OPEN AND RESPONSIBLE RESEARCH IN BULGARIA: BARRIERS AND OPPORTUNITIES

Perceptions of Key Bulgarian Stakeholders: Analysis and Lessons Learned from Co-creation Workshops

EXECUTIVE SUMMARY

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INTRODUCTION ●

The policies and practices for implementing Open Research in Bulgaria have been developing in the last few years but are still not mature and widely accepted. This research, conducted in the end of 2024 in Bulgaria by the ORBIT project and funded by the RE-INFORCING project of the European Union, examines the attitudes of key participants in the process, identifies barriers and incentives, and suggests future steps for better understanding and implementation of Open Research. The study highlights two major challenges: lack of information on stakeholder attitudes and insufficient awareness about the benefits of Open Research for a wider audience. Open and responsible research and innovation (ORRI) has not been systematically reviewed in Bulgaria, and the perceptions of different key stakeholders have not been captured, although some components of the national landscape had been explored within the National Initiatives for Open Research in Europe (NI4OS-Europe) project.

To address the gap in understanding the stakeholders and their attitudes better, our project team hosted three co-creation workshops with key stakeholders — researchers, administration, citizens and non-governmental organisations (NGOs). This report summarises the lessons learned and future steps for Open Research in Bulgaria.

METHODOLOGY ●

The study used a mixed methods approach, combining co-creation workshops with a survey. The co-creation component featured three workshops for the three key stakeholder groups — administration (hosted by the Science Directorate of the Ministry of Education and Science of Bulgaria), academics, and citizens and NGOs. The workshops combined a brief introduction to the ORRI followed by small group discussions addressing different challenges using some Liberating Structures techniques. All groups had 14-15 participants.

In addition, a quantitative survey gathered responses from 54 researchers and 52 representatives of NGOs as well as citizens. Here, we provide the most important lessons learned from the three stakeholders' groups.

PUBLIC PERCEPTION

Citizens and NGOs perceive ORRI as accessible, understandable, and beneficial to daily life. However, their understanding is still fragmented, associating Open Research primarily with open access publications and communication of scientific results. Citizens are also generally confident they can contribute to research even without researchers' guidance.

RESEARCHERS' PERCEPTION

Researchers show a high level of awareness (92.6%) about Open Research, mainly through experiences with open-access publications, open data, and educational resources. However, only a small fraction fully embrace the broader UNESCO definition of Open Research and its comprehensive elements. Responsible Research is less of a local priority compared to Open Research.

ADMINISTRATORS' PERCEPTION

Governmental and university administrators as well as managers of Open Research infrastructures demonstrate the highest level of understanding of Open Research in its entirety, as they are directly involved in policy-making and regulatory frameworks. However, they face difficulties in effectively communicating policies to researchers and the public.

BARRIERS TO OPEN RESEARCH ●

LACK OF AWARENESS, MANY MYTHS AND FEARS

A major challenge across all stakeholder groups is the insufficient knowledge about ORRI principles and benefits. Researchers fear losing control over their work, while citizens have limited exposure to scientific achievements that impact their real lives. Educational institutions also struggle to incorporate Open Research into the curriculum.

DATA SHARING AND INFRASTRUCTURE CHALLENGES

While ORRI promotes data sharing, researchers in Bulgaria are still hesitant to share their data due to the effort involved in data collection and preparation. Existing infrastructures are inadequate, with limited access to research data repositories.

INTELLECTUAL PROPERTY RESTRICTIONS

The dominant business model of academic publishing restricts researchers from retaining copyright over their work, leading to financial and accessibility constraints. This discourages active participation in ORRI.

INSUFFICIENT FUNDING

Researchers see in the inadequate funding a critical barrier to ORRI. Current funding models do not support sufficiently open-access publishing and data-sharing practices. Universities lack dedicated budgets for maintaining Open Research infrastructure and services.

PROPOSED INCENTIVES FOR OPEN RESEARCH ●

RECOGNITION AND CAREER ADVANCEMENT

To encourage researchers, Open Research activities should be integrated into research evaluation systems. Additional points in performance assessments, training credits, and research grants can motivate wider participation.

IMPROVED INSTITUTIONAL SUPPORT

Universities should establish Open Research units within libraries to manage repositories, provide training, and advise academics. Strengthening internal collaboration across faculties can foster a culture of open research.

NATIONAL AND EU-LEVEL POLICY SUPPORT

Bulgaria has made significant progress in adopting Open Research policies through national strategies, legislative frameworks, and participation in European initiatives like EOSC and OpenAIRE. In terms of national legislarion, Bulgaria has one of the most advanced Research Acts (May 2025) which establishes open science as an underpinning research philosophy. However, implementation remains fragmented, requiring better coordination between academia, government, and industry.

COMMUNITY ENGAGEMENT AND PUBLIC AWARENESS

Public participation in research can be enhanced through citizen science initiatives, science festivals, and partnerships with educational institutions. Better communication strategies are needed to bridge the gap between researchers and society.

NEXT STEPS ●

The following suggestions emerged from the groups:

1. Awareness Campaigns: Increase the understanding of Open Research principles among all stakeholders through training and targeted outreach.

2. Data Management Improvement: Develop institutional repositories linked to national and European platforms, ensuring compliance with FAIR principles (Findable, Accessible, Interoperable, Reusable).

3. Sustainable Funding Models: Secure government and private-sector funding to support Open Research infrastructure and publication costs.

4. Capacity Building: Provide skills training for researchers on Open Research tools, ethical considerations, and best practices.

5. Policy and Institutional Support: Align national policies with European frameworks, establish dedicated university units, and streamline administrative procedures for data sharing and interoperability across institutional and national repositories.

CONCLUSION ●

Three key lessons emerge from the study:

1. "Share Everything with Everyone!" — Clear definitions of ORRI and awareness-building are essential.

2. "Don't Be Afraid to Publish in Open Access!" — Overcoming legal and funding barriers is crucial.

3. "Empower Scientists!" — Researchers need institutional and policy support to fully embrace Open Research.

Even with significant progress in policy development, implementing ORRI in Bulgaria requires stronger collaboration, financial commitment, and cultural change among researchers and institutions.