

Evaluarea potentialului CD al Romaniei in nanostiinta si nanotehnologie
Propuneri: Stabilirea criteriilor de evaluare pentru cercetarea fundamentala

UT Iasi (P4)

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Fundamentare

1. Asigurarea unor criterii recunoscute la nivel european
2. Utilizarea experientei europene in evaluarea cercetarii
3. Concordanta cu cerintele domeniului (in buna masura tehnologic)
4. Obiectivitate

Note, explicatii

- Tema este: Evaluarea potentialului CD al Romaniei in nanostiinta si nanotehnologie -- Stabilirea criteriilor de evaluare pentru cercetarea fundamentala
- Nanostiinta si nanotehnologia sunt puternic dependente de aplicatii, prin urmare este bine de inclus si latura tehnologica in evaluare.
- La nivel de stiinta fundamentala, criteriile nu pot fi altele decat cele recunoscute international. Conform acestora, un grup sau centru de cercetare se inscrie in una dintre categoriile (aproximativ – revenim cu precizari):
 - Excellence = major player at the international level (has produced breakthroughs)
 - International player = has a respected voice in the international community
 - Visible = has produced results accepted at the international level
 - National player
 - Regional player or insignificant

Example of evaluation by ESA

Questions to be addressed:

- internationally visible and competitive research unit (Quality/Productivity score A).
- Researchers target scientific questions, which are highly relevant in terms of scientific and socio-economic impact, and are included in national priorities and Framework Programmes of the EU (Socio-economic Impact score A).
- The capacity of fund raising, and attraction of students and future researchers
- The plans for future developments



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The aims of the evaluation as stated in the MoU were:

1. To assess research performance of the BAS Research Units in relation to their mandate and resources;
2. To assess the level of integration of the Research Units of BAS in international scientific cooperation in general and in the European Research Area in particular;
3. To assess the value and the effectiveness of the Research Units of BAS on the national level and their utility for the Bulgarian state and society;
4. To recommend appropriate structural and organisational measures aimed at improving the competitiveness of the Research Units of BAS on national, regional and international levels;

2.3.1 Evaluation Criteria

The evaluation criteria adopted for this exercise were based on the “Standard Evaluation Protocol” for institutional evaluations⁵. It encourages a “*descriptive evaluation that focuses on strengths and weaknesses (s/w) using four evaluation criteria*”, namely quality and productivity, scientific and societal relevance and prospects. For the purposes of this evaluation, it was found that a slight adaptation of the criteria would be useful.

The modified criteria adopted for this evaluation were:

- **Quality and Productivity:** *international recognition and innovative potential and scientific output and international standing of the Institutes;*
- **Relevance:** *socio-economic impact;*
- **Prospects:** *vitality, feasibility, management, leadership and future potential/ability of the Institutes to tackle new scientific challenges.*

The evaluation therefore looked at three levels: a) **international** scientific standing; b) **domestic** socio-economic, including cultural, relevance; c) **internal** prospects of the Institutes examined.

Overall Scores on combined Quality and Productivity (modified statements):

- **“A*”** for work that is *internationally at the forefront*. The Institute has made a substantial impact in the field and is considered an international leader.
- **“A”** for work that is *internationally competitive*. The Institute has demonstrated important contributions to the field and is considered an international player.
- **“B”** for work that is *internationally visible*. The Institute has made valuable international contributions in the field.
- **“C”** for work that is solid and has added to our understanding and is in principle worthy of continuation. The Institute is *nationally visible*.
- **“D”** for work that is not solid or is a repetition of existing results, or for work that is flawed in the scientific and or technical approaches.

The scores adopted for Relevance and Prospects are listed below.

Relevance: Socio-economic Impacts:

- A- Highly relevant
- B- Moderately relevant
- C- Not relevant

Prospects:

- A- High
- B- Moderate
- C- Low

Services of particular national importance connected to:

- A) the operation of national, state and governmental institutions and supporting their functioning;
- B) various regional initiatives and infrastructures.

Overall academic achievements or the reputation of the research unit as illustrated by all data for the period 2004-2008, with special stress on:

- A) up to five most important scientific achievements;
- B) up to five most important applied results and/or achievements;
- C) total number of citations in the period 2004-2008;

- three priority areas:
- create better conditions for young researchers
- improve access to European networks for all fields of research
- develop a long-term vision on the goals and tasks of the research units, based on their strengths

Innovation potential of the research unit – patents, advanced technologies, prototypes, applications, perspectives for strengthening relations with industry and/or other sectors important for the economic development of the country. Critical assessment and future plans.

Conclusions

- La nivel european, exista principii si metodologii de evaluare, care ar trebui urmate pentru ca evaluarea sa fie credibila si utila in dialogul cu partenerii europeni.

Propunere: Criteriile ESF / ALLEA

- **Avantajele utilizării acestor criterii:**
 1. Asigurarea unor criterii recunoscute la nivel european
 2. Utilizarea experienței europene în evaluarea cercetării