

Title: Implementing a CRIS with Omega-PSIR at the Medical University of Varna, Bulgaria

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Introduction: The Medical University of Varna (MU Varna) is one of Bulgaria's leading medical universities, with a comprehensive profile in medical and health sciences and a growing research footprint across clinical, biomedical, and public health disciplines. Recognising the strategic importance of reliable research information for institutional decision-making, national reporting, accreditation, and open science, MU-Varna Library initiated the search for a Current Research Information System (CRIS) as early as 2016. Following an exploration of Converis, Pure, and DSpace-CRIS, and after engaging with the Warsaw University of Technology and Sages, MU Varna elected to implement Omega-PSIR (OMEGA-CRIS) as the university-wide CRIS platform.

The Omega-PSIR implementation was launched in 2023 with a pragmatic, coverage-first strategy. The initial focus was to assemble an authoritative record of the university's recent and historical research outputs, beginning with all publications indexed in Web of Science and Scopus, and to use this consolidated evidence base to support internal and external reporting needs. This contribution outlines MU-Varna's implementation, early results, and roadmap—highlighting specific solutions for Bulgarian name disambiguation, bilingual metadata policy, and the design of a forthcoming researcher evaluation (attestation) form to streamline accreditation and assessment processes. The case is presented for the euroCRIS community to share lessons applicable to institutions operating in multilingual environments and to those building CRIS capabilities with limited specialist staffing.

System Implementation: Scope, coverage, and data sources

- Institutional scope and HR coverage: The CRIS currently covers approximately 1,000 researchers based on human resources data maintained from 2020 onward. MU-Varna comprises four faculties, one college with three affiliated branches, and around 40 departments.
- Publications coverage: As of late 2025, the CRIS includes approximately 2,800 publications indexed in Web of Science and Scopus for the 2020–2025 period, and roughly 6,000 publications overall across the historical record.

- Data acquisition methods: MU-Varna used the automatic Scopus report functionality to import records from Scopus and employed BIB/RIS ingestion for Web of Science records. Beyond these core bibliographic sources, the team imported books and monographs from the Bulgarian national library network catalog (COBISS.bg), enabling more complete coverage of outputs that are central to certain disciplines and local academic evaluation practices.

Technical setup and integrations

- Deployment model: Omega-PSIR is deployed on-premise at MU Varna, aligning with institutional data governance and privacy requirements.
- Integrations: The system integrates with DOI/Crossref and DataCite for persistent identifiers and metadata enrichment, and with PubMed to improve coverage in biomedical and clinical research areas. The user interface supports both Bulgarian and English, a critical feature for usability across the institution's stakeholder groups.
- Metadata languages: MU-Varna is actively working toward a bilingual metadata policy that distinguishes user interface localization from the language of record in the metadata. The target policy is "language of record = language of metadata," enabling authoritative descriptions in the original language of the publication while supporting discoverability and reporting in both Bulgarian and English.

Data curation and author disambiguation

- Governance and workflows: The Library currently leads data curation and validation. To strengthen departmental ownership and accelerate metadata improvements, MU Varna plans to appoint "academic/technical secretaries" within faculties and departments to assist with metadata editing and verification.
- Disambiguation approach: Author disambiguation is presently curator-driven. Bulgarian naming conventions and transliteration patterns present challenges: scholars commonly have three names (including a patronymic), surnames may have multiple variants, and first names can be transliterated in several ways. For example, the first name Георги may appear as George, Georgi, or Gueorgi. While the system handles middle names and surname variants effectively, first-name variant recognition remains a recurring issue.
- Current practice: The team uses careful manual review and authority control to consolidate identities. This curator-led approach has produced reliable authority records but is resource-intensive. Improvements under consideration include strengthening institutional name authorities, establishing transliteration rules for common variants, and distributing curation tasks to trained departmental staff.

Operational reporting and early use cases

- Institutional and national reporting: MU Varna has already delivered reports on university publications in Web of Science and Scopus disaggregated by journal quartiles to meet

annual requirements for the Ministry. The CRIS also supports internal annual publication summaries for university leadership.

- Project-level monitoring: The system is used for seasonal reporting on outputs funded by the MUVE project, allowing project managers to track publication volume and visibility.
- Team-level organization: Omega-PSIR has been adopted to organise publications at the level of research teams and departments, improving local oversight and enabling targeted performance analyses.

Goals and Expected Outcomes Strategic objectives MU Varna's CRIS initiative is anchored in four strategic drivers for adopting Omega-PSIR:

1. National reporting: Provide authoritative, timely, and reproducible data for ministerial reporting, including indicators such as indexed outputs, journal quartiles, and citation-based measures where applicable.
2. Accreditation: Streamline the provision of evidence for accreditation, producing comprehensive departmental and programme-level portfolios with transparent coverage and quality indicators.
3. Internal analytics: Enable leaders, faculties, and departments to monitor research activity, trends, and performance with reliable baselines and consistent KPIs.
4. Open science: Lay the groundwork for better visibility of MU Varna's research and facilitate open science practices through persistent identifiers and interoperable metadata.

Researcher evaluation and accreditation workflows

- Researcher evaluation (attestation) form: MU Varna is designing a standardised evaluation form to be generated from the CRIS, capturing (at minimum) publication type, indexation status (e.g., inclusion in WoS/Scopus), citations, and h-index. The aim is to make the form automatically available for download, reducing administrative burden and improving consistency in annual or periodic evaluations.
- Accreditation reports: The CRIS will underpin the preparation of accreditation dossiers, ensuring that faculty- and programme-level portfolios are complete and verifiable. While the exact national framework specifications are context-dependent, MU Varna's approach is to map CRIS fields and indicators to the required standards so that dashboards and exports can be produced with minimal manual intervention.

Operational and organisational outcomes

- Coverage and data quality: Continue increasing coverage beyond WoS/Scopus, strengthening records for books and monographs (including those harvested from COBISS.bg), and refining bilingual metadata for cross-institutional reporting needs.
- Identity management: Improve author authority control by formalising transliteration rules and delegating curation, thereby reducing the time to resolve duplicates and improving attribution accuracy.

- Stakeholder adoption: Expand use of Omega-PSIR modules among the Project Department and the PhD School to streamline project-level monitoring and doctoral research tracking within the same information environment.

Lessons learned for the euroCRIS community

- Start with a well-defined coverage tranche to establish value quickly (e.g., a recent multi-year window), then scale to the historical record.
- Separate UI localization from metadata language policy; enforce “language of record = language of metadata” to avoid cross-language drift and confusion in reporting.
- Anticipate transliteration challenges; codify rules for common variants and empower curators with authority tools, while distributing curation responsibilities to departmental staff.
- Tie early deliverables to concrete reporting requirements (ministry, accreditation, internal leadership) to secure sustained support.
- Build from standard identifiers (DOI via Crossref/DataCite; PubMed IDs) to enable consistent enrichment and de-duplication.

Conclusion and Next Steps

MU Varna’s implementation of Omega-PSIR has established a robust baseline for research information management, achieving substantial coverage of publications, delivering required ministerial and internal reports, and piloting project-level monitoring. The university has consolidated around 6,000 publications overall, including approximately 2,800 WoS/Scopus records for 2020–2024, and linked these outputs to a staff body of roughly 1,000 researchers across four faculties, one college (with three affiliates), and about 40 departments. This foundation is now being leveraged to tackle the next phase: institutional evaluation and accreditation support.

Immediate priorities for 2025 include:

- Finalising the bilingual metadata policy to ensure “language of record = language of metadata,” while maintaining a bilingual user interface for broad accessibility.
- Deploying an automatically generated researcher evaluation (attestation) form that consolidates publication type, indexation status, citations, and h-index for download and use in annual or periodic assessments.
- Scaling data curation through the appointment and training of departmental technical secretaries, supported by clearer transliteration and authority control rules for Bulgarian names.
- Enhancing reporting templates for accreditation and leadership needs, including journal quartiles and other widely recognised indicators, to minimise manual compilation effort and maximise reproducibility.

- Expanding the use of Omega-PSIR modules by the Project Department and the PhD School, aligning CRIS data and workflows across research administration and doctoral education.
- Continuing to consolidate books and monographs (via COBISS.bg) and strengthening integration with identifier services (Crossref, DataCite, PubMed) to support both open science visibility and evaluation requirements.

MU-Varna welcomes engagement with the euroCRIS community to exchange templates, transliteration rules, and bilingual metadata practices that may be valuable to institutions operating in multilingual and transliteration-heavy contexts. By sharing our coverage-first strategy, curator-led disambiguation model, and forthcoming evaluation workflows, we aim to contribute practical experience to community discussions on implementing CRIS capabilities under constrained staffing and in national systems with complex reporting requirements.

Acknowledgements and availability

This contribution is submitted by the Library of the Medical University of Varna (contact: Sergey Glinkov). Public information about MU-Varna and the CRIS portal can be found at <https://mu-varna.bg/en> and <https://cris.mu-varna.bg>.