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**'EVALUATION OF RESEARCH INSTITUTES OF
THE NATIONAL ACADEMY OF SCIENCES OF
UKRAINE: PROBLEMS WITH
IMPLEMENTATION OF THE 'BEST
PRACTICES'**

National Academy of Sciences of Ukraine (NASU): some facts and key figures (2017)

- 153 research organizations (3 sections, 14 departments)
- 15,6 thous. researchers (less than 26 thous. – total number of employees)
- Total budget – **2,7 bl. Hryvna Ukr.** (less than 90 million Euros according to the market exchange rate)
- At the same time –22 journals of NASU are published abroad in English and 10 journals are published in English in Ukraine. 583 patents and 4363 other IPR-related documents were obtained in 2017.

Key elements of evaluation

- Based on utilization of international experience and national and international indicators
- Transparent procedures of evaluation, exclusion of conflict of interests
- Possibility to appeal results of the evaluation from the side of research organization
- More flexible procedure (no single indicator for ranking) and 'subjective' metrics
- Involvement of external evaluators, including foreign experts

Expert committees and groups

- 1. Permanent Evaluation Committee (PEC) of the National Academy of Sciences of Ukraine (NASU) – formed by the Presidium of the NASU (20+ persons)**
- 2. Permanent Expert Committee on a Relevant Field of Science (PECRES) – formed by the PEC (12-14 + persons)**
- 3. Expert groups (5-6 members) – formed by the PECRES along with the Institutes**

Evaluation office of NASU

- Office was created in June, 2017 with (3.5 persons)
- It is responsible for technical issues , related to the evaluation
- The creation of such office was justified by its participation in the evaluation process

First stage of evaluation

- At the first stage, the **Expert group** (first-level review board) evaluates the scientific activities of the Institution.
- Members of the group inspect the Institution activities, analyze the inquiry form filled by the Institution beforehand, verify whether the materials submitted by the Institution are unbiased, and prepare their conclusion according to the selected criteria.

Second stage of evaluation

- At the second stage, the **Permanent Expert Committee on a Relevant Field of Science** (second-level review board) prepares a presentation on the Institution activities in accordance with the report of the first-level group and after consultations with the Institution.
- The second-level review board makes conclusion on work of experts in the Institution.
- The Institution can make a statement concerning this conclusion.

Third stage of evaluation

- At the third stage, the **Permanent Evaluation Committee of the National Academy of Sciences of Ukraine** (third-level review board) considers the presentation of the second-level board, the conclusion of the first-level group, and the statement of the Institution.
- The third stage of the evaluation should result in the report of the third-stage review board that should evaluate the scientific activities of the Institution and should contain recommendation on its further financing.
- The report of the third-stage review board should be based on the results of the first-level and second-level evaluation stages.

Results of evaluation

- The **Permanent Evaluation Committee of the National Academy of Sciences of Ukraine** (third-level review board) publishes the results in the official Internet site of the NASU along with the underlying information, i.e.:
- the presentation of the Institution prepared by the second-level review board;
- the first-level review board conclusion on the evaluation of the Institution activities;
- the statement of the Institution concerning the conclusion of the first-level review board.

Procedures of formation and responsibilities of the review boards and expert groups - 1

- **Permanent Evaluation Committee of the National Academy of Sciences of Ukraine** (third-level review board) is formed by the Presidium of the NAS of Ukraine.
- The Permanent Evaluation Committee is suggested to be an independent agency.
- The Permanent Evaluation Committee includes:
- Representatives of the NAS of Ukraine:
- 3 representatives of **Section s I** and 2 representatives of each of **Sections II and III**; they should not be members of the Presidium of the NAS of Ukraine,
- 1 representative of the special group of institutions of the NAS of Ukraine that includes libraries and museums,
- 1 representative of national natural parks, botanic gardens, etc.,

Procedures of formation and responsibilities of the review boards and expert groups - 2

- a representative of the Ministry of Education and Science of Ukraine;
- a representative of the Council of Rectors of institutions of higher education;
- a representative of Ukrainian employers (Ukrainian League of Industrialists or other organization);
- a representative of science-oriented business (Microsoft etc.);
- a representative of the relevant department of the Ministry of Finance of Ukraine;
- a representative of the relevant department of the Ministry of Economic Development and Trade of Ukraine;
- a representative of the National Institute for Strategic Studies.

The third-level review board could also include foreign experts

The second level: Permanent Expert Committees on the Relevant Fields of Science

- The second-level review boards are formed by the departments of the NAS of Ukraine by the resolutions of the relevant Bureaus of the departments of the NAS of Ukraine after agreement with the Permanent Evaluation Committee (third-level review board).
- Current activities of the third- and second-level review boards are provided by the Scientific Management Department of the Presidium of the NAS of Ukraine and by the **Office of Evaluation** (four persons).
- A Permanent Expert Committee on a Relevant Field of Science (second-level review board) comprises at least 8 members, i.e.,
- 4 representatives of the relevant Department;
- 1 or 2 representatives of other subdivisions and institutions;
- *at least 2 representatives of foreign scientific institutions (including foreign members of the NAS of Ukraine or representatives of the "scientific diaspora").*

The office of Evaluation along with Permanent Expert Committee on the Relevant Field of Science (second-level review board):

- forms an Expert Group (first-level review board) after consultations with the Institution;
- prepares presentation on the Institution activities in accordance with the conclusions of the first-level group that has visited the Institution;
- reviews the conclusion of the first-level group to the Institution that has to prepare a statement concerning this conclusion;
- reviews the evaluation materials, i.e., the presentation of the Institution, the conclusion of the first-level review board, and the statement of the Institution concerning this conclusion.

The Institution has the following opportunities to take part in the evaluation procedure -1:

- selection of experts of the first-level review board by the second-level review board:
- the Institution can propose a list of main research areas to be covered by the evaluation procedure;
- the Institution can propose experts in these research areas according to the criteria that determine a potential conflict of interest

The Institution has the following opportunities to take part in the evaluation procedure -2:

- following the selection of experts of the first-level review board by the second-level review board:
- the Institution can comment on whether the experts cover the research areas of the Institution;
- the Institution can comment on whether it sees a potential conflict of interest among the experts selected

Institution has the following opportunities to take part in the evaluation procedure -3:

- In case the second-level review board and the Institution fails to reach an agreement after the discussion of the comments, the final decision should be made by the third level review board.
- The Institution obtains a mandatory copy of the first-level review board conclusion from the second-level review board and it is obliged to prepare its statement concerning the conclusion of the first-level review board.

Criteria for evaluation of the quality of work and potential of an Institution by the first-level review board

- A. Development of the institution in previous years and its research strategy for the next years
- B. Scientific results
- C. Scientific events and public outreach
- D. Appropriateness of facilities/financial provision
- Special attention: Collaboration and networking (several positions are considered)

Example: B. Scientific results

- **What does an assessment of work performance indicators of an Institution (subdivision) yield in terms of:**
- - the number of publications (depending on the publication culture of the specific disciplines, in particular in peer-reviewed journals, at peer-reviewed conferences, in monographs etc.);
- - the number of documents on commercial property rights and patents, the number of consulting contracts and expert reviews;
- - the amount of third party funds raised for research, consulting, services, etc.;
- - the income from commercial activity, leasing;
- - other indicators.

Quality assurance

- A. Internal quality management at the Institution (example: it does not work in a proper way in all cases: see STEPS Centre)
- B. Assessment of the Institution by the relevant Department of the NAS of Ukraine

Strategic significance

- Is the institution of strategic significance:
- for the further development of a certain special field and its environment?
- as a hub for specialists or regional clusters?
- for the further development of fields of technology, information and other services, consulting, social-political tasks?
- for the profiling of programs of the NAS of Ukraine?

Some features of the evaluation in 2016-2018

- Special commissions for evaluation have been formed but with very few foreign experts
- 68 (13 + 28+27) institutes in different disciplines were evaluated
- Almost all institutes passed the evaluation procedure (very few have postponed the procedure)
- Approximately two thirds of all institutes have received high marks
- However: Not only institutes but research units have been evaluated. This opens the way for structural changes within the institutes

Key problems of the institutes

- Extremely low level of financing: a lot of institutes are working 3-4 days per week
- Lack of international contacts (relatively small groups of researchers are working at the international level in co-operation with foreign colleagues)
- Obsolete equipment
- Aging personnel

Key problems of the institutes -2

- Lack of post- graduates, especially in natural sciences
- Existence of weak units, and unwillingness to change the structure
- Low level of publications in Scopus and WoS journals

Key problems of Evaluation 1

- Quality of experts and their ability to make independent conclusions
- Not all positions of the evaluation (indicators) are relevant to the Ukrainian realities
- Time frame for the evaluation was too short. Evaluation itself requires more time. Some institutes had no time to prepare Report in the best way.
- No specific focus on research units in many cases

Key problems of Evaluation 2

- Mechanism of provision of support for the best institutes and their units has not been developed in advance
- The need to make changes according to the government decisions, related to the evaluation in S&T
- There was no separate evaluation office within the NASU, which was responsible for organization of evaluation process

Quality of experts and their ability to make independent conclusions

1. Declaration on avoidance of conflict of interests and introduction of special procedures, which are aimed at checking corresponding information
2. Invitation of foreign experts, especially from Diaspora
3. Seminars and special information materials for experts
4. Creation of the special database of experts for taking part in evaluation processes (will be done next year)
5. However, problem remains actual and 'unsolved': specialists within one country are closely interrelated, especially at the level of expert groups and at the 'intermediary' level

Quality of experts and their ability to make independent conclusions -2

- Financial problems, related with covering expenses of experts (per diem, transportation costs, etc.) are not solved, despite NASU had made some steps in this direction
- Full reports are prepared in Ukrainian language only, which reduces the possibility to involve foreign experts
- Pool of specialists in some disciplines remains relatively small and this has negative effect on the evaluation process

Not all positions of the evaluation (indicators) are relevant to the Ukrainian realities

- Sets of indicators have to be more diversified, depending on the scientific disciplines
- Some new indicators have been introduced (data per head, first of all)
- Some definitions have become more precise
- The need to revise types of publications, as we have substantial differences between disciplines

Time frame for the evaluation is too short.

- Evaluation process takes 3-5 months , instead of 12-18 months in Germany
- Organizations have no enough time for preparation of the Report
- Experts have 3-5 weeks for their work
- There are short periods between preparation of expert's conclusions and evaluation by the commission of the 'higher' levels

No specific focus on research units

- In Ukrainian situation of shrinking financing and the number of research positions, it is important to focus on internal re-organization of the institutes (example with 20 departments)
- More attention has to be paid to the problems of mergers or even liquidations of units within the institutes
- More quantitative indicators have to be used for the evaluation of units

Mechanism of provision of support for the best institutes and their units

- No clear procedure for implementation of results of evaluation
- No understanding that the main goal is not to distribute or redistribute money , but to identify problems and the ways of their solving
- No procedure for closure of units as a result of evaluation – the need to introduce such mechanism

The need to make changes according to the government decisions

- Idea: unified approach to evaluation
- Decision N540 of the KM on evaluation: some definitions were changed
- However, not all positions could be implemented easily or correctly: [example with Evaluation procedure, proposed by the MESU](#)
- More 'external' but competent actors have to be involved

Some 'extra' Conclusions

- Not all recommendations of the expert groups were relevant to the problems of the institutes
- Foreign experts have to be involved more actively in the process of evaluation
- Special funds have to be created for the evaluation procedure (business trips, tech assistance)

Utilization of NASU approach to evaluation of other research organizations

- Main principles of evaluation are the same
- Mechanisms of evaluation are similar (example: procedure of selection of experts)
- However, diversity of institutes requires modification of evaluation tools (MESU wants to use its approach for different organizations)

Changes in procedure

Two steps:

- 1) identification of the 'type' of the institute
- 2) calculation of 'final mark' on the base of 'generalization' procedure

Problems:

- difficulties with identification of the institutes
- data collection
- calculation of weight coefficients for different indicators

Implementation of the evaluation procedure

- It has to be implemented to different types of organizations in an experimental way
- Corrections in procedure have to be made after the ex-post analysis of the approach
- The institutes will be evaluated as a whole, no special attention to the units

Thank you for attention !