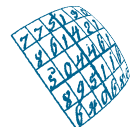


Evaluation of Research in Slovenia

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Assistant Director
Slovenian Research Agency (ARRS)
<http://www.rrs.gov.si/en>

Workshop on Research Evaluation in Austria
Vienna, May 5th, 2015



Contents:

- General introduction
- ARRS' portfolio
- Evaluation at the ARRS
- Information technology support
- Conclusions



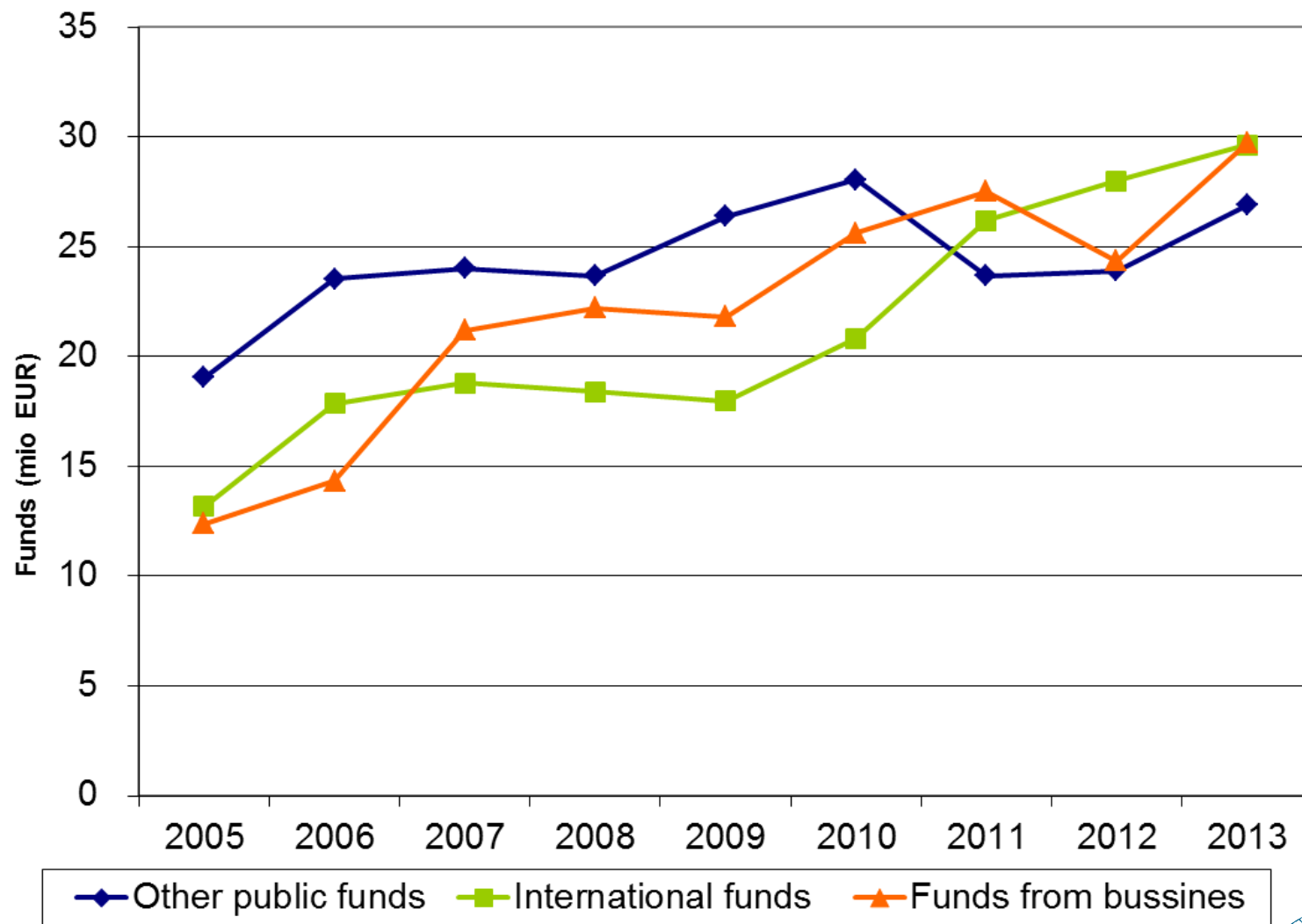
Basic information about Slovenia

- | | |
|--------------------------------|-------------|
| • Population | 2 million |
| • GDP per capita (2014, SURS): | 18.065 EUR |
| • S & T Budget (2014, planned) | 149 mio EUR |
| • ARRS budget (2014, realized) | 136 mio EUR |

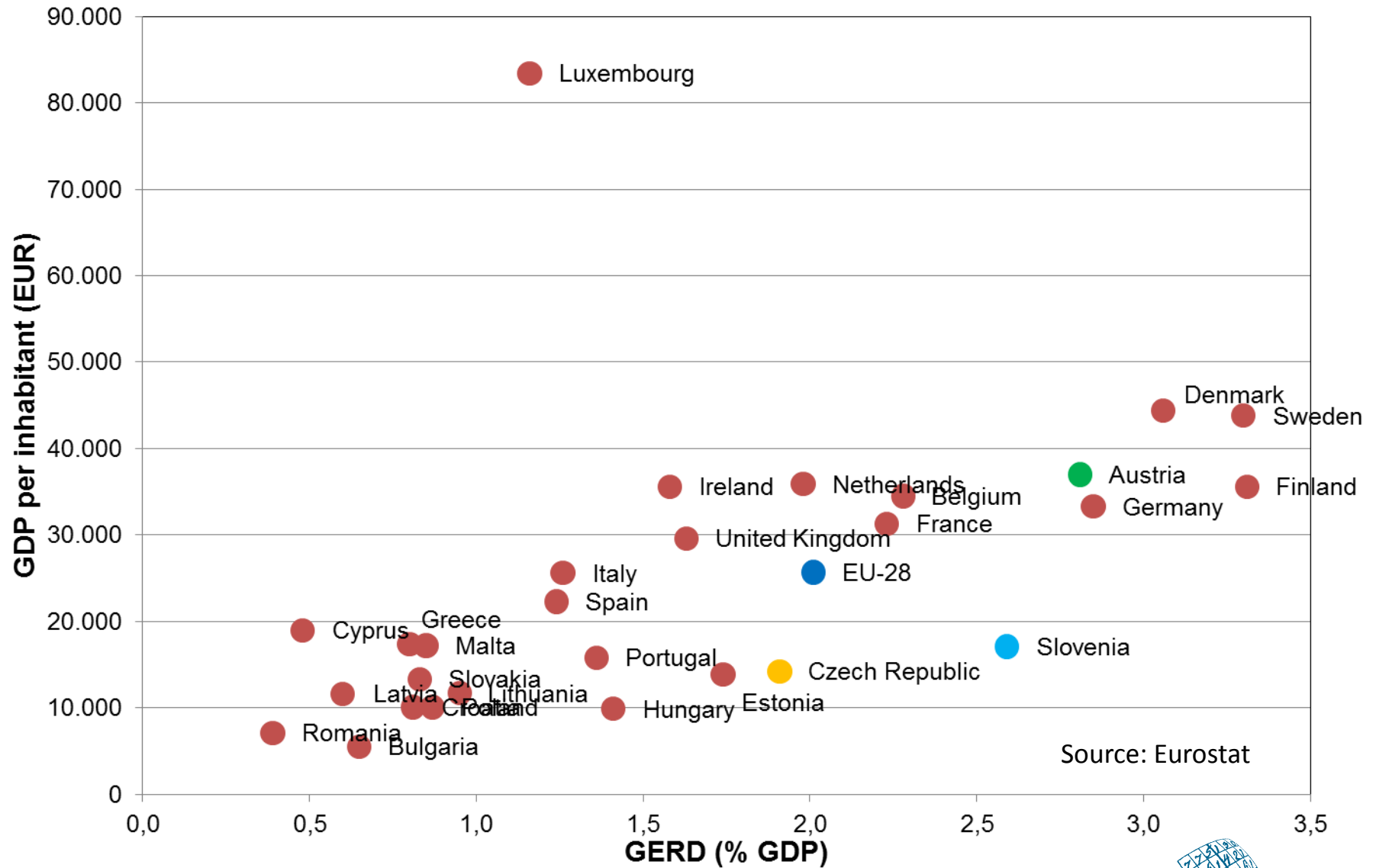
Main research performing institutions:

- 4 Universities
- 15 Public Research Institutes

Funding Research in Slovenia - Other Sources

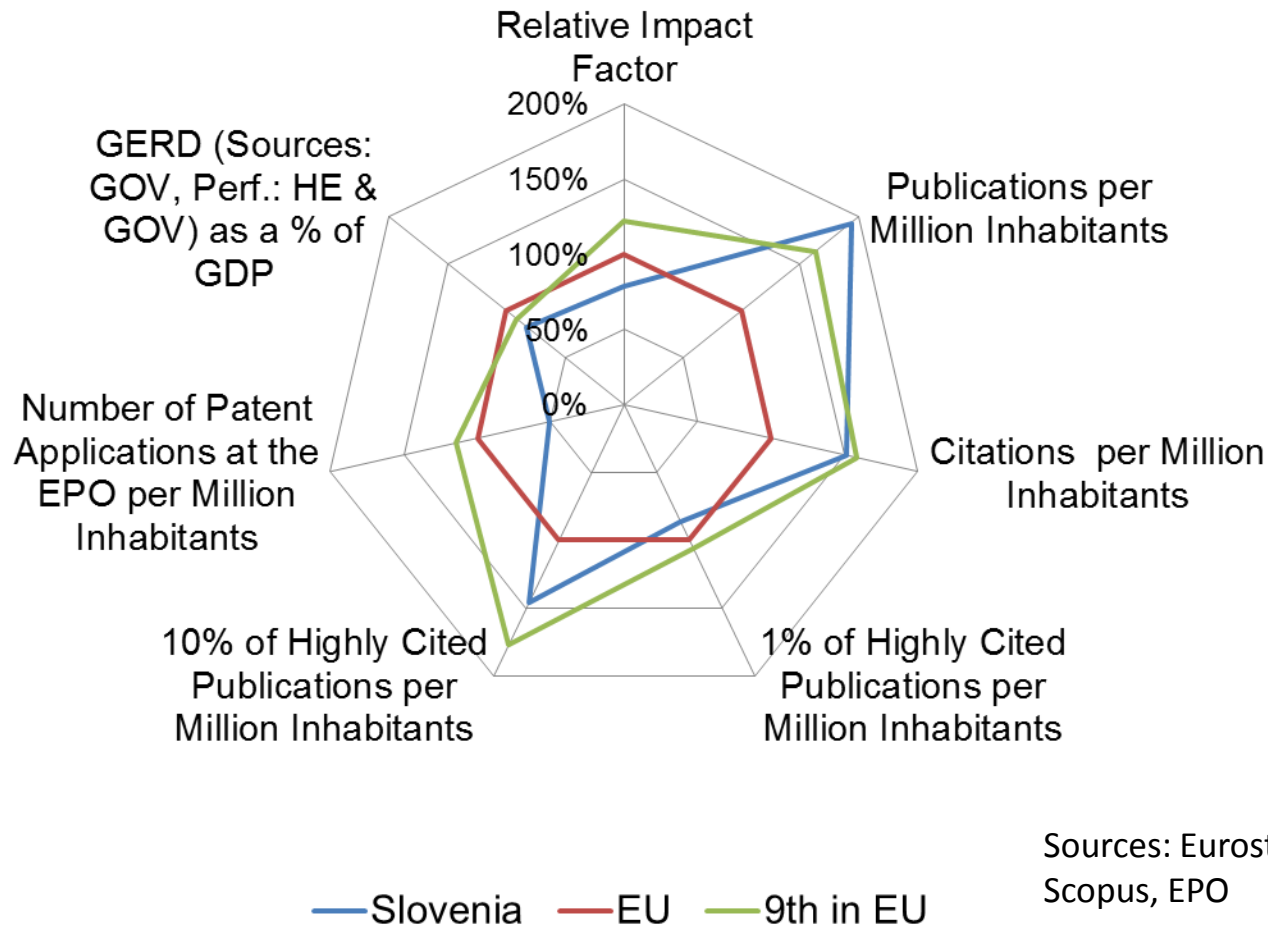


European comparison 2013: GDP and GERD

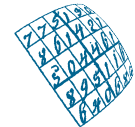


Source: Eurostat

Slovenia: Key Indicators



Sources: Eurostat, WoS, Scopus, EPO



Slovenia: Key Indicators and Funding (ARRS)

More information about indicators (international comparisons):

<http://www.arrs.gov.si/en/analyze/odlicnost/>

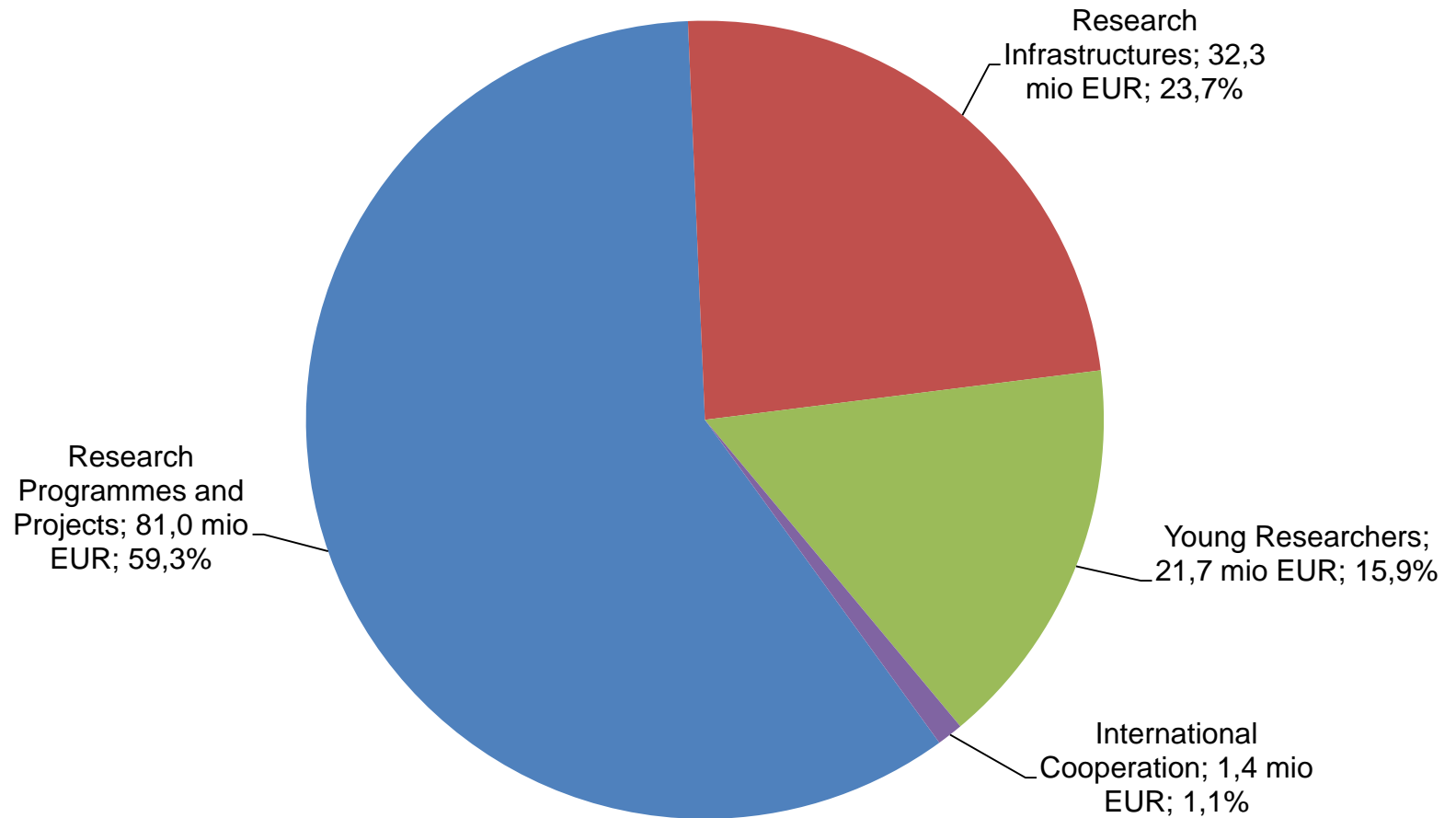
More information about funding (ARRS):

<http://www.arrs.gov.si/en/analyze/obseg01/>

ARRS ID

- **Established in 2004**
- **Main public funding body for basic and applicative research in Slovenia**
- **Budget:** 140 mio EUR
- **Number of Employees:** 48
- **Key Mechanisms:**
 1. Research Programmes (part of institutional funding, 303 funded in 2015)
 2. Research Projects (annual call, basic and applicative research)
 3. Young Researchers (annual call)
 4. Research Infrastructure
 5. International Cooperation
- **No thematic calls** (except for Targeted Research projects – safe food)

ARRSs' Key Funding Mechanisms



Institutional Research Landscape in 2014

- **4 Universities:**
 - University of Ljubljana (26 faculties)
27,9 % of ARRS funds
 - University of Maribor (17 faculties)
5,3 % of ARRS funds
 - University of Primorska (8 faculties)
2,5 % of ARRS funds
 - University of Nova Gorica (6 faculties)
1,4 % of ARRS funds
- **National Research Institutes (15)**
 - Jožef Stefan Institute
21,4 % of ARRS funds
 - Scientific Research Centre of Slovenian Academy of Sciences and Arts
8,2 % of ARRS funds
 - National Institute of Chemistry
7,3 % of ARRS funds
 - National Institute of Biology
2,9 % of ARRS funds
- **Research unites in the business sector (ca. 300)**
3,1 % of ARRS funds



University of Ljubljana



Institute 'Jožef Stefan'

ARRS Evaluation Principles

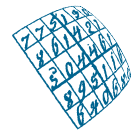
- **Quality** over quantity
- **Transparency** of evaluation
- **Conflict of interest avoidance** → foreign peers
- **Subjectivity avoidance** → panel / expert body

Functions of Evaluation

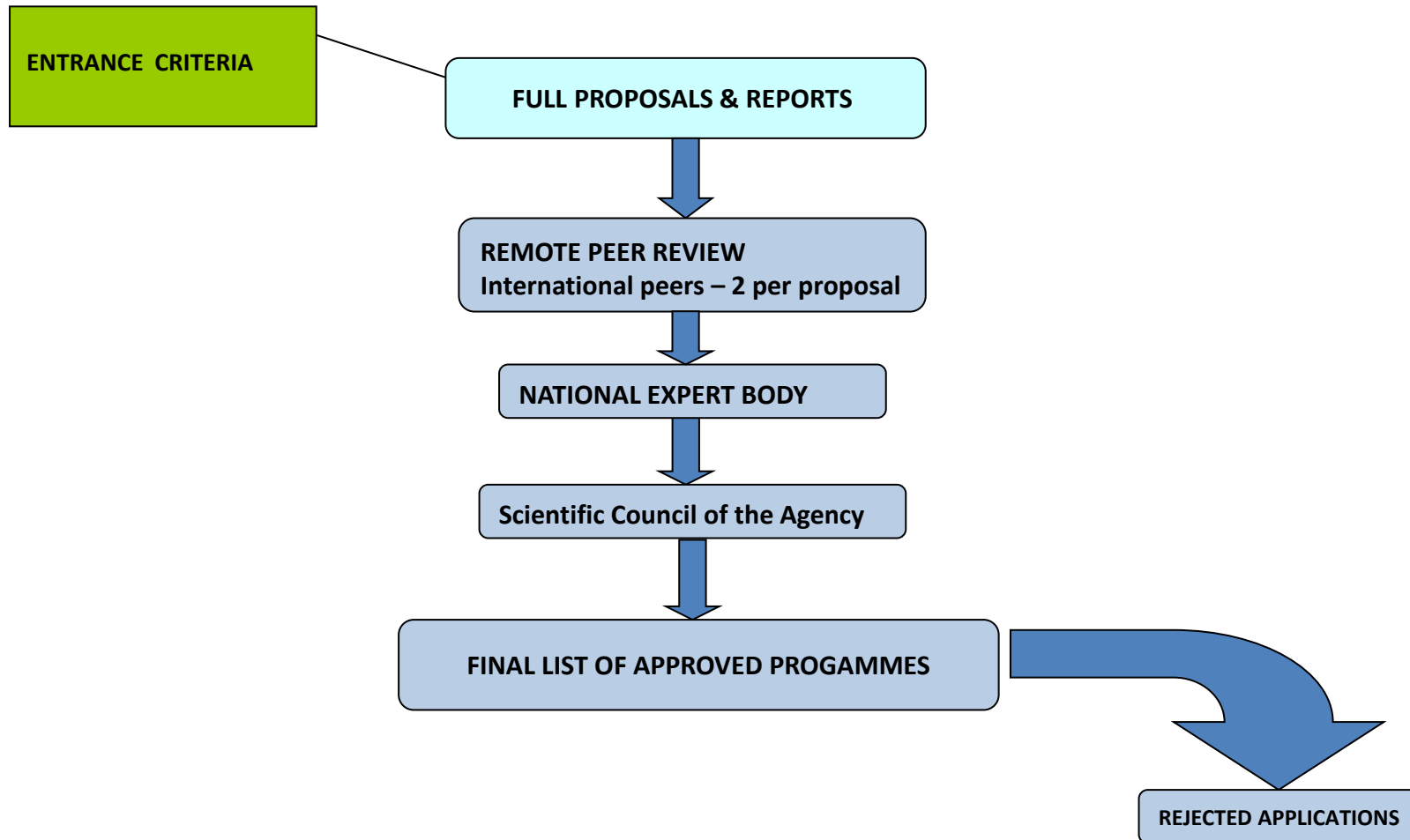
- Scientific quality assurance
- Social-economic relevance assurance
- Transparent and efficient allocation of public funding
- Scientific policy and management support

Research Programmes - Overview

- Started in 1999:
 - Part of research projects converted to research programmes (the same share for all groups) – 1. 1. 1999
 - Each research programme at one research institution
 - Time to the next evaluation: 5 years, i.e., 2003
- Evaluation in 2003:
 - Merging of some of the research programmes
 - Several research institutions can take part in a research programme
- Evaluation in 2008:
 - Time to the next evaluation: 3 – 6 years depending on the review outcome
 - Time to the next evaluation for the new programme: 3 years
- New Research and innovation strategy – 2011 → Institutional evaluations
- Evaluation 2012-2014
 - Reviewers from abroad (2 per research programme) → time to the next evaluation
 - Bibliometric and financial indicators → funds



Evaluation of Research Programmes



Quantitative Criteria – Entrance Criteria

- **Quality of the scientific record**

- **Grade A_1** – publications in the past 5 years - SICRIS (COBISS) - [0 – 7 points]
- **Grade A_2** – normalized number of citations in the past 10 years - SICRIS (WoS, Scopus) - [0 – 10 points]

- **Scientific and socio-economic relevance**

- **Grade A_3** – funds from other users (funds gained outside the ARRS) [0 – 10 points]

Threshold value is defined in terms of $A_1+A_2+A_3$, however

- **Above-average scientific excellence**

- **Indicator A''** (Exceptional achievements, top 5 %)
- **Indicator A'** (High quality achievements, top 25 %)

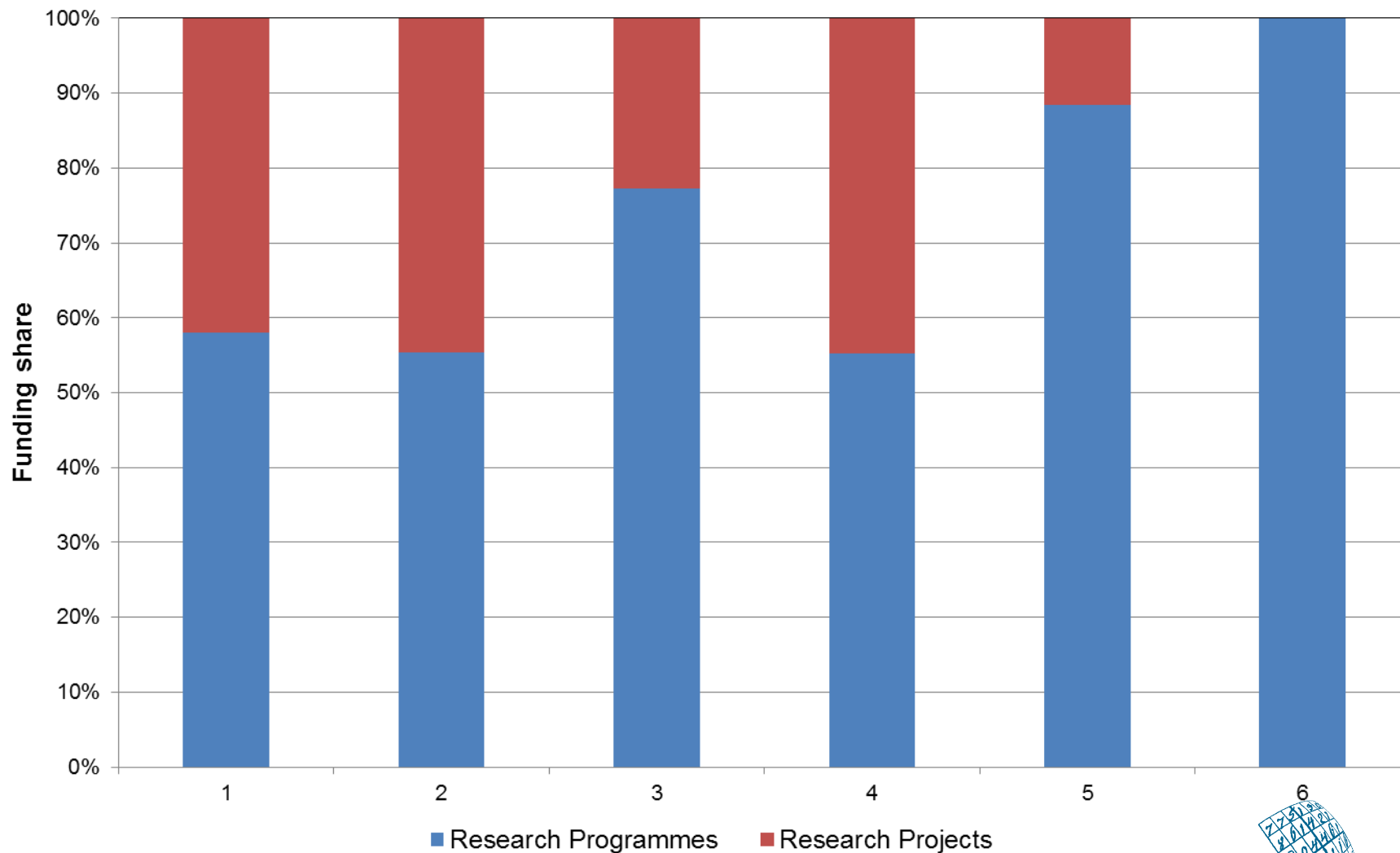
with sufficient A'' or A' , one can enter, too.

Qualitative Criteria – Quality Assessment of Project / Programme Applications

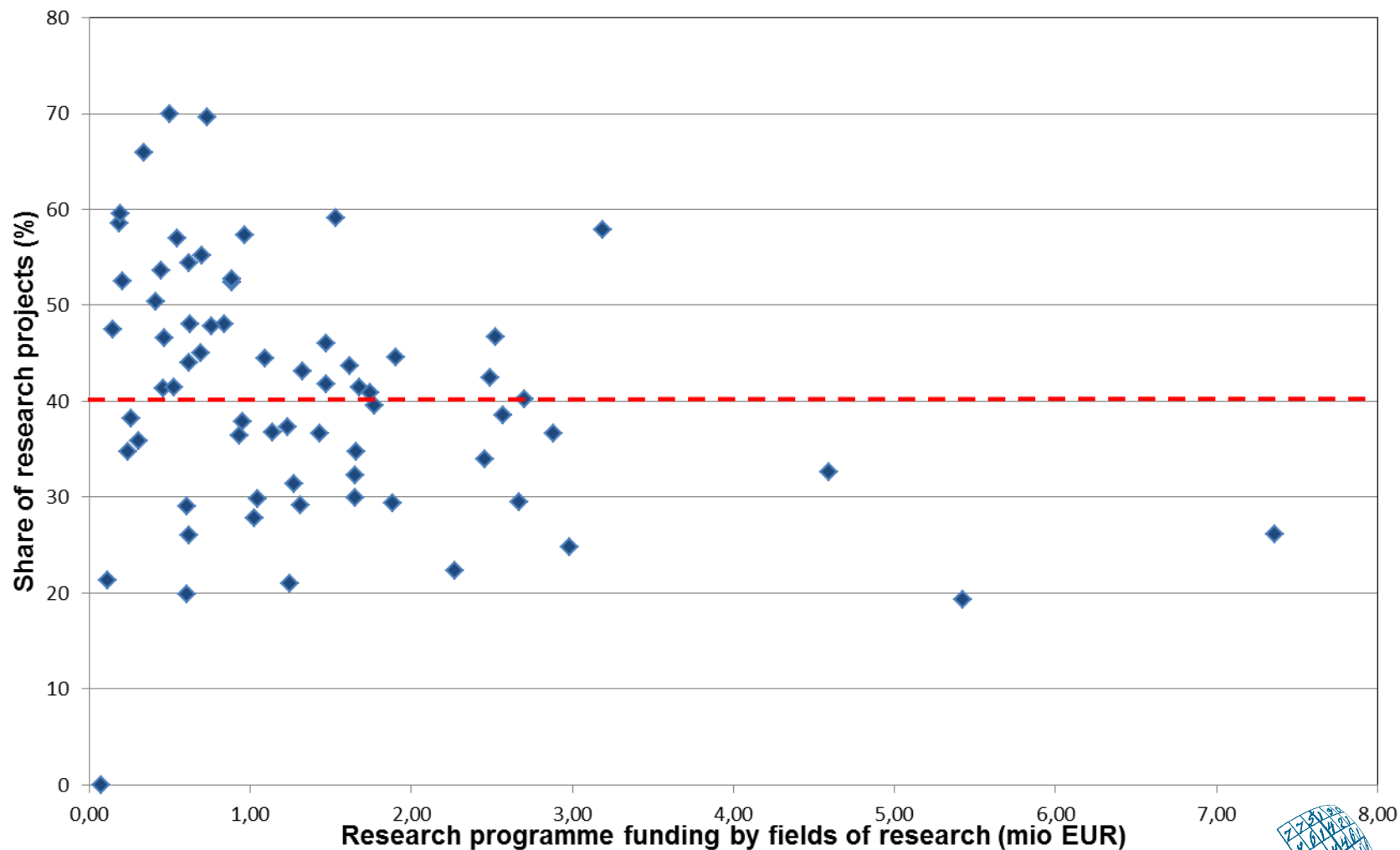
- Grade B₁ – The research excellence of a researcher or a group of researchers [0 – 5 points]
- Grade B₂ – The socioeconomic or cultural relevance of research results of a researcher or a group of researchers [0 – 5 points]
- Grade B₃ – The R&D quality of the application [0 – 5 points]
- Grade B₄ – The relevance and potential impact of the application [0 – 5 points]
- Grade B₅ – The proposal feasibility [0 – 5 points]

$$B = B_1 + B_2 + B_3 + B_4 + B_5 = \max 25$$

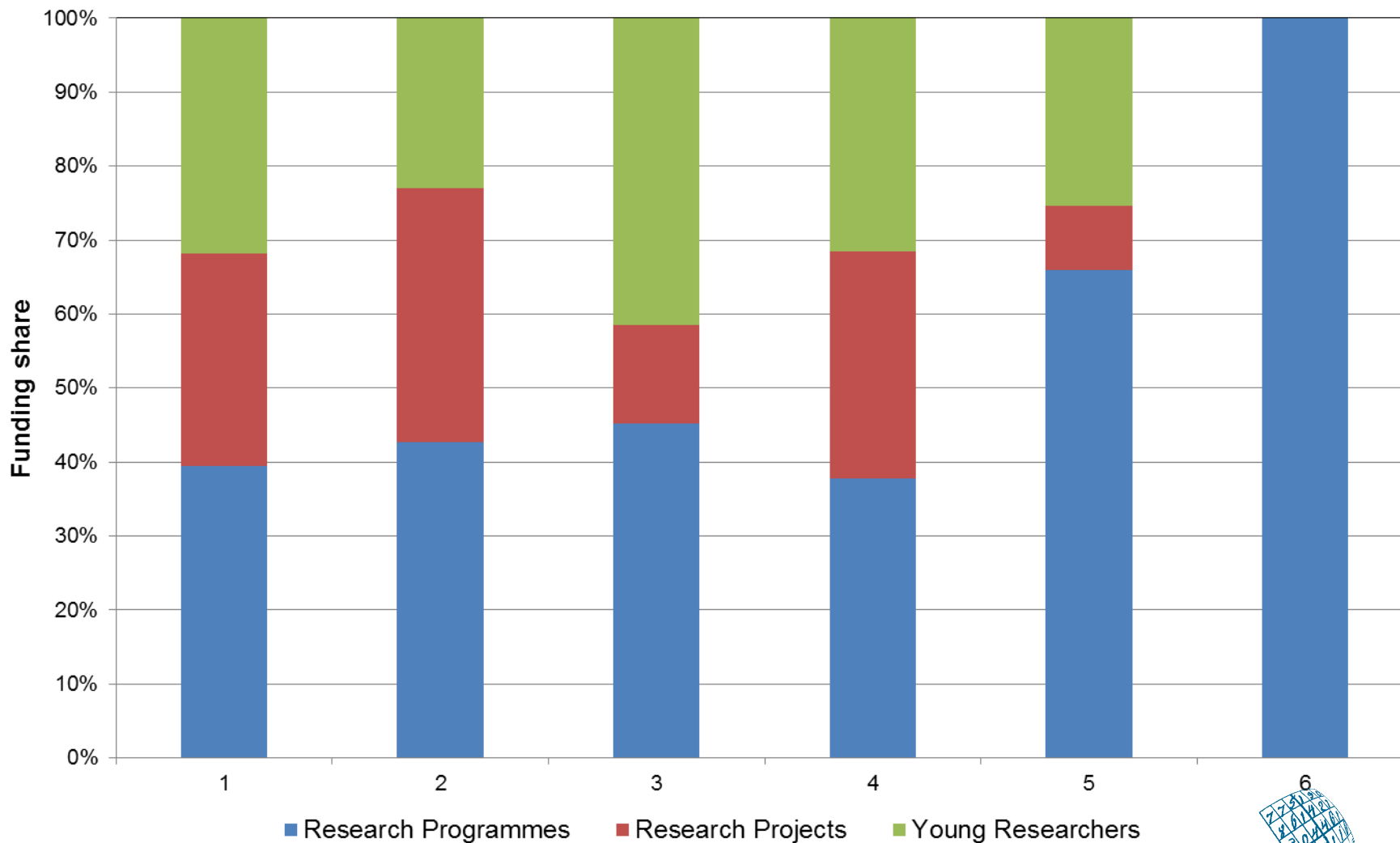
Funding research programmes – the problem of programme size - 2010



Funding Research Programmes – the problem of programme size - 2010



Funding research programmes – the problem of programme size - 2010



Scientific Excellence and Relevance of Research Programmes

Programme size – criteria used:

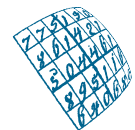
Scientific criteria:

- funds for research projects and young researchers / research programme funds
- international quality within research field (citations)

Relevance criteria:

- funds from European and international projects / research programme funds
- funds from companies / research programme funds
- funds from other ministries and public sources / research programme funds

Ranking is done for each scientific discipline separately



Scientific Excellence and Relevance of Research Programmes

Relevance criteria

- funds from european projects and other international projects / core funds
- funds from companies / core funds
- funds from other ministries / core funds

Scientific criteria

- funds for projects and young researchers / core funds
- international quality within scientific field (citations)

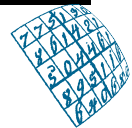
	BC	1A	2A	3A
2A	28	29	28	10
1A	58	47	15	14
BC	40	9	9	3

↓

A: above 1 (1 = average)

B: from 0,5 to 1

C: below 0,5



Evaluation and Review of Research Results

- Use of **SICRIS** system and its abstracts of research work
 - The most important scientific results
 - Socio-economic significance of research
- Use of **COBISS** bibliographic system
- Use of **international citation indexes** (ISI, CSA and other bibliographic databases)

About SICRIS Information System

SICRIS = Slovenian Current Research Information System

- developed and maintained by the Institute of Information Science ([IZUM](http://izum.si)) and ARRS
- Currently presented entities:
 - 1027 research organisations
 - 1612 research groups
 - 14358 researchers
 - 6044 research projects
 - 468 research programs
- allows viewing of presentation pages of more than **500 European projects** of the EU Framework Programmes directly from the Projects database within the CORDIS system
- <http://sicris.izum.si/default.aspx?lang=eng>



SICRIS Information System



SEARCH
basic, advanced ...

SERVICES
bibliographic indexes ...

LOGIN
private access ...

NOTIFICATIONS
news, faq ...

SICRIS
basic information ...

Researcher's

Hits: 1 [XML](#) 1 search

Status researcher - active in research organisation

[Predstavitev](#) / Introduction

Research activity no. of areas:2

4.06 - Biotechnical sciences / Biotechnology
plant physiology, biotechnology, biochemistry, pathology, hormones, tissue cultures, secondary metabolites, root cultures, transformation, molecular biology, viruses...

Bibliography
[Representative](#) / [Personal](#)

Citations WoS/Scopus
Citations for bibliographic records in COBIB.SI that are connected to records in WoS and/or Scopus

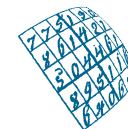
Columns for display...

connected records	citations	pure citations	average pure citations
107/128	1143/1393	823/1002	7,69/7,83

Results - SRA programmes and projects year:2014

TV shows and lectures no:2

Mentoring young researchers no:14



COBISS Bibliographic System

Personal bibliography for the period 2009-2015

ARTICLES AND OTHER COMPONENT PARTS

1.01 Original scientific article

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3. RAČKI, Nejc, KRAMBERGER, Petra, STEYER, Andrej, GAŠPERŠIČ, Jernej, ŠTRANCAR, Aleš, RAVNIKAR, Maja, GUTIERREZ-AGUIRRE, Ion. Methacrylate monolith chromatography as a tool for waterborne virus removal. *Journal of chromatography. A*, ISSN 0021-9673, 2015, vol. , 7 str., [in press], doi: [10.1016/j.chroma.2015.01.003](https://doi.org/10.1016/j.chroma.2015.01.003). [COBISS.SI-ID [3299151](#)], [JCR, SNIP, WoS up to 16. 3. 2015: no. of citations (TC): 0, without self-citations (CI): 0, weighted no. of citations (NC): 0, Scopus up to 23. 2. 2015: no. of citations (TC): 0, pure citations (CI): 0, normalized no. of pure citations (NC): 0]
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Conclusions

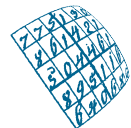
- Key elements of the system are transparency, avoidance of conflict of interest and avoidance of subjectivity
- Details of evaluation system depend on the situation in the country and the needs
- Good analytical insight is a must, do not „copy – paste“

Future plans:

- To optimize methodology (funding size, criteria for peer review)
- To consider how to include the outcome from the peer review into the methodology to decide about the funds for individual research programme
- Making the transition

„Philosophical“ questions:

- Does the type of evaluation selected imply the type of organisation and behaviour of the research performing organizations?
- When to decide to evaluate institutions and when the fields of research?



Thank you for your attention!

