

# The Tenth National Information Day: Open Science, Open Data, Open Access, Bulgarian Open Science Cloud

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**Abstract.** The paper presents the current state of Bulgarian Open access (OA) activities on Open Science, Open Data, Open Access and Bulgarian Open Science Cloud. Discussion points for the Tenth National Information Day are highlighted.

**Keywords:** Open Access, Access to Knowledge, Open Science, European Open Science Cloud, Bulgarian Open Science Cloud

## 1 Introduction

The Tenth National Information Day is devoted to the presentation of successful initiatives and projects for open access (OA), open data sharing and open science; strategies for promotion of OA; development of the Bulgarian Open Science Cloud; copyright and licenses under OA; best practices and examples of policies for the development and promotion of open access at the national and institutional levels, etc. The event will support academic staff, research project managers, policy-makers and staff working in research funding bodies. It will demonstrate the main concepts for the implementation of OA principles and a national OA roadmap, key terms, strategies, business models, work plans, copyright and licenses, best practices, examples and policies for OA, open data and open science. There will be discussions on: OA indicators; dissemination of the partners' best practices; research problems in the field; contributions to the problems of the harmonization of national legislation and practices; the work of the managers of scientific digital repositories; development of the Bulgarian Open Science Cloud.

Bulgaria is part of the EU OpenAIRE-Advance project. OpenAIRE-Advance continues the mission of OpenAIRE to support the Open Access/Open Data mandates in Europe. By sustaining the current successful infrastructure, comprised of a human network and robust technical services, it consolidates its achievements while working to shift the momentum among its communities to Open Science, aiming to be a trusted e-

Infrastructure within the realms of the European Open Science Cloud. OpenAIRE-Advance strives to empower its National Open Access Desks, so they become a pivotal part within their own national data infrastructures, positioning OA and open science onto national agendas. The main OpenAIRE-Advance functions are shown in Figure 1.

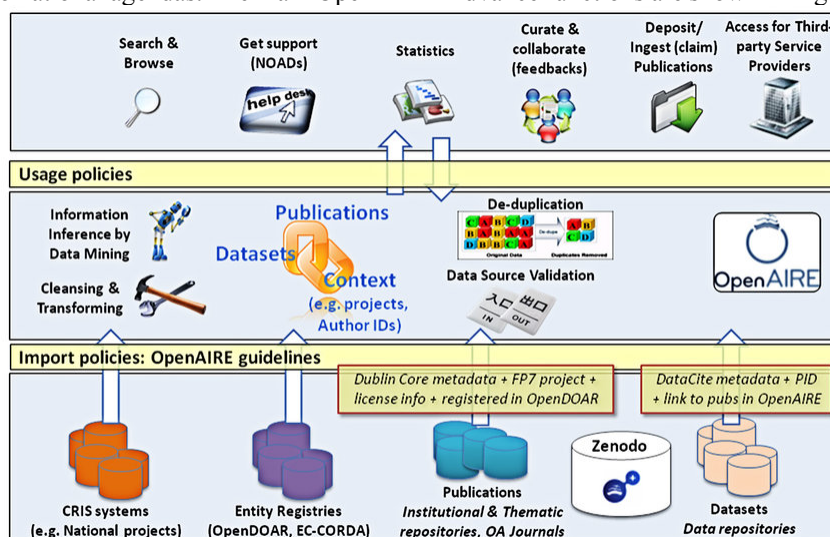


Fig. 1. The main OpenAIRE-Advance functions

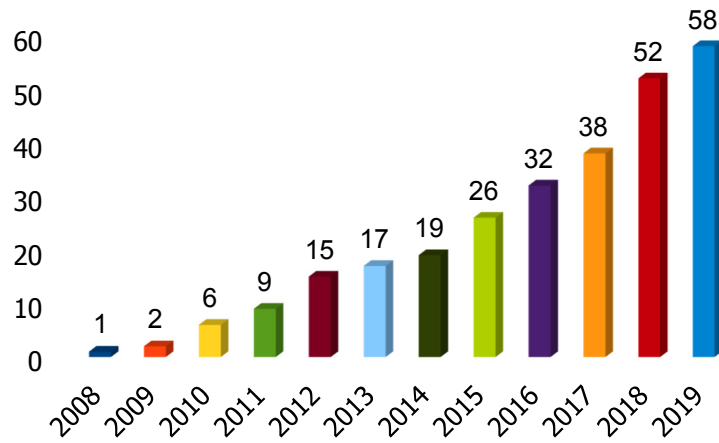
## 2 Bulgaria OA Repositories

Data for the Open Access Bulgarian repositories in 2019 are shown in Table 1.

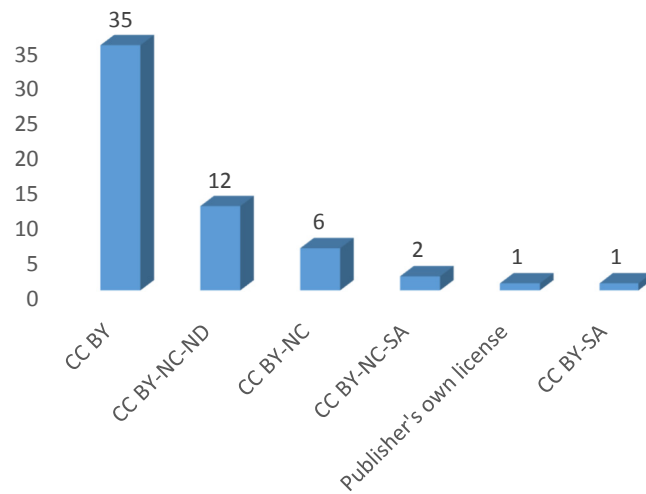
Table 1. Open Access Bulgarian repositories

Open Access Bulgarian Repositories 2019	Publications	Software	Link
New Bulgarian University Repository	2806	EPrints 3.3.12	<a href="http://eprints.nbu.bg">http://eprints.nbu.bg</a>
BulDML at IMI-BAS	2869	DSpace 1.6	<a href="http://sci-gems.math.bas.bg">http://sci-gems.math.bas.bg</a>
Digital repository of Sofia University	1613	DSpace 1.8.2	<a href="https://research.uni-sofia.bg">https://research.uni-sofia.bg</a>
Research BFU - Burgas Free University	801	Dspace 1.8.1	<a href="http://research.bfu.bg:8080/jspui/">http://research.bfu.bg:8080/jspui/</a>
Electronic Repository - Central Medical Library - MU, Sofia	1600	Dspace 3.0	<a href="http://nt-cmb.mu-sofia.bg:8080/jspui/">http://nt-cmb.mu-sofia.bg:8080/jspui/</a>
Medical University - Varna Prof. Dr. Paraskev Stoyanov	381	EPrints 3.3.15	<a href="http://eprints.mu-varna.bg">http://eprints.mu-varna.bg</a>
BGOpenAIRE at IMI-BAS	119	DSpace 1.6.2	<a href="http://www.bg-openaire.eu">http://www.bg-openaire.eu</a>

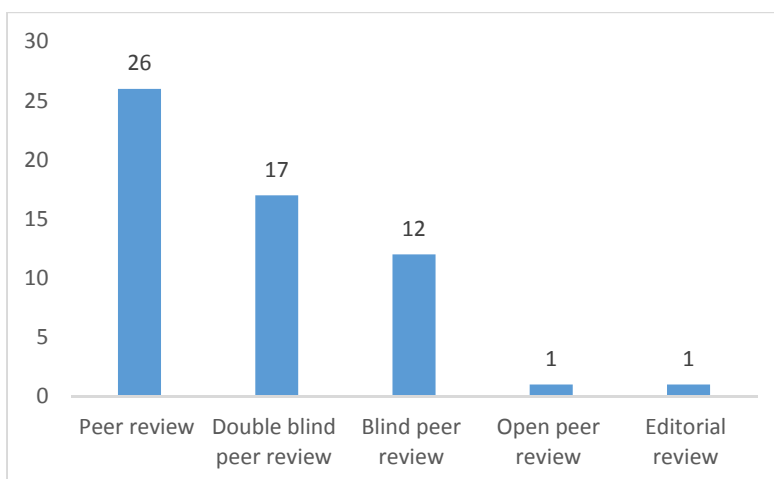
The total number of OA journals in Bulgaria is presented in Figure 2. The license types are highlighted in Figure 3. The review types are shown in Figure 4.



**Fig. 2.** Total number of open access journals in Bulgaria



**Fig. 3.** License types of open access journals in Bulgaria



**Fig. 4.** Review types of open access journals in Bulgaria

### **3 The Main Bulgaria OpenAIRE Activities in the 2019**

#### **3.1 In the Area of National Policy and Infrastructure:**

- Developing Document for Creating an Automated System and a National Portal (including Standards and Specifications) for Open Access to Scientific Information
- Starting the National Scientific Program "Information and Communication Technologies for a Single Digital Market in Science, Education and Security". As the group responsible for the package "Storages for open scientific results", our tasks include the creation of a model, software platforms and digital repositories for preservation and publishing of scientific results; introduction of the ideas, practices and policies of the European Union related to Open Science; and Bulgaria's accession to EOSC (European Open Science Cloud).

#### **3.2 In the Field of Training and Support**

- Organizing a Workshop on Open Science, Open Data, Open Access, Bulgarian Open Science Cloud
- Organizing the National Seminar "Open Access for Open Science" during the Open Access week;
- Maintaining the National Open Access Desks, which connect researchers, research institutions, and policy makers at national level on the one end and the OpenAIRE-Advance project services on the other. The focus of the National Open Access Desks activities is on support for compliance with the EC Open Access policies;

- Teaching the academic staff (young and experienced researchers) and research project managers the best practices, examples and policies for open access, open data and open science practices OA, and helping them acquire knowledge and skills writing, publishing and depositing articles, scientific data and materials in OA repositories, OA repositories maintenance, etc.
- Organizing a workshop "Free access to electronic educational resources".

### **3.3 In the Field of Outreach and Dissemination**

- Maintaining and operating two open access repositories at the IMI-BAS;
- Sending information to all Bulgarian coordinators for publishing their papers and data in our archives;
- Conducting talks with scientific publishers about preferential publications for open access publishing;
- Organizing regular meetings at the Ministry of Education and Science
- Presentation at the Digital assembly 2019, Bucharest 13-14;
- Presentation at the 10th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K 2018) - Seville, Spain, 17-21 September 2018;
- Presentation at the SciDataWorld Congress 2018: The Digital Frontiers of Global Science, 4-9 November, 2018, Gaborone, Botswana;
- Participation in the third Digital Infrastructure for Research Conference (DI4R 2018), Lisbon, 8-12 October;
- Participation in the European Open Science Cloud (EOSC): Austria takes initiative, October 30, 2018, part of the panel: "The European Open Science Cloud. Domestic experiences vs the pan-European experiences"
- Creating the document: "Analytical research of good (organizational and technical) standards and software for realization of digital repositories storing scientific results with open access, including IMI-BAS and BulDML repositories";
- Creating the document: "Analytical study of good practices for providing open access to digital repositories for scientific publications in the humanities and social sciences".

### **3.4 In the Field of Working with Funders**

- Working with the National Science Fund (NSF) for the requirement that each funded project should provide open access to the results.

### **3.1 In the Field of Task Forces**

- Participating in the Expert Group on European Open Science Cloud at the Ministry of Education and Science;

- Becoming part of the Non-Profit Legal Entity under the name and title “OpenAIRE”.

#### **4 Discussion Topics during this Year National Information Day "Open Science, Open Data, Open Access, Bulgarian Open Science Cloud“**

- European Open Science Cloud;
- Bulgarian Open Science Cloud;
- National Science Program “ICT for science, education and security”;
- Open Data;
- Open Sources;
- Open Methodology;
- Open Peer Review;
- Open Access;
- Open Access Data E-Infrastructures;
- Open Educational Resource;
- Access to Research Facilities;
- Access to Processing Capabilities;
- Communication at all Levels of Research Life Cruces;
- Open Access Indicators;
- Disseminate Partners’ Best Practices;
- Discuss Research Problems in the Field;
- Discuss the Possibilities of Establishing a Network of Open-Access Repositories;
- Contribute to the problems of the Harmonization of National Legislation and Practices.

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