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## Designing and implementing Open Access, OD and OS policies

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# Agenda

1. Welcome, introduction to the workshop, introductions from the participants
2. What elements make successful Open Access, Open Data, Open Science policies and How to design them?
  - presentation and discussion
3. How to monitor Open Access, Open Data, Open Science policies implementation
  - use cases and discussion

1. Welcome, introduction to the workshop, introductions from the participants

# GREEN LIGHT FOR OPEN ACCESS

17-18 MAY 2016 AMSTERDAM

#2

## OPEN ACCESS POLICIES

NO IF... BUT HOW! & WHY!

PASTEUR40A

SLOVENIA

BELGIUM

MALTA

SWEDEN



awareness

goals

meetings with stakeholders

reviews

discussions

remove obstacles

LEARNING CURVES

MAKE RESEARCHERS YOUR AMBASSADES

CHALLENGE: IMPLEMENTING THE POLICY!

OPEN DATA SETS

OPEN PEER REVIEW

100% OPEN ACCESSIBLE IN 2021

LOOK BEYOND 2025...

H2020 GOALS

GOLD & GREEN DEALS

incl grey literature

DISCUSSIONS ON POLICY

WORKSHOPS

REVIEWS OF POLICY

ADOPTION OF STRATEGY

NATIONAL CONFERENCE ON OPEN ACCESS

PRESERVATION!

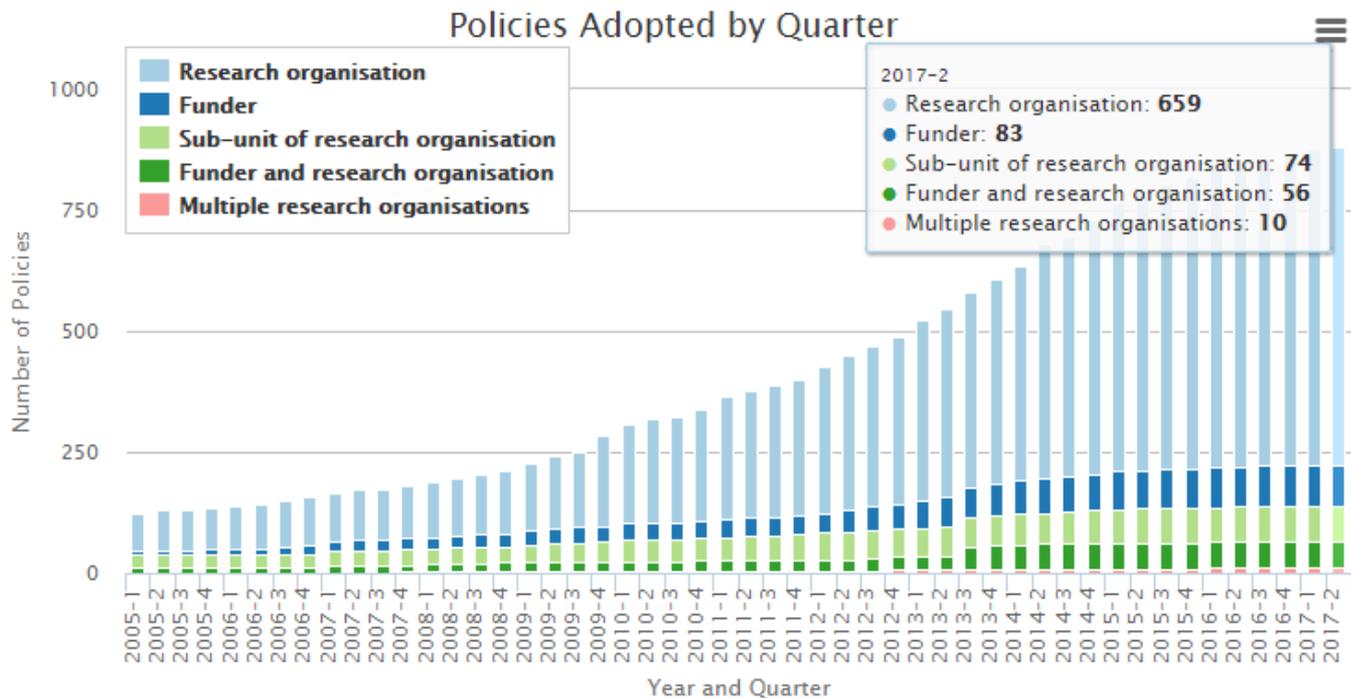
↳ National libraries

all publishers!

REPOSITORIES!



# Why do funders define OA and OD policies?



# Why do funders define OA and OD policies?

- Better science
- Higher visibility and impact from their funding in research and society in general
- Improved monitoring and transparency of the results of funding
- Maximized return on investment

2. What elements make successful Open Access, Open Data, Open Science policies and How to design them?  
presentation and discussion

# What make policies successful?

1. Content
2. Definition and Implementation Process
3. Monitoring

# How to design successful policies?

- Look around and align...
- Make requirements as clear and simple as possible
- Provide support (information, infrastructures, and services)
- Monitor compliance
- Offer incentives (carrots and sticks...)

# Policy effectiveness

- ROARMAP rebuild
- 122 mandatory policies (institutions)
- Repository content measured
- Regression analysis carried out using policy criteria

# Policy conditions recorded in ROARMAP: original set of 13

Condition		
Must deposit		
Cannot waive deposit		
Deposit immediately		
Must make item OA		
Cannot waive making item OA		
Link deposit with research assessment / evaluation		
Must make item OA immediately		
Permitted embargo period specified (STEM)		
Permitted embargo period specified (HaSS)		
Must retain rights to make item OA		
Cannot waive retention of rights		
Age of mandatory policy		
Requirement for open licensing		

# Policy conditions: eliminated those with small numbers

Condition
Must deposit
Cannot waive deposit
Deposit immediately
Must make item OA
Cannot waive making item OA
Link deposit with research assessment / evaluation
Must make item OA immediately
Permitted embargo period specified (STEM)
Permitted embargo period specified (HaSS)
Must retain rights to make item OA
Cannot waive retention of rights
Age of mandatory policy
Requirement for open licensing

# Regression analysis: the final list of important policy criteria

- Must deposit
- Cannot waive deposit
- Research evaluation
- Must make deposit Open Access
- Cannot waive making item Open Access
- Where rights are retained, this cannot be waived

# Policy conditions: regression analysis

Condition	Correlation with deposit rate
Must deposit	✓
Cannot waive deposit	✓
Must make item OA	✓
Cannot waive making item OA	✓
Link deposit with research assessment / evaluation	✓
Cannot waive retention of rights	✓

# Correlation with deposit action

Policy criterion	Positive correlation	Significant correlation
Must deposit	✓	✓
Cannot waive deposit	✓	✓
Link deposit to research evaluation	✓	✓
Must make deposit Open Access	✓	
Cannot waive making item Open Access	✓	
Where policy stipulates authors should retain relevant rights, this cannot be waived	✓	

# Policies with the significant criteria

- 18 policies
- 5 funders
- 13 institutions

# Policies with the significant criteria

Must deposit  
Cannot waive deposit  
Research evaluation

- 18 policies
- 5 funders
- 13 institutions

# Funders

- European Commission: Horizon 2020 policy
- Austria: FWF (Fonds zur Foederung der Wissenschaftlichen Forschung)
- UK: HEFCE (Higher Education Funding Councils)
- US: NIH (National Institutes of Health)
- South Africa: National Research Foundation of South Africa

# Multi-beneficiary General Model Grant Agreement

**29.2 Open access to scientific publications**

**29.3 Open access to research data**



# Grant Agreement: § 29.2 Open access to scientific publications

Each beneficiary **must ensure open access** (free of charge, online access for any user) to **all peer-reviewed scientific publications relating to its results.**

In particular, it must:

(a) **as soon as possible and at the latest on publication, deposit** a machine-readable electronic copy of the **published version or final peer-reviewed manuscript** accepted for publication in a **repository** for scientific publications;

Moreover, the beneficiary must **aim to deposit at the same time the research data** needed to validate the results presented in the deposited scientific publications.

(b) **ensure open access** to the deposited publication — via the repository — at the latest:

(i) **on publication, if an electronic version is available for free via the publisher, or**

(ii) **within six months of publication (twelve months for publications in the social sciences and humanities) in any other case.**

(c) ensure open access — via the repository — to the **bibliographic metadata** that identify the deposited publication.

The bibliographic metadata must be in a **standard format and must include all of the following:**

- the terms ["European Union (EU)" and "Horizon 2020"] ["Euratom" and Euratom research and training programme 2014-2018"];
- the name of the action, acronym and grant number;
- the publication date, and length of embargo period if applicable, and
- a persistent identifier.

THE FUTURE OF RESEARCH AND INNOVATION

HORIZON 2020

**PASTEUR40A**



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# Open Access Policy Guidelines and Template for Funders

**Authors:** Victoria Tsoukala, Marina Angelaki (EKT)

**Reviewers:** Alma Swan (EOS), Mafalda Picarra (Jisc), Eloy Rodrigues (U Minho)

**September 2015**

**<https://goo.gl/eKtAY8>**

# The PASTEUR4OA Open Access Policy

## Template for Funders

### Introduction

[Insert information regarding the **[Name of funding entity's]** motivations for the policy (e.g. wider dissemination, maximizing return on investment, public access to publicly funded research, alignment with European Commission's policies etc.) and any other relevant information.

For this purpose, **[Name of funding entity]** has defined the following Open Access policy, which must be observed by all recipients of research funding as of **[date]**.

1-**[Name of funding entity]** requires that a copy of the accepted version (either author final manuscript – post-print- or publisher version) of all peer reviewed articles and books/monographs produced as a result of research supported, either in entirety or in part by **[Name of funding entity]** research funding, be deposited in a suitable<sup>1</sup>Open Access repository. The deposit of these materials should be made immediately upon acceptance for publication and their metadata made fully open, searchable and machine-readable from the time of deposit.

2 -**[Name of funding entity]** requires that the full-text of all such publications be made openly available immediately where possible and in any case no later than 6-months after publication in Science, Technology, Engineering and Mathematics (STEM) or 12 months after publication in the Social Sciences and Humanities (SSH). If a journal's permitted embargo period is longer than these, authors should either negotiate with the publisher to retain the

<https://goo.gl/eKtAY8>

# The Content of the Policy Template

- The proposed policy is **mandatory** since research shows that this is the most effective kind of policy and is the most likely to induce compliance with the researchers. PASTEUR4OA and other research shows that if the policy is voluntary, only a small percentage of researchers is expected to comply. A mandatory policy carries an obligation for the funder to monitor its uptake and revise, where necessary, also provisioned in the policy.

# The Content of the Policy Template

- The policy requires **self-archiving of peer-reviewed publications** in repositories: therefore it does not interfere with the researchers' freedom of choosing his/her publication venue (journal, monograph publishing venue), while at the same time it gives research institutions the power to manage their own output, using infrastructures (repositories).

# The Content of the Policy Template

- **Self-archiving of final author or publisher version of the work** should take place **immediately upon acceptance for publication and certainly no later than the publication of the work**; it is during this phase that the researchers are more likely to perform this task since this is the moment when they are dealing with the publication for the final time. A 6-month or 12-month embargo period for Open Access to the full text of the publication can be accommodated if it is a publisher requirement for Science, Technology, Engineering and Mathematics (STEM) and Social Sciences and Humanities (SSH) fields, respectively. Publication **metadata should be openly accessible from the outset**.

# The Content of the Policy Template

- The policy requires **open access to research data that support and validate publications** by archiving them in suitable repositories. This is a policy modeled on that of the most significant research funders around the world, such as the European Commission, the NIH, the NSF, all seven of the UK's Research Councils, the Gates Foundation, etc. Exception to this policy should be made when necessary (e.g. for reasons of security) and explicitly stated in the guidelines document and in the grant agreement document

# The Content of the Policy Template

- **The policy encourages, but does not require, publishing in Open Access journals** or monograph series. It renders article processing charges (APCs) and book processing charges (BPCs) eligible project costs, as well as costs for data management. This entails setting aside the relevant funds and specifying, in the grant application guide the amount that can be spent per project. This is a measure to incentivize the transition to an Open Access publishing system (vs. a subscription system). The requirement for Open Access self-archiving still needs to be met.

# The Content of the Policy Template

- The policy requires that all publications in Open Access journals funded by the funder are licensed under **Creative Commons licenses, CC-BY**. This will allow true Open Access, in other words, legally re-usable publications and research data (the so-called libre-Open Access). It also recommends CC licenses for items not published in Open Access but deposited in repositories (publications, books, data), without determining the precise licensing terms.

# The Content of the Policy Template

- **Compliance with the policy is connected to project reporting, future funding requests and performance evaluation** (where applicable). Connecting compliance with project reporting, future funding and performance evaluation is critical in achieving high rates of compliance.

# The Content of the Policy Template

- **The policy effectively requires the author to retain the rights necessary to make her/his work Open Access** under the requested terms and embargo allowance and deters researchers from the standard practice of transferring their copyright to publishers. It is possible for authors to negotiate with publishers, licensing to them only those rights necessary for the publication, and relevant resources should be provided for researchers (e.g. negotiation tools, author's contract addenda). Authors are requested to seek another publisher if the proposed publisher does not allow them to meet the terms raised by the funder.

# The recommended Open Access policy at a glance

- Aligns with the European Commission's H2020 policy
- Mandatory
- Requires immediate deposit of research outputs in a repository at acceptance for publication but respects reasonable embargoes required by publishers
- Encourages publishing in Open Access journals and monographs
- Specifies that publishing costs are eligible project costs and grant money may be spent on them: specifies limits that can be spent per project or per year and disallows publication in 'hybrid' journals
- Specifies the licence to be used for Open Access articles
- Links compliance with project reporting, future funding requests and performance evaluation

# Principles and Recommendations for successful Open Data policies:

BRIEFING PAPER  
August 2016



In association with:  
JISC

## Common Directions in Research Data Policy

Angus Whyte and Martin Donnelly



## Policy recommendations for open access to research data

[www.recodeproject.eu](http://www.recodeproject.eu)



## Funding research data management and related infrastructures

Knowledge Exchange and

### Summary of Funders' data sharing policies

#### Public Health Research Data Forum Review of funders' data sharing policies

## Concordat on Open Research Data

The Concordat on Open Research Data has been developed by a UK multi-stakeholder group. This concordat will help to ensure that the research data gathered and generated by members of the UK research community is made openly available for use by others wherever possible in a manner consistent with relevant legal, ethical, disciplinary and regulatory frameworks and norms, and with due regard to the costs involved.



Published 28<sup>th</sup> July 2016

### CHALLENGE

Wider access to scientific facts and knowledge helps researchers, innovators and the public find and reuse data, and

### SOLUTION

Horizon 2020 already mandates open access to all scientific publications



From 2017, research data is open by default

### SPARC

Browse Data Sharing Requirements by Federal Agency

This community resource for tracking, monitoring, and understanding both current and future U.S. federal funder research data sharing policies is a joint project of SPARC & Johns Hopkins University Libraries. Click the icons below to visit up to those agencies to view or compare. Click [here](#) to download the full data set. Email [open@sparc.org](mailto:open@sparc.org) for more information.

VIEW SPARC'S SHARING POLICIES

Search for an agency...



Share These Requirements with a Colleague

The agency logos above are only to aid navigation and to help identify the source of each policy. They in no way are intended to imply endorsement by any agency.

Primary Policy | Contact Us | © 2017 SPARC, edited by CDC website

# The RECODE ten overarching recommendations:

- 1) Develop **aligned and comprehensive** policies for open access to research data.
- 2) Ensure appropriate **funding** for open access to research data.
- 3) Develop policies and initiatives that offer researchers **rewards** for providing open access to high quality data.
- 4) Identify **key stakeholders** and relevant networks and foster collaborative work for a sustainable ecosystem for open access to research data.
- 5) Plan for the **long-term, sustainable curation and preservation** of open access data.
- 6) Develop comprehensive and **collaborative technical and infrastructure solutions** that afford open access to and long-term preservation of high-quality research data.
- 7) Develop technical and scientific **quality standards** for research data.
- 8) Require the use of **harmonized open licensing frameworks**.
- 9) Systematically **address legal and ethical issues** arising from open access to research data.
- 10) Support the transition to open research data through curriculum-development and **training**.

# RECODE funders specific recommendations:

## 1. Develop explicit policies for open access to research data with clear roles and responsibilities.

Policies should be consistent with national priorities and aligned with the European framework for open access to research data, while also complementing that for **open government data**. Provisions should be made for the necessary resources that will allow policy implementation.

## 2. Adopt a comprehensive approach in funding the implementation of open access to and preservation of research data.

Policies will bring the expected results if accompanied by appropriate **funds**. Particular attention for funding the development and long term sustainability of necessary infrastructures; training of researchers, librarians and other technical staff; innovative actions.

# RECODE funders specific recommendations:

## 3. Reinforce the significance of the Data Management Plan (DMP) to embed and promote data management as a distinct activity within the research process.

Funder and institutional policies that offer researchers rewards for providing open access to high quality data are central in the transition towards open science. Official measures and processes need to be put in place to include the open sharing of research data in funding.

## 4. Raise awareness and promote open research data in view of leading an open science paradigm

The open access ecosystem comprises a diverse group of stakeholders with multiple and often overlapping functions. To be sustainable, collaboration is essential...

# Funding agencies RDM guidelines and requirements

Australian funders address data in terms of:

- data management plans and planning,
- data dissemination and sharing,
- data access and reuse,
- long term data storage.

Data sharing policies of the Public Health Research Data Forum:

1. Data management plans
2. Time frames
3. Use of public databases and central repositories
4. Ethics and confidentiality requirements
5. Compliance

# Policies Key principles:

## (Review of funders' data sharing policies of the Public Health Research Data Forum)

Of the 20 organizations that make up the forum, 11 have dedicated policies on data sharing and management.

1. Data management plans
2. Time frames
3. Use of public databases and central repositories
4. Ethics and confidentiality requirements
5. Compliance

Organisation name	Does the policy describe requirements or guidance for a data management plan?	Does the policy specify time frames for data sharing?	Does the policy have requirements for the use of public databases or repositories?	Does the policy have requirements regarding ethics or the protection of confidentiality?	Does the policy have specific measures to track or ensure compliance?
Bill & Melinda Gates Foundation	Yes (for grants over \$500k)	No	Yes	Yes	Yes
Canadian Institutes of Health Research	No	Yes	Yes	No	No
Centers for Disease Control and Prevention	Yes	Yes	Yes	Yes	Yes
DFG, German Research Foundation	Yes	No	No	No	Yes
Doris Duke Charitable Foundation	Yes	Yes	Yes	Yes	Yes
Economic and Social Research Council, UK	Yes	Yes	No	Yes	Yes
Medical Research Council, UK	Yes	No	No	Yes	No
NHMRC, Australia	No	Yes	Yes	No	No
National Institutes of Health	Yes	Yes	No	Yes	Yes
Wellcome Trust	Yes	Yes	Yes	Yes	Yes
World Bank	No	Yes	Yes	No	No

# Policies Key principles:

## 1. Data management plans

The majority of the policies considered require or recommend a data management plan to be submitted, as either an integral or recommended part of a research proposal... most at a minimum require researchers to describe the expected data outputs of their research, how these will be collected and stored, and how they will be made available to other researchers.

## 2. Time frames

The question of whether specific time limitations are placed on researchers with regard to the sharing of data varies between funders. Some funders, such state that expected timescales for data sharing should be built into data sharing plans. However, others make explicit expectations for timescales.

# Policies Key principles:

## 3. Use of public databases and central repositories

Several of the policies reviewed make reference to the use of public databases and/or repositories for the depositing or storage of data, in order for them to be freely accessible to other researchers.

## 4. Ethics and confidentiality requirements

Requirements around ethics and confidentiality, and the protection of research data containing identifiable patient information. A majority of funders cite the importance of ethical conduct with regard to data sharing, and of protecting confidentiality.

## 5. Compliance

How funders will track and ensure compliance with their policies.

Provision of data sharing measures as part of a data management plan.

# Concordat on Open Research Data - principles

#1 - Open access to research data is an enabler of high quality research, a facilitator of innovation and safeguards good research practice.

#2 - There are sound reasons why the openness of research data may need to be restricted but any restrictions must be justified and justifiable.

#3 - Open access to research data carries a significant cost, which should be respected by all parties.

#4 - The right of the creators of research data to reasonable first use is recognized.

#5 - Use of others' data should always conform to legal, ethical and regulatory frameworks including appropriate acknowledgement.

# Concordat on Open Research Data - principles

#6 - Good data management is fundamental to all stages of the research process and should be established at the outset.

#7 - Data curation is vital to make data useful for others and for long-term preservation of data.

#8 - Data supporting publications should be accessible by the publication date and should be in a citeable form.

#9 - Support for the development of appropriate data skills is recognised as a responsibility for all stakeholders.

#10 - Regular reviews of progress towards open research data should be undertaken.

## RESEARCH DATA - OPEN BY DEFAULT

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# Open Research Data in H2020

## CHALLENGE

Wider access to scientific facts and knowledge helps researchers, innovators and the public find and re-use data, and check research results:

offers better value for EU research funds



a public benefit

encourages research across scientific fields



essential for solving today's complex societal challenges

## SOLUTION

Horizon 2020 already mandates open access to **all scientific publications**



From 2017, **research data is open by default**, with possibilities to **opt out**

# Open Research Data in H2020

## HORIZON 2020 GRANTEES ARE REQUIRED

take measures to ensure open access to the data underlying their scientific publications



provide open access to any other research data of their choice

Horizon 2020 grantees are encouraged to also share datasets beyond publication

## PROJECTS MUST HAVE

**DATA  
MANAGEMENT  
PLAN  
(DMP)**

Provides information on:



the data the research will generate



how to ensure its curation, preservation and sustainability



what parts of that data will be open (and how)

Data management costs are fully eligible for funding

No repository imposed: deposit data where you want

## HOW IT WORKS



Get funding



Write DMP



Gather data during research



Finish research



Publish results



Choose repository and deposit data



Inform OpenAIRE the EU-funded Open Access portal

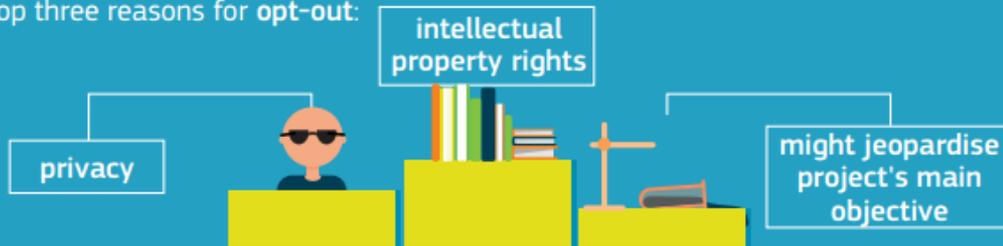
# Open Research Data in H2020

AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY

Grantees have the right to opt-out, but need to say **why**



Top three reasons for opt-out:



The approach has been tested during a Horizon 2020 pilot action

2015

of 431 signed projects



opted to share data

from 2017

the current  
Open Research Data Pilot  
expands to cover all areas of  
Horizon 2020,  
with the same rules

RESEARCH DATA - OPEN BY DEFAULT





Share your views and experience

Do you have (or plan to have) different requirements? Why?

Do you find challenging to define and implement the recommended policies?

# Policy implementation: main steps

- **PREPARATION/CONSULTATION PHASE**
  - **Researching international policies** is essential to assess position and standing of the funder in terms of policies, infrastructures, practices and degree of participation in international fora.
  - **Assessment of infrastructure (repository) for deposit in Open Access.** The policy will be strong if, among other things, the infrastructure that will serve it exists either among all institutions or at the national level. A national harvester can provide a 'shop window' for the funder's research, as well as a means of analysing and monitoring the research it funds. Lack of infrastructures should be addressed.
  - **Assessment of costs and financial planning** for the preparation and implementation of the policy, including funding for infrastructure (if this is necessary), funding for APCs, research data management, training and awareness-raising (where applicable).

# Policy implementation: main steps

- **POLICY DEVELOPMENT PHASE**
  - **Development of policy content**
  - **Development of supporting infrastructure.**
  - **Development of internal supporting and monitoring mechanism**
  - **Preparation of information materials and revision of internal documents**
    - Revision of existing grant application forms, grant agreements, reporting forms, etc., according the requirements of the policy
  - **Preparation of policy supporting actions** to help with implementation
    - Guidelines for applicants with clear instructions on what to do to comply and when and eligible costs
    - Information materials for grantees on how to comply with the requirements
    - Awareness-raising actions (workshops etc)

# Policy implementation: main steps

- **POLICY IMPLEMENTATION PHASE**
- **Policy adopted by the Funder.** A clear and explicit policy from the funder should be made publicly available through the funder's website as a means of demonstrating the commitment to the principle of Open Access.
- **Monitoring of compliance** by the funder through reporting and other means . Measures should be taken (e.g. holding/reducing/withdrawal of funding) if compliance is not taking place and non-inclusion of missing deposits in evaluation lists.
- **Assessment of policy** after a couple of years by the funder: revision where appropriate

# Policy implementation: useful steps

- Assessment of the policies of the European Commission and comparator organisations internationally
- Dialogue and collaborative approach with stakeholders
- Establishment of the relevant e-infrastructure (e.g. repository and/or CRIS/research bibliography)
- Formulation of the policy
- Guidance and training of researchers in compliance
- Provision of incentives and rewards for compliance
- Clarification of sanctions for non-compliance
- Compliance monitoring mechanism(s)
- Provision of resources for the long term sustainability of the services needed to support the policy

# Practical checklist

- ✓ Research and map relevant comparator policies
- ✓ Involve stakeholders
- ✓ Formulate the policy
- ✓ Include the clause in grant agreements
- ✓ Assess infrastructural provision and plan developments where necessary
- ✓ Guidance and support for researchers
- ✓ Provision for reward for compliance and sanction for non-compliance
- ✓ Establish mechanism to monitor compliance
- ✓ Mechanism to evaluate efficacy of the policy
- ✓ Resourcing and sustainability plan for supporting the policy

### 3. How to monitor Open Access, Open Data, Open Science policies implementation use cases and discussion

# Why Monitor Policies?

# Why Monitor Open Science Policies?

Monitoring policy compliance is important because it enables policymakers to:

- (i) assess which authors are **adhering to the policy**;
- (ii) decide whether additional advocacy practices and communication activities are required to raise awareness about the policy and **increase compliance rates**;
- (iii) observe whether any additional **infrastructure or tools need to be used** to collect evidence on compliance;

# Why Monitor Open Science Policies?

- (iv) determine whether any **sanctions need to be implemented** to enforce a systematic compliance with the policy;
- (v) and start the process of assessing the **benefits that OA** is bringing to the institution as levels of OA outputs grow.

# Why Monitor Open Science Policies?

Contribution towards:

- improving policy information;
- advancing **collaboration between stakeholders**;
- promoting the use of evaluation techniques that provide feedback to revise policies;
- informing the assessment of the **policy impacts** (changing researchers publishing attitudes and behaviors);
- helping to link policies to specific outcomes

# Why Monitor Open Science Policies?

More importantly, monitoring a policy compliance is key for universities and funders

**‘to account for the outcomes of public spending and to demonstrate return on research investment’**

# How to Monitor?

# How to Monitor

The key feature of monitoring compliance is to measure the proportion of research outputs that have been made (or will be) Open Access and that effectively comply with the OA policy requirements.

The compliance can be determined by a specific year or project, or funding stream.

# How to Monitor

To monitor compliance with OA policies the process must be able to identify:

- **total number of research outputs subject to the policy,**
- total number of full-text OA research outputs in the repository,
- the number of embargoed full-text items that will become OA at a later date,

and whether the research outputs subject to the policy comply with its requirements

# How to Monitor

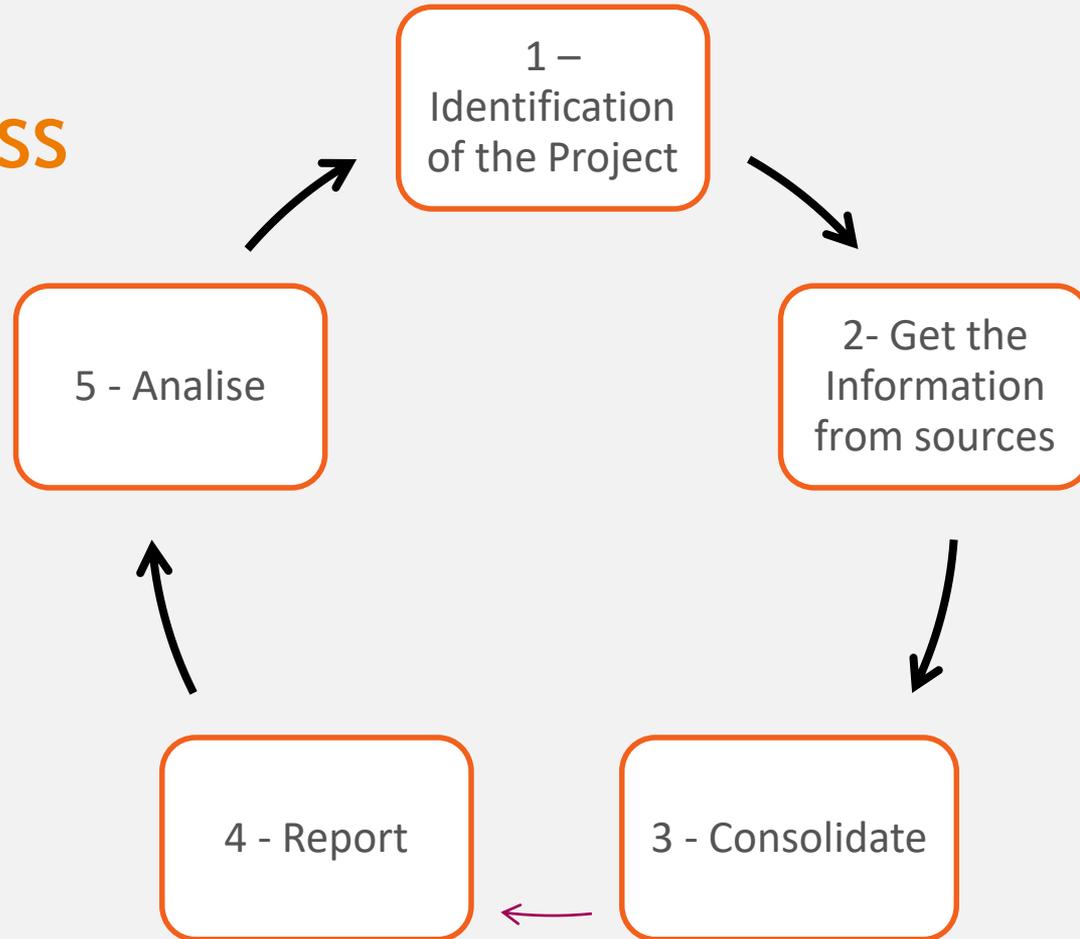
- Monitor compliance with policy by comparing repository content with indexed records in bibliographic reference databases such as ISI WoS and Scopus, ...
- Monitor policy in a systematic way
- Involve the researchers / project managers

# How to Monitor

Identify all references between a publication and a project that consider the requisites of the AO policy using:

- automatic processes
- manual searches
- data analysis

# The process



# Monitoring



Out of Reach  
from Monitoring



Total Funded Publications Identified

Repository Funded  
Publications

Funded Publications in  
other systems

# When Monitor?

During the project duration

At reporting periods

At the end of the project

+ inform, remind during all the process

# Services to Help Monitoring

- Institucional / Thematic Repositories
- ORCID - <https://members.orcid.org/funders>
- DOI (CrossRef <http://search.crossref.org> / DataCite - <https://search.datacite.org>)
- FundRef - <http://search.crossref.org/funding>
- REF Compliance Checker - <https://ref.sherpa.ac.uk/>
- Lantern - <https://lantern.cottagelabs.com/>
- CHORUS - <http://www.chorusaccess.org/>

# Services to Help Monitoring

- Search Portals: OpenAIRE, Google Scholar, CORE, SHARE
- JISC Publications Router - <https://pubrouter.jisc.ac.uk/>
- JISC Monitor - <https://monitor.jisc.ac.uk/uk/>
- OpenAIRE Broker Service
- InCites - <https://clarivate.com/products/incites/>
- Danish Open Access Indicator (Monitoring Open Access in a National Context) - <http://www.forskningsdatabasen.dk/en>
- Chronos Open Access - <http://chronos-oa.com/>

# Use Cases

H2020 & FCT

**Pedro Principe**

University of Minho (OpenAIRE support and training manager)

# OpenAIRE Monitoring Services

EC FP7 & H2020 and other national funders



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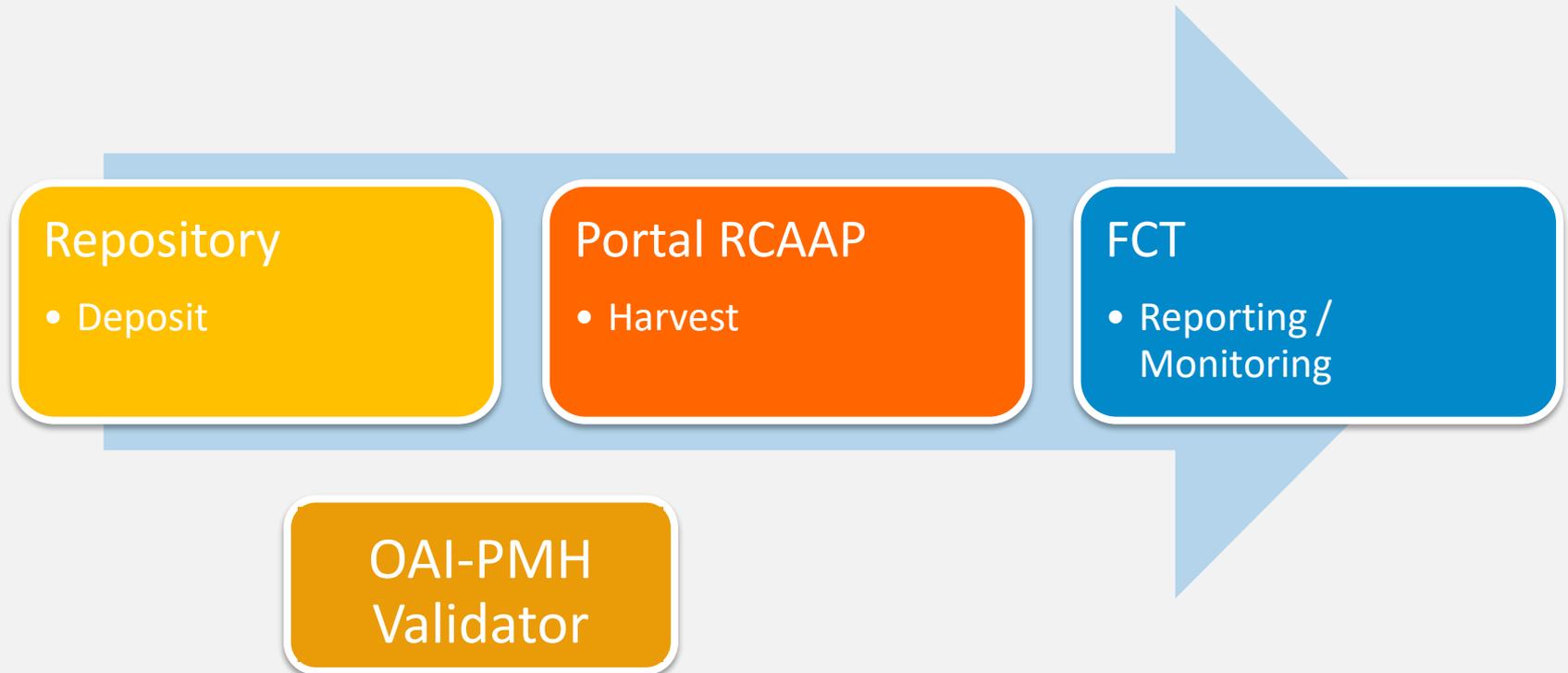
 [pedroprincipe@sdum.uminho.pt](mailto:pedroprincipe@sdum.uminho.pt)

FCT

# The FCT OA Mandate (main points)

- Deposit in IR is mandatory
- Allows embargo periods
- Allows APC payments
- Uses Creative Commons licenses
- Aligned internationally
- Defined on an existing infrastructure (RCAAP)

# Overview



# 1º Search for a Project / Scholarship

Caso a publicação tenha resultado de projeto(s) financiado(s) pela Comissão Europeia (FP7, H2020, ERC), Fundação para a Ciência e Tecnologia ou Wellcome Trust, identifique esse(s) projeto(s) aqui. Essa identificação é geralmente um requisito dos financiadores. Para identificar o(s) projeto(s) insira um dos seus elementos identificativos (número, nome, acrónimo ou referência) e selecione da lista que lhe é apresentada.

**Projeto Financiado**

Esta coleção é de acesso aberto

**Acesso**

Caso tenha indicado "Acesso Embarcado", deverá indicar pelo menos o Ano e o Mês

**Data Final do Embargo**

No caso da publicação ter financiamento, deverá indicar as razões.

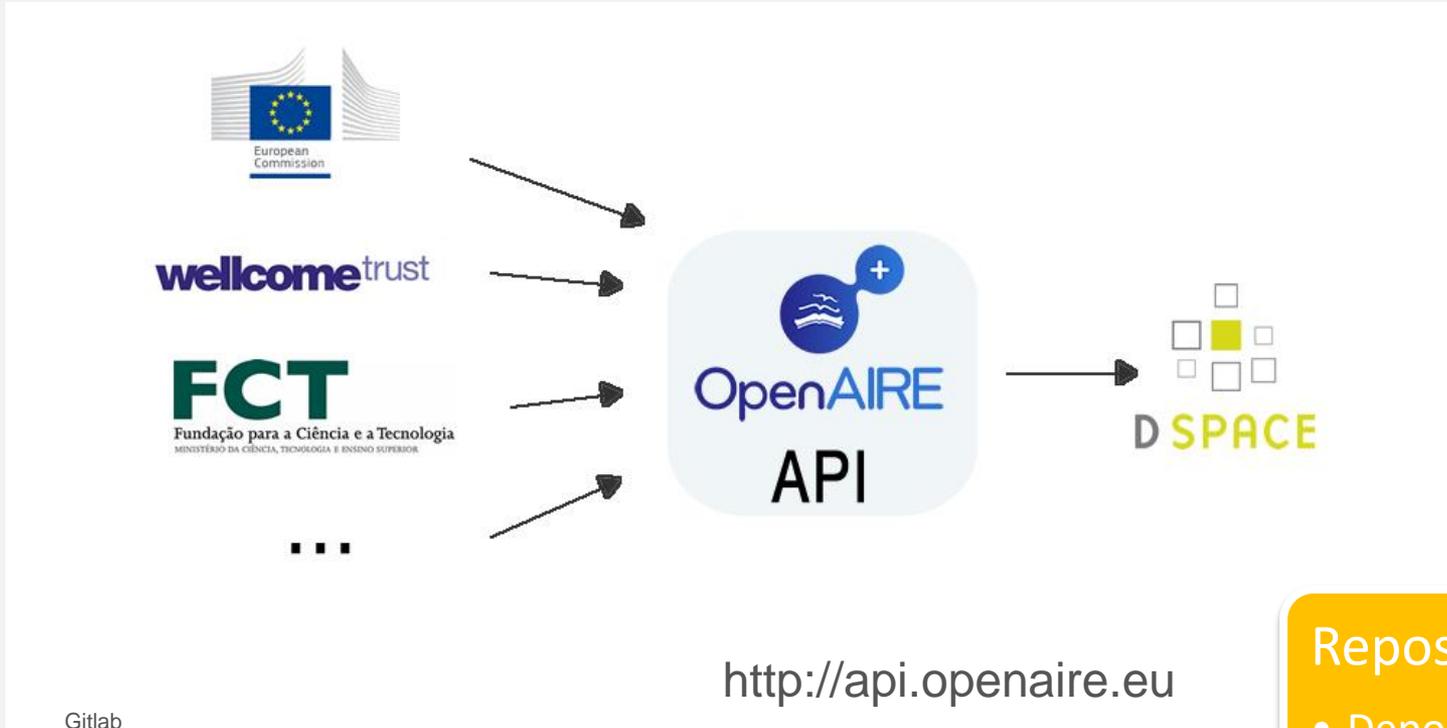
**Justificação do Prolongamento do Embargo**

- 613588 - MIRACLES - Multi-product Integrated bioRefinery of Alg...
- 611358 - COMSODE - Components Supporting the Open Data Exploita...
- 613589 - SUSMILK - Re-design of the dairy industry for sustaina...
- 613581 - LEO - Enabling small-to-medium sized oven technology p...
- 261358 - PADDINGTON - Pharmacodynamic Approaches to Demonstrati...
- 311358 - NOANEUPLOIDY - Mechanisms that prevent aneuploidy
- 135839 - JPND-RF/0001/2012 - Comprehensive Unbiased Risk factor...
- 135805 - EIT-KIC/IVE/0043/2013 - Ageing@Coimbra: A Co-location ...
- 135837 - EIT-KIC/IVE/0051/2013 - LisbonLiving+: Innovative stra...
- 113580 - PTDC/DES/113580/2009 - Can physical exercise be advant...
- 135801 - FCT-ANR/BIM-ONC/0009/2013 - Epigenetics and alternativ...
- 135840 - JPND-HC/0001/2012 - Access to Timely Formal Care
- 135858 - HIVERA/0003/2013 - An innovative approach to deliver d...
- 135842 - JPND-HC/0003/2012 - RHAPSODY - Research to Assess Poli...

Repository

- Deposit

# Dspace Addon (Project Authority Control addon)



Gitlab

DSpace 5.2 - <https://gitlab.fcn.pt/dev-rcaap/dspace/tree/Dspace52++>

Input-forms.xml - <https://gitlab.fcn.pt/dev-rcaap/dspace/blob/Dspace52++/dspace/config/input-forms.xml>

Repository

- Deposit

## 2º - Embargoed Items

If a publication has embargo, must use a embargo end date .

Caso tenha indicado "Acesso Embargado" no campo "Acesso", indique a data do final do embargo, a partir da qual o documento passará a esta disponível em Acesso Aberto. Deve indicar pelo menos o Ano e o Mês.

**Data Final do Embargo**

Dia:

Mês:

(Sem Mês)



Ano:

Repository

- Deposit

# 2º - Embargo

Caso a publicação tenha resultado de projeto(s) financiado(s) pela Comissão Europeia (FP7, H2020, ERC), Fundação para a Ciência e Tecnologia ou Wellcome Trust, identifique esse(s) projeto(s) aqui. Essa identificação é geralmente um requisito dos financiadores. Para identificar o(s) projeto(s) insira um dos seus elementos identificativos (número, nome, acrónimo ou referência) e selecione da lista que lhe é apresentada.

**Projeto Financiado**



+ Adicionar mais

Esta colecção é de acesso aberto. Caso pretenda que este documento tenha outra condição de acesso indique-a aqui.

**Acesso**

Acesso Aberto

Caso tenha indicado "Acesso Embargado" no campo "Acesso", indique a data do final do embargo, a partir da qual o documento passará a esta disponível em Acesso Aberto. Deve indicar pelo menos o Ano e o Mês.

**Data Final do Embargo**

Dia:

Mês:

(Sem Mês)



Ano:

Repository

- Deposit

# 3º - Creative Commons Licence

For publications with APC, the use of Creative Commons CC-BY license is mandatory.

Associe uma licença Creative Commons 4.0 Internacional ao seu trabalho, escolhendo-a da lista apresentada. No caso de trabalhos financiados pela FCT o uso da licença CC-BY é recomendado, mas torna-se obrigatório caso a publicação tenha tido Custos de Processamento da Publicação (CPP ou APC) suportados por verbas da FCT. Saiba mais [aqui](#)

Licença Creative  
Commons

Sem Licença

Repository

- Deposit

# FCT set on OAI-PMH

## Available Contexts

**Default Context** This is the default context of the DSpace OAI-PMH data provider.

Identify	List Sets	List Metadata Formats
----------	-----------	-----------------------

**Driver Context** This contexts complies with Driver rules.

Identify	List Sets	List Metadata Formats
----------	-----------	-----------------------

**OpenAIRE Context** This contexts complies with OpenAIRE rules.

Identify	List Sets	List Metadata Formats
----------	-----------	-----------------------

**FCT Context** This contexts complies with FCT rules.

Identify	List Sets	List Metadata Formats
----------	-----------	-----------------------



Repository

- Deposit

# Requisites

These requisites are additional to DRIVER Guidelines (mandatory on RCAAP Portal) and use OpenAIRE guidelines to associate publications with projects.



# IMPACT ON SEARCH PORTAL

# RCAAP Search Portal

The screenshot shows the RCAAP Search Portal homepage. At the top center is the RCAAP logo, which consists of a stylized red and blue circular graphic above the text "RCAAP" and "Repositório Científico de Acesso Aberto de Portugal". Below the logo is a search bar with the placeholder text "introduza os termos a pesquisar" and a "PESQUISAR" button. To the right of the search bar, there are navigation tabs for "Assuntos", "Pesquisas", and "Coleções". Below the search bar, there is a list of search results or categories, including "tecnológicas", "séc saúde", "química", "psicologia", "portuguesa", "literatura", "informática", "informação", "física", "engenharia", "desenvolvimento", "ciências", "Teses Social", "Sistemas", "Redes", "Qualidade", "Portugal", "Porto", "Mestrado", "Mecânica", "História", "Gestão", "Ensino", "Educação", "Cultura", "Comunicação", "Análise", and "Analysis". At the bottom of the page, there are logos for "FCT", "FCCN", "GOVERNO DE PORTUGAL", "MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA", "POS CONHECIMENTO", and "União Europeia FEDER".

<http://www.rcaap.pt>

# Impact on RCAAP Search Portal

The monitor of FCT OA Policy

The legal deposit of Thesis & Dissertations on the RCAAP Network

In both cases, the Portal must now manage different types of access types!



# RCAAP PORTAL



## Project/scholarship details

### Portuguese Wild Mushrooms: Chemical characterization and functional study of antiproliferative and proapoptotic properties in cancer cell lines

**Project/scholarship ID**  
110062

**Reference**  
PTDC/AGR-ALI/110062/2009

**FundRef URI**  
[http://www.fct.pt/apoios/projectos/consulta/vglobal\\_projecto\\_phtml.en?idProjeto=110062&idElemConcurso=3734](http://www.fct.pt/apoios/projectos/consulta/vglobal_projecto_phtml.en?idProjeto=110062&idElemConcurso=3734)

**Funder**  
FCT - Fundação para a Ciência e a Tecnologia, I.P.

**Funder's country**  
Portugal

**Funding program**  
5876-PPCDTI

**Funding amount**  
169.329,00 €

**Start date**  
2010-12-24

**End date**  
2013-12-23

**Date awarded**  
2010-12-22

## Documents



### Docking studies using proteins involved in breast cancer and low molecular weight...

Froufe, Hugo J.C.; Abreu, Rui M.V.; Ferreira, Isabel C.F.R.

Resumo publicado em revista

Date: 2010 | Origin: [Biblioteca Digital do IPB](#)

[More info.](#)

### Chemical composition of wild edible mushrooms and antioxidant properties of the...

Vaz, Josiana A.; Barros, Lilian; Martins, Anabela; Santos-Buelga, Celestino; Vasconcelos, M. Helena; Ferreira, Isabel C.F.R.

Mushrooms have become attractive as functional foods and as a source of chemically-beneficial bioactive compounds. Herein

## Report

Create a report with all publications from the project or scholarship in the current date for FCT scientific report.

[Generate report](#)

## Embed

Dynamically incorporate publications in your site (HTML)

```
<script type="text/javascript">
<!--
document.write('<div id="rcaap-widget">
</div>');
</script>
```

# Toolbox for Project Pages

Using the Portal information to:

- **Report** - List of publications to report to FCT Funder (HTML; CSV;...)
- **Widget** (integrates the publication list on your blog, website)

**Put's the information in context!**

# FCT Scientific Report

- Static report – list the publications of a project on a specific date (when generated)
- Automatic Report based on the publications deposited on repositories integrated into RCAAP Search Portal

Lista de publicações

## Portuguese Wild Mushrooms: Chemical characterization and functional study of antiproliferative and proapoptotic properties in cancer cell lines

A presente lista de publicações foi gerada automaticamente pelo Portal RCAAP em 2015-09-23 15:17:04. Esta lista contém todas as publicações depositadas no(s) repositório(s) da rede RCAAP às quais tenha sido atribuído o identificador do financiamento: info-eu-repo:grantAgreement/FCT:5878-PPCDTI/110062.

Esta lista não é atualizada automaticamente e refere-se apenas aos conteúdos identificados até à data da sua geração. Para cumprir com as obrigações decorrentes da política de acesso aberto da Fundação para a Ciência e a Tecnologia, por favor referencie este link nos relatórios científicos requeridos por esta agência financiadora.

### Informação do projeto

Nome do projeto	Portuguese Wild Mushrooms: Chemical characterization and functional study of antiproliferative and proapoptotic properties in cancer cell lines
Financiador	FCT - Fundação para a Ciência e a Tecnologia, I.P.
Programa de financiamento	5878-PPCDTI
ID do projeto	110062
Referência	PTDC/AGR-ALI/110062/2009
FundRef URI	<a href="http://www.fct.pt/apoios/projetos/consulta/vglobal_projeto.phtml?idProjecto=110062&amp;idElemConcurso=3734">http://www.fct.pt/apoios/projetos/consulta/vglobal_projeto.phtml?idProjecto=110062&amp;idElemConcurso=3734</a>
Data de início	2010-12-24
Data de fim	2013-12-23
Valor financiado	160.320,00 €

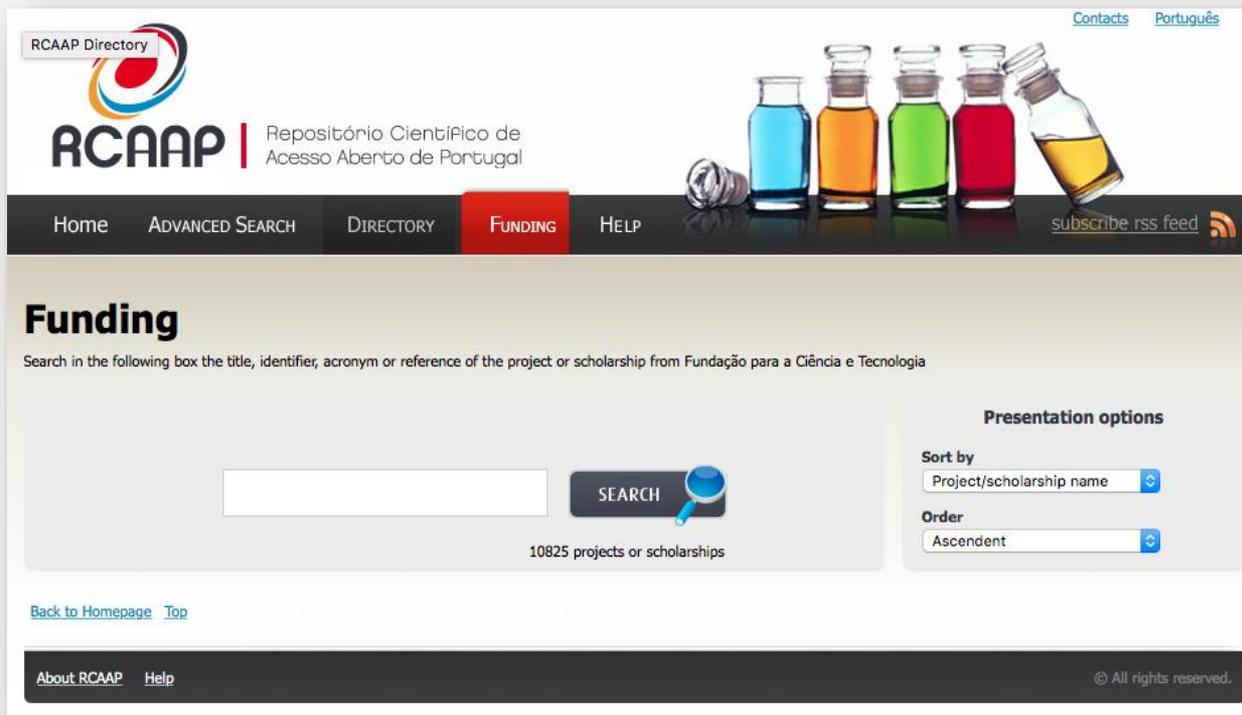
### Informação do relatório

Sumário	
Data do relatório	2015-09-23 15:17:04
Número de documentos	10
Documentos por repositório	
bibliotecadigitalpb	66
Documentos por tipo de documento	
masterThesis	3
article	19
book	1
conferenceObject	43
Documentos por tipo de acesso	
openAccess	66

### Documentos

<a href="#">1as. Jornadas de jovens investigadores da Escola Superior Agrária do Instituto Politécnico de Bragança</a>	Teixeira, Amílcar (Org.); Martins, Anabela (Org.); Ferreira, Isabel C.F.R. (Org.); Azevedo, João (Org.); Barbosa, José Carlos (Org.); Dias, L.G. (Org.); Rodrigues, M.A. (Org.)	openAccess Livro	2011	bibliotecadigitalpb	<a href="http://hdl.handle.net/10198/6034">http://hdl.handle.net/10198/6034</a>
<a href="#">Biomolecule profiles in inedible wild mushrooms with antioxidant value</a>	Reis, Filipa S.; Pereira, Eliana; Barros, Lillian; Sousa, Maria João; Martins, Anabela.	openAccess Artigo	2011	bibliotecadigitalpb	<a href="http://hdl.handle.net/10198/6033">http://hdl.handle.net/10198/6033</a>

# Search by Project



RCAAP Directory

**RCAAP** | Repositório Científico de Acesso Aberto de Portugal

[Contacts](#) [Português](#)

Home ADVANCED SEARCH DIRECTORY **FUNDING** HELP

[subscribe](#) [rss feed](#) 

## Funding

Search in the following box the title, identifier, acronym or reference of the project or scholarship from Fundação para a Ciência e Tecnologia

**SEARCH** 

10825 projects or scholarships

**Presentation options**

**Sort by**  
Project/scholarship name 

**Order**  
Ascendent 

[Back to Homepage](#) [Top](#)

[About RCAAP](#) [Help](#)

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# Filter by project

Filter the list of results by project, funding stream or funder

**Funding**

Funder

Funding program

Project / scholarship ID

The screenshot shows the RCAAP (Repositório Científico de Acesso Aberto de Portugal) website. At the top, there is a logo and navigation links for 'HOME', 'PESQUISA AVANÇADA', 'DIRECTÓRIO', and 'AJUDA'. On the right, there are links for 'Contactos', 'English', and 'SUBSCRIBER RSS FEED'. The main content area displays search results for 'Mecânica', showing 12986 results. The results are filtered by 'Relevância' (Relevance) in descending order. The first result is 'Mecânica aplicada : problemas propostos' by Flores, Paulo, from 2001, originating from 'RepositórioUM - Universidade do Minho'. The second result is 'Mecânica quântica estocástica' by Neri Terezinha Both, from 1981, originating from 'OASIS br'. The third result is 'Resultado preliminar da aplicação da poda mecânica num olival da variedade Arbe...' by Dias, A.B.; Pinheiro, A.; Peça, J.O., from 2011, originating from 'Repositório Científico da Universidade de Évora'. The fourth result is 'Materiais do tipo MCM-41 preparados à temperatura ambiente: Síntese, caracteriz...' by Galacho, Cristina; Carrott, Manuela; Carrott, Peter, from 2007, originating from 'Repositório Científico da Universidade de Évora'. The fifth result is 'Estudo comparativo do desempenho de três sistemas de colheita mecânica de azeitona' by Almeida, Afonso; Peça, José; Pinheiro, Anacleto; Dias, António; Santos, Luís S.S. dos; Reynolds, Domingos; Lopes, João, from 2009, originating from 'Biblioteca Digital do IPB'. The sixth result is 'Estudo comparativo dos custos de três sistemas de colheita mecânica de azeitona' by Almeida, Afonso; Peça, José; Pinheiro, Anacleto; Dias, António; Santos, Luís S.S. dos; Reynolds, Domingos; Lopes, João, from 2004, originating from 'Biblioteca Digital do IPB'. On the right side, there is a sidebar with '12986 Resultados' and a search filter for 'Mecânica'. Below the search filter, there are sections for 'Refinar resultados' (Refine results) with filters for 'Autor' (Author), 'Data' (Date), 'Tipo de Documento' (Document Type), 'Recurso' (Resource), and 'Assunto' (Subject). The 'Autor' filter shows a list of authors with checkboxes, including 'Piloto, P.A.G. (76)', 'Fonseca, E.M.M. (75)', 'Varum, H. (70)', 'Vaz, M.A.P. (66)', and 'Lourenço, Paulo B. (56)'. The 'Data' filter shows a list of years with checkboxes, including '2012 (1562)', '2009 (1488)', '2010 (1393)', '2008 (1245)', and '2011 (1129)'. The 'Tipo de Documento' filter shows a list of document types with checkboxes, including 'Outro (5725)', 'Dissertação de Mestrado (3994)', 'Artigo (1273)', 'Documento de conferência (855)', and 'Tese de Doutoramento (552)'. There are 'Atualizar' (Update) buttons for the search and the sidebar filters.

# Resource Profile

Each resource profile indicates the compatibility with the funder requirements

 <p>REPOSITÓRIO <b>aberto</b> <b>U. PORTO</b></p> <p>Repositório Aberto da Universidade do Porto</p> <p><a href="#">37635</a>  <a href="#">Mais info.</a></p>	 <p>REPOSITÓRIO UNIVERSIDADE DE ÉVORA</p> <p>Repositório Científico da Universidade de Évora</p> <p><a href="#">9179</a>    <a href="#">Mais info.</a></p>
 <p>Instituto Politécnico de Castelo Branco</p> <p>Repositório Científico do Instituto Politécnico de Castelo Branco</p> <p><a href="#">2912</a>    <a href="#">Mais info.</a></p>	 <p><b>RECIPP</b></p> <p>REpositório Científico do Instituto Politécnico do Porto</p> <p>Repositório Científico do Instituto Politécnico do Porto</p> <p><a href="#">5756</a>    <a href="#">Mais info.</a></p>



# RCAAP Search Portal API

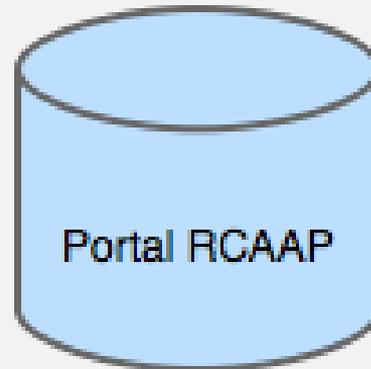
Created for a generic approach, but allows specific contexts focus on the monitoring of the FCT AO Mandate and thesis and dissertations deposit.

# Example of Request to the API

API REST with JSON e XML (CERIF-XML)

> Grant Number  
→

< Publications List  
←



# Monitoring Dashboard

Monitoring all funders (based on OpenAIRE guidelines)

Export to CSV

8500 FCT funded publications  
(3700 in June 2016)

## Estatísticas administrativas

### Filtros

Data a considerar: [data de publicação] Financiado: [Todos com financiador]  
Ano de publicação: [Todos] Programa de financiamento: [Todos]  
Tipo de documento: [Todos] Project ID: [Todos]  
País: [Todos] Política de acesso: [Todos]  
Repositório: [Todos] Idioma: [Todos]  
Abrangência do relatório: [10 anos]

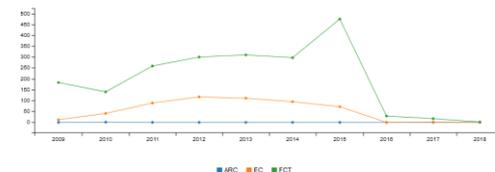
### Quadro geral

Mostrar [10] repositórios Procurar: [ ]

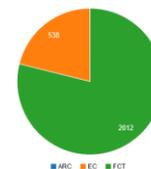
Repositório	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Desconhecido
antropologicas	-	-	-	1	-	-	1	-	-	-	0
arca	-	-	2	51	50	23	-	-	-	-	0
bibliotecadigitalab	32	54	88	115	126	99	113	-	-	-	0
inup	-	-	-	1	-	-	-	-	-	-	0
caibad	-	-	-	-	1	1	-	-	-	-	0
chad	-	1	-	4	-	-	1	-	-	-	0
chporto	-	-	-	-	1	3	-	-	-	-	0
estudogerat	-	-	3	4	1	2	-	-	-	-	0
fctual	-	1	1	6	1	2	4	1	-	-	0
fnis	-	-	-	-	1	-	-	-	-	-	0

A apresentar de 1 até 10 de 34 repositórios Anterior 1 2 3 4 Seguinte

### Novos documentos por financiador



### Total de documentos por financiador



### Exportar documentos

Todos os documentos: [ ] Descarregar como CSV  
Documentos resultantes dos filtros aplicados: [ ] Descarregar como CSV

# REPORTING AND MONITORING

# Reporting

The reporting of publications per project is done automatically (just copy/paste a link)

In the future, totally automated and integrated on the Funder applications.

# Monitoring

A methodology to analyse/compare the compliance with the mandate is being defined (based on the experience of monitoring a institutional mandate).

Several data sources available to search for publications not deposited (not compliant).

# Monitoring

## External Sources:

OpenAIRE  
Authenticus  
Crossref  
Web of Science  
Scopus



Project  
Identification

...  
Identification  
of funded  
publications

Compliance  
Analysis



Funder Database

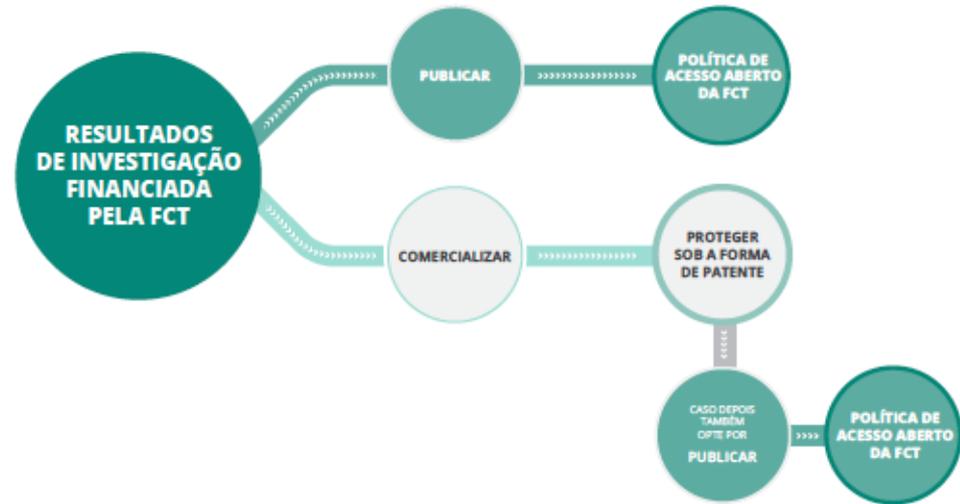


Search Portal



Research&Education  
Statistics Gov. Agency  
and Funder

# Support Activities



- Webinars
- Documentation on the websites
- Text Mining from OpenAIRE to populate IR's
- Infographics / Decision Trees
- Helpdesk

# Conclusions

With **basic updates**, and the adoption of **guidelines** it's possible to comply with the funder mandate

**Different interfaces** (human & machine) available to reach the information (user interface, oai-pmh, api)

Focus of implementation must be on the Repositories first

The update of the project/scholarship list is very important

# Conclusions

This approach allows the development of **other applications** (institutional level / funder level / national level)

The same **API can be used by different systems** (the Curriculum System uses the same API to identify the projects/scholarship, also used to monitor the legal deposit of thesis & dissertations)

# Conclusions !!

- Consider only for the purpose of individual and institutional monitoring, analysis and evaluation of research, publications whose **metadata and integral texts are deposited** in the institutional repository.
- Transform the **institutional repository into the official and unique source of information** on the scientific production of the institution



Share your views and experience

How do you monitor your policies?

What services and tools are needed/missing for policy compliance?

# Further Resources

The PASTEUR4OA project (<http://www.pasteur4oa.eu/>) provides an extensive range of briefing papers and Open Access policy guidelines.

The Toolkit for Research Funders

(<http://www.pasteur4oa.eu/resources?qt-resources=9#qt-resources>) comprises essential resources to develop and support Open Access policies

COURSE

## COURSE: Designing Successful Open Access and Open Data Policies: Introductory

Intended audience Policy makers and Funders Level: Introductory: no previous knowledge is required

This is an introductory course for funders, and comprises:

- A general introduction to terms and operation of Open Access and Open Data.
- An exposition of demonstrable advantages of Open Access and Open Data for the funder's remit.

COURSE

## COURSE: Designing Successful Open Access and Open Data Policies: Intermediate

Intended audience Policy makers and Funders Level: Intermediate: able to

The course is aimed at those with an intermediate level of knowledge, and comprises:

- A general introduction to terms and operation of Open Access and Open Data.
- An exposition of demonstrable advantages of Open Access and Open Data for the funder's remit.
- An explanation of the requirements of Horizon 2020 regarding Open Access and Open Data.
- An exposition of the PASTEUR4OA analysis of characteristics of successful policies and mandates.
- A guide to developing effective Open Data policies.
- Examples of successful policies and mandates.

COURSE

## COURSE: The Horizon 2020 Open Research Data pilot

Intended audience Project Managers, Researchers and Students, Policy makers and Funders, Librarians and Repository managers, Research Administration Level: Introductory: no previous knowledge is required

A course for researchers, research support staff and project officers.

Learn

1. Und
2. Lear
3. Ider
4. Und

COURSE

## COURSE: Pilotaż otwartych danych badawczych w programie Horyzont 2020

Intended audience Project Managers, Researchers and Students, Policy makers and Funders, Librarians and Repository managers, Research Administration, PHD Students Level: Introductory: no previous knowledge is required

Cele kursu:

1. Poznanie wymagań zawartych w Pilotażu otwartych danych badawczych w programie Horyzont 2020;
2. Przybliżenie pojęć: otwarte dane, metadane, licencjonowanie, repozytoria ;
3. Wskazanie najważniejszych materiałów informacyjnych i serwisów, które pozwolą wypełnić zobowiązania;
4. Przeprowadzenie krótkich testów sprawdzających zrozumienie informacji.



## OpenAIRE in 100 seconds

By OpenAIRE Project

[Funders policies](#) | [Open Science](#) | [Open Science Policies](#) | [Open Science Tools](#)



## OpenAIRE Guidelines

By OpenAIRE consortium

[Funders policies](#) | [Green Route](#) | [Open Science Tools](#) | [Open Services](#) | [Open Repositories](#)



## Tutorial on how to identify a funded project in the publication metadata within the repository submission workflow

By Pedro Príncipe (UMinho)

[Funders policies](#) | [Open Science Policies](#) | [Green Route](#) | [Open Repositories](#)



## Open Access and Open Science in H2020

By José Carvalho

[Funders policies](#) | [Open Science Policies](#) | [Open Access policies](#)

# Thank you

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