Internal institutional regulations and incentives at the Ruđer Bošković Institute in the Open Science Context

Mutual Learning Exercise on Open Science - Altmetrics and Rewards under the Horizon 2020 Policy Support Facility (PSF): "Incentives and Rewards to engage with Open Science activities"

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About the Ruđer Bošković Institute

- the largest Croatian research institute
- multidisciplinary science institute
- 11 research divisions + 3 joint units for scientific support
  - 75 research laboratories
- approx. 850 employees
  - 300 researchers and 200 PhD students and post-graduate fellows (4-5% of Croatian scientists)
Project activities

- orientation towards project activities (especially the international ones)
  - 13 H2020 projects (7.1 mil. EUR)
    - 2 out of 4 Croatian ERC grants
  - 88 Croatian Science Foundation projects (10 mil. EUR)
  - 33 FP7 projects
  - 20 FP6 projects
  - 2 FP5 projects
  - 2 Centres of Excelence (+ partners on few more)
- Structural funds:
  - O-ZIP
  - MORExpo
Scientific output

- approx. 600 scientific papers per year published in journals indexed in Web of Science Core Collection citation indexes (SCI-EXP, SSCI and A&HCI)
  - 18% of Croatian scientific output
  - 50% - 60% of papers published in Q1 journals according to their Journal Impact Factors (JIF)
    - approx. 30% of all Croatian papers published in Q1 journals according to their JIF
RBI’s strategic goals 2017-2023

- Increasing the quality of scientific research
- Improving the staffing structure of research and non-research staff
- Systematic participation in higher education
- Encouraging cooperation with industry
- Infrastructure improvement
- Better resource management and administrative support
- Popularization of science and promotion of the Institute
- Increasing the role of the Institute in creation of national scientific policy

Significantly different from standard policies in Croatia

Bojan Macan: Internal institutional regulations and incentives at the RBI
Adopted regulations and procedures

- Statute (*Statut*)
- Regulation of institutional organization (*Pravilnik o ustroju*)
- Regulation on additional conditions for scientific positions at the RBI (*Pravilnik o dodatnim uvjetima za izbore na znanstvena radna mjesta*)
- Acquisition/procurement authorization procedures (*Autorizacijske procedure pri nabavi*)
- Capital equipment regulations (*Pravilnik o kapitalnoj opremi*)
- Space management regulations (*Pravilnik o upravljanju prostorom*)
- Travel warrant procedures (*Procedure za putne naloge*)
- Labor regulations (*Pravilnik o radu*)
- Laboratory establishing procedures (*Procedure za osnivanje laboratorija*)
- Intellectual property regulations (*Pravilnik o intelektualnom vlasništvu*)
- External associates regulations (*Pravilnik o vanjskim suradnicima*)
- Development coefficient regulations (*Pravila za razvojne koeficijente*)
- ...
Additional conditions for scientific positions at the RBI

I. total number of scientific publications
   - in some cases more than twice as big as minimal conditions prescribed by the national regulation
   - Journal Impact Factor (JIF) as a ‘measure’ of an article ‘quality’

II. the excellence of candidate’s scientific publications and scientific reputation
   - author’s contribution to publications; membership of international journal editorial boards; invited lectures at international conferences; collaboration on international projects; visits to international institutions

III. ability to independently conduct scientific research
   - principal investigator; mentoring PhD students; international collaboration
Additional conditions for scientific positions at the RBI

IV. organizational abilities and contribution to the advancement of science

- implementations of innovative methods and subjects at institutional level; leading functions on institutional, national and international levels; improvement of infrastructure on institutional level; teaching; awards; conference organization; peer review for journals; popularization of science…

V. innovation, knowledge transfer and commercialization of scientific work

- patents; collaboration with the industry, projects or other activities with financial benefit for the institution (more than 500k kn)
What else has changed in the last few years?

- A post-doctoral experience at foreign institutions is introduced as a condition for employment on scientific positions at the RBI.
- Patents are taken into account for evaluation purposes:
  - E.g., 1 international patent = 2 scientific papers; 1 national patent = 1 scientific paper.
- Cooperation with the industry and coordination of competitive projects are also taken into account for evaluation purposes.
- Coordination of competitive projects as a condition for participation in the executive bodies of the Institute.
- The restrictions on the number of parallel functions and the number of mandates of an individual.
What else has changed in the last few years?

- Croatian scientists returning from foreign institutions to the RBI are provided with financial funds and working space at the Institute
- RBI’s scientific equipment must be open and accessible to potential users
- Annual financial awards for best publications
- Financial support to outstanding international project applications which were not funded
- Informatization and optimization of administrative procedures
RBI’s open science related activities

- development of Croatian OA infrastructure (on institutional and national level):
  - 1997 – Croatian Scientific Bibliography – CROSBI
  - 2002 – Portal of scientific journals of Croatia – Hrčak
  - 2007 – Database of instruments for scientific research – Šestar
  - 2011 – Full-text Institutional Repository of the Ruđer Bošković Institute – FULIR
  - 2015 – Digital Academic Archives and Repositories – DABAR

- participation in FP7 and H2020 OA related projects:
  - OpenAIRE Advance
  - OpenAIRE2020
  - OpenAIREplus
  - FOSTER
  - SERSCIDA
  - CESSDA SaW

- promotion of open access and open science
  - OpenAIRE National Open Access Desk
  - National Point of Reference for Open Access
OA infrastructure – FULIR

- Full-text institutional repository of the Ruđer Bošković Institute – FULIR (http://fulir.irb.hr/)
- first version released in 2011.
- possibility for archiving of various types of publications and research data
- based on self-archiving
- >2,400 records with full-text (90% in OA)
- functionalities:
  - OpenAIRE compliant (1st in Croatia)
  - interoperability with CROSBI
  - citation data from Web of Science Core Collection, Scopus and InSPIRE-HEP
  - altmetric scores from Altmetric.com
  - usage statistics...
Ruđer Bošković Institute open access self-archiving mandate

- 1st institutional OA mandate in Croatia (April 14th 2015)
- depositing of digital copies of all publications into the FULIR (based on self-archiving by the authors)
  - depositing of accepted manuscript or published version of article if allowed
  - ensuring open access according to publishers policies
  - encouraging for retaining certain copyrights (author addendum)
  - deposition required at the moment of acceptance for publishing and/or presentation date
  - possibility for opting-out
- deposition of publications to FULIR is precondition for receiving annual award for best publications at the RBI
Challenge 1: How to ensure OA to scientific publications?

- increasing awareness about benefits of OA
- training and education of research staff
- education of researchers about copyright issues
- carrots and sticks methods:
  - rewards for scientists/departments
  - promotion of researchers/research groups with the most OA records
  - only articles deposited in FULIR should be considered for (internal) research evaluation procedures
Challenge 2: Moving towards research data

- raise awareness among researchers
- build the infrastructure
- provide training and support
- adopt institutional/national/founder mandate for making research data OA
Challenge 3: Moving away from the Journal Impact Factor

Your (real) Impact Factor

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\text{Impact Factor (corrected)} = \frac{\text{# times your work is cited} - \text{# citations that actually trash your work} - \text{# times you cited yourself}}{\text{# times you were cited just to pad the introduction section}} - \text{# citations the editor pressured the author to include to increase the journal's impact factor}
\]

# original articles you've written + # articles you were included in out of pity or politics + # not-so-original articles you've written copied and pasted

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