

Spiros Athanasiou IMSI/Athena RC

Motivation

Converging Policy landscape

- Data Economy a strategic priority for EU's sustainable future growth integrating policy, technology, and innovation actions
- **Public Sector Information** open up and create value from public-sector and publicly-funded Data (open data, INSPIRE, H2020, OGP, ...)
- Industrial Data Platforms emerging organization & technical instrument to facilitate data sharing and valorization within EU industrial value chains
- Research
 - Open Access de jure policy for sharing EU-funded scientific output
 - Data Management Plans formalize data handling on project/organization-level
 - FAIR data de facto international policy for scientific data



Motivation

The Big Picture

Economic growth, scientific progress, and societal prosperity are about searching, sharing, using, experimenting, building, and valorizing

(*frictionless)

Data





HELIX

Hellenic Data Service

- Scientific eInfrastructure for data-intensive research
 - Supports the full lifecycle of scientific data management, processing, sharing, and reuse
 - Inherently scalable, cloud-based
 - Nation-wide, horizontal, cross-domain
 - Low-cost, economies of scale, network effects, maximize ROI
 - Multiple roles: Open Access, FAIR Data, Public Data, Industrial Data Platform

Data first



HELIX

The 3 pillars of HELIX

Publications

- Nation-wide, cross-domain discovery of publications
- Adapt and localize OA OpenAIRE CRIS services

Data

- Data catalogue and repository for FAIR scientific and industrial data
- Discover, collect, evaluate, download, and use

Labs

 Generic-purpose and domain-specific services and APIs for data analysis, processing, and experimentation

Data alone is not enough



HELIX

Target groups

- Scientists: data sharing, OA publishing, data experimentation
 - All scientific fields, including citizen scientists
- Organizations: institution-wide services augmenting, exposing, or replacing existing publication
 & data catalogues/repositories
 - Academia, Research, Public Administrations (PSI), special-interest groups
- Scientific Infrastructures: building block; scalable data processing services for very large, heterogeneous scientific data
- Industry & innovators: value-added services; ad hoc analysis services
 - Industrial Data Platform: low-cost data processing infrastructures; Data Science as a Service, training data for ML



HELIX Architecture

Three pillars

hellenicdataservice.gr || helix.gov.gr



HELIX

Hellenic Data Service



pubs.hellenicdataservice.gr



HELIX

Hellenic Data Service

data.hellenicdataservice.gr



HELIX

LAB

Hellenic
Data
Service

lab.hellenicdataservice.gr









ADVANCED SEARCH



Latest news



24 Anp 2018

Helix data principles: how well known or understood are they?

Explore the issues around health data. Learning activities specifically for people working with medi... Read more



24 Amp 2018

Helix, Nectar and RDS partnership

Aligning research infrastructure Hellix is partnering with Nectar and RDS to deliver transformation in the research sector. Read more

About Helix

Research for Data

Find, access, and reuse data from Australian research organisations, agencies and institutions via Hellix flagship service.

Find research data

Our partners

Helix collaborates with universities and other research institutions to enhance the value of data and enable new discoveries.

Who we work with

The project

Hellix-Nectar-RDS News is a great source of news, events and data jobs - sent direct to your inbox every fortnight. Sign up now to get the next edition.

Don't miss out!

Συνεργάτες

Deliverables

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Don't miss out!



About

Έρευνα

Data Publications

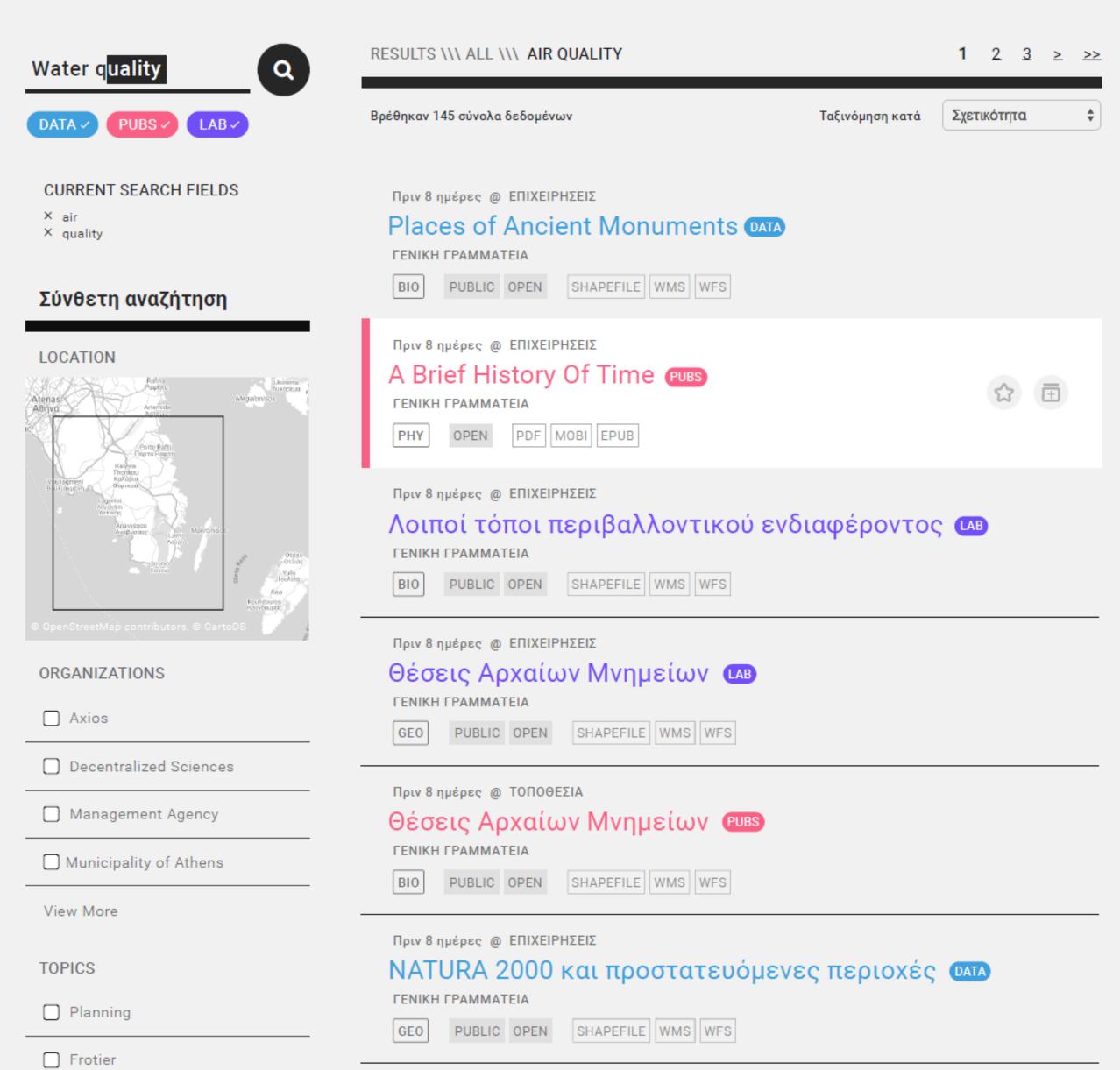
Οργανισμοί



















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http://mariaathena.com

Joined on Jan 6, 2019

116

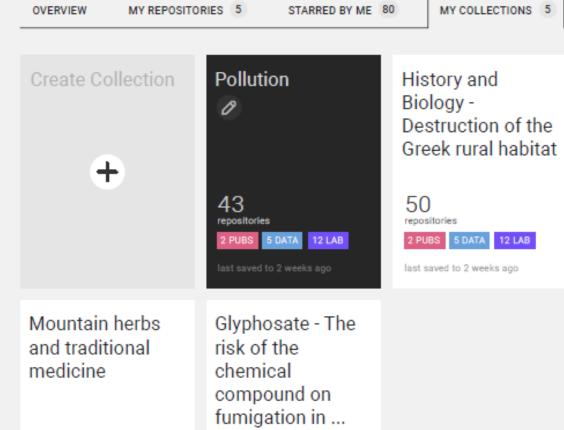
276 Starred Following

29

2 repositories

2 PUBS 5 DATA

last saved to 2 weeks ago



143 repositories

2 PUBS 5 DATA 120 LAB

last saved to 2 weeks ago

EDIT PROFILE



About

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Data

Publications

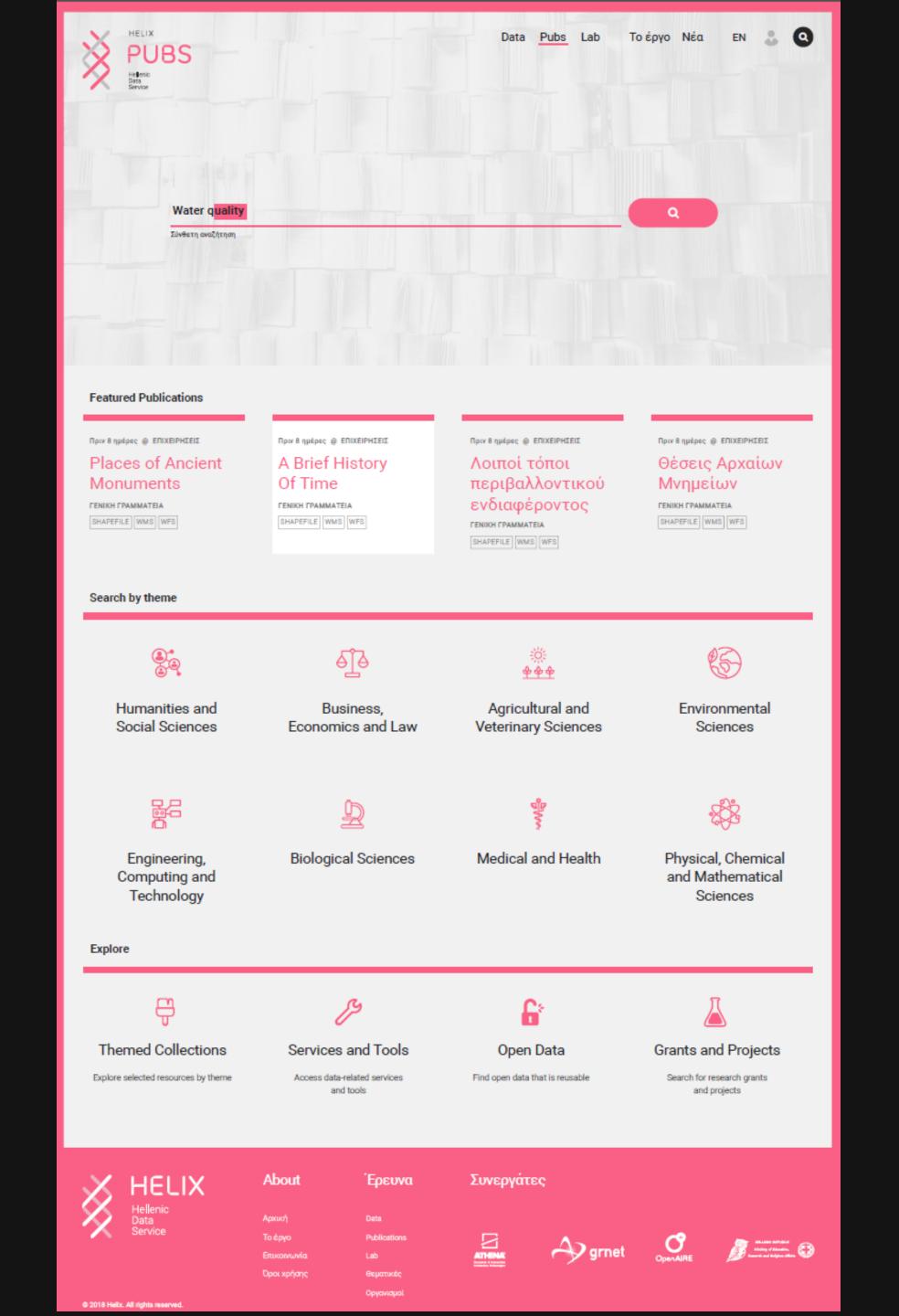
Οργανισμοί





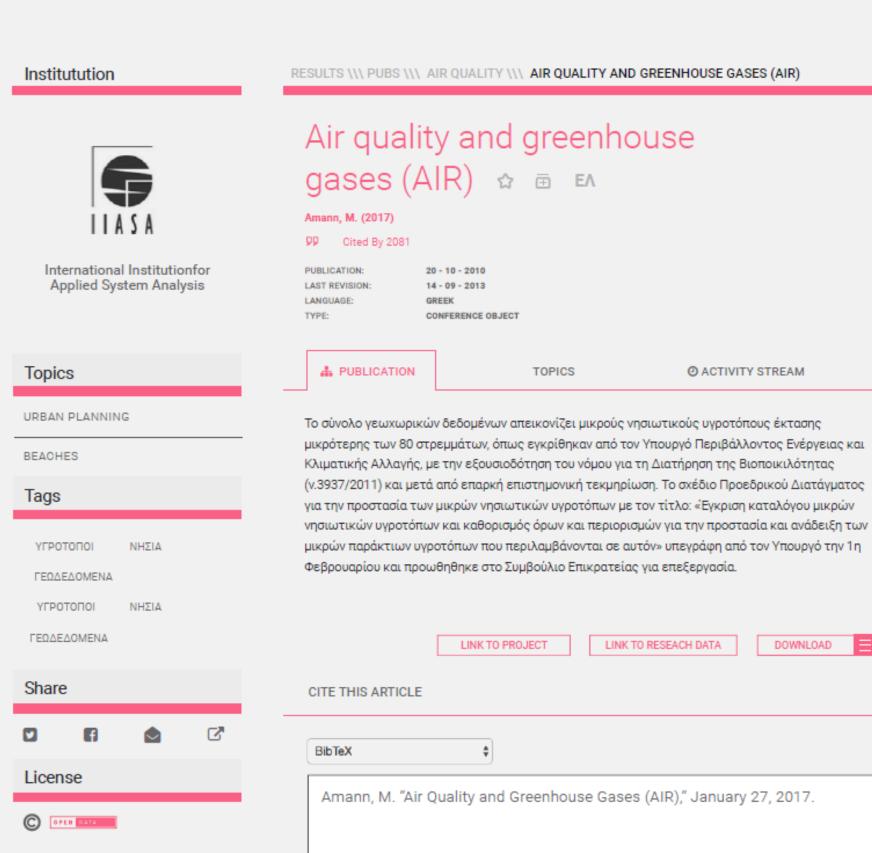
Συνεργάτες

Discover and share open scientific publications











Έρευνα

Συνεργάτες

Όροι χρήσης

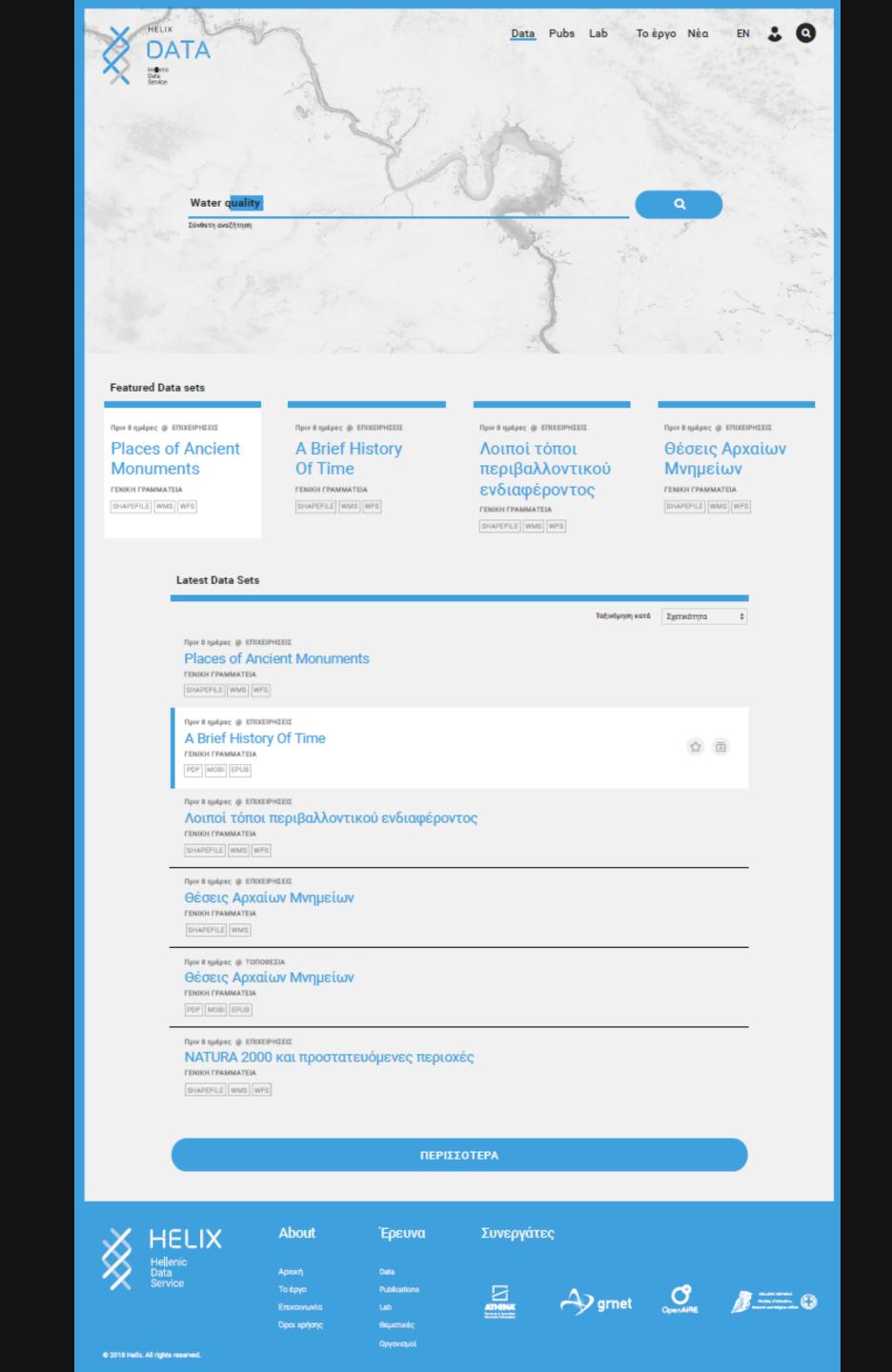








Find, view, and use open scientific data



Data Pubs Lab

Το έργο Νέα





Ministry of Environment, Energy and Climate Change

Topics

Institution

URBAN PLANNING

BEACHES

Tags

УГРОТОПОІ ΝΗΣΙΑ ΓΕΩΔΕΔΟΜΕΝΑ **УГРОТОПОІ** NΗΣΙΑ

License



ΓΕΩΔΕΔΟΜΕΝΑ

RESULTS \\\ DATA \\\ AIR QUALITY \\\ AIR QUALITY IN ATTIKI URBAN AREA

Air Quality In Attiki Urban Area 😘 🗉 🗛

PUBLICATION: LAST REVISION: 20 - 10 - 2010 14 - 09 - 2013

TOPICS

♣ DATA

O ACTIVITY STREAM

DEVELOPERS

Το σύνολο γεωχωρικών δεδομένων απεικονίζει μικρούς νησιωτικούς υγροτόπους έκτασης μικρότερης των 80 στρεμμάτων, όπως εγκρίθηκαν από τον Υπουργό Περιβάλλοντος Ενέργειας και Κλιματικής Αλλαγής, με την εξουσιοδότηση του νόμου για τη Διατήρηση της Βιοποικιλότητας (ν.3937/2011) και μετά από επαρκή επιστημονική τεκμηρίωση. Το σχέδιο Προεδρικού Διατάγματος για την προστασία των μικρών νησιωτικών υγροτόπων με τον τίτλο: «Έγκριση καταλόγου μικρών νησιωτικών υγροτόπων και καθορισμός όρων και περιορισμών για την προστασία και ανάδειξη των μικρών παράκτιων υγροτόπων που περιλαμβάνονται σε αυτόν» υπεγράφη από τον Υπουργό την 1η Φεβρουαρίου και προωθηθηκε στο Συμβούλιο Επικρατείας για επεξεργασία.

DATA AND RESOURCES

	Text file Description of the file	MAP	DOWNLOAD
CSV	CSV Description of the file		DOWNLOAD
XLSX	XLSX Description of the file		DOWNLOAD
/>	Web page Description of the file		DOWNLOAD

METADATA

DOWNLOAD

ΕΠΙΚΟΙΝΩΝΙΑ	ΟΡΓΑΝΙΣΜΟΣ	Υπουργείο Περιβάλλοντος Ενέργειας και Κλιματικής Αλλαγής			
	EMAIL	info@geodata.gov.gr			
ΑΠΟΣΠΑΣΜΑ	Κάλυψη γης για την Ελλάδα και το έτος 2000, σύμφωνα με τα παραδοτέα του προγράμματος CORINE της Ευρωπαικής Ένωσης				
ΓΛΩΣΣΕΣ ΠΟΡΩΝ	gre, eng				
	TITLE	Title text			
CONFORMITY	DATE	dd/mm/yyyy			
CONFORMITY	DATE TYPE	dd/mm/yyyy			
	DEGREE	1st			
SHOW MORE					



Learn, experiment, and build with data



Βρείτε δεδομένα συμβατά με Jupyter

Πηγές από 100+ κυβερνητικές υπηρεσίες και ερευνητικά ιδρύματα

Interactive coding in your browser

Free, in the cloud, powered by Jupyter



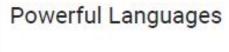
Introduction to Python

Learn the basics of Python 3 in Azure Notebooks. Learn Python syntax, standard data types, as well as how to write a simple pro-



Introduction to R

Get a brief introduction to charting and graphing capabilities of R in the Jupyter Notebook. You will learn how to make line charts, pie charts and scatter plots.



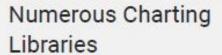
Azure Notebooks provides execution environments for Python 2, Python 3, F#, and R.

Use the languages of Data Science



Introduction to F#

Get a brief introduction to using F# in the Jupyter Notebook.



Quickly visualize your data and results using plotting libraries such as ggplot, matplotlib, bokeh, and seaborn.

Inline Graphs



Introduction to Python 3

Learn the basics of Python 3 in Azure Notebooks. Learn Python syntax, standard data types, as well as how to write a simple program.



About

Αρχική

Το έργο

Επικοινωνία

Όροι χρήσης

Έρευνα

Data Publications

θεματικές Οργανισμοί

















USER \\\ MY FILES

Q C	+ 1 UPLOAD			SERVERS
	File Name	File Type	File Size	File Size
•	Folder Name 1	Folder	10 bytes	1 hour ago
•	Folder Name 2	Folder	10 bytes	1 hour ago
•	Folder Name 3	Folder	10 bytes	1 hour ago
	File Name 1	Folder	10 bytes	1 hour ago
	File Name 2	Folder	10 bytes	1 hour ago
	File Name 3	Folder	10 bytes	1 hour ago
T T	File Name 4	Folder	10 bytes	1 hour ago



About

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Θεματικές







Data

Technical (and financial) Debt - 1/2

Multiple design, development and operations decisions dictated by the available seed funding (Phase 1)

- Publication aggregation directly from OpenAIRE; no need to reinvent the wheel
- Harvesting from **any** existing **de facto** and **de jure catalogue** service (extensible harvesting framework); We do not ask from anyone to **adapt to us**
- Standardized **metadata schema** for data (DataCite-based), but we acknowledge and embrace the heterogeneity not **throwing away** anything
 - Automatic transformations from any existing available schemata (XSLT-based) via an extensible framework (constantly expanded)
 - Original metadata schema (if available) maintained and leveraged (search, recommendations, domain-specific services)



EOSC Core and HELIX

Technical (and financial) Debt - 2/2

- No **enforced data schemas**, but **specific** data schemas (domain specific) are treated as **first-class** citizens (e.g., automated metadata, visualization, availability in value-added services); incentivize the owner to **standardize** (increase value & visibility)
- Catalogue & repository **packaged** and **available** for institutional & thematic repositories with out-of-the-box **federation** with HELIX (turn-key solution); also **white-labelled**
 - One-click harvesting, DOI provision, ...
- Published data available in Jupyter Lab with notebooks treated as first-class citizens
- AAI based on national institutional federation (plus ORCID, Google, GitHub, ..)



EOSC Core and HELIX

Lower the entry barrier

- Why we joined this effort
 - We want to make our data and services discoverable across EU to serve our own users (increase the value and reach of their output)
 - But we do not aim to **expand** our user base outside Greece; not our **ambition** or something we can **support given our targeting and resources**
 - We want to see EOSC lowering the effort and entry barrier for national RIs; cost-benefit improves if effort remains low
- Our approach for EOSC Core:
 - AAI: yes, EIF: simplify ('come as you are', why not?), RoP/onboarding: make it simpler and faster, Monitoring: limited use/applicability, Accounting: definitely no (immature), Order Management: No, Helpdesk: maybe

