

Large Scale Repository Auditing to ISO 16363

José Carvalho – jcarvalho@sdum.uminho.pt



Repositório Científico de
Acesso Aberto de Portugal



| Topics

- RCAAP Project
- ISO 16363
- Methodology
- Results (preliminary audit)
- Future steps

Authors

- Eloy Rodrigues
- José Carvalho
- Pedro Príncipe
- João Moreira
- Miguel Ferreira
- Luís Faria
- Hélder Silva

RCAAP Project



Audit Team – KEEP Solutions



RCAAP Project

THE CONTEXT

Scientific Open Access Repository of Portugal

RCAAP PROJECT



Main Goals of the Project

- Increase the visibility, accessibility and dissemination of Portuguese research results
- Facilitate access to information about Portuguese scientific output
- Integrate Portugal in the wide range of international initiatives in this domain

RCAAP Services

Search Portal

Repository Hosting
Service (SARI)

Journal Hosting
Service

Common
Repository

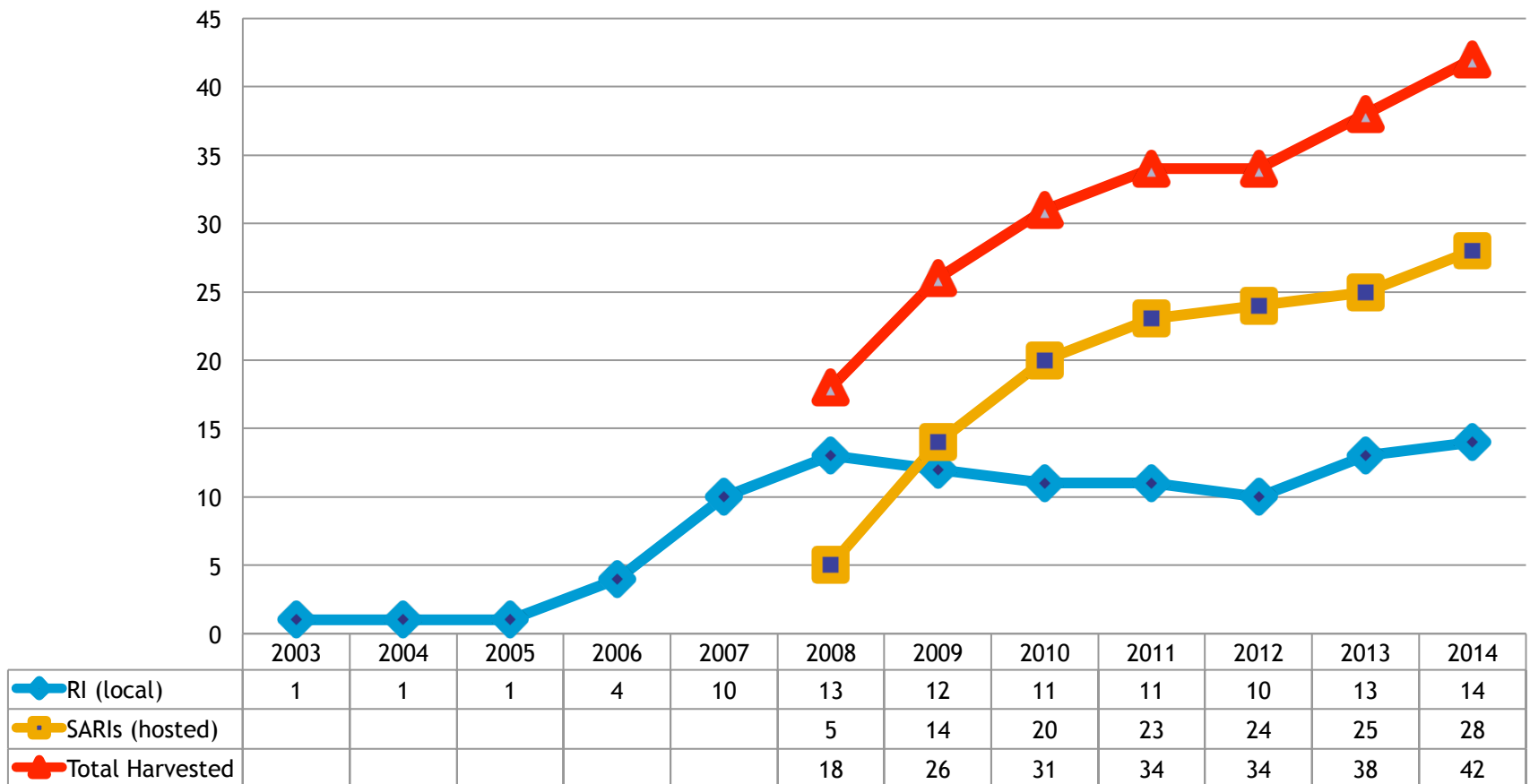
OAI-PMH Validator

Data Repository

Usage Statistics



Repository Evolution in Portugal



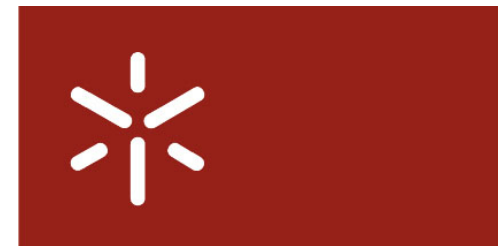
Governance

- **FCT / FCCN**
General Coordination & infrastructures
- **University of Minho**
Scientific and technical coordination



FCT

Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E ENSINO SUPERIOR



Universidade do Minho

More about RCAAP Project

- Friday - 2014-06-13 @ 9:00 - 10:15

Paasitorni - Siltasaari Hall

**RCAAP - Building and maintaining a
national repository network**

Audit and Certification of Trustworthy Digital Repositories

ISO 16363



WHY AUDIT? WHERE ARE WE?



Why audit ?

Why Audit ?

- Know more about the repositories

Why Audit ?

- To know more about the repositories
- To improve where something is missing

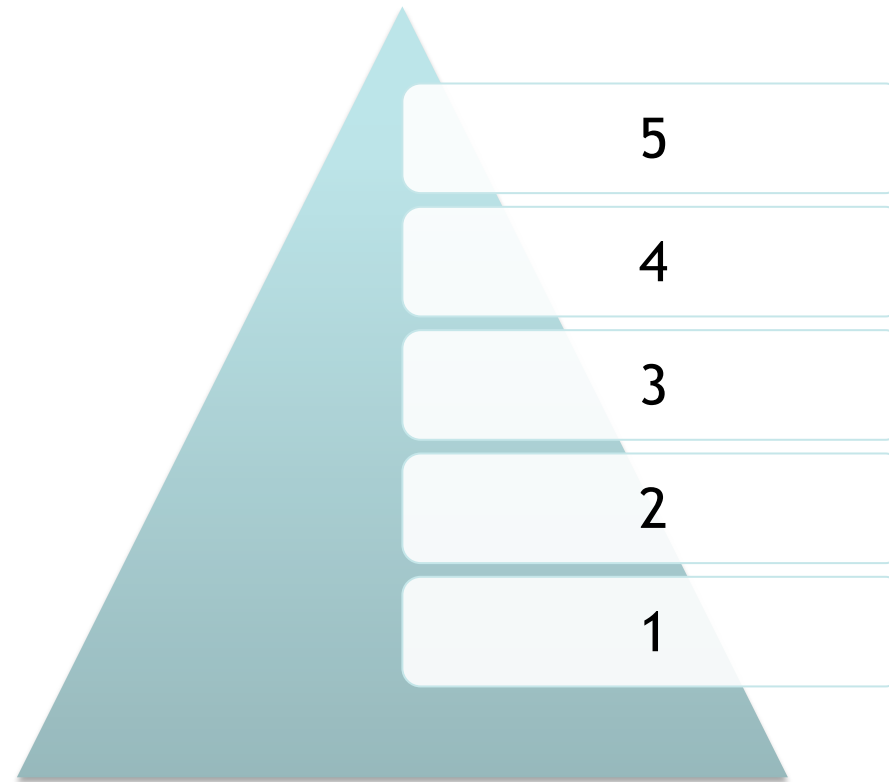
Why Audit ?

- To know more about the repositories
- To improve where something is missing
- To provide new services

Why Audit ?

- To know more about the repositories
- To improve where something is missing
- To provide new services
- To shift the community of repository managers!

The Question: Where we are?



ISO 16363:2012

- Defines practices to audit and certification process for assessing the trustworthiness of digital repositories.
- Includes normative metrics which a digital repository can be assessed.

Based on [TRAC](#) project

3 Sections (with responsibilities)

1. Organizational Infrastructure
(the repository manager)
2. Digital Object Management
(RCAAP Project)
3. Infrastructure and Security Risk Management.
(RCAAP Project)

Large Scale Repository Auditing to ISO 16363

METHODOLOGY

General Plan (1 year duration)

| Step | Designation | Description | Date |
|------|-----------------|--|-----------------------|
| 1 | Diagnosis Audit | Preliminary audit to all the repositories | Nov. 2013 - Fev. 2014 |
| 2 | Action Plan | Actions to improve the repository compliance | March 2014 |
| 3 | Implementation | Repository managers should implement the suggested improvements | March - Set. 2014 |
| 4 | Final Audit | Final audit to validate the action plan and define the new level of compliance | October 2014 |

Diagnosis Audit

- The responsible evaluates the repository for each item of the standard
- The responsible must provide evidences for each item
- The audit team evaluates the results based on the evidences
- Audit team provides feedback with suggestions of improvements

Conformity levels adopted

| Level | Name | Description |
|-------|-------------|--|
| 1 | Unmanaged | The repository has not adopted any action for this requisite. |
| 2 | Incipient | The repository is aware of the need for this requisite but it isn't formalized or is executed randomly |
| 3 | Formative | The repository implements processes for this requisite but they are not yet totally implemented. |
| 4 | Operational | There are explicit policies, procedures or processes that for this requisite |
| 5 | Proactive | There are explicit policies, procedures or processes and monitoring with improvements and they are part of the strategic plan of the institution |

ECM3 Maturity level

RESULTS OF THE PRELIMINARY AUDIT

Preliminary Audit Results (from Repository Managers)

ORGANIZATIONAL INFRASTRUCTURE

Preliminary Audit Results (Section 1)

- The average maturity level of all 26 repositories on the standard group of requirements “Organizational Infrastructure” was **2.1** on a scale of 1 to 5.

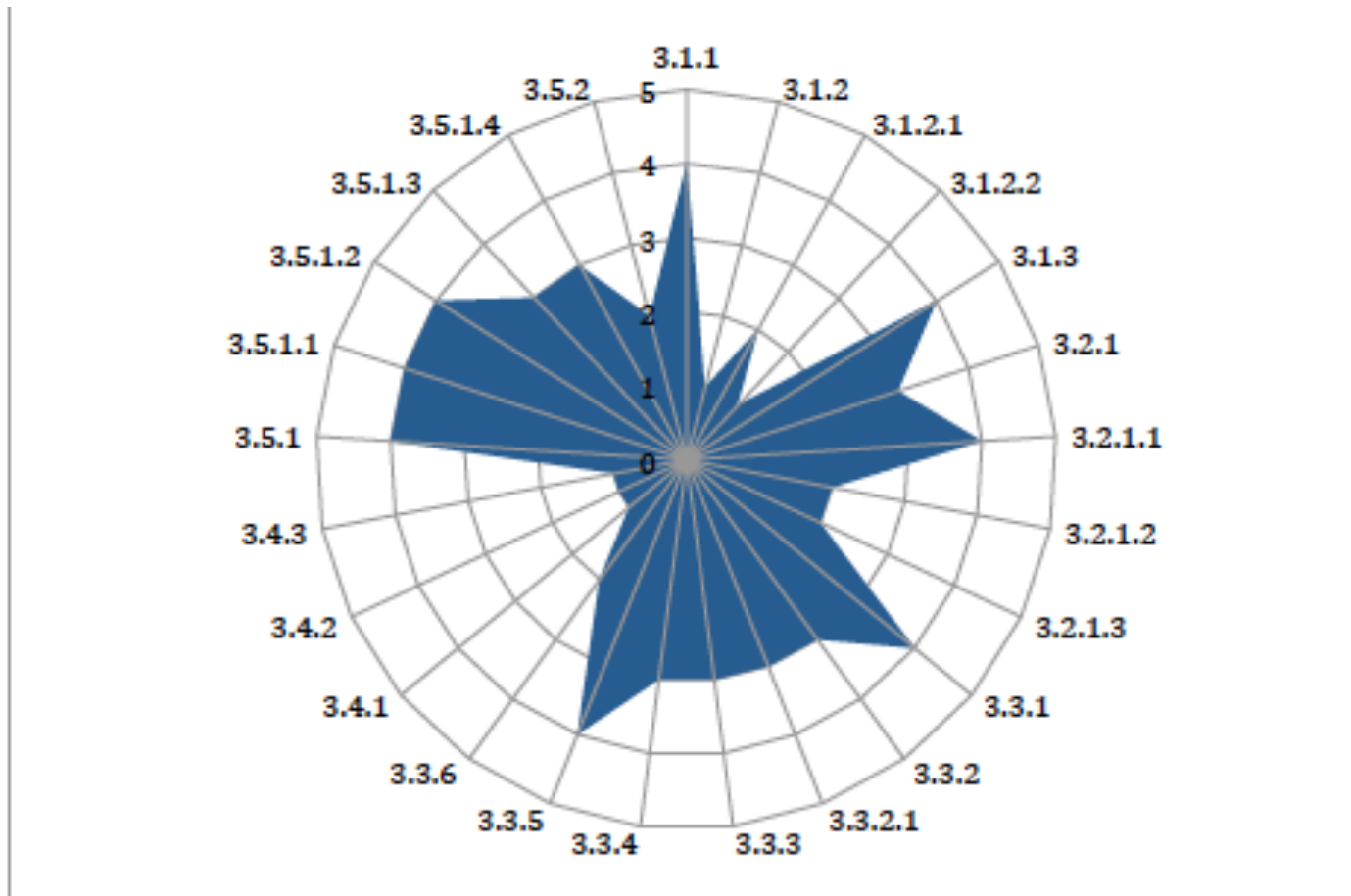
Preliminary Audit Results (Section 1)

- The perceived maturity, i.e. the maturity indicated by repository manager , was **2.7**.

Preliminary Audit Results (Section 1)

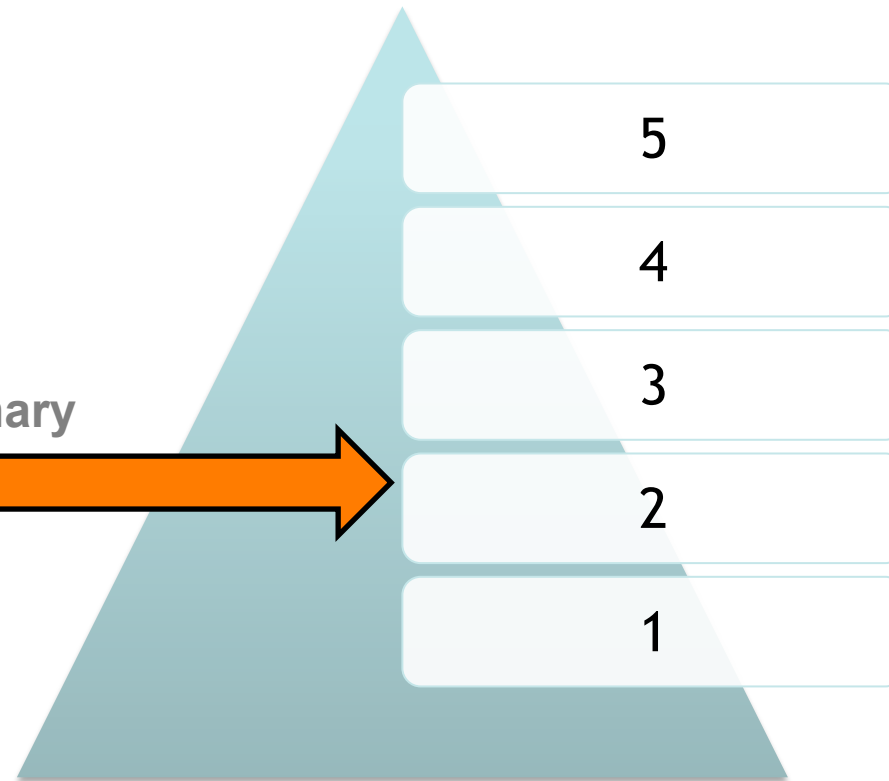
- On the same note, the most mature repository scored **3.0** while the least mature repository scored **1.1**.

Example of Repository Evaluation



Where we are?

Based on the preliminary
audit, we are here



Preliminary Audit Results (Section 1)

- Difficulties in providing evidences of financial practice.
- If one ignores the 3 requirements related to financial sustainability, the average maturity level increases to 2.2.

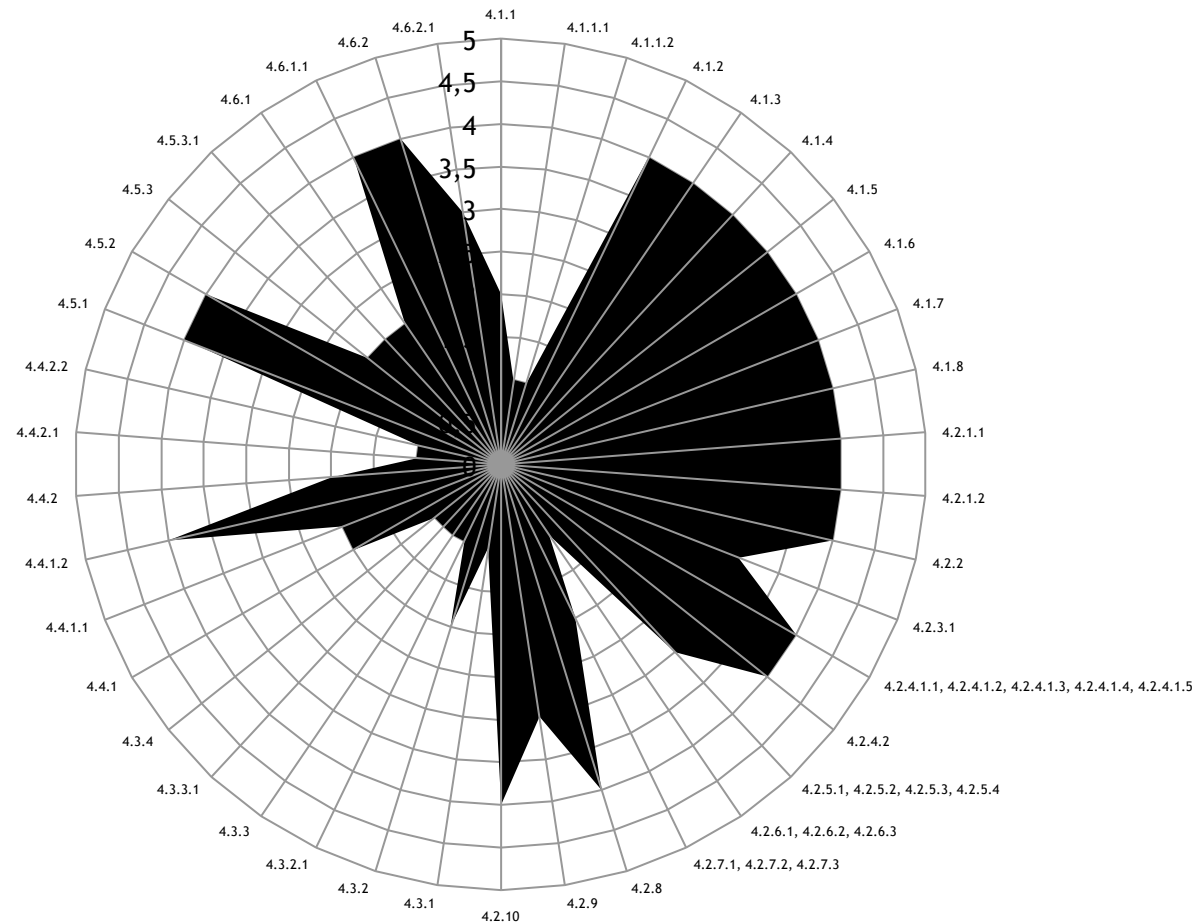
Preliminary Audit Results

DIGITAL OBJECT MANAGEMENT

Preliminary Audit Results (Section 2)

- The hosting service provider showed a self-perceptual maturity level of **3.2**.
- The audit team scored its ability of manage digital objects and associated risks at **2.8**.

Digital Object Management



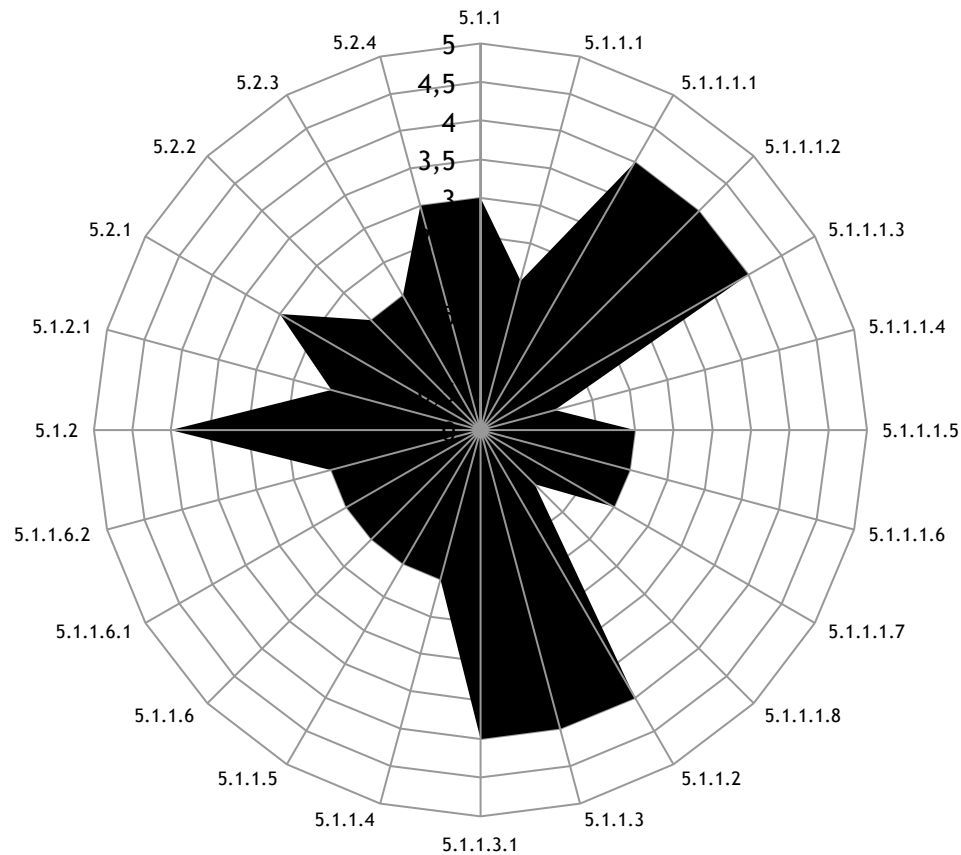
Preliminary Audit Results

INFRASTRUCTURE AND SECURITY RISK MANAGEMENT

Preliminary Audit Results (Section 3)

- On the “Infrastructure and Security Risk Management” front, the hosting service showed a self-assessment score of **3.1**, while the audit team rank it at **2.6**.

INFRASTRUCTURE AND SECURITY RISK MANAGEMENT



Large Scale Repository Auditing to ISO 16363

CURRENT STATUS & FUTURE STEPS

Currently...

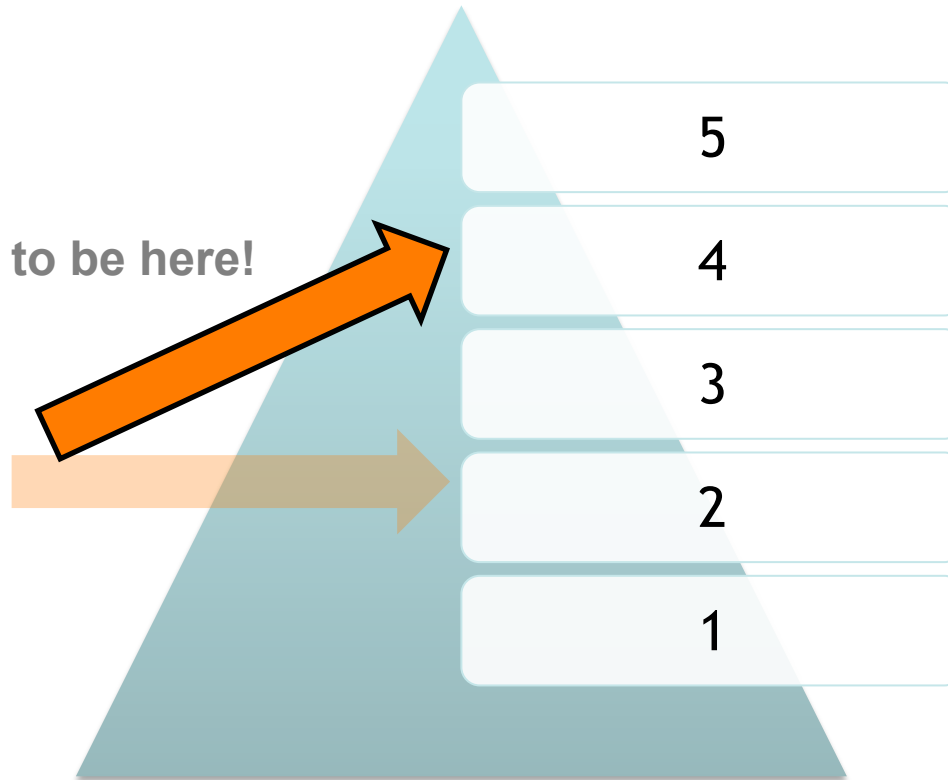
- At step 3 - Identification and implementation of the improvements based on the preliminary audit.
- Workshops (face2face and online) with repository managers

Future steps

- Implement the actions
- Final Audit

Where we want to be?

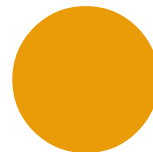
We want to be here!



| Thanks!



Questions



José Carvalho – jcarvalho@sdum.uminho.pt