Open Science in Greece

Services and tools to support your research



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Elli Papadopoulou Athena Research Centre **OpenAIRE Greek NOADs coordinator**



Open Science in Greece

- **OpenAIRE support & services for researchers Open Science services and tools in Greece**



Introduction to OpenAIRE Early career researchers community

Introduction to **OpenAIRE**

•••



What is OpenAIRE?

A socio-technical network to:

- 1. Implement, monitor, align Open Science policies across Europe and the world
- 2. Harvesting of OA output, linking to contextual information
- 3. Develop global open standards for linking
- 4. Deploy services to embed Open Science ir

5. Train for Open Science, for FAIR Science



ss Europe and the world ation

OpenAIRE is about openingsharing-re-using research outcomes

Support & Services for researchers

66 have to make my research open and FAR. Where do begin? Researcher





RESOURCES







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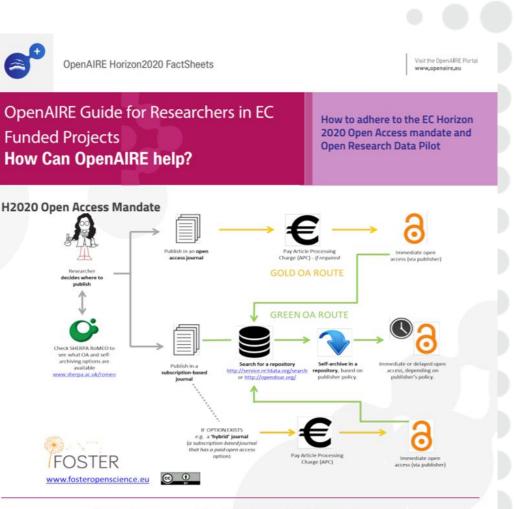
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Get informed! OpenAIRE Factsheets

- Publish in OA learn how to comply
- **Deposit** research outcomes in an institutional repository
- Create your Research Data Management Plan
- Publish FAIR data
- Link research outputs
- Publish all research outputs for free in Zenodo
- Anonymize private content research datasets in amnesia







Are you part of a Horizon 2020 project? OpenAIRE helps you to provide Open Access to your project publications

Get informed! OpenAIRE Webinars

- Legal issues learn how to re-use datasets and clear copyright issues
- Policy issues comply with the EU and national mandates
- Services learn how to use OpenAIRE and national services
- News stay up-to-date with latest developments in your country, the European Research Area and the EOSC
- Best practices learn and practice on how to follow best practices



OpenAIRE webinars for researchers: https://www.openaire.eu/category/researchers

Researchers

Tips on H2020 OA Requirements Compliance & **OpenAIRE Tools to Support Reporting**

nodov 29 April 201

Brief approach to Open Access to publications in H2020. Demonstration of the OpenAIRE discovery service: EXPLORE (https://explore.openaire.eu/), which aggregates more than 25 million publications, and enables research results to b earched for, shared and linked

t to know the Link service that assists you in the process of reporting publicat and project data with funding from the European Commission

Webinar in Portugues

Recordines: HERE Slides: HE

Webinar on Open Science and Personal Data: applying the General Data Protection Regulation in today's digital science (in Greek)

AIRE Webinar: Open Science and Personal Data: applying the General Data rotection Regulation in today's digital science

pose of the webinar is to inform Greek and Cypriot researchers on how to co ith it by adapting to behaviours for proper management of research data that are ticularly of personal or sensitive interest. The webinar aims to provide example mpliant practices in a research lifecycle as well as to give advis veryday issues that researchers are facing on this matte

OpenAIRE-GR

OpenAIRE-C)

Recordings: Hum Slides: Hum



Legal issues in Dealing with Research Data New guides for researchers and project coordinators

Friday, 29 March 20

OpenAIRE has released guides for researchers who want to know more ab legal issues related to their research data.

HELPDESK

TRAINING

SERVICES

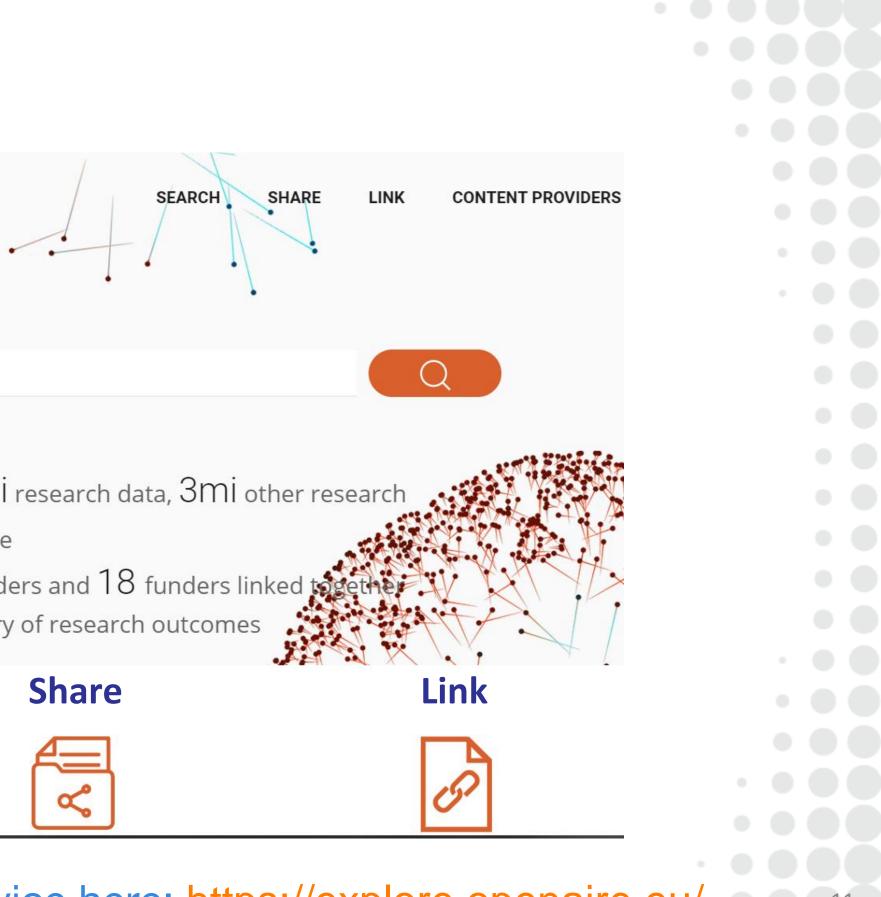


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OpenAIRE Explore





Search in OpenAIRE for scholarly works

32ml publications, 2ml research data, 3ml other research products, 105K software from 16K content providers and 18 funders linked for an integrated discovery of research outcomes

Explore





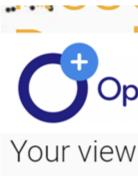
Browse the service here: https://explore.openaire.eu/

OpenAIRE Connect

Report and link your research outputs through OpenAIRE

Reporting in OpenAIRE:

- Immediately through Zenodo a.
- After few days through all other OpenAIRE compliant b. repositories -> check the OpenAIRE Explore
- Manually through the **OpenAIRE connect** С.





OpenAIRE CONNECT

Your view to open science

TOOLS



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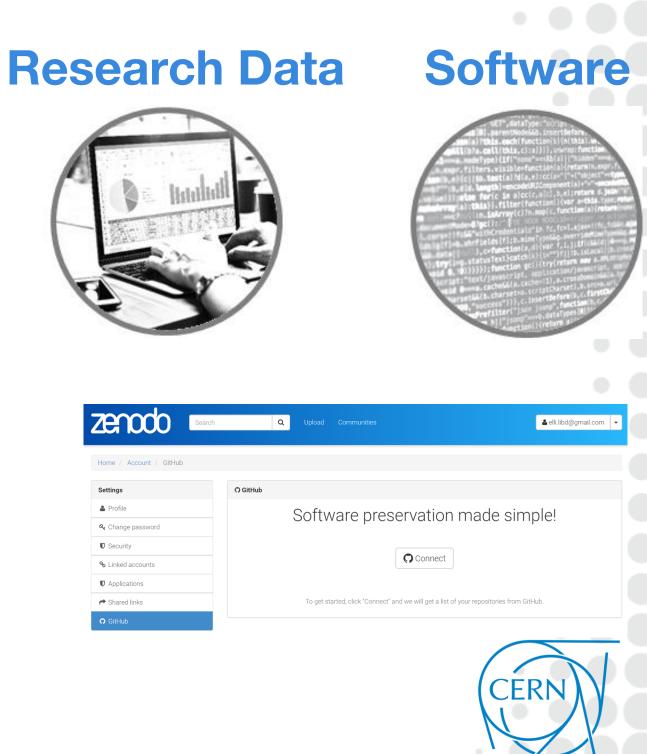
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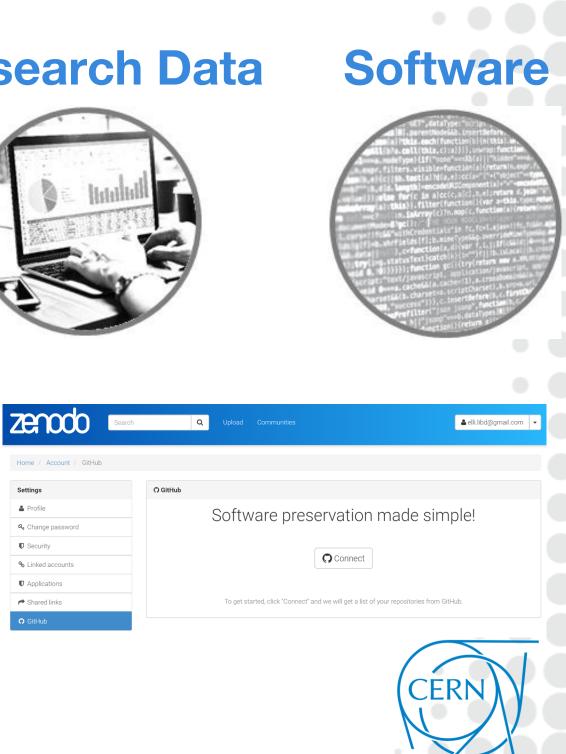
Zenodo

- Free for the long tail of science
- Up to 50 GB per upload
- Persistent identifiers (DOIs) for every upload, with DOI versioning
- Article-level metrics
- Easily add EC funding information and report via **OpenAIRE**

Publlications











Browse the repository here: https://zenodo.org/

ARGOS/ OpenDMP tool

- Create your DMPs fill in the EC Horizon2020 Dataset **Description template**
- Practice on writing DMPs
- Create your own Dataset Description template
- Machine-actionable DMPs link with other research outputs and get cited (DOIs)
- Versioning of DMPs
- Collaborate with others in writing DMPs (invite)

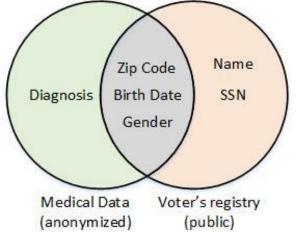


ARGOS tool (in beta): https://opendmp

ARGOS

Amnesia: making personal data shareable

- Micro data often reveal important private information, e.g., medical condition of a person ٠
 - Individuals are afraid to provide their data
 - Companies are afraid to share data with experts
 - GDPR makes a strict protection scheme obligatory
- The key idea in anonymization is that identifying information is removed from the published data, so ٠ no sensitive information can be attributed to a person – not even after data linking



The aim of anonymization methods is to allow sharing such data, without compromising the privacy • of the users.



Amnesia tool: https://amnesia.openaire.eu

amr

The NOADs network

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AUSTRIA

OLIVIA KAISER

MORE

BULGARIA

GEORGI SIMEONOV

MORE

DENMARK

ASCER VAERING.

LARSEN

MORE

CERDA MONEILL





BULGARIA PETER STANCHEV





CZECH REPUBLIC

MICHAL RUZIČKA







FINLAND

PAULI ASSINEN





KIMMO KOSKINEN

FINLAND





BELCIUM

INCE VAN

NIEUWERBURCH

MORE

MORE

DENMARK

ANNE THORST MELBYE

MORE

FRANCE

ANDRE DAZY



MORE

CYPRUS SYLVIA KOUKOUNIDOU



ANNA SICRIEUR CUENADOTTIR MORE

ICELAND

























TURKEY

CULTERIN CURDAL

MORE

MORE

NORWAY

JENS AASHEIM















MORE



BELGIUM EMILIE HERMANS

GERMANY JESSICA REX

MORE

GREECE

ELLI PAPADOPOULOU

MORE

IRELAND.

NIAMH BRENNAN

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CYDNCVI KARACSONY

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ANJA OBERLAENDER

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MALTA

KEVIN ELLUL

MARTA HOFFMAN-

SOMMER

MORE

PORTUGAL PEDRO PRINCIPE

MORE



SLOVAKIA: SILVIA HORAKOVA

SLOVENIA. MOJCA KOTAR

ROMANIA

MIHAELA CUCU

MORE



ROMANIA

IDANA SPANACHE

MORE

SPAIN

PILAR RICO CASTRO

34 National Open Access Desks -**NOADs**



UNITED KINDOM FRANK MANISTA



18

OUTREACH Project Coordinators Researchers National Funders Administrators



PROMOTION Open Science Open Access FAIR Research Data OpenAIRE Services



https://www.openaire.eu/what-is-the-openaire-network-noads

NOADS



ALIGNMENT Infrastructure Repositories Policies

National Workshops



SUPPORT Workshops Training Facilitators NOADs network:

Open Science services & tools in Greece

66 Does Greece follow **Open Science** practices? Where can I get support for my research?

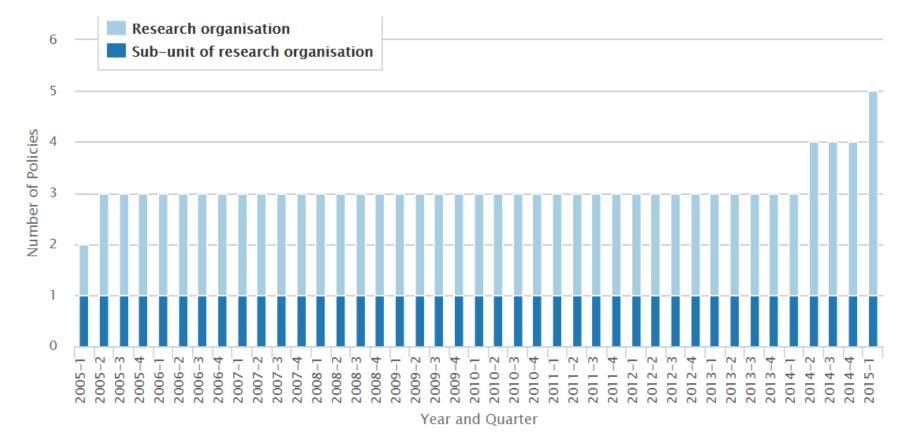






Researcher

Compliance with policies



ACMAC - Archimedes Center for Modeling, Analysis & Computation

International Hellenic University

Panteion University School of Political Sciences

Technical University of Crete

I Iniversity of Patras



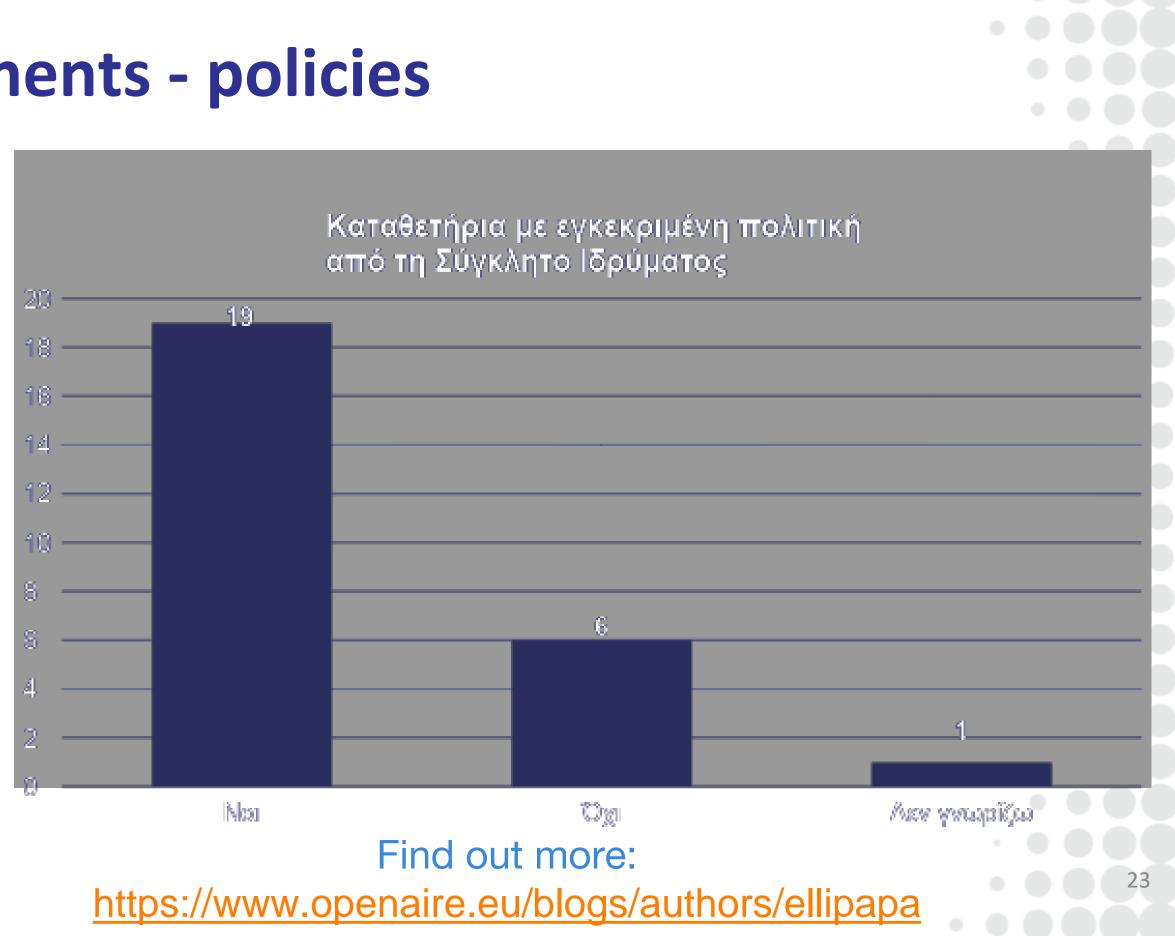
5 Institutions have a formal Policy according to ROARMAP

Highcharts.com

Latest developments - policies

- National Level
 - bottom-up Open Science Task Force
- Institutional Level

model Open Science policy for Universities and Research Centers



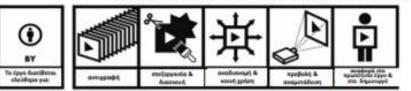


Resources -Open

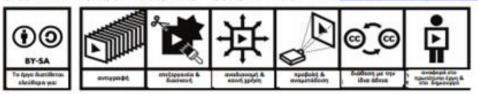
Σύντομος Οδηγός για τις Άδειες Creative Commons

Commons

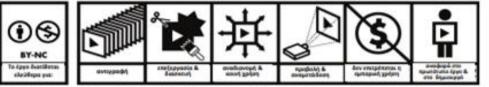
Οι άδειας Creative Commons λειτουργούν με τα νομοιό όρα " Υπό την επιφύλοξη κάποιων δικοιωμέτων" (Some rights mierved) αντί του "Υπό την επιφύλαξη άλων των δικοιωμότων" (All rights mierved). Οι CC προσφέρουν ένα σύνολο ποικίλων αδιών χρήσης με ελευθερίες και περιορισμούς. Αυτό επιτρέπει στο δημιουργό να ορίπει τους κανόνες με τους οποίους επιθυμεί να μπραστεί τ μεσωργίες του με τοις άλλους. Τουτόκρονο, οι πρήστις κερδίζουν περισσότερα δικοιώμετα συστικά με τη κρήση των έρ



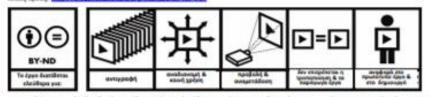
ίται να κάνουν αναφορά σε εικός ως τον δημουργό του πρωτοτύπου. Είναι μια από τις πια εξυπηρετικές άδειες που για, ακάμη και με εμπορική χρήση, με την πρού ο της διάκμητε και της καλητς του αδειοδ



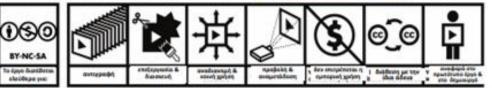
αρορά Δεμουργού - Παρόμαια Διανομή 4.0 - Αιτή η όδεια επιτρίπει ατανς άλλους να κάνουν διασκουές, να τροπαποιούν και να δημουργούν παράγωγα το ες έργα, με την προϋπύθεση να κάνουν αναφορά σε εσάς ως δημουργό και να διαθύτουν τα νέα τους δημουργήματα με τους ίδιους σκαθώς όρους. Αυτή η άδεια α με τις ελεύθερες άδειες και τις όδειες λαγισμικού ανοιστού κώδικα -copyleft-. Όλα τα νία έργα που θα δαοίζανται στα διεό σας θα έχουν τους ος της αρχικής άδειας, επομένως στα παρέγωνα θα επιτρέπεται η εμπαρική χρήση. Αυτή η άδεια χρησιμοποιείται από τη Wikipedia και συνιστόται για το είδη που του άπως γίνεται στη Wikipedia και σε παρόμοια αδιιοδοτημένα έργα. http://



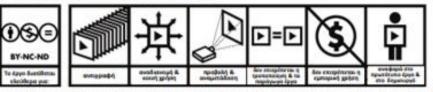
εμπορικά, δεν οφείλουν να τα αδειοδοτούν με του



ιναφαρά δημουργού - Όκι Παράγωγα Έργο 4.0 - Αυτή η όδωα επιτρέπει την αναδιανομή, με εμπορική και μη εμπορική κρήση… με την κ επάς ως δημιουργό και το έργο σας να πο αμείνει αμετάδλητα στο σύνολό του. Μ



καρά σε εσάς και ναι διαθέτουν τα νέα τους δημεουργήματα με τους ίδιους



ού - Μη Εμπορική Χρήση - Όκι Παράγωγα Έργα 4.0 - Αυτή η όδωα είναι η του περιο απική από τις 6 κύρες άδειες, επιτρέποντας σταις άλλαυς ν οη στο έργο σας και να το μοιράζονται με άλλους εφάσον κάνουν αναφορά σε εσάς, ωστάσα δεν μπορούν να το αλλάζουν με κανένα τρέπο ούτε νε το

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ι <u>Αδεια Πολωνιας.</u> ος Οδηγός για τις όδειες Creative Commons δημουργήθηκε από το Hational Copyright Unit, COAG Education Council της Ausrpolviaς και διατίδεται με τ







√HEAL-Legal (https://legal.heal-link.gr/) Supports IPR and use of attribution licenses **V**Library Websites **√Self-archiving Guides** per repository

Latest Developments - enrichment of libraries with translated **OpenAIRE** material

Resources -**FAIR**

TOP 10 FAIR DATA & SOFTWARE THINGS

Nanotechnology

Description:

This brief guide is based on FAIR principles (findability, accessibility, interopera_bility, reusability) and describes data management in the field of nanotechnology. It consists of ten steps/chapters with information on data discovery and publication, practices and resources as well as activity ideas.

Audience:

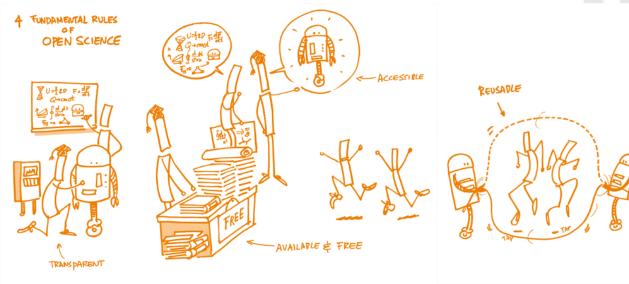
It is addressed to nanotechnology students, researchers, librarians and research support staff.

Acknowledgments:

OpenAIRE Research Data Management Task Force

Things Thing 1 - Nanotechnology: overview and current

FOSTER Open Science Training Handbook in Greek







Nanotechnology Guide: https://librarycarpentry.org/Top-10-FAIR/2019/09/09/nanotechnology//

Latest Developments - enrichment of libraries with translated **OpenAIRE** material

Access to scientific journals

- **HEAL-Link electronic resources**
- $\sqrt{53}$ Institutions-members
- $\sqrt{11.700}$ scientific journals (through subscriptions)
- $\sqrt{11.000}$ Open Access publishing journals
- $\sqrt{90.000}$ electronic books (through contracts)
- $\sqrt{14.200}$ Open Access books
- $\sqrt{2}$ online dictionaries
- $\sqrt{1}$ bibliograpic datasets
 - More than 7.700.000 downloads in 2017



HEAL-Link website: https://www.heal-link.gr/en/home-2



Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών



e-publishing platform

Services - publications repositories

- 36 repositories and digital libraries in <u>openDOAR</u>
- 6 repositories that are OpenAIRE compliant:
 - e-publishing journals (Εθνικό Κέντρο Τεκμηρίωσης)
 - Διώνη & Ευρωπαϊκά Κέντρα Τεκμηρίωσης (Πανεπιστήμιο Πειραιώς)
 - Νημερτής (Πανεπιστήμιο Πατρών)
 - Ήλιος (Εθνικό Ίδρυμα Ερευνών)
 - Προθήκη (Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης)
- 1 national repository for PhDs– $EA\Delta\Delta$

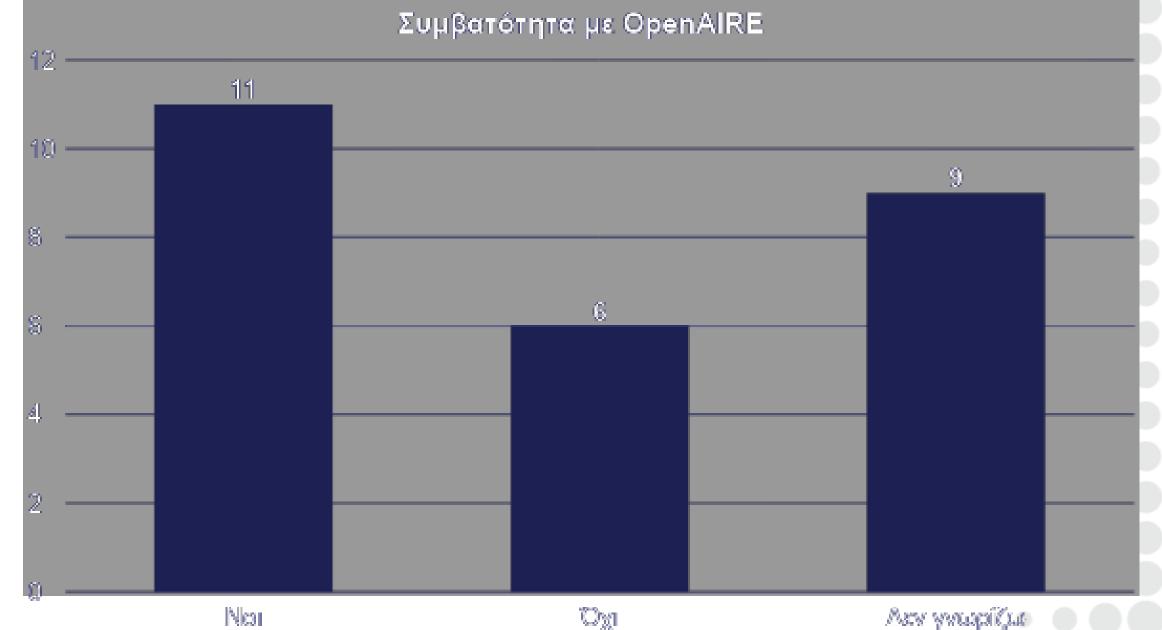




Latest developments - repositories

Institutional Level

- more repositories in the process of becoming **OpenAIRE** compliant
- 8 data repositories in development -**OpenAIRE compliant by** default



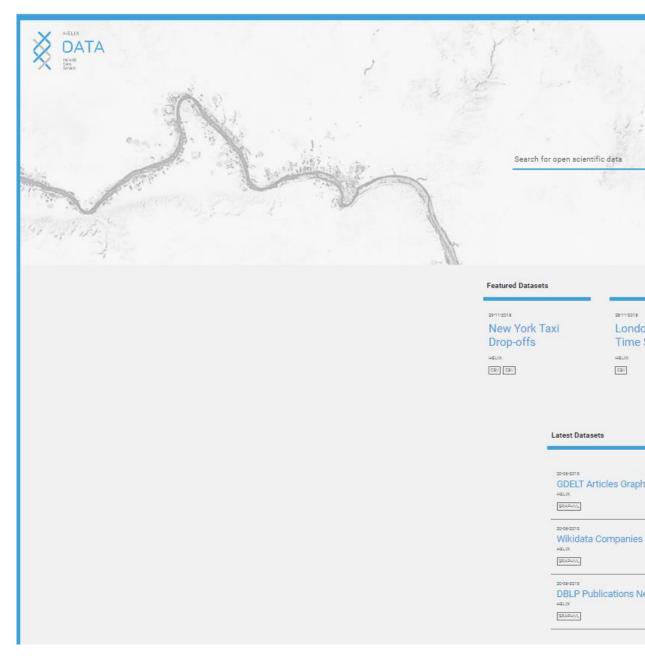


Services - data repositories



- Find data(sets)
- **Deposit** data(sets)
- Re-use data(sets)
- Cite your data(set)
- Link with publications and **OpenAIRE**





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Shower Water and **Energy Use Time** Series

CS/ CS/

10-2018

Electricity Demand and Price Time Series

CS/

Wikidata Companies Graph

DBLP Publications Network

Services - data management

- Analyse datasets (use of VMs, HPC)
- Learn Jupyter
- Use and deposit Jupyter Notebooks
- Use HELIX Lab in class



browser

infrastructures within your browse

Notebook Repository

Find interesting notebooks created an shared by others, copy them in your own space, and use them anyway you want. Also, why don't you also share your work with others?





Search for Notebooks

ADVANCED SEARCH

A Data Science Laboratory in your

Create and share notebooks with live interactive code and visualizations over scientific data and large-scale computing

Learn Jupyter

Whether you are a novice, or an expert notebook user, start here. We have assembled a collection of educational resources, guidas, exemples and onlin courses to help you start using Jupyte

What is HELIX Lab?

It's your own private data infrastructure Its your own private bate innear uctu for learning, sharing, and building with data. You can bring your own data or use our open scientific data, interactively code in your language of choice, experiment over dedicated Bij Data clusters or our HPC, and share your work with others.

The JupyterLab Interface

unvterLeb provides flexible building blocks for interactive, exploratory computing. While JupyterLab has many features found in traditional ntegrated development environm IDEs), it remains focused on nteractive, exploratory computing

Academic Support

Integrate Lab in your official undergraduate, postgraduate or seminar curricula. Organiza course: with your own data, exercises, and ests. Your students can learn abou statistics, data management, and machine learning. No infrastructure, installation, or setup costs!

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Featured notebooks

A curated collection of Jugyter/Python notabooks that are notable. This list contains many notabooks in fields like Statistics, Machine Learning and Data Science Mathematics, Physics, Chemistry, Biology and many others.

Training and awareness raising

- OpenAIRE Greek NOADs dedicated webinar series in collaboration with the Cypriot NOAD and OpenAIRE services for repository services and funders audience: all stakeholders
- <u>ELIXIR-GR</u> dedicated training programme for researchers in the Life Sciences
- Apollonis Summer School for the Digital Hu
- OpenAIRE invested in a training programme librarians to acquire essential data skills
- **European Researchers Night 2019**



Mark your calendars! Next webinar: 24 October at 11.00 EEST

Early Career Researchers Community

RDA Early Career Engagement IG

What is it?

Interest Group focusing on Early Career Researchers and Professionals as well as newcomers to RDA

-> Safe place to ask questions, practice skills, promote research and network across domains Why?

ECRs usually need additional support for:

•networking amongst themselves to learn about other Early Career scientists and their research, i.e., establishing a "network of peers", and

•mentoring from senior RDA members who are interested in mentoring Early Career Researchers and

Professionals.

Objectives

•Create communication channels between ECRs and more experienced researchers ->

Mentoring programme

https://github.com/fpsom/rda-eceig/blob/master/mentoring-guidelines.md



RDA Early C

r	eer E	ngagei	ment IG	
	Name	Institution	Expertise	
Ρ	Peter McQuilton	Oxford e-Research Centre	BioSharing Registry: connecting data policies, standards & databases in life sciences WG	
	Jörg Geiger	University of Wuerzburg	Biobank, Standardization, Terminology, Metrology, Privacy, Ethics	
	Ruth Duerr		Preservation e-Infrastructure IG	
	Lynn Yarmey	Research Data Alliance	Data curation, landscape overview and analysis, community development	
	Sarah Jones	Digital Curation Centre	DMPs, research data managment, open science, archives, data sharing, FAIR data	
S	Sünje Dallmeier- Tiessen	CERN	reproducible research, PID, repositories, data curation	
ł	Raman Ganguly	University of Vienna	Long tail of research data IG	
	Marta Teperek	TU Delft	data stewardship, open science, data management, data sharing, open data, data privacy, repositories, FAIR Data	
			FAIR Data	



Join Us!

 Check minutes from our monthly Ask-Me-Anything (AMA) Calls:

https://github.com/fpsom/rda-<u>eceig</u>





Subscribe to learn more and join the community! https://www.rdalliance.org/groups/early-career-andengagement-ig







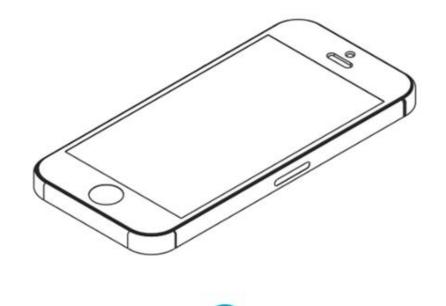
Twitter: @rdaeceig

Questions?

GA OpenAIRE2020 Jan 2018

Discussion

Go to www.menti.com and use the code 33 49 19

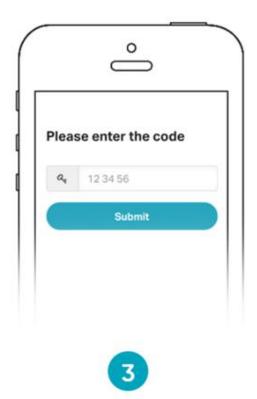


Grab your phone

www.menti.com







Enter the code 33 49 19 and vote!

Thank you!

- www.openaire.eu
 - @openaire_eu
- facebook.com/groups/openaire
- in linkedin.com/groups/OpenAIRE-3893548



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@elli_lib