Development of the (National) Database of Project Activities in Science and Higher Education in the Republic of Croatia

Marina Cvitanušić Brečić
Marina Grubišić

September 19th, 2019
Incentives and motivation

Incentives on European and global level
- Openness
- Sharing
- Connecting
- Data value

Motivation:
- business and private desire to contribute to the development of tools that will provide better information on the education and science system in Croatia
Agency for Science and Higher Education - ASHE

- government institution established in 2005
- ensuring quality assurance in Higher education and Science in Croatia

MAIN ACTIVITIES

• Quality Assurance (QA) Role – external evaluations in HE and Science
  - Re-accreditation of HEIs / scientific institutes *
  - Initial accreditation (programme/institutional)
  - Thematic evaluation
  - Audit (evaluation of the internal QA system at HEIs)

• Collecting and analysing data about research and higher education activities

• National ENIC/NARIC Office -> Recognition of foreign HE qualifications

• Central Applications Office -> National information centre for applications to study programmes at the HE institutions

• Support to various councils and committees

• International activities as member of European and global QA associations and Networks
  - ENQA, EQAR, ECA, CEENQA, INQAAHE, CHEA, IREG, EMREX…
Croatian specifics of QA in HE & Science

ALL Croatian Universities (and its constituents with legal rights - Faculties) are at the same time teaching and research institutions, thus having:

➢ Licence for Performing Higher Education Activity
   -> minimum criteria defined by Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Higher Education Activity, Carrying out a Study Programme and Re-Accreditation of Higher Education Institutions (Official Gazette, 24/10)

➢ Licence for Performing Scientific Activity
   -> minimum criteria defined by Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Scientific Activity and Re-Accreditation of Scientific Institutions (Official Gazette, 83/10)

QA evaluations -> in line with European standards and guidelines for QA in HE (ESG)

➢ Reaccreditation of HEIs (minimum criteria are checked):
   • Evaluation of the Teaching/Higher Education Activity -> criteria in line with the ESG + Ordinance
   • Evaluation of the Research/Scientific Activity -> additional criteria (not regulated by ESG -> national criteria + Ordinance)
(IT) Sources of data on HE and Science in QA evaluations

**MOZVAG** – ASHE's information system for collecting data on HE and Science for the purpose of QA evaluations
- study programmes
- staff (teaching/non-teaching)
- resources (human/financial)
- institution's activities (research, mobility, PROJECTS)
- mandatory for all HEIs

**ISVU** – Information system of HEIs
- financed by Ministry of education
- managed by Croatian University Computing Centre - Srce
- used by 85% HEIs
- not mandatory

**CROSBI** - Croatian Scientific Bibliography
- managed by Centre for Scientific Information at Ruđer Bošković Institute (CSI-RBI)
- partially-mandatory

HEIs own databases on their resources and activities

In the (near) future:
*Database of Project Activities in Science and Higher Education*
RE-ACCREDITATION DOCUMENTATION

Report based on MOZVAG data

Self-evaluation document prepared by HEI

Existing options for data input into MOZVAG:
- manual input into MOZVAG
- from ISVU (API)
- from CROSBI (API)

Potential future source - for data on project activities:
Database of Project Activities in Science and Higher Education
Development and upgrade of PA database

The eternal question: HOW TO IMPROVE DATA COLLECTION?

CHALLENGE for ASHE (not a problem!)

- to ensure verified and consistent data on project activities of Croatian institutions that are being evaluated
- more efficient collection of data

Desired solution: OPTIMIZATION and INTEROPERABILITY of existing IT sources

Desk-research findings:

- non existing systematic monitoring and recording of data on project activities of the institutions in the S&HE at the national level

Possible solution:

- upgrade of already existing CSI-RBI database on scientific project activities in Croatia
  - developed by CSI-RBI in 2016
  - upgraded in 2019 through cooperation of CSI-IRB and Department of Analytics and Statistics at ASHE through SKAZVO EU funded project
Problems with existing data on project activities

- various different sources
  - ministries, statistics bureau, HE institutions, Croatian Science Foundation …
- there is very little interconnectivity or data exchange
- verification of data
- user friendly IT tool
- common understanding of data
  - Difference between research and professional projects?
  - Different roles in the project (institution/persons)
  - Defining funding and funder

-> DATA MANAGEMENT
Upgrade of existing CSI-IRB database

- expanding the input base for all types of projects, not just scientific ones
- describing projects with as many categories and variables as possible, opposing to dividing them into 2 categories: scientific / professional projects
- harmonization of terminology used for description of data
- determining required data fields
How it should work?

- Researchers
- Croatian HE&S institutions

Manually or API Input

Input and data verification

Database of Project Activities in Science and Higher Education

API data exchange

Publicly available data

Officially appointed database administrators at Croatian HE&S institutions

MOZVAG

CROSBI

Other databases

Croatian HE&S institutions -> all institutions from the official Register of institutions in the system of HE and Science in Croatia, managed by Ministry of Science and Education
New project

**Basic info about project**

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th><strong>HR</strong></th>
<th><strong>EN</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Keywords</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acronym</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project ID</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Project type**
- Scientific - research
- Professional projects
- Human capacity building
- Infrastructural

**Funding type**
- Project funding
- Commercial service
- Directly assigned non-refundable funds
- Own-source funding

**Call**

**Total cost**

**Currency** Choose currency...
# Info about project

## Funder info

<table>
<thead>
<tr>
<th>Action</th>
<th>Funder</th>
<th>Funding scheme</th>
<th>Jurisdiction</th>
</tr>
</thead>
</table>

Add funder

## Institutions in project

<table>
<thead>
<tr>
<th>Action</th>
<th>Name/title</th>
<th>Role</th>
<th>Amount</th>
<th>From - to</th>
</tr>
</thead>
</table>

Add institution

## Participants in project

<table>
<thead>
<tr>
<th>Action</th>
<th>Name</th>
<th>Role</th>
<th>From - to</th>
</tr>
</thead>
</table>

Add person

☑ Approve project (it will be available for public and search)

Save project
Adding funder

Funder:
- CIT - Croatian Institute for Technology
- CCST - European Cooperation in Science and Technology
- CSF - Croatian Science Foundation
- EC - European Commission
- EPEEF - The Environmental Protection and Energy Efficiency Fund
- EUREKA - EUREKA
- HAMAG-BICRO - Croatian Agency for SMEs, Innovations and Investments
- IAEA - International Atomic Energy Agency
- IPA - Instrument for Pre-Accession assistance
- MEEC - Ministry of Economy, Entrepreneurship and Crafts
- MPS - Ministry of Agriculture
- MSE - Ministry of Science and Education
- MSES - Ministry of science, education and sports
- NATO - North Atlantic Treaty Organisation
- SELF-FUNDING - Institution self-funding
- SNSF - Swiss National Science Foundation
- UNESCO - United Nations Educational, Scientific and Cultural Organization
- UNIOS - Josip Juraj Strossmayer University of Osijek
Adding funder

Funder: EC - European Commission

Funding scheme:
- EAFRD - European Agricultural Fund for Rural Development
- ERDF - European Regional Development Fund
- EMFF - European Maritime and Fisheries Fund
- ERC - European Research Council
- ESF - European Social Fund
- Erasmus+ - Erasmus+
- FP6 - Framework Program 5
- FP6 - Framework Program 6
- FP7 - Framework Program 7
- H2020 - Horizon 2020
- IPA_CBC-HU-HR - IPA II Cross-border Co-operation Programme Hungary-Croatia
- CF - Cohesion Fund
- TEMPUS - Trans - European Mobility Scheme for University Studies
Adding institution

Institutions from official register of HE and Science institutions (Ministry of Science and Education)
Adding institution’s role in the project
Adding person(s) to project

Data from the official Register of scientists in Croatia (Ministry of Science and Education)
Marketing the database

- PROVIDING SOLUTION

- MOTIVATING USERS
  - carrot vs. stick approach

- PROVIDING POSSIBILITIES
  - re-use of data/reports
How should we call it?

Proposed potential future database acronyms
...depending on the final result

PASHE
-> paše (eng. it fits)

SHEPA
-> šepa (eng. it limps)

Project
Activities in
Science and
Higher
Education

Science and
Higher
Education
Project
Activities
Other current national initiatives towards optimization of data collecting

Ministry of Science and Education

• CroRIS - information management system on scientific activities - development and production within the outgoing project “Scientific and Technological Prediction”, carried out by the Ministry together with Srce and expert panels
Thank you for your attention.

CONTACTS:
Marina.Cvitanusic-Brecic@azvo.hr
Marina.Grubisic@azvo.hr