model

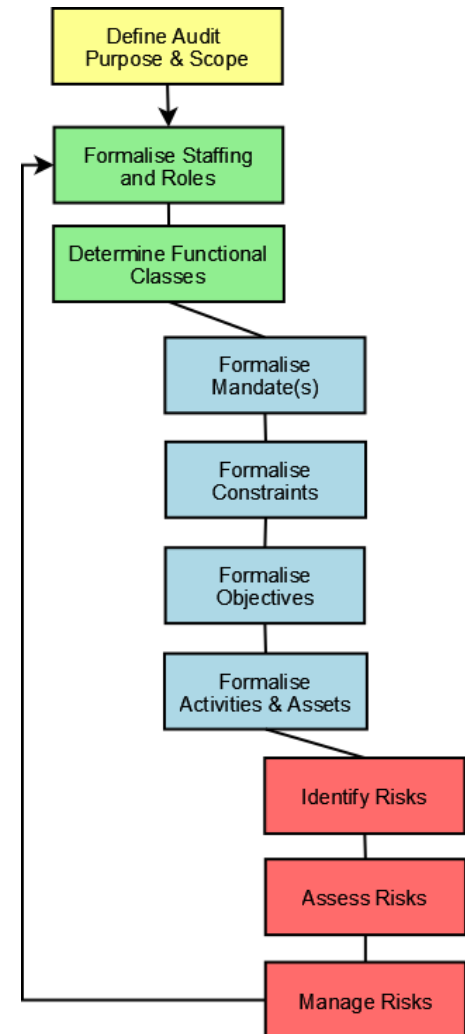


# Top down approach: tried and tested

- Many auditable domains benefit from **objective** criteria
  - Information and IT security
  - Financial regulation
- Solely top-down approach disregards diversity evident across preservation discipline
  - funding, scale, legislative responsibilities and restrictions, content types, technology and policy vary

# DRAMBORA Method

- Discrete phases of **self-assessment**, reflecting the realities of audit;
- Preservation is fundamentally a risk management process
  - Define Scope
  - Document Context & Classifiers
  - Formalise Organisation
  - Identify and Assess Risks



# Comparability... Important?

- Even assuming smaller subset of 'preservation repositories'
- *Services* are critical, with performance understood in terms of those services
- We want to identify and describe classes of repositories in terms of their common services and characteristics

# Finding Islands of Objectivity

- 80 or so example risks prompt thinking... insufficient
- *DRAMBORA Interactive* enables repositories to align their objectives, activities, strengths and shortcomings with other peer repositories' responses
- Respondent data is currently being collated into a preservation function/risk ontology, providing scope for mapping repository/collection profiles



# Why bother?

- Identify and manage risks
- Verify compliance
- Check effectiveness
- Identify opportunities for improvements
- Engender trust in stakeholder communities

# Risk Management & DRAMBORA

- The toolkit refrains from prescribing specific management policies
- Instead, auditors should:
  - choose and describe risk management strategy
  - assign responsibility for adopted measure
  - define performance and timescale targets
  - reassess success recursively

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## Welcome to DRAMBORA Interactive: Log in or Register to Use the Toolkit

Welcome to DRAMBORA Interactive



Please register, log in or read [about the toolkit](#), get an overview of its [objectives](#), or learn of the [benefits](#) that it can offer you and your repository.



The [Digital Curation Centre \(DCC\)](#) and [DigitalPreservationEurope \(DPE\)](#) are delighted to announce the release of the Digital Repository Audit Method Based on Risk Assessment (DRAMBORA) toolkit. This toolkit is intended to facilitate

internal audit by providing repository administrators with a means to assess their capabilities, identify their weaknesses, and recognise their strengths. Digital repositories are still in their infancy and this model is designed to be responsive to the rapidly developing landscape. The development of the toolkit follows a concentrated period of repository pilot audits undertaken by the DCC, conducted at a diverse range of organisations including national libraries, scientific data centres and cultural and heritage data archives.

For more information, why not download the DRAMBORA Flyer in [PDF](#) or [JPEG](#) formats?

News

[DRAMBORA training courses in Prague](#)  
*4th Jun 2008*

[DRAMBORA in Japan with the Sasakawa Foundation](#)  
*16th May 2008*

[Improving DRAMBORA: Your Help Required](#)  
*10th Apr 2008*

Download

Please [register](#) to download the offline copy of the DRAMBORA Toolkit

Comment

Submit feedback via our [feedback form](#) or [email us](#).

Get Help

Get help in the DRAMBORA evaluation process by volunteering to host a [DRAMBORA facilitated assessment](#).

### DRAMBORA Consortium Sponsors:

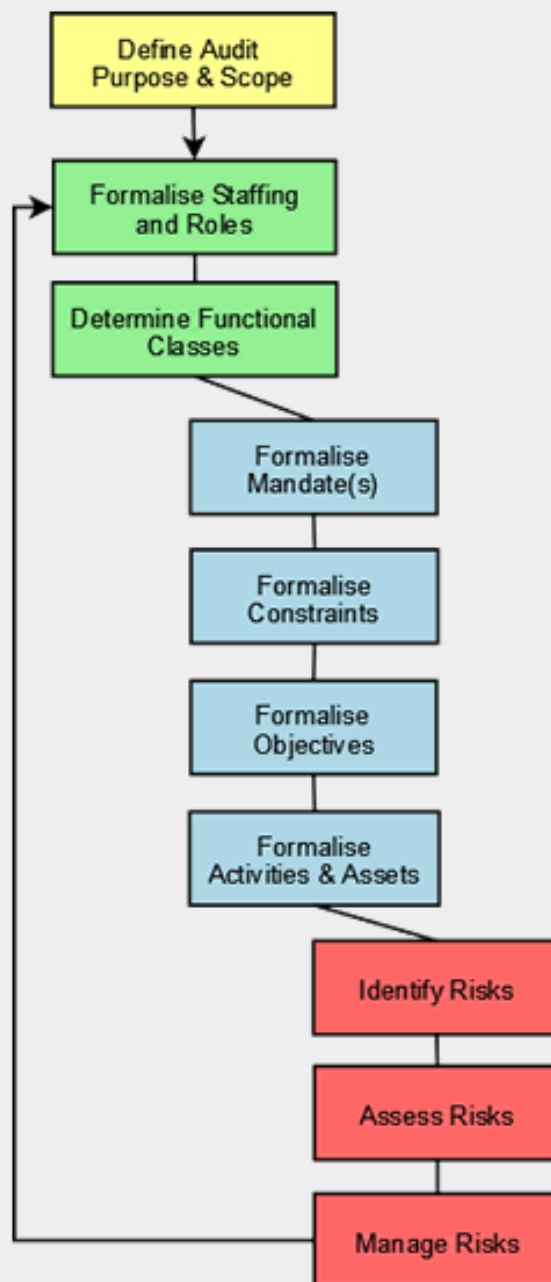


## Thank you for logging in to DRAMBORA Interactive!

Welcome to the DRAMBORA Interactive online tool, intended to facilitate the management and assessment of digital repository infrastructures. DRAMBORA defines an interactive process that if followed will offer repository administrators a number of tangible benefits, providing numerous insights into organisational strengths and shortcomings, and offering a structured means for exploring, describing and documenting every aspect of organisational policy, resource and practical activity.

The adjacent diagram illustrates the fundamental parts of the DRAMBORA process, and each part is linked with a specific activity that you can accomplish using this interactive tool. The first sections are preparatory; before beginning to consider the repository's aims or shortcomings it is vital that repository administrators define the purpose, and scope of what they are wishing to achieve. Similarly, they must then express in specific terms the personnel, or roleholders with responsibilities within the perimeters of this scope, and the means by which the collection and analysis of information will be structured (the adopted functional classes).

The subsequent phase of the process is focused primarily on the establishment of a comprehensive organisational self awareness, supported by adequate documentation. Questions of mandate (what is the repository's reason for existing, that legitimises its efforts?), organisational constraints (legislation, policy or technical limitations



1. First, visit the [assessment preparation centre](#) to define the scope and purpose of the assessment, select the functional classes that will structure the process, and detail your repository profile, its staff and implicit roles.

### Undertake Assessment

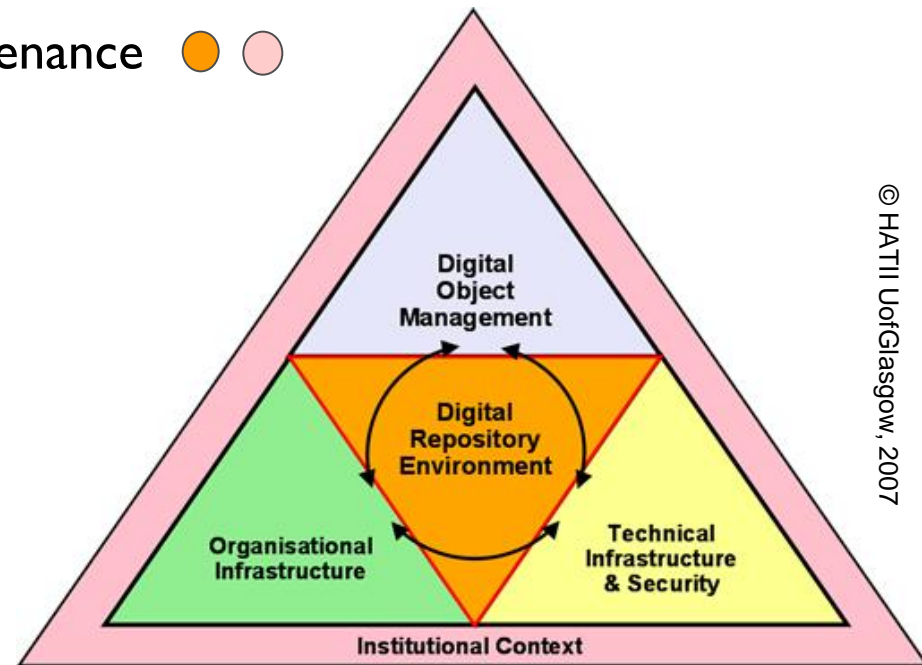
2. Visit the [assessment centre](#) to establish a comprehensive understanding of your repository organisation, expose it to risk-based analysis and assessment and plan for future improvement.

### View Reports

3. Visit the [reporting centre](#) to view, in a variety of ways, the outcomes and conclusions following from the completed assessment process.

# 10 Characteristics of Digital Repositories

- An intellectual context for the work:
  - Commitment to digital object maintenance ● ○
  - Organisational fitness ●
  - Legal & regulatory legitimacy ●
  - Effective & efficient policies ●
  - Acquisition & ingest criteria ○
  - Integrity, authenticity & usability ○
  - Provenance ○
  - Dissemination ○
  - Preservation planning & action ○
  - Adequate technical infrastructure ●



© HATII UofGlasgow, 2007

*(CRL/OCLC/NESTOR/DCC/DPE meeting, January 2007)*

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**Logged in:** Andrew McHugh

- Auditor
- Business Manager
- Data Liaison Officer

**at:** Florida Digital Archive at University of Florida

**Last Login:** 28 Nov 2008

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## DRAMBORA Online Tool :: Prep Centre :: Manage Functional Classes

[Prep Home](#) | [Edit Repository](#) | [Define Assessment Scope](#) | [Manage Functional Classes](#) | [Add Staff](#) | [Edit Staff](#) | [Add Role](#) | [Edit Role](#) | [Role Assignment](#) |

### preparation centre :: functional classes ?

Here you must select which functional classes you will use to classify objectives, constraints, activities, assets and risks, and ultimately structure the DRAMBORA assessment process and its fundamental outcomes. Ten **default** functional classes are suggested, based on work done in collaboration with groups responsible for the TRAC and nestor repository assessment criteria. It is **strongly recommended** that you use each of these, in order to make your assessment results as comparable and interchangeable as possible with these alternative assessment instruments. While you may choose to create your own alternative or supplementary functional classes, this is discouraged.

**Built-in Functional Classes** (Ctrl-click to select multiple values) or [select all](#) (recommended).

<b>Support Functions:</b>	<input type="checkbox"/> Mandate & Commitment to Digital Object Maintenance <input type="checkbox"/> Organisational Fitness <input type="checkbox"/> Legal & Regulatory Legitimacy <input type="checkbox"/> Efficient & Effective Policies <input type="checkbox"/> Adequate Technical Infrastructure
<b>Operational Functions:</b>	<input type="checkbox"/> Acquisition & Ingest <input type="checkbox"/> Preservation of Digital Object Integrity, Authenticity & Usability <input type="checkbox"/> Metadata Management & Audit Trails <input type="checkbox"/> Dissemination <input type="checkbox"/> Preservation Planning & Action

### User Contributed Functional Classes

[Add Another Functional Class](#) (discouraged)

identified risks

defined activities

defined objectives

defined constraints

defined mandate

assessment progress

saved snapshots

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## DRAMBORA Online Tool :: Prep Centre :: Edit Staff

[| Prep Home](#) | [| Edit Repository](#) | [| Define Assessment Scope](#) | [| Manage Functional Classes](#) |  
[| Add Staff](#) | **Edit Staff** | [| Add Role](#) | [| Edit Role](#) | [| Role Assignment](#) |

### preparation centre :: edit staff

From this part of the DRAMBORA tool you can edit existing staff members in the repository. You can also change user associations.

Each staff member identified in this section should correspond with a tangible position (occupied or otherwise) that is implicit within the perimeter of the repository defined in the previous scoping section. Staff members should be distinguished from DRAMBORA Interactive **users**. Although repository staff can be given user status within DRAMBORA this is not obligatory. Similarly, individual DRAMBORA users may have more than one staff responsibility, within a single repository, or across several.

Coordinating staff members may edit details within the pre-assessment preparation centre. Contributors are limited to the main assessment activities pages

**Repository: \***

**Staff Member: \***

**Position: \***

**Staff No:**

**Address:**

**Telephone:**

**Email:**

**Status: \***

**identified risks**

**defined activities**

**defined objectives**

**defined constraints**

**defined mandate**

**assessment progress**

**saved snapshots**



## DRAMBORA Online Tool :: Prep Centre :: Assign Roles

| [Prep Home](#) | [Edit Repository](#) | [Define Assessment Scope](#) | [Manage Functional Classes](#) |  
| [Add Staff](#) | [Edit Staff](#) | [Add Role](#) | [Edit Role](#) | **[Role Assignment](#)** |

### preparation centre :: assign roles

From this part of the DRAMBORA tool you can associate predefined staff members with individual roles.

Perhaps obviously, individual staff members can contribute to the performance of multiple roles. A software specialist for example may contribute to ingestion, preservation and dissemination of content.

**Repositories:**

**Roles:**

#### Staff:

- Auditor (Andrew McHugh)
- New Position (Raivo Ruusalepp)

=>

All =>

<=


<= All

#### Repository Management

- Business Manager (Andrew McHugh)
- Data Liaison Officer (Andrew McHugh)

### identified risk

New

- Budgetary reduction**  
operational budget is re  

- Enforced cessation of operations** (Repository  
cease its business activ

### defined activi

### defined object

### defined const

### defined manda

### assessment pr



Author: Andrew McHugh

Editor:  
Business Manager  
Data Liaison Officer

Digital Archive at  
University of Florida

Created: 28 Nov 2008

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 [Add Constraints](#) | 
 [Add Objectives](#) | 
 [Add Activities and Assets](#) | 
 [Add Risks](#) | 
 [Assess Risks](#) | 
 [Manage Risks](#)

## mandate

The mandate describes the repository's mission, or reason for existence. This is the general statement that legitimises the repository, and broadly describes its objectives. Because repositories are unlikely to exist in a vacuum, multiple mandates can be described, corresponding to different hierarchical levels within which the repository exists (e.g you may have separate (but hopefully compatible) mandates associated with repository, departmental and organisational levels).

**Applies To\*:**

**Mandate\*:**

 [have you considered](#)

Let me see some generic **mandate**

 [identified risks](#)

 [defined activities](#)


 [defined objectives](#)

 [defined constraints](#)

 [defined mandates](#)

 [assessment process](#)

 [saved snapshots](#)

constraints 

Repository constraints take many forms, and can be succinctly described as any factor that compels or influences the repository to operate in a particular fashion. These can originate **externally** (e.g. legislation prohibiting release of particularly materials) or **internally** (e.g. policies describing particular protocols for information ingest).

Name\*:

Description\*:

Type:

- Functional Class(es)\*:
- Mandate & Commitment to Digital Object Maintenance
  - Organisational Fitness
  - Legal & Regulatory Legitimacy
  - Efficient & Effective Policies
  - Acquisition & Ingest
  - Preservation of Digital Object Integrity, Authenticity & Usability
  - Metadata Management & Audit Trails
  - Dissemination
  - Preservation Planning & Action
  - Adequate Technical Infrastructure

File:

or URL:

**have you consi**

Let me see some generic **const** corresponding to:

**Mandate & Commitment**

**identified risk**

**defined activit**

**defined object**

**defined constr**


**defined manda**

**assessment pro**

**saved snapsho**

## objectives

Objectives are measurable strategic aims of the repository and can correspond with any of its business areas. These are the outcomes that the repository pursues, and can be contrasted with the specific strategies employed to facilitate their achievement (called **activities** within DRAMBORA). Adding a quantitative dimension to each objective will facilitate its measurement and the subsequent identification of risks.

You may wish to reference [PLATTER: A Planning Tool for Trusted Electronic Repositories](#) . This tool, published by DPE, facilitates the identification of strategic objectives for repository administrators.

**Name\*:**

**Description\*:**

**Documented, Referenced in, or Related to:**

**Functional Class(es)\*:**

## have you

Let me see some g  
corresponding to:

 **identified**


 **defined**

 **defined**

 **defined**

 **defined**

 **assessment**

 **saved s**

Activities are the practical and tangible things that the repository does in order to achieve its objectives. These may be associated with **assets** that are either required to enable their completion or are generated as an outcome, but this is not obligatory. Each activity must be associated with one or more **roles** to indicate where responsibility for its completion resides.

**Activity Name\*:**

**Activity Desc\*:**

**Activity Role(s)\*:**

**Related Asset(s):**

[Add a New Asset](#)

**Related Objective(s):**

have you considered

Let me see some generic **activities** corresponding to:

Mandate & Commitment

identified risks

defined activities

defined objectives

defined constraints

defined mandates

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## identify risks ?

You can choose to define a new risk, or alternatively base your risk definition on an existing generic DRAMBORA risk, or one that you have already defined. Risks describe challenges or threats that impede the achievement of repository objectives, obstruct activities and prejudice the continued availability of essential assets.

[Build upon existing risk](#)

[Define new risk from scratch](#)

**Risk Name\*:**

**Risk Description\*:**

[Add a Risk Vulnerability](#)

[Add a Risk Consequence](#)

[Add a Risk Relationship](#)

<b>Nature of Risk:</b>	Physical Environment:	<input type="checkbox"/>
	Personnel, Management & Admin Procedures:	<input type="checkbox"/>
	Operations & Service Delivery:	<input type="checkbox"/>
	Hardware, Software or Communications Equipmt & Facilities:	<input type="checkbox"/>

**Risk Owner(s)\*:**

**Functional Class(es)\*:**  
Mandate & Commitment to Digital Object Maintenance  
Organisational Fitness  
Legal & Regulatory Legitimacy  
Efficient & Effective Policies  
Acquisition & Ingest  
Preservation of Digital Object Integrity, Authenticity & Usability  
Metadata Management & Audit Trails  
Dissemination  
Preservation Planning & Action  
Adequate Technical Infrastructure

**Link Risk to:**

- Business Manager
- Data Liaison Officer

at: Florida Digital Archive at University of Florida

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## assess risks

Risks should be assessed to determine their severity. This measurement represents a combination of the risk's **frequency** and its **potential impact**. Weightings should be applied to each to describe their proportionate scale. Impact can be manifested in numerous ways, so in order to ensure the comparability of results, users should select from the drop down list a **risk impact expression** descriptor, and weight their responses accordingly.

**Functional Class:**

- Mandate & Commitment to Digital Object Maintenance...
- Organisational Fitness...
- Legal & Regulatory Legitimacy...
- Efficient & Effective Policies...
- Acquisition & Ingest...
- Preservation of Digital Object Integrity, Authenticity & ...

**Risk Name:** Budgetary reduction

**Description:** Repository's operational budget is reduced

**Probability:** -High 

**Expression:** -Organisational Viability

**Impact:** -Medium 

**Risk Name:** Enforced cessation of repository operations

**Description:** Repository is forced to cease its business activities.

**Probability:** -Low 

**Expression:** -Organisational Viability

**Impact:** -Very High 

[Save Risk Assessments](#)

 identified

 defined act

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 assessment

 saved snap

- Auditor
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### manage risks ?

The risk management measures defined in this stage describe the responses that will be implemented following the assessment process. Responsibility for each management measure should be allocated to one or more roles, and details of timescales and projected outcomes defined.

- Risk:**
- Budgetary reduction...
  - Enforced cessation of repository operations...

**Risk Name:** Budgetary reduction

**Description:** Repository's operational budget is reduced

**Risk Owner:** Repository Management

**Probability:** High

**Impact:** Medium (Organisational Viability)

**Severity:** 12 (out of 25)

**Strategy** Avoidance

**Type:**

- Strategy**
- Ingest Officer...
  - Repository Management...
- Owner:**

**Strategy:**

**Target:**

**Reassessment Date:** (YYYY-MM-DD)

**Date:**

[Add a Risk Mitigation Strategy](#)

Save Risk Management

identified risks

defined activities

defined objectives

defined constraints

defined mandate

assessment progress

saved snapshots

<b>Risk Number 2: Enforced cessation of repository operations</b>	
<b>Risk Description:</b>	Repository is forced to cease its business activities.
<b>Risk Areas:</b>	Operations & Service Delivery
<b>Vulnerability(ies):</b>	<ul style="list-style-type: none"> <li>• Repository's responsibilities are withdrawn by legislative amendment</li> <li>• Repository fails to renew preservation contract with its primary client</li> <li>• Repository goes bust or is no longer financially sustainable</li> <li>• Repository loses its place in a competitive marketplace</li> </ul>
<b>Consequence(s):</b>	
<b>Relationship(s):</b>	<ul style="list-style-type: none"> <li>• From risk #247 ("Budgetary reduction") to this risk, relationship type is 'contagious'.</li> </ul>
<b>Risk Owner(s):</b>	Repository Management
<b>Functional Classes:</b>	Mandate & Commitment to Digital Object Maintenance Efficient & Effective Policies
<b>Date of Identification:</b>	2008-10-08 14:26:13
<b>Risk Probability:</b>	Low
<b>Risk Impact:</b>	Very High (Organisational Viability)
<b>Risk Severity:</b>	10
<b>Risk Mitigation:</b>	Not Supplied



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## DRAMBORA Online Tool :: Assessment Centre :: View Risk

[Audit Home](#) | [Mandate View](#) | [Constraints View](#) | [Objectives View](#) | [Activities View](#) | **[Risks, Risk Assessment and Risk Management View](#)**

Use this page to navigate between the various related characteristics of this single risk. You can select alternative risks using the selection panel on the right hand side of the screen.

**Risk Name:**

**Identified\*:**

**Potential Impact\*:**

**Probability:**

**Severity:**

**Risk Description:**

**Risk Vulnerability:**

**Risk Relationships:**

<b>Nature of Risk:</b>	Physical Environment:	<input type="checkbox"/>
	Personnel, Management & Admin Procedures:	<input checked="" type="checkbox"/>
	Operations & Service Delivery:	<input type="checkbox"/>
	Hardware, Software or Communications Equip & Facilities:	<input type="checkbox"/>

**Risk Owner(s):**

**Functional Class(es):**

**Linked to :**

**Management Strategy(ies):**

### identified risks

- **Budgetary reduction** (Repository's operational budget is reduced)
- **Enforced cessation of repository operations** (Repository is forced to cease its business activities.)

### defined activities

### defined objectives

### defined constraints

### defined mandate

### assessment progress

### saved snapshots

Quarter 3, 2008 (8th Oct 2008)

- DCC Paper on test audits:

[www.repositoryaudit.eu/images/PreservationPressurePoints.pdf](http://www.repositoryaudit.eu/images/PreservationPressurePoints.pdf)

- To learn more about DRAMBORA, request support or join the growing network of DRAMBORA users, contact us online at

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or by email at

[feedback@repositoryaudit.eu](mailto:feedback@repositoryaudit.eu)

and

[support@repositoryaudit.eu](mailto:support@repositoryaudit.eu)