

Evaluation of individual
research results

in Romania

Evaluation of research results

- Assessment of performance compared to a set of explicit or implicit standards as means to contribute to an improvement of the status quo
- Used to:
 - For decision making; in particular, to decide the allocation of resources
 - Support internal processes for learning about the research system status and adapt the programs for research funding

Evaluation questions

1. What will be assessed
2. What measures/indicators will be used
3. Who will be evaluated
4. What data will be collected
5. How will data be analyzed

Types of evaluation

- Summative evaluation or Outcome Evaluation:
 - to understand the outcomes or effects of decisions
 - Eg test the effectiveness of teaching or a curriculum
- Formative evaluation or Process evaluation:
 - to help strengthen or improve the person or thing being tested
 - Eg. test to shape teaching methods

Who data will be analyzed?

Quantitative analysis

- Group comparisons
- Group change
- Individual change
- Comparison to reference
- Analysis of relationships

Qualitative analysis

- Self-reports
- Documentation
- Description
- Case study

Principles of individual evaluation in RO science

To measure

1. the level of involvement of the individual in
 - research activities, technological development and/or innovation
 - take-up activities (like teaching)
2. the impact and visibility at
 - national level
 - international level

Key performance indicators (KPIs)

- Checked for
 - accessing new positions in academic/research institutions
 - accessing funds
- Standards KPIs and thresholds are proposed by a domain specific committee of a national organization (CNATDCU)

Categories of KPIs for Computer Science

1. Ethical criteria
2. Scientific production
3. Result impact
4. Academic performance

Scientific production in CS (I)

- Publications are classified in 5 categories, A*, A, B, C, D, with associated points 12, 8, 4, 2, 1
- The points are divided with the number of authors
- Conference papers
 - are classified according the CORE list in A*, A, B, C
 - if included in Scopus, IEEE, ACM, Springer, DBLP, ZBL, EBSCO, Proquest etc are at least D
 - workshop of the conference are passed in the next category (except D which remain D)

Scientific production in CS (II)

- Publications are classified in 5 categories (A*, A, B, C, D)
- Journal papers
 - are classified according the Impact Factor (IF) or Article Influence Score (AIS) exposed in the Web of Knowledge (WoS)
 - A* - the first 20% of the journals (being x) from the list of the journals in decreasing order
 - A – the first 25% + x from the same list
 - B – the first 50% + x
 - C – indexed in WoS or Scopus
 - D – others

Result impact

- Based on citations on the scientific publications of the individual
- The citations are classified again in the 5 categories and points are associated to them

Academic performance (I)

- Books and book chapters as author or editor according SENSE categories
- Conference proceedings editor according the 5 categories
- Publication of teaching materials in electronic format
- Director/editor of a journal from the 5 categories
- Director/member of a national or international project
- Member in the scientific committee of conferences
- Organizer of scientific events or summer/winter schools
- Keynote speaker to events or universities

Academic performance (II)

- Visiting professor
- Research group initiator
- Member in PhD defense committees or in the advisory board of PhD candidates
- Patents and inventions
- Software tool development or data collection in open source collections
- Leadership position in national/international professional organisations
- Awards

The role of collected points

- Quantitative:
 - Collected points from all five categories are indicators of a quantitative experience
- Qualitative:
 - Collected points from the first three categories are indicators of a quantitative experience
- Quantitative and qualitative thresholds
 - State the minimal conditions for a certain academic/research position

Hirsch index (h-index) relevant for CS

- Google Scholar
- Scopus
- Web of Knowledge

Local URAP system

- Available at urap.uvt.ro
- Current status of criteria coverage
- Future developments:
 - ...
 - ...
 - ...