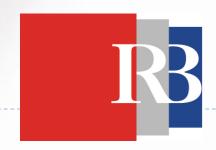
# The Role of the Croatian Scientific Bibliography CROSBI in the ReAccreditation of the Higher Education Institutions Processes

Working with national bibliographic databases for research output

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## Croatian higher education landscape

- university studies and professional studies
  - 8 public and 2 private universities
  - Il public and 5 private polytehnics
  - > 3 public and 19 private colleges
- public and privat HEIs
- ▶ since 2004 the higher education in Croatia is structured according to the Bologna process
  - undergraduate, graduate and postgraduate studies





#### Croatian Agency for Science and Higher Education (ASHE)

- independent public body responsible for external quality assurance in HE and research in Croatia
- all study programs delivered at public and private HEIs are accredited by the ASHE
- responsibility:
  - initial accreditation of new HE institutions, new study programs and new research activity,
  - re-accreditation of existing HE institutions and of existing research organizations every 5 years,
  - audit (review of internal quality assurance systems) of existing HE institutions and of existing research organizations, carried out in 5-year cycles,
  - thematic evaluation of whole institution, part of an institution, or study program at a HE or research institution.



#### Croatian Agency for Science and Higher Education (ASHE)

- Act on Scientific Activity and HE
- Act on Recognition of Foreign Educational Qualifications
- Act on Quality Assurance in Science and HE
- the only national agency responsible for external evaluation of HE institutions, study programs and scientific organizations
- obliged by law to respect European Standards and Guidelines as well as international practice in the field of quality assurance in science and HE



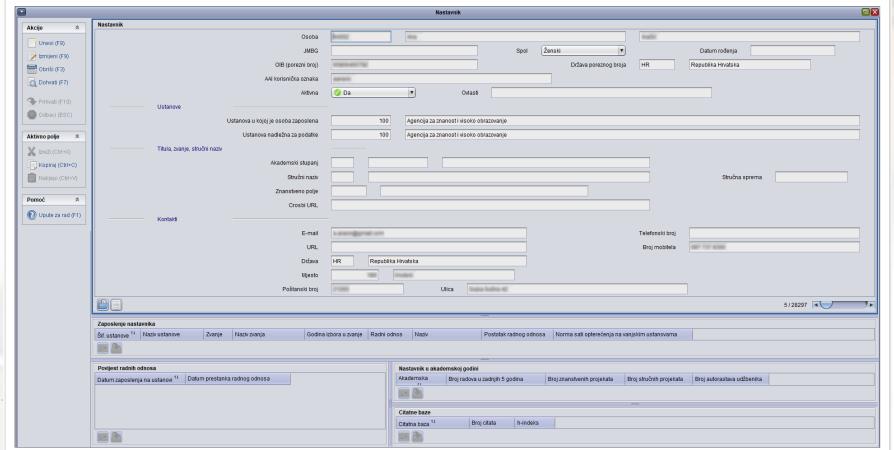
#### 4 categories of data used for re-accreditation

- I. Study programmes and learning outcomes
- 2. Learning process and student support
- 3. Human and institutional resources
- 4. Scholarly/artistic and professional activities



#### MOZVAG system

- ASHE information system on the evaluation of study programs
- created and maintained by the University of Zagreb University Computing Centre (Srce)





#### MOZVAG recent development

- Interoperability with other systems for gathering data about various HEIs activities:
  - Information System of Higher Education Institutions (ISVU)
  - Croatian Scientific Bibliography CROSBI
  - Project Database of the Croatian Research and Higher Education System

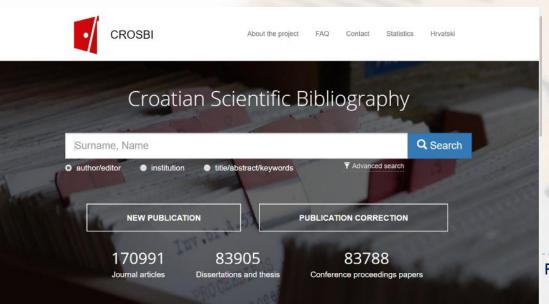
#### 1997 CROSBI



2003 Who's Who in Science in Croatia



2006 Croatian OA journals – HRČAK



2008 Šestar – scientific equipment



Šestar

2017 CROSBI new release

Re-Accreditation of the HEI Processes



## Croatian Scientific Bibliography - CROSBI

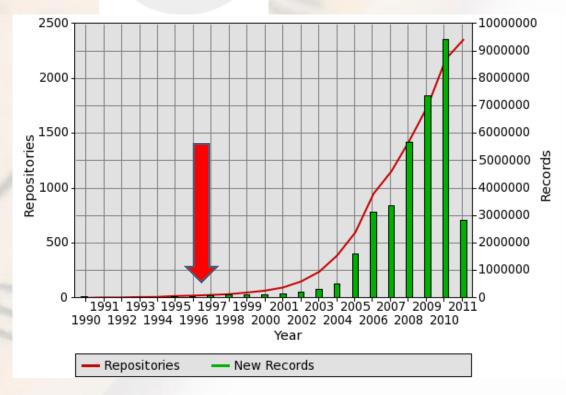
- ▶ 1997 created at the Ruđer Bošković Institute
- author's self-archiving of bibliographic data
- gathers bibliographic information (with option for archiving full-text) of different publication types written by affiliated at Croatian research and HEIs
  - eg. journal articles, conference papers, books and book chapters, dissertations, patents etc.
- ▶ 2017 cooperation with the ASHE on enhancements of CROSBI bibliography for the purpose of reporting on Croatian HEIs scientific productivity
  - interoperability with MOZVAG system



# CROSBI **1995**

- openness
- researchers as the metadata providers
- repository functionalities
- "broad concept" of the bibliography (unpublished papers, software, patents…)
- single input one record multiple usage
- publications assigned to the research projects







### CROSBI goals

- current research bibliography
- multidisciplinarity, interoperability
- created by researchers monitored/controlled by librarians
- evaluation purposes
- ongoing research projects supported by the main funders (Croatian Science Foundation, European Commission, Ministry of Science and Education...)
- publications by disciplines
- current bibliography at the institutional, individual and research project level



#### Croatian Scientific Bibliography CROSBI

About CROSBI FAQ Contact Statistics Hrvatski Login Publications export ▼ Lid Report Sorting: Year, newer first Citation: CROSBI ▼ >500.000 bibliographic records 1. Bečirević, Damir; Leljak, Domagoj; Melić, Blaženka; Sumensari, Olcyr Bc  $\rightarrow$  J/ $\psi$  form factors and lepton flavor universality violation in R(J/ $\psi$ ) // Getting to Grips with QCD Pariz, Francuska, 2018. (invited, unpublished, pp slides, scholarly) ☑ indico.cern.ch Bečirević, Damir; Melić, Blaženka, Patra, Monalisa; Sumensari, Olcyr Seeking the CP-odd Higgs via h $\rightarrow$ > nc, b  $\ell+\ell-$  // Physical Review D - Particles, Fields, Gravitation, and Cosmology (2018) (international peer review, accepted) ☑ inspirehep.net Antipin, Oleg; Melić, Blaženka Revisiting the decoupling effects in the running of the Cosmological Constant // European physical journal C: particles and fields, 77 (2017), 9; 583-597 doi:10.1140/epic/s10052-017-5153-6 (international peer review, article, scholarly) ☑ epjc.epj.org ☑ fulir.irb.hr ☑ link.springer.com ② arxiv.org



#### Evaluation of the research institution

Other papers
Total number of citations (without self-citations)
Total h-index (without self-citations)
Authorship of the books published by the international publisher
Authorship of the books published by the Croatian publisher
Book chapters
Edited books
Professional papers
Peer reviewed conference papers
Number of papers in the journal(s) published by HEI

#### Current activities related to the collaboration

- extraction of the data from CROSBI and other databases (projects, etc.)
- defining a set of the unique criteria for the specific research area (discipline)
- improvements of the database structure
- implementation of different indexes (databases)
- administration and monitoring at institutional level
- improvements of the administration interface
- negotiations with big publishers
- reporting module
- education



### CROSBI administration procedures

- centralized administration of the system and bibliographic records
- current process of decentralization of bibliographic records' administration
  - every institution should be responsible for its own bibliographic records (currently 3 l
    institution have administration accounts on CROSBI)

## CROSBI reporting

- every bibliographic records in CROSBI can be related to a several authorities:
  - person (researcher)
  - institution
  - project
- variety of CROSBI reports



### CROSBI bibliometric layer

- information about indexing of articles published in journals and conference proceedings
  - Science Citation Index Expanded (SCI-EXP)
  - Social Science Citation Index (SSCI)
  - Arts and Humanities Citation Index (AHCI)
  - Emerging Sources Citation Index (ESCI)
  - Scopus
  - Current Contents Connect
  - MEDLINE
  - ▶ EconLit
  - Conference Proceedings Citation Index- Science (CPCI-S)
  - Conference Proceedings Citation Index- Social Science & Humanities (CPCI-SSH)
- citation data from Scopus and Web of Science Core Collection
- altmetric data from Altmetric.com



### CROSBI-MOZVAG interoperability

- bibliographic records about publications are recorded/verified into CROSBI
- according to the rules for evaluation of publications (Act on conditions for scientific advancements) the tables with data about publications on the institutional or personal level are prepared in CROSBI (based on metadata description of bibliographic records) and on request 'pulled' by the MOZVAG administrator into MOZVAG
- by different rules for evaluation of publications for every scientific field/subfield
- certain rules form the Act are unclear and not easily transferred into the information system
  - eg. 'internationally renowned scientific publisher'
- detailed methodology attached next to the generated table



# Croatian Scientific Bibliography - CROSBI

#### Browse by institution: Fakultet strojarstva i brodogradnje, Zagreb (120)

Found 2446 publications

#### Bibliography of institution for period from 2013. to 2017.

(overview by MOZVAG publication categories)

Type of publication	Total number of publications <sup>ii</sup>	
Top-level papers in accordance with the Ordinance on Criteria for Appointment to Scientific Positions <sup>iii</sup>	535	119
Other papers in accordance with the Ordinance on Criteria for Appointment to Scientific Positions <sup>iv</sup>	896	122
Authorship of books published abroad <sup>v</sup>	5	0
Authorship of books published in the country vi	2	2
Book chapters <sup>vii</sup>	12	5
Edited books viii	57	9
Professional publications <sup>ix</sup>	17	6
Peer-reviewed papers from scientific and expert conferences <sup>x</sup>	922	127

#### Final remarks

- bibliographic description needs to be continuously improved
- fuzzy characteristics of the publications fuzzy evaluation criteria exact numbers as an output
- awareness of limitations
- transparency the only solution!
- ▶ looking forward OA and 2020
- collaboration!
  - authority files (disciplines, authors, affiliations...)
  - publication types
  - peer review
  - interoperability







