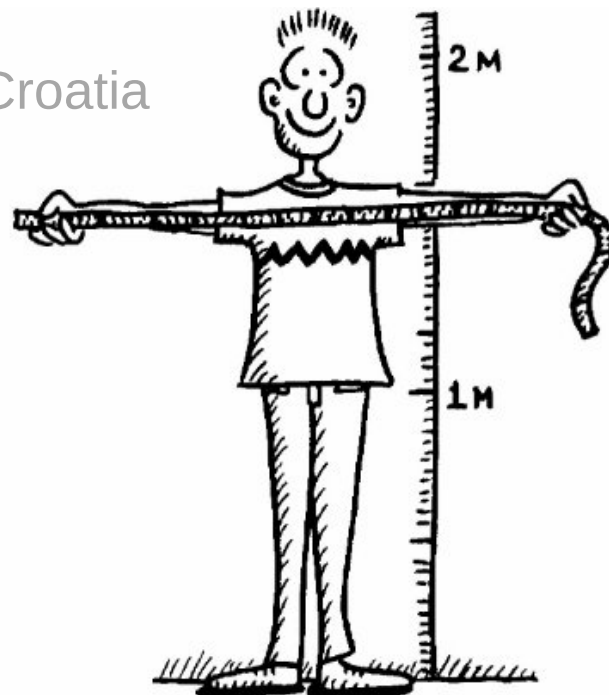


The current state and future perspectives of research information infrastructure in Croatia

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dr. sc. Bojan Macan, senior librarian
Ruđer Bošković Institute Library
bmacan@irb.hr



Research Information Systems

database or information system which stores and manages data about research conducted by the community for which it is implemented

- ▶ RISs usually contain information about:
 - ▶ persons
 - ▶ research institutions
 - ▶ projects and funding
 - ▶ results (publications and patents)
 - ▶ scientific equipment and facilities
 - ▶ events



- ▶ *Common European Research Information Format (CERIF)*
 - ▶ developed in 1987 with support by the European Commission
 - ▶ standard research information data exchange format
 - ▶ maintained by the not-for-profit organization euroCRIS
 - ▶ recommended by the EC to the member states
- ▶ *Current Research Information System (CRIS) = RIS based on CERIF*
- ▶ conceptual CERIF model consists of a number of entities (*base, result, 2nd level, link and infrastructure entities*) and functionalities (*multiple language features, semantics*)

Current state of research information infrastructure in Croatia

Database type	Existing database in Croatia
INSTITUTIONS	- Register of scientific organizations (MSES)
PERSONS	- Register of researchers (MSES) - Who is who in Croatian Science (RBI)
PUBLICATIONS	- Croatian scientific bibliography – CROSBI (RBI)
SCIENTIFIC EQUIPMENT	- Database of instruments for scientific research – Šestar (RBI)
PROJECTS	<ul style="list-style-type: none">- no integral database about projects- Svibor (database about MSES projects from 1990 until 1996) (MSES)- z-projects (MSES projects from 1996 until 2014) (MSES)- Croatian Science Foundation projects database (CSF)- data about projects in CROSBI and FULIR (RBI)- data about Croatian projects in OpenAIRE's projects API (RBI)

Register of scientific organizations

- ▶ official register maintained by the MSES
- ▶ underlying legislative which regulates procedures of collecting and administrating required data
- ▶ data gathered via written forms; MSES administrator creates new record in the register
- ▶ record updating via paper forms
- ▶ intention of gathering data which change over time (number of employees, data about scientific equipment etc.)
- ▶ not publicly available
- ▶ no information about organizational subunits

Databases about persons - 1

▶ *Register of researchers*

- ▶ official register of following persons in Croatia which are conducting scientific activities:
 - ▶ research associates, senior research associates and research advisors,
 - ▶ assistant professors, associate professors and full professors. In addition to the above, the following persons are entered in the register:
 - ▶ external associates – assistant professors and senior assistant professors,
 - ▶ persons with a doctoral degree and persons who have successfully defended a master's degree thesis pursuant to the regulations effective prior to the Scientific Research and Higher Education Act coming into force (NN 72/04)
- ▶ assigning of identification numbers for Croatian scientists
- ▶ record creation and its changes upon request via written form
- ▶ not publicly available

Databases about persons - 2

- ▶ *Who is who in Croatian science* (<http://tkojetko.irb.hr/en/>)
 - ▶ publicly available profiles of active Croatian scientists in Croatia and abroad (7.000 public profiles)
 - ▶ data about Croatian scientists, their interests, expertise, activities etc.
 - ▶ new profiles created by administrators on requests
 - ▶ scientists are responsible for updating of their profile
 - ▶ link to researcher's bibliography in CROSBI



Database about publications

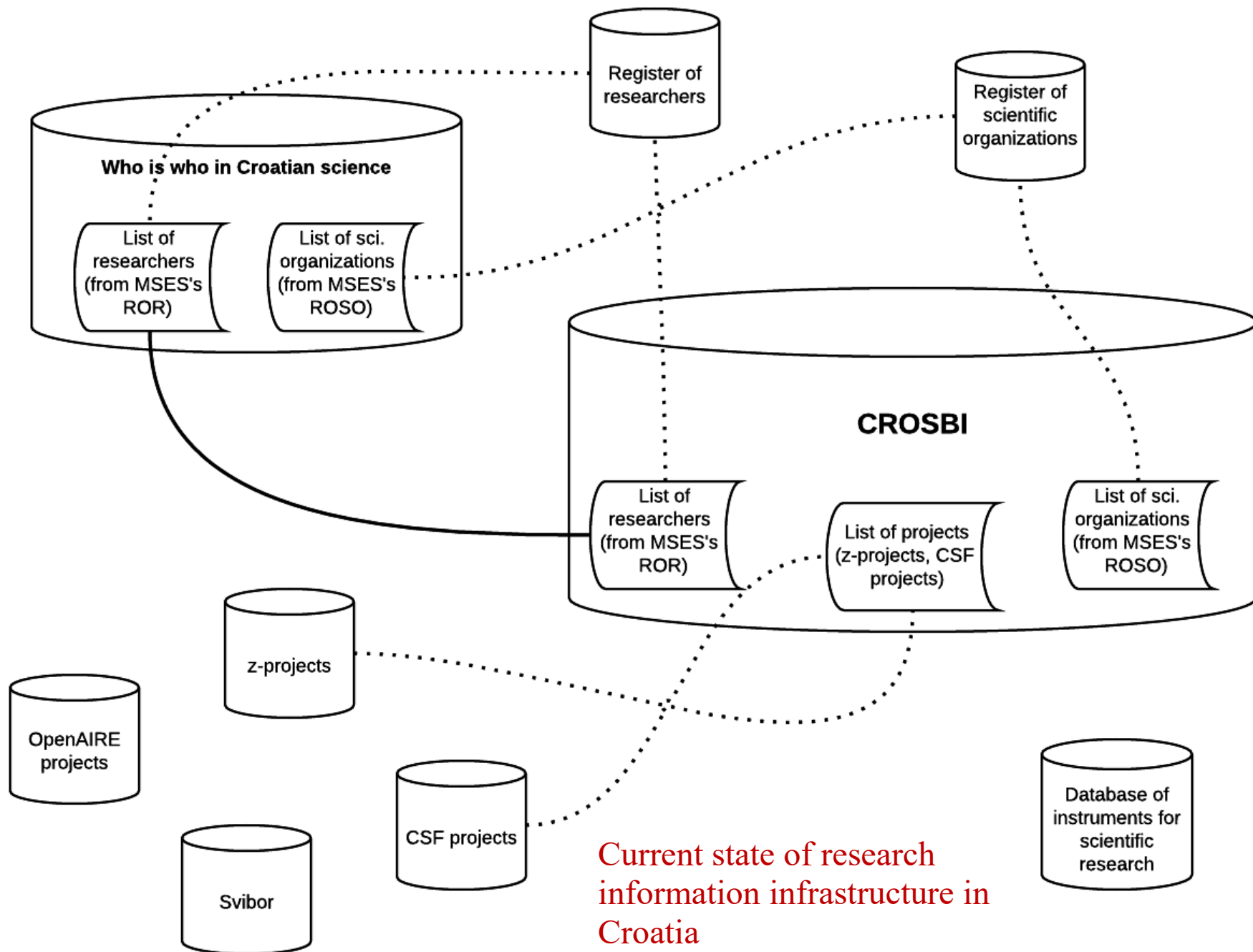
- ▶ *Croatian scientific bibliography* – CROSBI
 - ▶ Croatian national online scientific bibliography
 - ▶ created in 1997
 - ▶ based on self-archiving by researchers
 - ▶ centralized administration
 - ▶ mini RIS system
 - ▶ list of researchers (from the MSES Register of researchers)
 - ▶ list of scientific organizations (from the MSES Register of scientific organizations)
 - ▶ list of projects (MSES's z-projects, Croatian science foundation projects)
 - ▶ list of journals
 - ▶ issue with incompleteness and trustworthiness of data

Database about scientific equipment

- ▶ *Database of instruments for scientific research – Šestar* (<http://sestar.irb.hr>)
 - ▶ detailed description of instruments for scientific research
 - ▶ new records of scientific equipment created by researchers (AAI@EduHr)
 - ▶ centralized administration
 - ▶ used only by the RBI (and partly by the University of Rijeka)
 - ▶ possibility of reservations of scientific equipment

Databases about projects

- ▶ there's no integral database about scientific projects of Croatian organizations
- ▶ there are isolated database about projects of certain founders:
 - ▶ *z-projects* – data about projects financed by the Ministry of Science, education and sports (MSES) from 1996. until 2014
 - ▶ *Svibor* – data about projects financed by the MSES from 1990 until 1996
 - ▶ *Database of Croatian science foundation projects* – newly developed databases of projects financed by the CSF
 - ▶ CROSBI – authority lists of projects (MSES z-projects, CSF, EC (FP6, FP7, H2020) projects)
 - ▶ List of Croatian national projects (MSES z-projects, CSF projects) for the purpose of OpenAIRE central project API service



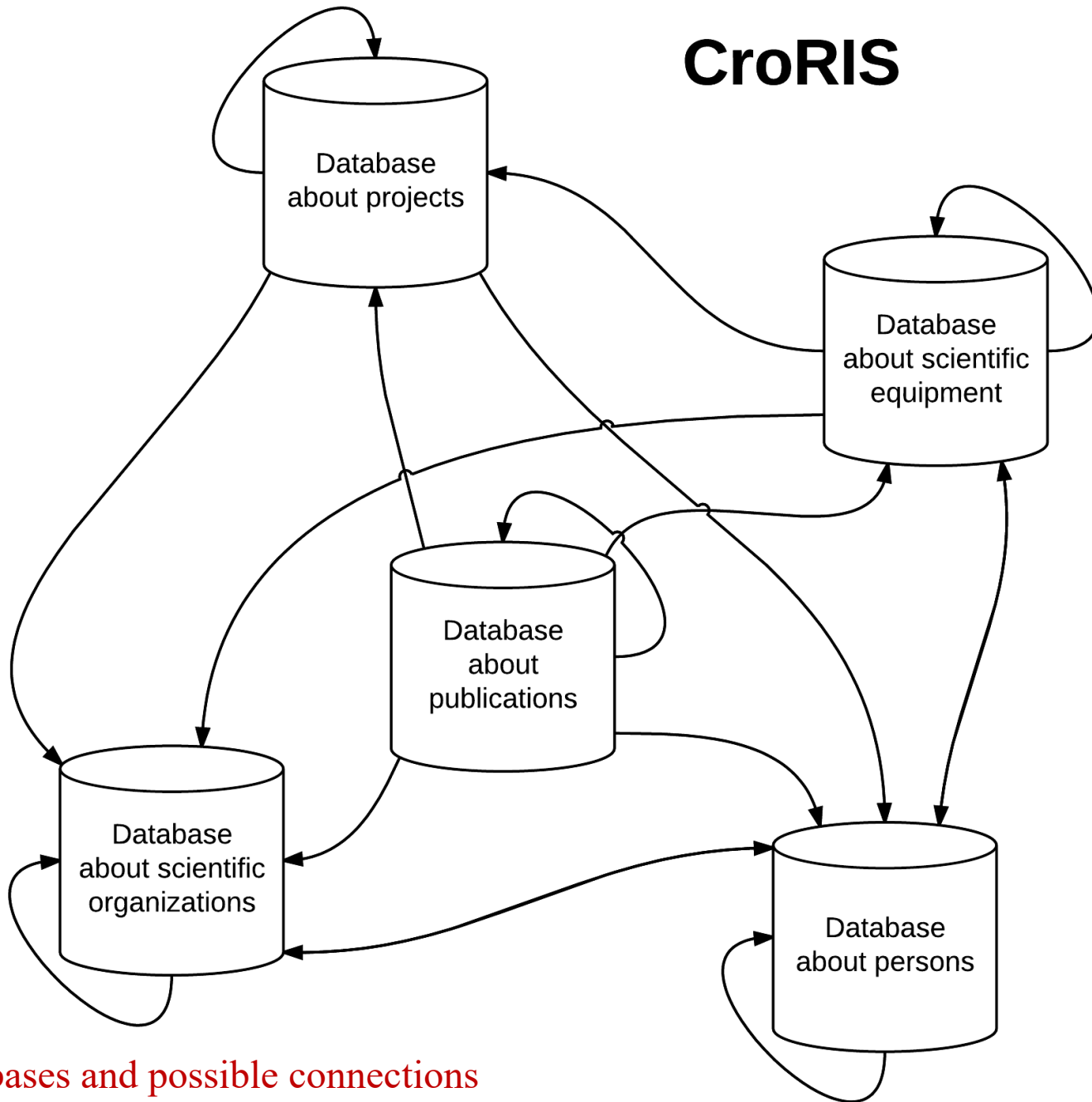
Future perspectives of Croatian RIS - CroRIS

- ▶ improve usable parts of existing research information infrastructure
- ▶ develop parts that are missing
- ▶ interconnect all databases
- ▶ CERIF compliance
- ▶ define administration procedures
 - ▶ the need of global, central administration, but also local administration at the institutional levels
- ▶ adopt legislation

CroRIS

- ▶ database about people
 - ▶ combination of the *Registry of researchers* and *Who is who in Croatian science*
- ▶ database about scientific organizations
 - ▶ expanded functionalities of the *Registry of scientific organizations* – inclusion of organizational subunits and possibly other types of organizations
- ▶ database about publications
 - ▶ improvements and modifications of CROSBİ
- ▶ database about scientific equipment
 - ▶ improvements and modifications of *Šestar*
- ▶ database about projects
 - ▶ creation of central database about Croatian projects (domestic projects + international projects with Croatian partner/coordinator)

CroRIS



CroRIS databases and possible connections between their entities

Conclusion

- ▶ (C)RIS systems can be useful for the evaluation purposes if the containing data are complete and trustworthy
- ▶ Croatia doesn't have an interoperable research information infrastructure at the moment, but there is a potential in existing databases
- ▶ absence of legislation and prescribed procedures
- ▶ implementation of CroRIS model and adoption of needed legislation would result with a system usable for various research evaluation as well as decision and policymaking purposes

