

DABAR - Data Friendly National Repository Infrastructure

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Conference presentation / Izlaganje na skupu

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Sveučilišni računski centar

Repository / Repozitorij:

[Digital repository of the University Computing
Centre \(SRCE\)](#)





DABAR – Data Friendly National Repository Infrastructure

Draženko Celjak, SRCE – University of Zagreb, University Computing Centre

5th Croatian ICARUS Days & ICARUS Convention #23

Pula, 27 March 2019

SRCE – University of Zagreb, University Computing Centre

- main computing centre and the architect of the e-infrastructure
- covering both the University of Zagreb and the whole research and high education system



Croatian research and high education system?

214 institutions:

- 119 higher education institutions
- 25 public scientific institutes
- 70 other legal entities that registered scientific activity (National and University Library, Croatian Academy of Sciences and Arts, hospitals, archives...)

Source: Agency for science and higher education (AZVO)



The project DABAR

June 2014

3 main goals:

- National infrastructure for digital repositories
 - scalable, interoperable, sustainable, flexible and suited for long term preservation
- Community
 - information needs, application profiles, controlled vocabularies, education and user support
- Promotion of OA

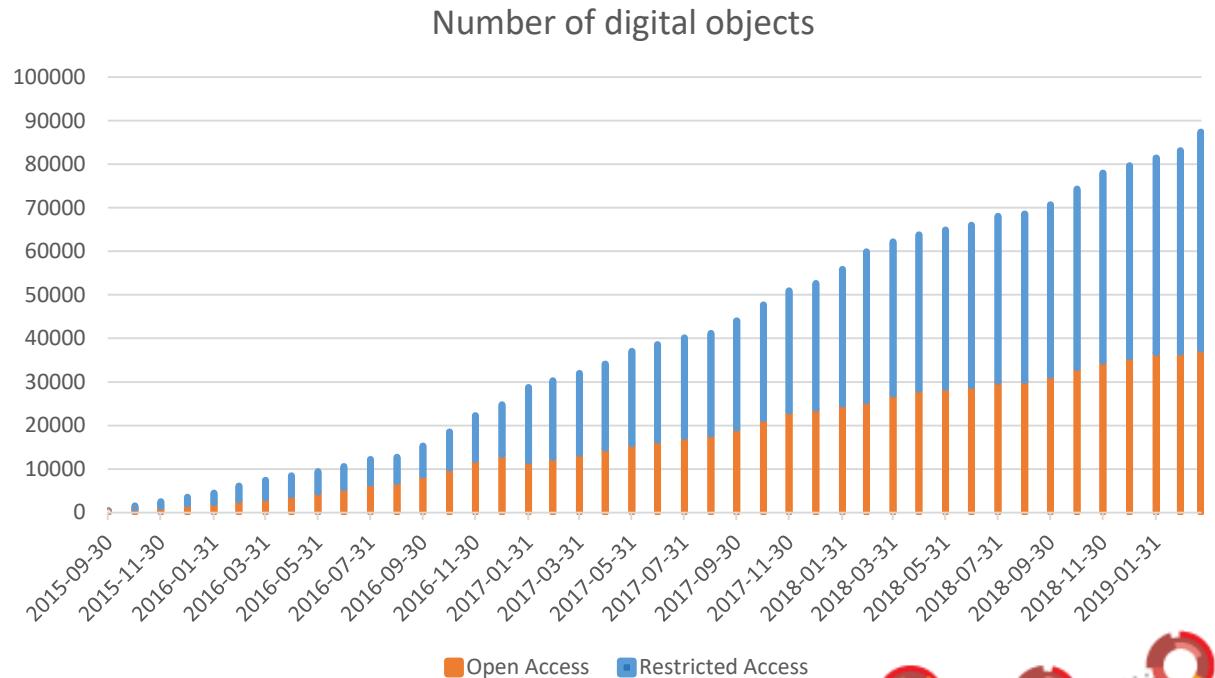


DABAR – Digital Academic Archives and Repositories

August 2015 - production

March 2019:

- 127 digital repositories
 - 10 universities
 - 2 national repositories
- 87.000+ digital objects
- 37.400+ OA

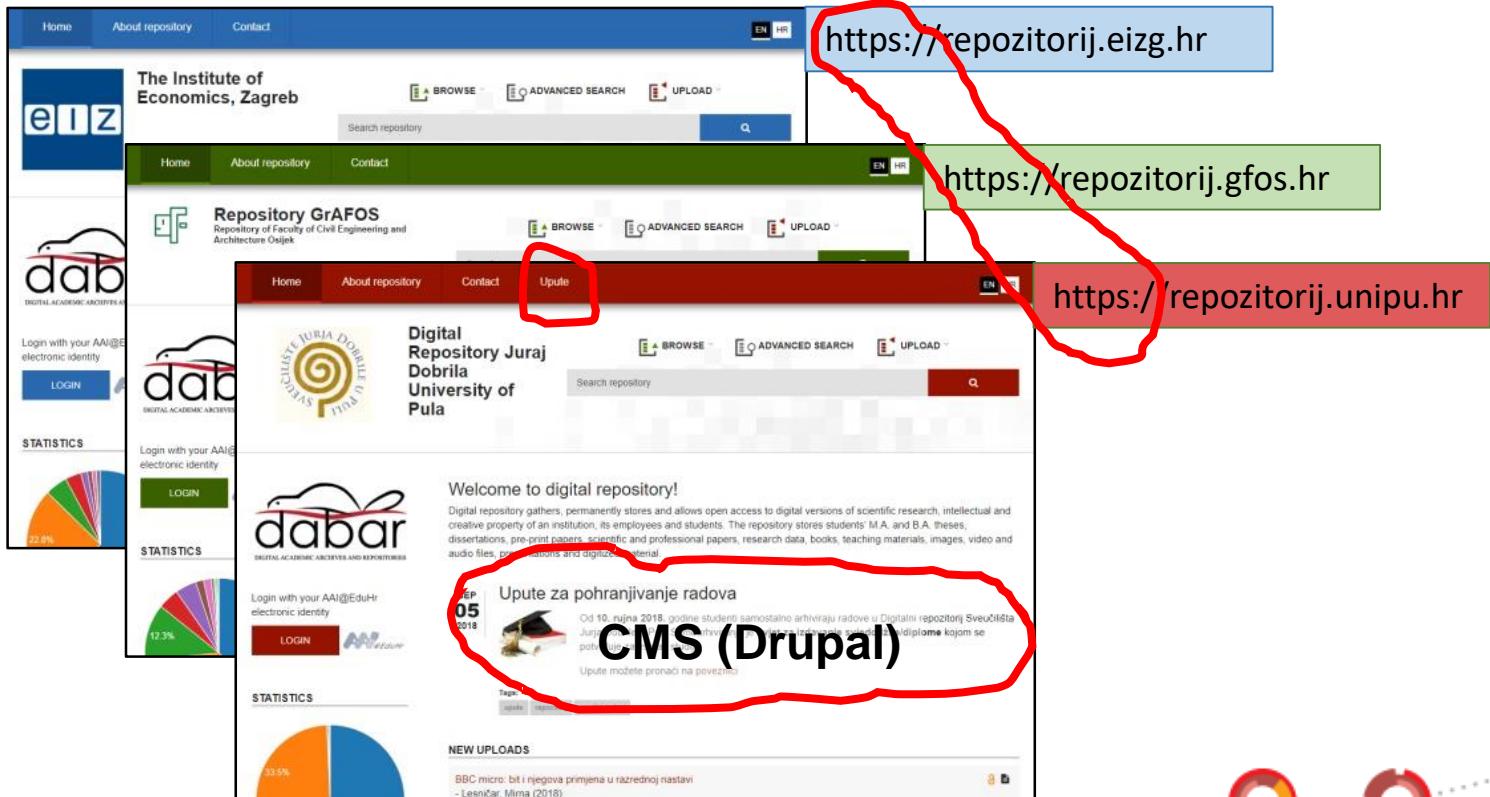


13 digital objects (nationally agreed)

- Journal articles
 - Papers published in proceedings
 - Books
 - Book chapters
 - Conference abstracts and presentations
 - Theses
 - Artistic theses
 - Dissertations
 - Appendices
 - Photographs
 - Audio objects
 - Audiovisual objects
 - Research data (datasets)

The screenshot shows a dual-view interface of the Dabir digital repository. The left side displays a scientific paper titled "Centrality dependence of the pseudorapidity density distribution for charged particles in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV" by Adam, J., Antočić, Tome, Erhardt, Filip, Gotovac, Sven, Jerčić, Marko, Lončar, P., Mudrić, Eugen, Planinić, Mirko, Pojat, Nikola, Simatović, Goran, Urobić, Antonija, Vicković, Linda, Žmeskal, J. (2017). It includes a download button for the PDF (8.9 MB), social sharing icons, and a citation link (<https://urn.nsk.hr/urn:nbn:hr:217.393315>). The right side displays a master's thesis titled "Centrality dependence of the pseudorapidity density distribution" by Liočić, Gjorja, featuring a grid of 12 thumbnail images representing video objects. The bottom of the screen features decorative circular icons and a navigation arrow.

Repositories...

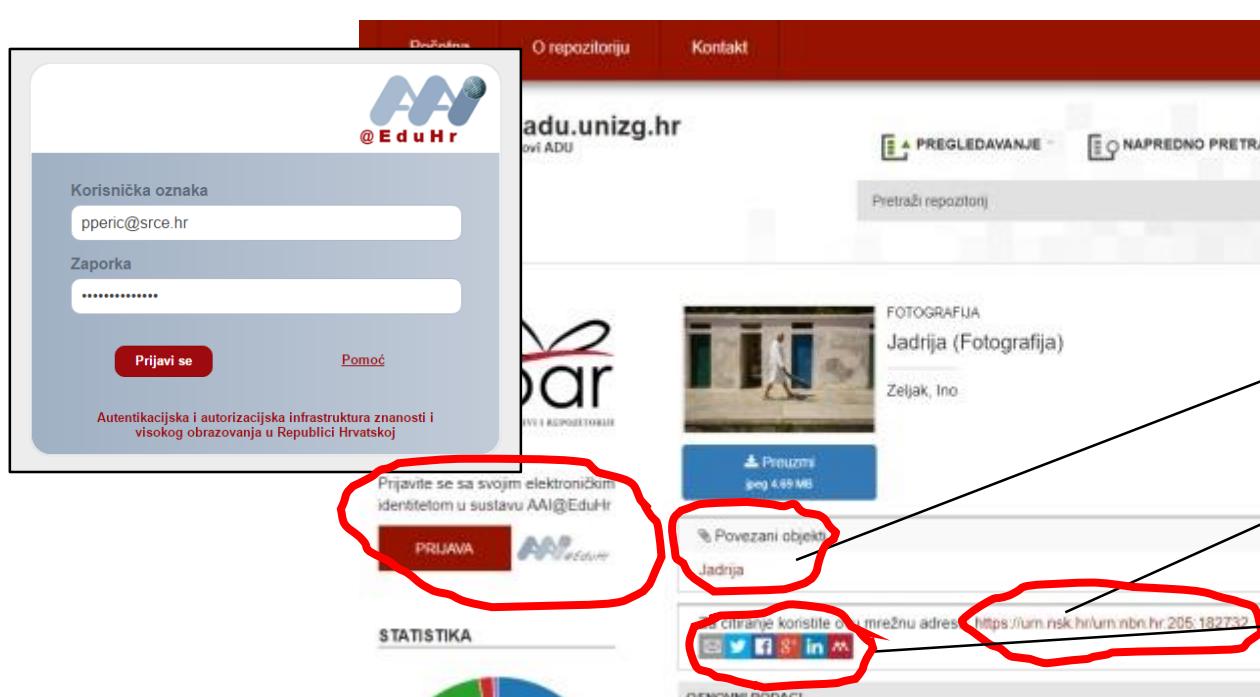


The screenshot displays four digital repository websites arranged vertically:

- eiz** (The Institute of Economics, Zagreb): <https://repositorij.eizg.hr>
- GrAFOS** (Repository of Faculty of Civil Engineering and Architecture Osijek): <https://repositorij.gfos.hr>
- Digital Repository Juraj Dobrila University of Pula**: <https://repositorij.unipu.hr>
- dabar** (Digital Academic Archives and Repositories): <https://repositorij.unipu.hr>

The 'Upute' link in the Juraj Dobrila University of Pula header is circled in red. The 'Upute za pohranjivanje radova' page in the dabar repository is also circled in red.

Repositories...

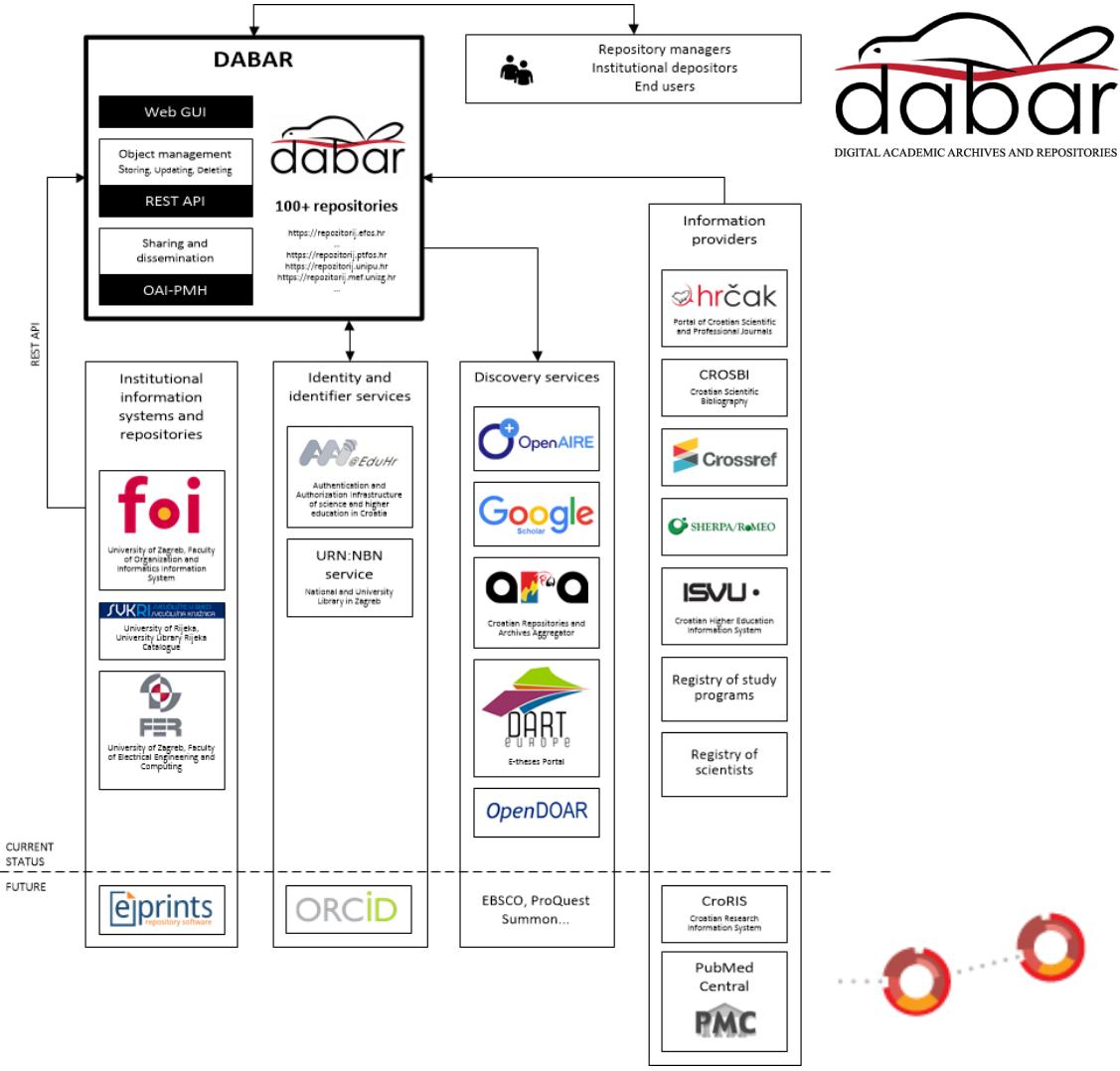


The screenshot shows the homepage of the adu.unizg.hr digital repository. Several features are highlighted with red circles:

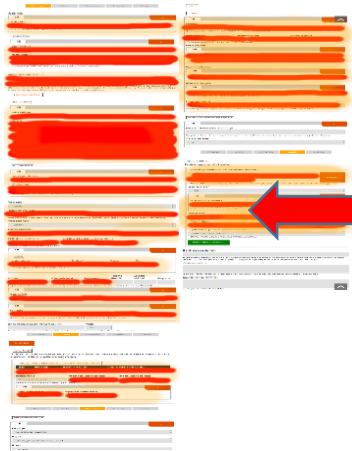
- Prijavi se** (Login) button on the left sidebar.
- Povezani objekti** (Linked objects) button on the right sidebar.
- Linking objects** (A callout box pointing to the **Povezani objekti** button).
- Persistent identifier (URN:NBN)** (A callout box pointing to the [URN link](https://urn.risk.hr/urn:nbn:hr:205:182732) at the bottom of the page).
- Sharng: social networks** (A callout box pointing to the social media sharing icons at the bottom of the page).

Interoperability

DABAR's integration with national and global e-infrastructure



Rich metadata vs efficiency

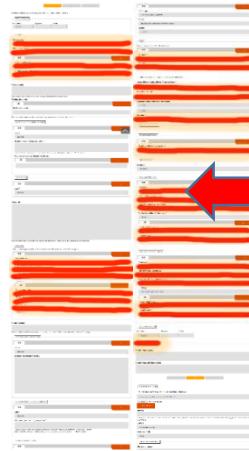


Croatian Higher
Education Information
System (ISVU)

Registry of Study
Programs

AAI@EduHr

URN:NBN



HRČAK (OAI-PMH, KBART)

CROSBI (Web/MODS)

DOI/CrossRef (API)

Sherpa / ROMEO

AAI@EduHr

URN:NBN

Registry of Scientists

PubMed Central (API)



DABAR & Google Scholar

Google site:repozitorij.pfos.hr

Scholar About 48 results (0.05 sec)

Articles [PDF] Alelopatski utjecaj zajedničkog klijanja, vodenih ekstrakata i biljnih ostataka kadulje (Salvia officinalis L.) na strjeličastu grbicu (Lepidium draba (L.) Desv.) [PDF] from pfos.hr

Case law M. Nikolić - 2015 - repozitorij.pfos.hr

My library Primjena sintetičkih herbicida u suzbijanju korova doprinijela je problemima u vidu pojave rezistentnih korovnih vrsta te onečišćenja okoliša, a njihova daljnja primjena može dovesti do ozbiljnih ekoloških posljedica i narušavanja ljudskog zdravlja (Angelini i sur., 2003.). ...

Cited by 2 Cite Save More

Any time Obrada tla u tropskim uvjetima [PDF] from pfos.hr

Since 2015 D Borić - 2015 - repozitorij.pfos.hr

Abstract U radu su opisana tropска područja koja se na temelju sustava atmosferskog kruženja mogu definirati kao područje između dva pojasa visokog tlaka koja se nalaze na granicama između suptropskih i tropskih područja visokog tlaka sjeverne i južne polutke. ...

Cite Save

Sort by relevance [PDF] Acidobazni status brojlera hranjenih s različitim razinama nusproizvoda tvornice etanola [PDF] from pfos.hr

Sort by date (DDGS) u krmnim smjesama J Muselin - 2015 - repozitorij.pfos.hr

include patents Razlog nastalog istraživanja leži u tome što je potrošnja peradarskog mesa u Republici Hrvatskoj kao i u ostaku svijeta u neprekidnom porastu s tendencijom daljnog rasta.

include citations Proizvodnja peradi je izbila u prvi red u stočarstvu zbog niza prednosti kao što su ...

Cite Save More

<meta name="ci"><meta name="ci"> na strjeličast<meta name="ci"><meta name="ci">

<meta name="citation_pdf_url" content="https://repositorij.pfos.hr/islandora/object/pfos:42/datasream/PDF/download" />

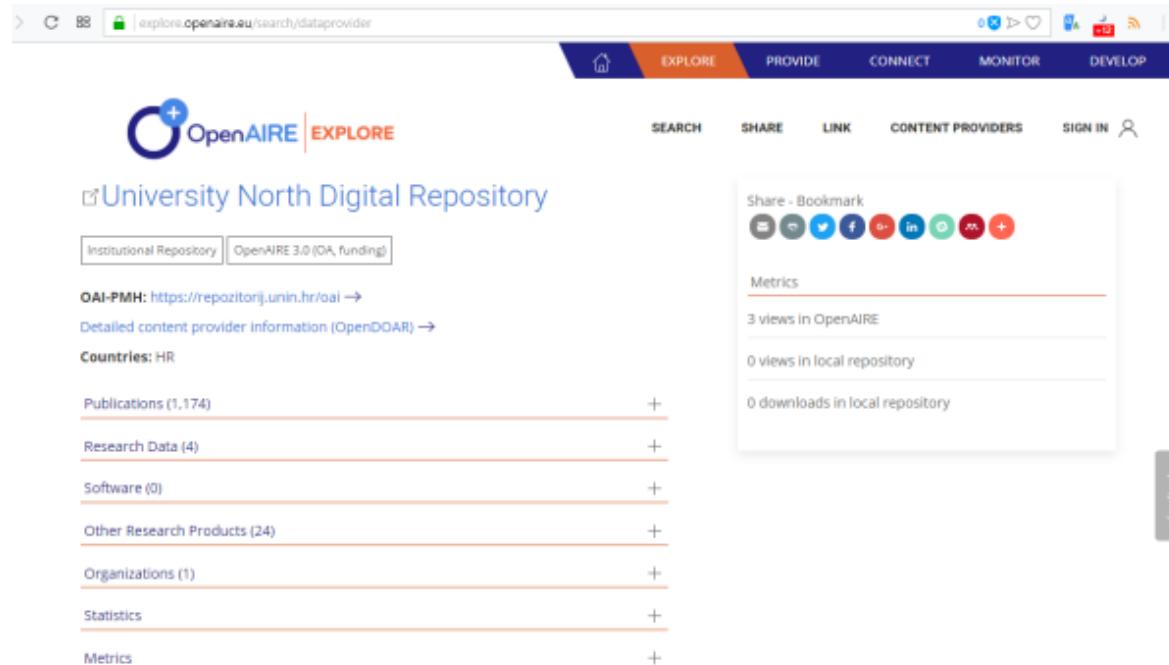
<meta name="citation_language" content="hr" />

<meta name="citation_keywords" content="alelopatija;zajedničko klijanje;vodići ekstrakti;biljni ostaci;Salvia officinalis;Lepidium draba (L.) Desv.;allelopatija;cogeneration;water extracts;plant residues;Salvia officinalis L.;Lepidium draba (L.) Desv." />

<meta name="citation_dissertation_institution" content="Josip Juraj Strossmayer University of Osijek. Faculty of agriculture. DEPARTMENT FOR PLANT PROTECTION." />



DABAR & OpenAIRE



The screenshot shows the OpenAIRE Explore interface for the University North Digital Repository. At the top, there's a navigation bar with tabs: EXPLORE (highlighted in orange), PROVIDE, CONNECT, MONITOR, and DEVELOP. Below the navigation is a secondary menu with links for SEARCH, SHARE, LINK, CONTENT PROVIDERS, and SIGN IN.

The main content area displays the repository's information:

- OAI-PMH: <https://repozitorij.unin.hr/oai> →
- Detailed content provider information (OpenDOAR) →
- Countries: HR

Below these details is a list of repository types with their counts:

- Publications (1,174)
- Research Data (4)
- Software (0)
- Other Research Products (24)
- Organizations (1)
- Statistics
- Metrics

To the right of the main content area, there's a sidebar titled "Metrics" containing the following statistics:

- Share - Bookmark: Buttons for various social media platforms (e.g., Email, LinkedIn, Facebook, Twitter, etc.)
- Metrics:
 - 3 views in OpenAIRE
 - 0 views in local repository
 - 0 downloads in local repository



DABAR & DART Europe



DART-Europe E-theses Portal

HOME ABOUT DART-EUROPE DOCUMENTS & DOWNLOADS RELATED ORGANISATIONS PARTNERS & BOARD

Browse List

Search Browse Search History Marked List Results Feedback Help

Click on a heading to view related records or [select a different index](#)

Browsing by Country = Croatia

- ▶ [All](#) (1356)
- ▶ [Josip Juraj Strossmayer University of Osijek](#) (185)
- ▶ [Juraj Dobrila University of Pula](#) (5)
- ▶ [Rudjer Boskovic Institute](#) (31)
- ▶ [University of Rijeka](#) (94)
- ▶ [University of Split](#) (127)
- ▶ [University of Zadar](#) (66)
- ▶ [University of Zagreb](#) (848)

Choose another country

- ▶ [Austria](#) (200)
- ▶ [Belgium](#) (8036)
- ▶ [Bulgaria](#) (626)
- ▶ [Croatia](#) (1356)
- ▶ [Cyprus](#) (1593)
- ▶ [Czech Republic](#) (756)
- ▶ [Denmark](#) (3736)
- ▶ [Estonia](#) (9628)
- ▶ [Finland](#) (13503)
- ▶ [France](#) (98311)
- ▶ [Germany](#) (246050)
- ▶ [Greece](#) (26691)
- ▶ [Hungary](#) (12207)

<http://www.dart-europe.eu/browse-list.php?country=Croatia>

“DART-Europe is a partnership of research libraries and library consortia who are working together to improve global access to European research theses.” (<http://www.dart-europe.eu/About/info.php>)



Workshops

25 workshops for repository managers in Zagreb, Rijeka, Osijek, Split & Dubrovnik with **276 participants**

Topics:

- Introduction to repositories in DABAR
- Journal articles in DABAR
- DABAR & OpenAIRE
- Multimedia in DABAR

Soon:

- Research data in DABAR



Community!

March 2016. - memorandum of understanding:

- SRCE
- Ruđer Bošković Institute
- University of Zagreb School of Medicine
- University of Zagreb Faculty of Humanities and Social Sciences
- National and University Library in Zagreb

29 institutions:

ADU, DHMZ, DZIV, FFOS, FFZG, FOI, FSB, HRZ, IEF, IPU, IRB, IRO, KIF, MEDRI, MEF, MEFST, MUZA, NCVVO, NSK, PMF, PRAVRI, PTFOS, Srce, SVKRI, SVKST, UFZG, UNIOS, UNIPU, UNIZD

10 working groups:

- Theses and dissertations
- Scientific and related works
- Image, audio and video content
- Interoperability
- Long-term preservation
- User functionality
- Copyright
- Education & Support
- Research Data
- Educational Resources



Research data

- Research data (datasets)
 - First dataset: <https://urn.nsk.hr/urn:nbn:hr:232:359736>
 - RegCM4 Climate Change Adaptation Simulations
 - (Croatian Meteorological and Hydrological Service)

Infrastructure for FAIR data?

- Findable (PID, rich metadata, search funct., services)
- Accessible (HTTP)
- Interoperable (open formats, MODS/DC/DataCite, links)
- Re-usable (License, domain standards?)

Klimatska istraživanja

ZAHTEVAVU VELIKE RAČUNALNE BRZINE I VELIKE SMJESTAJNE KAPACITETE ZA IZLZNE PODATKE

Analizom dosadašnjih istraživanja utjecaja klimatskih promjena na sektore Republike Hrvatske zaključeno je da će većina istraživanja baviti specifičnim aspektima unutar sektora te da nedostaju istraživanja koja bi se bavila cjelom određenom fenomenom.

Nakon utvrđene potrebe za intenzifikacijom istraživanja vezanih uz utjecaje raničnosti i pripravku klimatskih promjena 2016. godine Ministarstvo zaštite okoliša i energetike (MZOE) pokrenulo je projekt „Jačanje Kapaciteta Ministarstva zaštite okoliša i energetike za prilagođbu klimatskim promjenama“ te priprema Narativne Strategije prilagođbe klimatskim promjenama u Republici Hrvatskoj za razdoblje do 2040. godine s pogledom na 2070. godinu.

Klimatske simulacije potrebne za izradu Narativa izvršili su djelatnici DHMZ-a koji primjenjuju još od početka stoljeća. Više informacija o projektu i rezultatima dostupno je na <http://priagodba-klimi.hr>.

KORIŠTENI REURSI:

- računalište:
64 rastra Gura
1.702 procesorske jedinice
- spremnik:
220 TB HDD, 12 TB SSD i 30 TB traka
- programski softver:
Regionalni klimatski model RegCM4;
programski jezici: Fortran 90
- formati i alati:
GMI / Intel prevodnik, MVAPICH, NetCDF,
NetCDF, NCO, CDO, GRADS

POTREBNI RAČUNALNI RESURSI:

Resursi DHMZ-a nisu bili dostupni za ovakve kompleksne izračune, a i njihova je primarna nemjena integracija atmosferskog modela za poboljšane svakodnevne prognoze vremena. Stoga su, za potrebe projekta, korišteni resursi novovabičnjeg superkompjutera VELBri, za gaji su smješteni i programski osiguravanje zasnovanih na državljanskoj interesu.

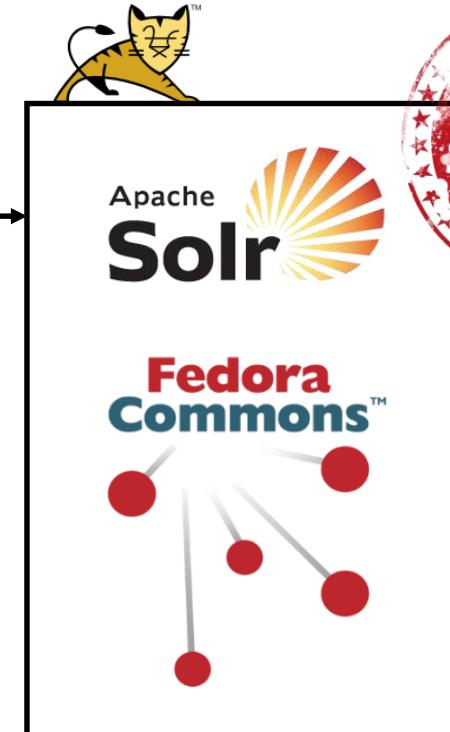
Za simulaciju klimatskog modela jedne godine bilo je potrebno dva dana neprekidnog računanja. Izračun je trajao šesnaest mjeseci.

Po završetku projekta izlazne podatke dobivene regionalnim klimatskim modelom – preko 200 TB – trebalo je smještitи i učiniti trajno dostupnim, pa je za te potrebe odabran sustav repozitorija Dabar.

Open infrastructure!



- multisite



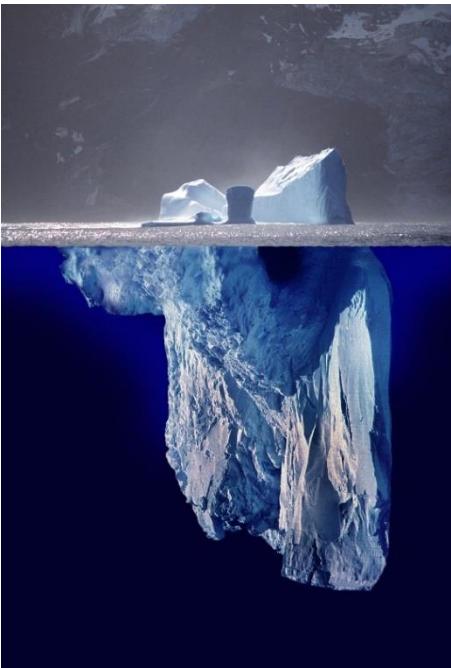
+ Jenkins, Selenium, Git, ...



<https://github.com/dlenz/open-source-stamp.git>



Conclusion?



87.000+ digital objects

37.400+ OA

...

Academic integrity

Visibility

Innovation

Cooperation

...

Created by Uwe Kils (iceberg) and User:Wiska Bodo (sky). [CC BY-SA 3.0
(<http://creativecommons.org/licenses/by-sa/3.0/>)]



Thank you!

<https://dabar.srce.hr>
dabar@srce.hr



Sveučilište u Zagrebu
Sveučilišni računski centar

www.srce.unizg.hr

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Srce politikom otvorenog pristupa široj javnosti osigurava dostupnost i korištenje svih rezultata rada Srca, a prvenstveno obrazovnih i stručnih informacija i sadržaja nastalih djelovanjem i radom Srca.

www.srce.unizg.hr/otvoreni-pristup

