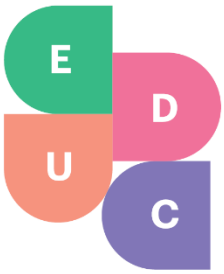

European
Digital
UniverCity
WIDE

D3.2

RESEARCH ASSESSMENT REPORT ON CZECHIA, HUNGARY AND UKRAINE

Project Name	EmpoWering EDUC for Inclusive Development of the ERA
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Key Words	EDUC; Research evaluation reform; Czech Republic; Hungary; Ukraine; mapping; scientometrics
Abstract	The **purpose of this Report** is to map existing research assessment practices in the Czech Republic, Hungary and Ukraine, to bring a comprehensive list of the relevant research that has been done in terms of historical and political context, research evaluation and bibliometric studies, and to identify problematic points in recent practices in these countries according to the CoARA values. By this report, we aim to shift the inappropriate practice and unhealthy mindset towards grasping and interpreting reformative concepts, the way evaluation practices are applied, and the values that underpin them. This self-evaluation of national and institutional regimes also serves as a source for the EDUC Strategy (Deliverable 3.1).

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History of changes

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0.2	18.08.2025	Commented version by partners
1.0	21.08.2025	Final version

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List of Abbreviations

CAS - Academy of Sciences of the Czech Republic
CEE - Central and Eastern European
CoARA – Coalition for Advancing Research Assessment
CRIS - Current Research Information System
CWTS Leiden Ranking - an annual global university ranking based exclusively on bibliometric indicators
DORA - Declaration of San Francisco on Research Assessment
EDUC – European Digital UniverCity
EOSC – European Open Science Cloud
ERA - European Research Area
ETR - Electronic Tutoring System
EU – European Union
ERC - European Research Council
ERIS – ERC dashboard
FATK - Centre for Higher Education Data Analysis and Performance Management (Hungary)
FKA - The Young Researchers' Academy in Hungary
FORD - Fields of Research and Development
GDP - Gross domestic product
HAS - Hungarian Academy of Sciences
HEI – Higher Education Institution
HRS4R - the Human Resources Strategy for Researchers
HUN-REN - The transformation of the Hungarian Research Network

InCites - Analytical tool that analyses productivity, impact of scientific outputs
IRDE - Internal Research and Doctoral Studies Evaluation
IRA - Institutional Research Assessment
ISAB - International Scientific Advisory Board
IS VaVaI - The Information System for R&D&I (CZE)
JIF - Journal Impact Factor
KPI - Key Performance Indicators
LCDRO - long-term conceptual development of a research organisation (CZE)
MESU - Ministry of Education and Science of Ukraine
MEYS - Ministry of Education, Youth and Sports
MTMT - The Hungarian Scientific Works Database
MUNI – Masaryk University
NRFU - National Research Foundation of Ukraine
NATO - North Atlantic Treaty Organization
NASU – National Academy of Sciences of Ukraine
ORCID - Open Researcher and Contributor IDentifier
OSCAM - Open Science Matrix for Scientist Career Assessment
PRFS - Performance-based research funding systems (Hungary)
PER - Performance Evaluation System
PNU – Vasyl Stefanyk Precarpathian University
PhD - Doctor of Philosophy
R&D – Research and Development
R&I – Research and Innovation
RIV - The Register of Information on Results
RO – Research Organisation
RDI - Research, Development, and Innovation
SJR - SCImago Journal Rank
SciVal - Analytical tool providing research data to make evidence-based strategic decisions.
STM - Science, Technology, and Medicine
SSH - Social Sciences and Humanities
SWOT analysis – Strengths, Weaknesses, Opportunities, and Threats
TÉR - UPECS Performance Evaluation System (Teljesítmény Érétkelési Rendszer in Hugnarian)
UPECS – University of Pécs
UJI – Jaume I University
UNICA – University of Cagliari
UP – University of Potsdam
USN – University of South-Eastern Norway
UNIVREN – University of Rennes
UPN – University Paris Nanterre
URIS - the national digital system in Hungary
UNESCO - United Nations Educational, Scientific and Cultural Organization
US – United States
WoS - Web of Science

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1. Introduction

In its original set-up, the **European Digital UniverCity (EDUC)** brings together 6 universities from 5 countries: University of Potsdam (UP-Germany), University Paris Nanterre (UPN-France), University of Rennes (UNIVREN-France), University of Cagliari (UNICA-Italy), Masaryk University (MUNI-Czechia), and University of Pécs (UPECS-Hungary). In 2023, the alliance has grown by two new partners: Jaume I University (UJI-Spain) and University of South-Eastern Norway (USN-Norway); and a number of associated partnerships, including the Vasyl Stefanyk Precarpathian National University (PNU-Ukraine).

The objective of EDUC-WIDE project is to reinforce this community by reducing the gaps between its members from “old” (Advanced) and “new” (Widening) EU Member States and to support Ukraine. The project specifically **focuses on 2 Widening partners**: MUNI and UPECS and 1 associated EDUC university (PNU) from Ukraine to harmonize their R&I practice with leading European institutions.

In its previous EDUC projects, the alliance has not addressed the challenges of research assessment. Therefore, the Research Assessment Expert Group was established to connect professionals from all EDUC universities that could address the challenges of the ongoing process of reforming research assessment. Although different initiatives aimed at responsible use of – especially quantitative- methods in research evaluation and tackling other aspects in research policy and evaluation, such as multilingualism, scientometrics etc. were in place earlier, only The Agreement on Reforming Research Assessment became globally widespread initiative, more than decade after the Declaration on Research Assessment in 2013. Thanks to the guarantee of the European Commission, a dedicated secretariat and a fully effective system of support for involved organisations through common meetings and working groups, many institutions worldwide have started their journey to reform research assessment under the umbrella of the Coalition on Advancing Research Assessment (CoARA, coara.eu). Some of the EDUC universities were among the pioneers and leading stakeholders contributing to the formation of CoARA. At the time of creation of the EDUC-WIDE project, **six EDUC Universities** out of the total nine were among the **signatories of CoARA**. After the first year of the project run, **all EDUC universities became signatory of CoARA and committed to reforming** their internal evaluation processes. EDUC universities respect all principles of the reform. Thus, one of the four main objectives of the EDUC-WIDE project is the implementation of this reform in mutual collaboration and support.

While the CoARA provides a great and progressive framework on the European level, in practice, the research assessment is an area of **strong interplay between the institutional and national level**. In terms of financing, universities rely on how national governments reward (and finance) R&I. Thus, as EDUC Universities, we need to seek approaches that will be appreciated in the national systems and at the same time coherent with the principles of CoARA. This is a major challenge for the development of institutional research assessment systems. The national frameworks for research evaluation are very diverse. Often, and that is valid especially in Widening countries, they rely on quantitative indicators. This represents a strong factor for the design of institutional systems.

The Agreement on Reforming Research Assessment, which is the cornerstone document for the Coalition, encourages basing the reform action on the following principles:

- Comply with ethics and integrity rules and practices
- Safeguard freedom of scientific research
- Respect the autonomy of research organizations.

- Ensure independence and transparency of assessment
- Focus research assessment criteria on quality.
- Recognise the contributions that advance knowledge and the (potential) impact of research results.
- Recognise the diversity of research activities and practices, with a diversity of outputs, and reward early sharing and open collaboration.
- Use assessment criteria and processes that respect the variety of scientific disciplines, research types, as well as research career stages
- Acknowledge and valorise the diversity in research roles and careers, including roles outside academia.
- Ensure gender equality, equal opportunities and inclusiveness.

Core Agreement commitments are:

- Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research.
- Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators.
- Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular, inappropriate uses of Journal Impact Factor (JIF) and h-index
- Avoid the use of rankings of research organisations in research assessment

The purpose of the Report

The Central and Eastern European region is still neglected in research and in studies mapping the history and methods of research evaluation. Three countries from this region (the Czech Republic, Hungary, and Ukraine) involved in the EDUC-WIDE project are considered to have limited historical and cultural starting points. This heritage caused lagging somewhat behind the dynamics of Western and Nordic counterparts, especially in the development of the evaluation cultures and involvement in reforming initiatives, leading eventually to CoARA, as the most recent and influential one.

The **purpose of this Report** is to map existing research assessment practices in the Czech Republic, Hungary and Ukraine, to bring a comprehensive list of the relevant research that has been done in terms of historical and political context, research evaluation and bibliometric studies, and to identify problematic points in recent practices in these countries according to the CoARA values. Besides, the collaboration on this report, sharing ideas and best practices, and the transparent process of articulating major issues in evaluation cultures may help to emancipate our region internationally and raise self-esteem. This report contributes to reform by aiming to bridge the evaluation gap and foster stronger research and evaluation cultures. Therefore, we highly appreciate the leading and mentoring role of EDUC Advanced partners in making this Report. This self-evaluation of national and institutional regimes will also serve as a source for the EDUC Strategy (Deliverable 3.1).

2. National Landscapes

This chapter contains information about the national research governance, structures for conducting research, research evaluation, and funding, and their possible interconnections. If relevant, we mention the EU context and various national priorities in terms of the research assessment and funding. In terms of the national evaluation systems, we examine principles, KPIs (methodologies), data sources, and impact. Specifically, we mention the attitude toward using metrics.

2.1 Czechia

Czech research environment

Academic research in the Czech Republic is dominated mainly by two groups of research organisations (ROs): universities and institutes of the Czech Academy of Sciences. The other research organisations are departmental research institutes and private companies. Concerning research assessment, the Czech law only regulates funding that is dependent by law on the evaluation of the research organisation. A research organisation in the Czech Republic receives so-called "long-term conceptual development of a research organisation" (LCDRO; i.e. the core budget for research, excluding grants) from the state budget. This core budget is allocated by a superior body – a "**provider**" (Ministry of Education, Youth and Sports – MEYS – is a provider for universities, the Academy of Sciences for its institutes, and other ministries for their government-funded research organizations, e.g. hospitals) on the basis of an evaluation of the research organisations,[1] classifying this funding system as performance-based.

The central body responsible for the coordination of the national RDI governance (including core research funding) is the Research, Development, and Innovation Council (RDI Council). Besides, two independent funding agencies award competitive funding, one for fundamental research and the other for applied research and innovation. RDI Council is an expert advisory body to the government, representing research and industry, with the Prime Minister as a formal chair. Funding distribution operates in two levels: the RDI Council allocates a core research budget to the above-mentioned providers, who are responsible for allocating it to their ROs. Providers are expected to develop their own funding mechanisms, which thus vary in design, priorities, and robustness. Both levels of governance use, although in a different manner, the results from the national research assessment exercise, popularly known as "Evaluation Methodology". Since 2017, the Evaluation Methodology has formulated general principles that work for types of research organisations and stakeholders. However, the way these results are used in research funding greatly varies between different providers.

The influence of the research evaluation system on funding changed from a direct 100% influence through a simple formula (before 2017) to an indirect influence on a smaller "performance" part of the core budget for research (after 2017). However, even the larger "stabilisation" part of the core budget for research after 2017 has been created based on previous allocations (typologically named as a historical contract). The rules for evaluating research are popularly known as "Evaluation Methodology", although the exact name varies. In terms of the methodology of evaluating research, the year 2017 is an important milestone, dividing indicator-based methodology, which contains the rules for allocating funds, and methodology consisting of more aspects of research activities without a funding formula.

[1] 130/2002 Sb.

History of the research assessment in the Czech Republic

Apart from Western counterparts, the post-communist or Central and Eastern European (CEE) countries were rarely subject to research encompassing bibliometrics, research evaluation, and evaluation culture. The experience from the project "Audit" led its authors to write an article about the Czech evaluation culture (Good, 2015). Vanecek (2020) analysed significant changes in publication patterns of some disciplines and argued that they are a causal effect of a research evaluation and funding system. Kulczycki et al (2018) compared eight European countries and discovered the changes and differences in publication patterns in terms of the proportion of publication types and publication languages across European countries and SSH disciplines. The authors of the study argued that these differences are often due to the countries' cultural and historical backgrounds. Similarly, Kozak et al. earlier (2015) concluded that in terms of international collaboration, number of articles, and citation impact, publication practices and the intensity of change therein differ between individual Eastern European post-communist states, noting that the number of articles had increased the most in the Czech Republic and Poland.

The evaluation system in the Czech Republic before 2017 favoured journal articles indexed in Web of Science (WoS) over other journal articles, books, and other types of outputs (Good 2015). This methodology particularly benefited STM disciplines. SSH researchers in the Czech Republic still commonly believe that publishing in WoS journals can be at times too challenging for several reasons; whether real or perceived, these reasons include research limited to topics of local relevance, language barriers, and lack of journals in the researchers' fields (Linkova, 2014; Šima, 2017). Jurajda et al. (2017) analysed the performance of SSH disciplines in post-communist countries through journal-level Article Influence Scores and concluded that performance in these countries does not match that in the West. A few years earlier, Vanecek (2014) reached a similar conclusion based on his finding that there had been no change in the quality of publications by Czech authors based on the average journal impact factor (JIF) of journals published in all disciplines.

Before 2017, research evaluation in the Czech Republic had chiefly been based on a publication indicator. The system was colloquially referred to as the "coffee grinder". The funding formula was an integral part of the evaluation methodology: assigned a certain number of points to each outcome, milling all outcomes of different types and merit through the same mill. Finally, the allocation referred to a rule of three: the share of RO's points on a total amount of points in the system equalled the share of money allocated to this RO from the state budget.

This methodology evolved from purely quantitative, with nearly no distinction of research quality, to a composite methodology containing three "pillars", most importantly, the publication indicator (points), with some representation of applied results and peer review of quality (the very last version of this methodology was valid for the years 2013–2016). The Evaluation Methodology, with its reliance on quantitative indicators, was driven by a desire to depoliticise and depersonalise the funding process. By relying only on past achievements, it aimed to act against nepotism, corruption and lobbying. Rewarding a broad spectrum of research outcomes through institutional funding, this evaluation was motivated to increase low productivity, but with questionable impact on research quality. This evaluation practice was heavily dominated by the use of the R&D Information System. The international audit of the Czech R&D system in 2011[2] argued that the Czech Republic lacks an evaluation culture: „*As a result we observed that the Czech research*

[2]https://msmt.gov.cz/vzdelavani/vysoke-skolstvi/ipn-audit-vavai-mezinarodni-audit-vyzkumu-vyvoje-a-inovaci-v. The final reports are in English.

community can be somewhat hesitant towards evaluation, perceiving it as an instrument for judgement, based on one-dimensional or even inappropriate criteria and with unclear and potentially severe consequences – while actually evaluations should be a normal part of research life, not only making researchers accountable for their work, but also giving them valuable feedback in order to improve both the quality of research and the research environment." It declared that the Evaluation Methodology provided incentives for opportunistic behaviour and that it failed in its intention to increase research quality. The unintended effects caused by this Methodology, unfortunately, survive in some sub-communities.

The quantification of the value of knowledge changed the nature of scientific work by undermining the legitimacy of strategic management, but it also distorted the research and publication culture itself, especially at universities, which, unlike the CAS, did not have their own internal evaluation systems and usually used the national evaluation method to distribute the funds received down to the lowest levels.

National CRIS system

The Information System for R&D&I (IS VaVaI) collects information on research, development, and innovation supported from the state budget in the Czech Republic and is the only authorised and comprehensive source of this information. IS VaVaI contains data on projects, on R&D&I support provided, on project calls in R&D&I and, on the results, achieved in research activities (RIV). For each result, the RIV records the comprehensive bibliographic data and metadata of the results, data on the submitter, the relation of the result to R&D&I activities and others. According to the law, all research organisations in the Czech Republic are obliged to report metadata of all their outputs in RIV. Importantly, RIV is the main data source for the national evaluation, foremost Modules 1 and 2.

National research evaluation methodology – Evaluation Methodology 2017+

The current national system was introduced in 2017 (Methodology for Evaluating Research Organisations and Research, Development and Innovation Purpose-tied Aid Programmes 2018), and 2024 is being actualised for the years 2025 and beyond. The role of this methodology is firstly to monitor R&D performance annually and secondly to have research organisations undergo a robust evaluation by evaluation panels over a five-year cycle. Since 2017, research in the Czech Republic has been evaluated at the national level according to a methodology that includes outputs as well as inputs, the environment, and strategies. This combines qualitative and quantitative elements. Evaluation is conducted in five basic modules, which together will ensure the implementation of the strategic goals of the evaluation and funding system.

Full evaluation through all five modules in five-year cycles results in putting ROs on the following four-degree scale: **A** – Excellent, **B** – Very good, **C** – Average, **D** – Below average. The scaling is the result of joint discussions between the provider/promoter, the RDI Council and the representatives of expert panels, plus the representatives of the Czech Rectors Conference if a university is discussed. The annual national evaluation (encompassing only two modules: the publication performance and quality of selected results) monitors whether the RO performs to the qualitative grade achieved in the last full evaluation. The final decisions granting institutional aid to individual ROs are within the powers of the provider in accordance with Act No. 218/2000 Coll. The evaluation result is just one item in the input data relevant to the funding of the given RO.

Modules and tools

These modules are as follows: **Quality of selected results (M1)**; **Research performance (M2)**; **Social relevance (M3)**; **Viability (M4)**; and **Strategy and policies (M5)**. Evaluation in each of the five modules uses the following basic tools to a differing extent: bibliometric analysis, remote reviews, and onsite visits by panels of experts.

Module 1: Peer review of the selected results that the institution considers to be of the highest quality, whether in terms of contribution to knowledge or social relevance.

Module 2: Bibliometric analysis of the articles published in journals indexed in Web of Science. The analysis considers mainly the quartile (decile) rank derived from the Article Influence Score assigned to each journal. The analysis operates in the Frascati Manual's structure of Fields of Research and Development (FORD): WoS category of each journal is converted (consolidated) to detailed FORD, and quartile (decile) thresholds are calculated for each Frascati discipline. In the university analysis, quartile profiles are then presented for each FORD discipline within a given university. Besides, the analysis introduces a few contextual figures about the total volume of publications, coverage in WoS, share of conference proceedings, etc.

Module 3: The self-evaluation report containing information about the social relevance of research is assessed at the level of faculties or university institutes.

Module 4: The self-evaluation report contains information about the management and internal processes at the institutional level.

Module 5: The self-evaluation report contains information about the university's strategies and concepts.

To assess the results of the RO, Module 1 uses a **remote peer review** and an **expert panel (tool 1)**. **Bibliometric analysis (tool 2)**, annotated by expert panels, is used as a basic tool in Module 2. Once in five years, self-evaluation reports for modules 3 to 5 are assessed, together with Modules 1 and 2 serving as "informing" material, by the International Evaluation Panel at the **on-site visit (tool 3)**.

The competencies are distributed between:

a) the Office for Government **(national-level evaluation)**: M1 and M2 are conducted as a yearly monitoring at the national level
b) **provider-level evaluation:** modules 3–5 are subject to self-evaluation of each RO directed by the **provider** in a five-year cycle

Once in a five-year cycle, there is an evaluation exercise consisting of all five modules altogether: for the first time in 2020, the next round in 2025. Distribution of power is twofold as well: Evaluation Methodology M17+ regulates the evaluation of ROS rather than determining the volume of aid for LCDRO. The **funding decision is the sole discretion of the provider**.

Results and impact

In 2020, MU, as well as other universities in the Czech Republic, carried out research evaluation according to the national Methodology 2017+ for the first time in its full implementation, i.e. in all five modules. In view of the pandemic situation, the panel visited MU only virtually. However, after years of counting quality (Good 2015), this was the first evaluation that exhibited comparison with sample national systems, e.g. REF (UK), in terms of the overall best practice in research evaluation.

The results influenced decisions on the provision of institutional support. Each university was assigned a grade from A to D, based on which the Ministry of Education, Youth and

Sports attributed a certain amount of money as the performance component. For MU, the national evaluation is primarily a source of information about the performance of the entire university and entire disciplines; M17+ does not operate at lower organisational levels. This is the starting point for developing an internal system of evaluating and funding research at MU.

Neither the procedures nor the results of the national methodology can be easily applied within institutions, as it has a different mission, tools, and level of detail. In addition to evaluation by public funders (national evaluation), institutions can carry out their own internal evaluation. A long-term and centralised internal evaluation system was developed, in particular by the Academy of Sciences of the Czech Republic (CAS), whose institutes were not directly affected by the national evaluation, for this reason, as the Academy distributed the LCDRO among its institutes according to its own key.

Research funding

Research funding is distributed in three main levels:

1. National level

The R&D Council suggests the yearly budget for research to the Czech government. The government allocates the total volume for research (LCDRO) to different *providers* according to a formula.

2. Level of providers

The **funding decision for research organisations (RO)** is the sole discretion of the provider, who is bound by the law to use the results of the national evaluation for the money distribution. However, the method used for incorporating the evaluation results in the funding formula may differ between different providers. Ministry for Education, Youth and Sports (MEYS) works as a provider for universities, such as the Academy of Sciences, which is in this system the provider for its Institutes. For this report, we only describe the system of MEYS valid for the five-year period 2023–2027

Institutional support at the RVO consists of a stabilisation and a performance component:

a. The stabilisation part of the LCDRO for a given research organisation equals 100 % of the amount of the LCDRO granted for this particular RO in 2022.
b. In 2023, the performance component for a given RO shall be set as a percentage of the stabilisation part. The percentage is based on the overall assessment, i.e. grade assigned by the national evaluation in 2022, of the RO. Each grade has an assigned percentage value (grade A = highest, grade D = lowest). For the following years in a five-year period, the percentage corresponds the value calculated for the year 2023, even though the total volume of the core budget for research may differ from year to year. The next calculation of the performance component percentage is expected in 2028, after finishing the next round of research evaluation in 2027.

3. Institutional level

The methodology of the distribution of the LCDRO inside research organisations is **hugely diverse**. Most commonly, universities use some kind of formula based on a publication indicator, a basket of indicators or some performance component. These quantitative models mostly stem from the era of the evaluation methodology before 2017, i.e. the concept of “publication points”. Diverse and decentralised systems use the

Academy of Sciences for their institutes, and other ministries guarantee departmental research institutes. Since 2017, the national Methodology and the MEYS have explicitly supported autonomous institutional evaluations considering the scope of national evaluation and funding, which serves to provide expert feedback to the entire institution (or faculties and institutes), but not to the disciplines or even departments. The same applies to the funding distributed by MEYS as a block grant for the whole institution. From this perspective, each institution should be responsible for developing finer-grained funding and research evaluation criteria. Within the university system, MU was the first university to develop an autonomous system of research funding, independent of the MEYS methodology, and based on a different concept than solely a performance component. The Masaryk University system is described in the following chapters.

Evaluations of individuals (researchers)

The range of evaluated units covered, guaranteed or under the competence of the national bodies is largely diverse across different countries. In the Czech Republic, the national evaluation exercise serves for the assessment of research organisations and allocation of the core budget between those organisations. Before 2017, when the national evaluation was based on assigning points to publications, this system enabled translating the financial value of the points event to the level of individuals. This was considered one of the most toxic features of the academic culture, as the request from the researchers' community often aimed to be directly rewarded according to the points assigned to their publications.

Although basic criteria to fulfil the conditions for different career stages are anchored in law, the process itself and the quality decisions are in the hands of different organisations. This expresses the great extent of academic freedom of Czech universities and the Academy of Sciences institutes. In the Czech Republic, apart from many other countries in the world, there is a system of linear academic career steps, achieved by fulfilling the criteria. In this system, professorship is a degree, not a position. A prerequisite for the professorship is a habilitation. For both procedures, habilitation and professorial appointment, formal criteria are defined by national legislation, and quality criteria are assessed by each organisation. However, we do not include these procedures in the description of the research evaluation procedures, as it does not represent a unified national system for periodic evaluations of researchers in terms of research or teaching performance.

2.2 Hungary

Introduction

In Hungary, too, research assessment is a complex process aimed at measuring scientific performance at the individual, institutional and national levels. The Hungarian Scientific Works Database (MTMT) is a basic bibliographic database that records the scientific, educational, and science communication publications (including research papers, conference appearances, etc.) of all national researchers with citations to these works. The primary objective of MTMT is to register publication and citation data necessary for the assessment of research at both individual and institutional levels, also in the short and long term.

Scientometrics is, of course, a widely used but often divisive term in research assessment. As is well known, practical scientometrics involves the production of publication statistics for performance assessment purposes in the fields of science management and policy.

It is evident that performance-based research funding systems (PRFS) are playing an increasing role in European science policy to promote national excellence. These systems are used to fund research and allocate resources between institutions.

Research Assessment Methodology in Hungary

The methodology of research assessment in Hungary has traditionally placed a strong emphasis on quantitative indicators, although this greatly varies across different scientific fields. The basic metrics are the number of scientific publications and the number of citations. The impact factor and the h-index are also widely used, although their use has been criticised. Articles published in indexed journals (Web of Science [WoS] impact factor or Scopus SJR value) are given more weight. Articles published in top journals (Q1, D1) are usually given multiple scores. However, there is a great discrepancy in what is considered a valuable publication across different scientific disciplines. In fact, the Hungarian Academy of Sciences (HAS, or MTA in Hungarian) has been known to give out journal lists of their own ranking of Hungarian journals. Also, often the units of scientific publications are still book chapters or books.

However, increasing emphasis is being placed on qualitative assessment, particularly in line with the principles of the DORA (San Francisco Declaration on Research Assessment) and the Leiden Manifesto. These initiatives, as is well known, criticise an overly quantitative approach and would consider the wider impacts of research (economic, social, cultural, environmental, political) and the supporting skills of researchers. The importance of peer review is increasingly emphasised.

PRFS uses the results of scientific performance assessment for research funding and resource allocation. The Hungarian Higher Education Act also requires international excellence at the level of associate professor, but the definition and mandatory application differ from the PRFS. For university professor applications, the Hungarian Accreditation Committee (MAB) takes into account the prestige indicators used in the PRFS system (Scimago/Scopus quartiles) when calculating publication productivity and scientific impact (i.e. citations).

In the previous practice of quality assessment of research institutions, quantitative indicators have also played a role, such as the citation of publications based on Scopus

and WoS data. However, future evaluations will prioritise expert-based qualitative assessment, supported by the responsible use of quantitative indicators.

In terms of Key Performance Indicators (KPIs), the number of publications, number of citations, impact factors, and quartiles of journals have been the indicators emphasized so far. However, new measurements, such as the Field Weighted Citation Index, have started to emerge. In the future, the emphasis may shift to the quality and impact of research, as well as the consideration of diversity, openness, and collaboration. The issue of funding efficiency is becoming increasingly important due to the shift towards project-based funding.

Research Assessment Processes and Systems in Hungary

The research evaluation process in Hungary has several levels. The performance of individual researchers, the research output of institutions, and aggregated data at the national level are assessed. The data recorded in the MTMT form the basis for both individual and institutional evaluations. For example, in the past years, a new online system has been developed called “Scientometrics of Hungarian researchers” (https://scientometrics.org/mtmt/) that builds upon MTMT or Scopus records and ranks Hungarian researchers based on discipline, but also shows a number of nuanced measures and indices such as citation structure analysis.

An example of institutional evaluation is the qualification system "Research Institution Recognised as Excellent by HAS", which evaluates research institutions operating in Hungary upon request. The previous process included both quantitative assessment and expert review. The dominance of expert review is expected in the future.

In 2021, the HAS established the "Excellent Research Site" accreditation system, which aims to recognise the most outstanding Hungarian research sites and provide an objective overview. Accreditation will be awarded on the basis of a set of criteria, independent of the field of science, and based on professional peer review.

Hungary has also joined the CoARA agreement, which aims to establish a fairer and more transparent practice of research evaluation, avoiding the use of metrics used to rank research institutions in the evaluation of research projects.

In general, the performance funding system is cyclical, with the allocation of resources between institutions based on the results of the assessment. Higher education institutions must also be accountable in terms of quality assurance, cost-effectiveness and productivity.

Some institutions, such as the University of Pécs, have introduced a unified Performance Evaluation System (PER, or TÉR in Hungarian), which includes research performance. The Hungarian Research Network (HUN-REN) also has performance evaluation regulations that include both qualitative and quantitative aspects. The new funding system of the National Office for Research, Development and Innovation (NKFIH in Hungarian) also brings significant changes in the field of Hungarian research funding and evaluation.

Role of the Young Researchers' Academy in Reforming Research Assessment

The Young Researchers' Academy (FKA) works to improve the situation of young researchers and formulates proposals to optimise the research funding system, for example, by taking into account the time spent on childcare in the scientometric evaluation. The FKA considers it important to provide special support for female researchers and researchers with young children, as well as equal opportunities for researchers with disabilities. They also make proposals for the proper recognition of teaching duties and the reduction of administrative burdens. The FKA is working separately from the HAS but receives funding from it and has an advisory board consisting of members of the HAS. The FKA is in connection with a number of similar international organisations such as the European Federation of Academies of Sciences and Humanities or the Young Academies Science Advice Structure.

Data Sources for Research Assessment

The most important data sources for research assessment in Hungary are the following:

- **Hungarian Scientific Works Database (MTMT):** The national bibliographic database of domestic scientific publications and their citations. A brief summary of MTMT is given below.
- **Scopus:** A subscription database offered by Elsevier that indexes a wide range of scholarly publications. Scopus data are also used for scientometric analyses and institutional rankings. The SciVal tool is based on Scopus data and provides detailed analysis in the areas of research planning, support and sharing.
- **WoS:** A subscription database offered by Clarivate Analytics, which includes the Science Citation Index (SCI), Social Sciences Citation Index (SSCI), and Arts & Humanities Citation Index (AHCI) databases. WoS is often used as a starting point for citation measurements.
- **International professional databases:** Discipline-specific databases (e.g., Chemical Abstracts, MathSciNet, PsycINFO) may also be relevant in certain fields.
- **ERC dashboard (ERIS):** The online platform of the European Research Council (ERC) funded projects and proposals, providing access to projects, researchers, institutions and bibliometric data.

The Role of MTMT in Hungary

MTMT has effectively covered domestic scientific output for more than a decade. Since 2015, Hungarian law requires that all publications resulting from budgetary support must be recorded. The data stored in MTMT is subject to multi-level verification, and authenticated data cannot be altered. The public nature of the database also ensures credibility. Since its creation, MTMT has been widely used for evaluation purposes. The FORD-based categorisation of MTMT content takes place in two stages, including the classification of holdings indexed in international citation databases.

MTMT: Debates and Challenges

The inclusion of the Norwegian list in the MTMT has generated much debate in the Hungarian scientific community, with many researchers questioning the adoption of another nation's evaluation system. Concerns have also been expressed that the Norwegian list will further reduce the range of journals available to Hungarian authors. At the same time, the need for the technical development of domestic journals to increase international credibility has emerged. In most Western European countries, international publication is mandatory for higher positions in academic research. In the Hungarian system, approaches towards PRFS in the interest of internationalisation are visible, but there is considerable resistance.

Research Funding in Hungary

Research in Hungary is funded from several sources, including the national budget, national and international grants, and institutional funds.

- **State funding:** Some research institutions receive state budget support, the allocation of which may be partly based on research assessment results (performance-based funding). A notable example is the „Lendület Program", which is a national specific excellence program established by the Hungarian Academy of Sciences.
- **Grant system:** Researchers and institutions can also obtain funding for their research projects through national (e.g., grants announced by the National Research, Development and Innovation Office) and international (e.g., Horizon Europe Framework program) grants. The Horizon Europe framework program is one of the pillars of the knowledge-based economy and society model, which aims to address global challenges through research, development, and innovation. The ERC (European Research Council) funds outstanding researchers and projects on the basis of excellence.
- **Institutional funds:** Universities and research institutes also fund research from their own budgets. The allocation of internal funds may be based on institutional research assessment systems.

Universities play a key role in research funding. On the one hand, they carry out a significant proportion of research, and on the other, they are the institutions that train the next generation of researchers. Universities may receive government funding based on their research assessment results, and they themselves distribute the available funds to research groups and individual researchers. Clearly, research assessment systems also influence researchers' careers and reward systems. The goal of the national higher education system is to participate in the global publication competition and to build an internationally recognised scientific base. This requires the development of doctoral programs, mentoring programs, international partnerships and the provision of competitive research opportunities.

2.3 Ukraine

Research environment

Ukraine's research policy environment is being fundamentally transformed by domestic reforms and by the goal of integrating with the European Research Area (ERA). This integration is part of the broader EU cooperation, mainly through collaboration: in Horizon Europe, Euratom, and ERA policies and strategies. The vision of the reforms is intended to operate on the basis of open science, inclusivity, and innovation – all to align relevant national systems of research management, evaluation, and funding with European standards.

The Roadmap for the Integration of Ukraine into the European Research Area specifies the key priorities and aims of spreading open science policies and principles in Ukraine. In particular, with respect to priority 5b "Open science and digital transformations," the main aim is given: the application of the principles of open science at all stages of conducting scientific research. In order to reach the aim, the tasks are described:

1) to form the foundations of the state policy of open science;
2) to promote Ukraine's accession to international open access initiatives;
3) to promote the implementation of the principles of DORA, the Leiden Manifesto and the matrix of open science for evaluating the career of an OSCAM (Open Science Matrix for Scientist Career Assessment) scientist;
4) implement FAIR principles for all types of scientific data and results of scientific research;
5) to develop and implement tools for the popularisation of open science in Ukraine.

Ukraine has traditionally relied on its evaluation system for research, which has followed internal processes and subjective metrics that lacked transparency and objective metrics. In recent years, reform efforts on a national scale have taken place to improve the system, including improvements in the institutional capability, support for early-stage researchers, enhanced research infrastructure, and boosting the competitiveness of research outputs. These adjustments are consistent with the operational objectives in the Ministry of Education and Science of Ukraine's (MESU) Strategic Plan to 2027 and the National Plan for Open Science, adopted by the Cabinet of Ministers in 2022.

The National Plan for Open Science is part of Ukraine's Roadmap for integration into the European Research Area, which articulates concrete tasks to implement the ERA principles on Ukrainian territory. This pertains particularly to open access, infrastructure building, and data management, and provides an extensive work-stream around these issues. One of its priorities is to champion, as far as practicable, the open access to research infrastructures; it aims to promote tools that will expedite the development of these infrastructures, some of which are part of the Plan's list of specific tasks. The development of a national policy concept for e-infrastructures is earmarked for 2026. Another priority is to improve access and management of scientific and technical information within the infrastructure, by aligning national legislation with EU legislation and promoting and creating an ecosystem for FAIR data to be used, with a focus on state-budget-funded research projects.

As part of its strategy, the plan also aims to enhance mechanisms for research evaluation. It aims to improve the criteria for State certification of higher education and research organisations and develop institutional frameworks for the assessment of academic and research staff. These enhancements are grounded in key principles that have international recognition, including the Declaration of San Francisco on Research

Assessment (DORA) and the Open Science Matrix for Scientist Career Assessment (OSCAM), and that aim to further enhance opportunities for integration into European data spaces to ensure interoperability and collaboration at the level of the EU. These improvements represent Ukraine's ambition to build a more transparent, efficient, and internationally accountable research ecosystem.

The research funding and evaluation system in Ukraine is being updated to better align with European norms and practices. The Ministry of Education and Science of Ukraine (MESU), as the main policy actor, and the National Research Foundation of Ukraine (NRFU), as the main competitive funding agency, are the main institutional agents of change in this process. The MESU Strategic Plan until 2027 describes an integrative vision of reform focused on infrastructure renewal, early-stage researcher career development, and the provision of digital resources for research management and evaluation.

The Ministry of Education and Science of Ukraine (MESU) remains an important national research policy, especially with respect to reform related to the evaluation of scientific activity. The MESU is not currently a formal member of the Coalition for Advancing Research Assessment (CoARA), but the ministry has exhibited a commitment to progressive approaches embedded in the fundamental aims of CoARA.

In terms of alignment with broader international initiatives, MESU is working to integrate key global standards into its policy. MESU has noted its alignment with the European Charter for Researchers and is starting to take steps to develop researchers' careers and institutional human resources policies in line with European values. Although it does not yet implement the EU Code of Conduct on the Recruitment of Researchers, the Ministry has confirmed its intent to pursue the Human Resources Strategy for Researchers (HRS4R), which demonstrates its commitment to working towards alignment with the European framework for researchers' careers in the long term. Most importantly, the Ministry is currently undertaking a national reform of the research evaluation landscape, focusing on transparency, inclusiveness and institutional autonomy.

The National Research Foundation of Ukraine plays a more active and formalised role in the CoARA community. As an official member of the coalition, the NRFU directly contributes to the development of standards for research evaluation. The foundation has indicated that it will submit its institutional action plan no later than mid-2024 and is actively involved in the Ukrainian national chapter. NRFU representatives participate in CoARA working groups, especially on the evaluation of research proposals, and have contributed to the development of the CoARA Agreement.

Although its formal affiliation with the EU Charter for Researchers and the Code of Conduct is either stated or not fully implemented, the NRFU has confirmed that it will seek HRS4R certification and continues to lead the change in research evaluation across the country. The Foundation is one of the main drivers of change in the Ukrainian research ecosystem through its funding competitions, implementation of international peer review and its conscious commitment to reform.

National research evaluation methodology

The methodology, added in 2019 in accordance with the Order of the Ministry of Education and Science of Ukraine No. 338, became the first official basis for state certification of institutions in the field of scientific and scientific and technical activities. The methodology combined numerical analysis of performance indicators with expert assessment to obtain a final evaluation score. Based on the evaluation score, the institution is certified in the industry or industries and assigned to a qualification group based on the overall research results.

The assessment process begins with institutions applying and providing documentation on specific materials, including a set of data on the number of scientific staff, publication records, external funding, innovation activities, equipment requests and strategic development plans. Assessment scores are calculated using normalised and weighted input indicators. The measurement uses a methodology that defines eleven performance indicators (including indicators related to staff, publication activity, financial contribution, international participation and infrastructure) and assigns them priority coefficients. The indicators were combined into an overall score based on a 100-point scale. After the assessment was completed, the institution was assigned to one of four groups: Group A (87.5–100 points), Group B (52.5–87.5), Group C (20–52.5), or uncertified if it did not receive a score above 20.

A panel of three expert evaluators conducts independent assessments to evaluate both the scientific novelty and importance of results, the practical value for society and economy, and the inclusion and institutional strategic plan development potential. The expert evaluation cards allow evaluators to document their judgments through both numerical scores and qualitative comments about the draft attestation.

The final qualification group assigned to each institution results from combining the final attestation score with expert assessment recommendations. The national attestation commission verifies both the expert assessment and the attached recommendations. Institutions that pass attestation must provide yearly performance updates, but failed institutions need to wait one year after results approval before they can reapply.

The first complete implementation of this methodology occurred in 2021. Expert groups evaluated 386 evaluation dossiers from 135 higher education institutions across seven scientific fields, including Agricultural Sciences and Veterinary Medicine, Defence and National Security, Humanities and Arts, Social Sciences, Biology and Health, Mathematical and Natural Sciences and Technical Sciences. The institutions received their qualification groups for each field through the combination of integrated attestation scores and expert evaluations.

Core research funding became available only to institutions which received Group A or B status through this performance-based funding model. The first attestation round resulted in only 18 universities (17.5% of evaluated institutions) achieving A or B status, which made them eligible for base research financing. The quantitative benchmarks proved challenging for the humanities and social sciences fields because these disciplines traditionally published fewer Scopus/Web of Science-indexed articles, thus facing potential underfunding risks. The attestation process showed that several universities failed to pass evaluation in specific disciplines, which received the “not attested”.

Ukraine's national framework for evaluating the effectiveness of research activities in higher education institutions and scientific organisations is governed by the revised Methodology approved under the Ministry of Education and Science Order No. 1485 (October 21, 2024), officially registered with the Ministry of Justice of Ukraine under No.

1743/43088. This document replaces all previous evaluation procedures, including the 2019 methodology, and sets forth a modernised structure in line with European Research Area principles and wartime adaptations.

The assessment is based on two complementary components: a classification score, calculated from quantitative performance indicators, and an expert score, derived from qualitative peer review of impact narratives.

The classification score is generated automatically through the URIS national information system and is grounded in verified institutional data. It captures performance across the following domains:

- Human Resource Capacity (Personnel Indicators) (number of research and academic staff, number of early-career researchers and PhD students, gender balance among researchers, number of doctoral degrees (PhD, ScD) awarded)
- Research Outputs and Publication Activity (number of monographs indexed in Scopus/Web of Science (WoS), number of articles in Q1–Q2 journals (Scopus/WoS), number of articles in Ukrainian category B journals, number of open-access publications and preprints with DOIs, number of data sets published (FAIR-compliant))
- Intellectual Property and Innovation (number of patents (Ukrainian and international), number of copyright certificates for software)
- External Research Funding and Project Activity (number of competitive national and international research grants submitted and awarded, amount of funding received through Horizon Europe, Erasmus+, NATO, etc., participation as project coordinators in international projects, income from contract research and services (domestic and international)
- Expert Engagement and National Contribution (participation of staff in national/international expert panels (e.g., Horizon Europe, NRFU), poles in accreditation, attestation, and academic governance)
- Infrastructure and Resource Investment (value of scientific equipment purchased or received, financial investment in energy efficiency and green technologies, use of scientific parks and innovation platforms)

The expert score functions as an additional evaluation method which assesses the practical effects of research activities. Institutions must submit impact narratives supported by evidence, such as policy documents, regulatory standards, implementation in healthcare or education, or citations in international frameworks. A panel of three experts performs an evaluation, including two members from Ukraine and one member from abroad, who come from a pool of more than 2,000 Ukrainian reviewers and over 300 international reviewers.

The system includes adjustment factors that address institutional issues caused by the war. The regional support coefficient adjusts for geographical disparities, while the infrastructure destruction coefficient provides compensation for material destruction through verified national register data.

The final institution ranking depends on the combination of classification scores with expert evaluation scores, which result in placements from Group A to Group D.

Research Assessment Processes

The Ukrainian system of research assessment follows a cyclical five-year process of state attestation, during which institutions are assessed in specific scientific domains based on verified data submitted through the national URIS platform.

The process begins with the institutional submission of comprehensive datasets. This data is processed through the URIS system to generate a classification score that reflects normalised performance against national benchmarks.

Institutions must submit impact narratives, each substantiated with supporting documentation, such as citations in international policy documents, implementation in national health or education systems, or influence on regulatory frameworks. These may include references to international policy documents, information on implementation in national health or education systems, or influence on regulatory frameworks. Expert panels review these statements. The panels consist of two Ukrainian and one international evaluator, chosen from a vetted pool of over 2,000 national and 300 foreign experts.

Institutions that demonstrate exceptional performance may become eligible for strategic benefits, including infrastructure funding, legal transformation into more autonomous public institutions, and the introduction of flexible compensation models to attract and retain top researchers.

This dual-track process – automated data-driven scoring and qualitative expert evaluation – marks a shift from traditional bureaucratic assessments toward a modernised, impact-oriented system aligned with European best practices.

Research funding

The Ministry of Education and Science of Ukraine (MESU) has an important role in setting the research budget. The Cabinet of Ministers approves the annual science budget. This budget includes both core (institutional) funding and competitive grant programs. The National Council for the Development of Science and Technology gives recommendations on priorities and funding allocation.

The main baseline funding for universities comes in the form of an educational subvention, which covers faculty salaries, building maintenance, and other mandatory expenses related to the educational process. This is the largest part of a university's budget, accounting for approximately 70–80%.

The core government funding for research, allocated only to institutions that have passed the national attestation (evaluation of research performance), is a much smaller share of the total budget (on average, 3–8%). This funding is not sufficient to fully support research infrastructure, salaries, or long-term development, and is rather intended to incentivise quality improvement and reward strong performance.

Data sources

The research assessment data infrastructure in Ukraine functions independently through multiple systems while demonstrating signs of progress. The Ministry of Education and Science of Ukraine (MONU) works with the National Research Foundation of Ukraine (NRFU) and the National Academy of Sciences of Ukraine (NASU)

to manage national data registries that track projects, publications, and institutional accreditation.

Data sources play a critical role in supporting these reforms. The institutions of Ukraine depend on Scopus, Web of Science and Dimensions databases to measure their performance and analyse researcher profiles. These are supported by platforms such as SciVal, InCites and the CWTS Leiden Ranking. Universities across the country are adopting ORCID while implementing local CRIS systems. The European Open Science Cloud, together with Copernicus data initiatives, allow Ukraine to access research infrastructures through international data-sharing programs.

International data-sharing initiatives such as EOSC, Copernicus, and Euratom play a growing role, especially through collaborative projects in environmental science, nuclear physics, and biotechnology. The participation of Ukraine in ERA-related data programs enables essential interoperability and increases the global visibility of Ukrainian research outputs in data ecosystems.

The country faces challenges from limited national funding, war-related disruptions, and legacy systems that limit innovation, yet the country remains aligned with EU research policy.

SWOT analysis

Strengths

- Implementation of the updated 2025 methodology combining quantitative metrics with qualitative expert evaluation.
- National digital system (URIS) enables automated data standardisation through its capabilities.
- The implementation includes societal impact assessment alongside open-access indicators.
- Adjustments for wartime disruptions through corrective coefficients.
- Participation in Horizon Europe, Erasmus+, and other international programs.
- The National Research Foundation of Ukraine (NRFU) provides competitive research funding to its researchers.
- The institution follows strategic paths which align with ERA and CoARA principles.
- The organisation provides institutional support through autonomy incentives and flexible financial models.

Weaknesses

- Research evaluation methodology changes at frequent intervals create challenges for long-term planning.
- The evaluation system places excessive emphasis on quantitative data while failing to recognise the value of interdisciplinary and socially significant research.
- Different evaluation and funding structures exist independently among different agencies.
- The development process for assessment criteria lacks sufficient scientific involvement.

- Shortage of independent experts creates problems for maintaining high-quality peer review processes.
- Organisation fails to provide enough support for open science infrastructure, together with its related practices.
- Some sections of the evaluation process lack both integrity and display strong subjectivity.

Opportunities (considering CoARA principles)

- Adoption of best practices EDUC and EU institutions.
- Full implementation of CoARA principles (responsible metrics, narrative-based evaluation, inclusivity).
- Promotion of interdisciplinary research and impact-driven science.
- Active involvement of the academic community in shaping evaluation criteria.
- Fostering a strong culture of research integrity and ethics.
- Integration into broader European initiatives (e.g., ERA, EOSC, Reforming RA Coalition).
- Enhancement of digital tools for more effective and flexible evaluation processes.
- Launch of independent audits to evaluate research quality and processes.
- Acceleration of open science implementation, including FAIR data practices.

Threats (considering CoARA principles)

- Academic resistance to changes in evaluation culture and practices.
- Insufficient financial support for the implementation of reform measures.
- Formalistic or superficial adoption of CoARA principles without systemic integration.
- Inconsistency or volatility in the development of new indicators and metrics.
- Political instability that may affect continuity and prioritisation of reforms.
- Poor localisation or misinterpretation of CoARA principles in national policy.
- Administrative burden caused by system overhauls and procedural changes.
- Increased risk of subjectivity in qualitative assessments if not properly standardised.

3. Institutional landscapes

This chapter provides information about the position of the university in the national landscape, foremost in the context of the research evaluation. Here, we elaborate deeply on the state of the art in each of the EDUC universities under study in terms of the methods, KPIs, processes, and funding. Similarly to the national level, we experience diverse experiences, priorities and starting points; however, there are similar trajectories and shared concerns which may allow us to formulate common priorities for the reform, at least in our region.

3.1 Masaryk University (Czechia)

Introduction

Before 2017, Masaryk University, like probably all universities in Czechia, was trapped in the **national** publication points counting system and translating these points into money. The possibility of calculating the monetary value of the research output limited strategic leadership at the institutions. Scholars got used to calculating the income due to their publications, and some of them requested the same income for their department. Besides, Campbell's law worked very well here. Some university communities or individuals very soon disentangled “optimised” publication strategies, leading to sufficient income for their departments with minimal effort. Publication patterns in some disciplines changed towards higher monetary rewards. In this regard is necessary to say that the formula rewarding different types of outputs was unevenly adjusted to different disciplines. The national rewarding mechanism originated from non-transparent ad hoc decisions, preferring certain disciplines and underestimating others. This naturally influenced the position of disciplines at MU as well.

This national “evaluation” system was widely criticised and was replaced in 2017, although the resistance to changing it was quite strong in certain parts of scholarly communities. Already in the following year, Masaryk University developed the new system of funding distribution that has been subject to a few-year-long evolution.

Responsible evaluation is an important institutional value for Masaryk University. Masaryk University actively participated in developing the Agreement for Reforming Research Assessment and signed the Coalition for Advancing Research Assessment (CoARA) in 2022.

Internal Quality Assurance and Evaluation System

Research evaluation issues do not occur in isolation but have strong links to many different agendas such as open science, quality assurance, university strategy and personnel issues. The system of internal quality assurance and evaluation has been continuously built at Masaryk University for more than a decade, through the gradual implementation of elements, and, in recent years, their integration into the form of interrelated principles, rules and procedures aimed at continuous improvement in the areas of education, research and related activities, and with respect to responsible research assessment ideas.

Evaluative activities in a broader sense are secured mainly by three departments at the MU rectorate:

- **Research Office** – Scientometric support, research assessment and research funding; promotions (habilitations, professorial appointments), awards.
- **Quality Office** – Quality at the university (accreditation of study programmes, institutional accreditation, Internal Evaluation Board).
- **Personnel Management Office** – individual evaluations (both academic and non-academic), including the development of an information system supporting individual evaluations.

A little off to the side stands **the Strategy Office with areas of surveys, course opinion polls,** and university rankings monitoring.

After the first Internal Research and Doctoral Studies Evaluation in 2022, all these departments have begun closer collaboration and coordination, aiming to consolidate approaches to responsible research assessment implementation.

Masaryk University has implemented a comprehensive internal system of quality assurance and evaluation of degree programmes in accordance with the Higher Education Act. From the point of view of the research evaluation, the agendas of both the Research Office and Quality Office are somewhat schismatic. Whereas evaluation of research is secured by the Research Office, the accreditation and the evaluation of educational activities (including the quality assessment of doctoral programmes and supervisors) is the responsibility of the Quality Office. Besides, however much the name might imply a broader scope, the competence of the Internal Evaluation Board, supported administratively by the Quality Office, lies in the quality assurance of study programmes, but not in the assessment of research. However, the existence and competence of the Internal Evaluation Board are determined by the national Higher Education Act.

Evaluations of individuals (researchers)

Masaryk University conducts an annual employee evaluation. These can take place verbally, on paper, or through one of two systems described below, depending on the employee's role – whether they are academic or non-academic staff.

Academic staff are most frequently evaluated using the **EVAK system**. This system primarily relies on quantitative indicators, divided into categories: pedagogy, research, organisational, personal, and final assessment. Categories can be customised, and indicators selected from a "recommended" set or created by the department as needed. There's always space for open-ended questions, and all departments are encouraged to include them. There is usually a great diversity in the choice of indicators, evaluation scope and impact between MU faculties and institutes, reflecting their strategic and disciplinary priorities.

Non-academic staff are evaluated using the **NEEVAK system**, which inherently places a greater emphasis on qualitative employee assessment – the whole evaluation is categorised as Professional goals/Job objectives, Individual Development Plan, My personal evaluation (evaluating my view of my job, of the motivation at workplace, etc), and summary. This system is fundamentally designed to lead primarily to a final discussion between the manager and the employee, and the setting of their Individual Development Plan (IPR).

International Scientific Advisory Board

Since 2015, Masaryk University has had an International Scientific Advisory Board (ISAB MU), an independent body composed of four (from 2023, five) internationally recognised scientists in disciplines representing the main scientific directions of MU. ISAB meets regularly once a year and provides critical feedback, independent assessment, and advice on a range of science-related issues (research directions, PhD studies, technology transfer and cooperation with industry, internationalisation strategy and research infrastructure development, etc.).

Research assessment system at the Masaryk University

In 2022, Masaryk University implemented an evaluation according to its own design (Internal Research and Doctoral Studies Evaluation – IRDE), as the first of its kind in the university sector. The development of IRDE took place before and during the creation of the ARRA (Agreement on Reforming Research Assessment) document; however, the concept of responsible evaluation (foremost reducing the influence of metrics) has long been a central value for Masaryk University.

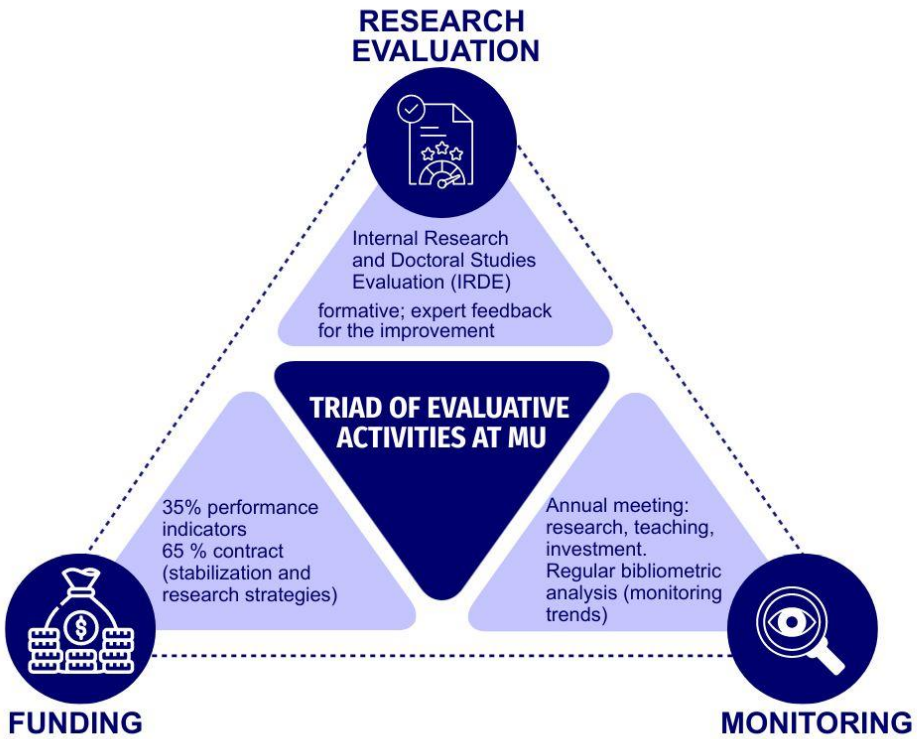

Fig 2 – Components and tools of the research assessment system at MU

Evaluation activities at Masaryk University (Fig. 2) have three main purposes, each of which has its own processes and tools, and they are **run independently**: research evaluation (Internal Research and Doctoral Studies Evaluation), funding, and monitoring (bibliometrics). The logic of this system is that, even though these purposes are complementary, we use the tool for each of its own purposes, independent of the others. Research evaluation is separate from funding and is not affected by bibliometrics, which are used to track trends and create profiles for the purposes of annual system analysis

and R&D monitoring. We use a set of performance indicators for funding, but they have only a partial weight in the budget, and we transparently communicate their exclusive role in the distribution of part of the funding. In doing so, we aim to create an environment in which we reduce undesirable research incentives. Research evaluation has a clear objective – to provide robust and valid feedback that is unencumbered by bibliometric parameters and financial incentives. The separate purposes of different components and thus the incentives they provide are a very important expression of responsibility, which we want to build in our institutional culture.

Internal Research and Doctoral Studies Evaluation (IRDE)

As the national methodology is focused only on the faculty/discipline level, internal evaluation had to be focused on the level of individual units. In 2019, a pilot informed peer review was carried out at the units of philological fields of the Faculty of Arts. The first run of university-wide IRDE was carried out in 2022.

IRDE is based on the principles of the Standard Evaluation Protocol, the Research Excellence Framework experience, and adheres to the principles of DORA and the Leiden Manifesto. In the final phase of preparation, we also monitored the progress of the ARRA preparations and checked whether the evaluation was in line with the ARRA commitments. Although we prepared the evaluation before the SCOPE framework was established, we also checked compliance with this initiative. As a result, we can say that the MU research evaluation system is largely in line with both the CoARA commitments and other initiatives, in particular, SCOPE.

Evaluation will take place in five-year cycles. MU faculties and institutes participated in the design process from the beginning. Evaluation is based on the self-evaluation of individual faculties through interviews with evaluation panels during site visits. Self-evaluation reports are predominantly narrative in nature and differentiated at the level of units and doctoral degree programmes. Faculties and institutes have had the opportunity to adapt the structure of the report to their field-specific needs. The content of these reports mainly comprises the mission of the unit, the most important research results, social impact case studies, strategies, and environmental data. The supporting bibliometric reports only aimed to provide a panoramic view of the evaluated unit's publication activity, with no intention of serving as a primary evaluation basis. Nor did the format of the self-evaluation report allow for the substitution of bibliometrics or basing the evaluation of the unit on bibliometrics. The purpose of the evaluation is to provide critical feedback for the development of the faculty, institute, and unit. The evaluation does not have a direct impact on central funding (the level of funding is not derived from the results of the evaluation). However, faculties can use IRDE to develop research strategies, which are a condition for the provision of the contractual part of the research budget.

The implementation of the first run was followed by a phase of evaluating and communicating IRDE outputs. We consulted with the creators of the SCOPE protocol (INORMS Research Evaluation Group), organised a conference dedicated to responsible evaluation (Science for Society), and are now preparing a summary report that will critically evaluate the whole IRDE process. The report includes the results of a questionnaire survey among evaluators and members of the MU academic community, and suggestions for future improvements.

The IRDE evaluation unit is usually a department or a cluster of departments if they are related by discipline or organizationally. The evaluation unit is evaluated together with the doctoral programme or programmes it guarantees. A key part of the internal evaluation was the participation of experts from various countries around the world who came in person. Evaluators were organised into disciplinary panels or faculty-wide International Scientific Advisory Boards (ISAB). Panels met with faculty management, heads of units

and supervisors of doctoral degree programmes for detailed discussion, exchange of experience, and sharing of good practice and suggestions. The evaluation meetings also included a closed discussion between the evaluators and doctoral students without the presence of teachers or faculty representatives.

Outputs and impact

The linking of research evaluation with the evaluation of doctoral studies has led to a deepening and improvement in communication and cooperation between units involved in the evaluation and quality of research and studies and reducing administration.

The outputs of the IHVD are strategic and development plans that informed the evaluators' recommendations. This may provide the basis for defining the university values in research and thus a better task for evaluators in the next IRDE run. The strategic plan is a source for a 5-year contract between a dean (faculty/institute) and the rector, linked to a major part of the core budget for research (Fig. 3).

Some faculties have retained the evaluation panel as their own ISAB, which will meet on a regular basis.

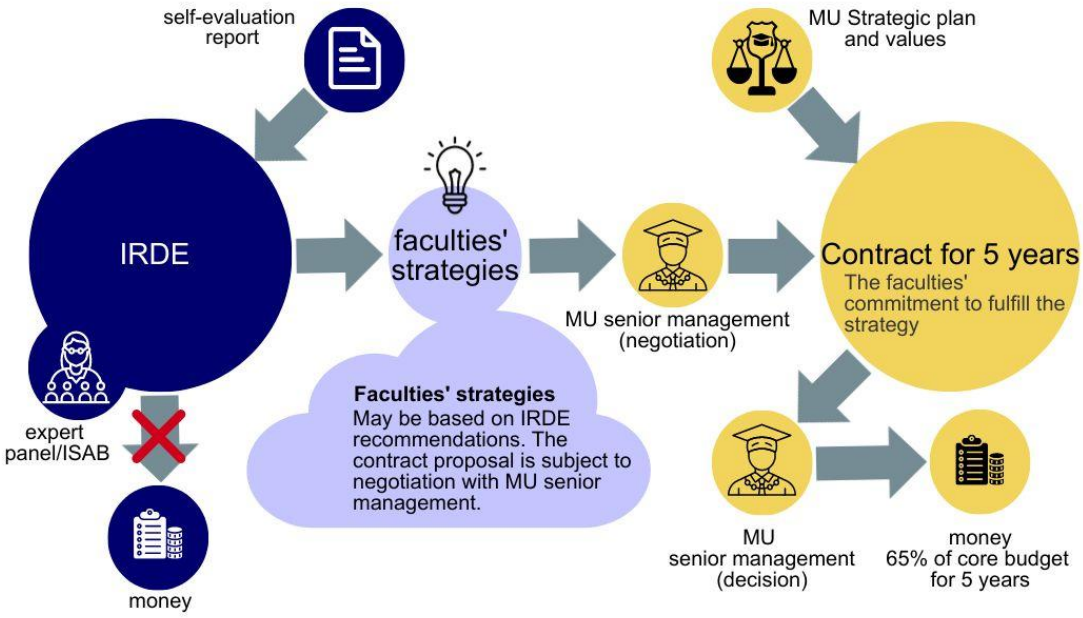

Fig 3 – The relationship between evaluation, strategies and funding. The impact workflow of the research evaluation at MU

Funding

In 2020, MU transformed its research core funding system from national funds. The funds provided by the MEYS in 2019 became a fixed (stabilisation) component, which can be typologically qualified as a historical contract. Any increase in the funding in years after 2019 was distributed on the basis of newly designed performance indicators, which better reflect the common signals of prestigious publishing (performance component) than the publication points in the previous national methodology. This system serves for the redistribution of national funds **between faculties and institutes**. It does not influence departments or individuals. Assessment and core funding of departments and individuals is driven by the faculty/institute, and the procedures greatly vary across them. The

performance component methodology has been widely discussed across the MU academic community and has been modified over the years based on ongoing discussions. MU does not consider and communicate this system as a research assessment. The system of indicators consists of multiple publications and grants indicators, and these indicators differ for STM (Science, Technology, and Medicine) faculties and for SSH (Social Sciences and Humanities) faculties. Indicators are intentionally reductive and selective, counting only the best-performing selection from each faculty. A maximum share of 35% of the total core budget for research makes reasonable motivation to quality, and, at the same time, is not destructive for research and publication patterns and faculty strategies. 65% of the budget is the 5-year prospective component backed by the contract between the faculty and MU leadership.

Monitoring
In its current setup, bibliometrics at MU has the status of a supporting tool for monitoring and strategic information. By consistently communicating its limitations and introducing the qualitative Internal Evaluation of Research and Doctoral Studies Evaluation (IRDE), bibliometrics has redefined its role at least at the central level.

3.2 University of Pécs (Hungary)

Introduction

The priority of the University of Pécs (UPECS) is the systematic monitoring and support of individual careers and the continuous improvement of the quality of education and research. Research evaluation at UP is developed in the context of the national research evaluation system on the one hand, and in accordance with its own institutional ambitions on the other. As mentioned above, research evaluation in Hungary has traditionally been based on the measurement of scientific publications and citations and has been strongly influenced by the indicator system expected/defined by funding agencies (most recently the HUN-REN). UP is committed to the reform of research assessment.

UP has an individual-level Institutional Research Assessment (IRA) system, the Performance Evaluation System (PER or TÉR in Hungarian), which combines peer review and bibliometric data. The system aims to align individual and organisational goals, provide regular feedback, inform management decisions and improve organisational culture. Funding is partly based on the Austrian model, where meeting performance indicators can generate additional resources, while the success of research projects and the involvement of external funding are also important. One of UP's strategic goals is to achieve Human Resources Strategy for Researchers (HRS4R) certification. There is a growing awareness of the principles of responsible research evaluation (DORA, Leiden Manifesto, CoARA, SCOPE), although these are not yet fully embedded in UPECS systems. However, efforts at the national level (e.g. recommendations on journals of dubious practice) may influence institutional practice in the future.

Description of the UPECS research evaluation system (TÉR)

At UP, the performance of teachers, researchers and lecturers is evaluated at least once a year through the TÉR. The aim of this system is to support individual career development and to improve the quality of teaching and research. It reviews, evaluates and assesses staff performance against a set of expectations and criteria.

The purpose of the TÉR is to align individual and organisational goals, measure performance, provide regular feedback to staff, explore their individual and organisational development, their motivation and to develop the manager-staff relationship. The results of the appraisals inform management decisions and help to improve the organisational culture. The system is designed to be transparent and objective.

The TÉR is an individual-level appraisal system based on a combination of peer review (carried out by managers appointed by Heads of Department) and bibliometric data. The evaluation covers four so-called core performance areas and one organisational unit-specific module:

a) Educational activities
b) Talent management and youth education
c) Scientific and artistic activities
d) Institutional management activity
e) Activities recognised by the unit that are related to the core performance area but not specifically named

Data sources used for the evaluation

a) Electronic Tutoring System (ETR): data on educational activities.
b) Hungarian Scientific Works Database (MTMT): data on scientific and artistic activities. The purpose of MTMT is to record publication and citation data for research evaluation.
c) Centre for Higher Education Data Analysis and Performance Management (FATK): data on talent management, post-graduate education and institutional management activities. Data are reviewed and validated on the TÉR online platform, hosted by FATK.
d) Nexon: data on institutional management activities. Research outputs (including publications) are calculated on the basis of the arithmetic average of the 3 calendar years preceding the year of completion. The system displays the performance weighted by scores, on the basis of which the performance of teachers and researchers is rated. It distinguishes between 3 rating categories: underperforming, high performing and outstanding.

TÉR indicators, metrics

Indicators include weighted scores for different types of publications (journal articles, books, book chapters in national and foreign languages), citations, PhD and Habilitation degrees, TDK/OTDK activities, conference presentations, institutional leadership positions and memberships. In UP practice, the metrics Journal Impact Factor (JIF), Field Weighted Citation Impact, Category Normalised Citation Impact, Documents in TOP 10% (Incites) and Scimago Journal Ranking are also used to assess publication performance. The number of authors and author position (first, last, corresponding) are also taken into account when evaluating multi-author publications.

The TÉR Process

The assessment is carried out at least once a year for the completed academic year. Graduates check and validate the data available on the TÉR online platform and manually record the required performance data. The assessment is carried out by managers designated by the heads of department. Completers receive feedback on the results of the assessment and have the opportunity to make comments. The evaluation documents are electronically recorded and stored in the TÉR system.

TÉR Impact

Performance results inform management decisions, enable the development of organisational culture, identify individual development opportunities and serve as a decision support tool for the implementation of university and organisational strategy. Employees who perform well or exceptionally well may receive a salary increase for the next academic year or a one-time reward at the end of the year.

UPECS research funding

UPECS's research funding comes from several sources. As mentioned above, the national medium-term funding model is based on pre-defined performance indicators. By meeting the indicators, universities can obtain additional funding, which puts pressure on individual research performance. In addition, the success of research projects and the acquisition of external funding are important factors in the allocation of funds.

At the national level, the HUN-REN has introduced performance-based funding from 2023. UPECS can also count on public funding. A framework agreement between the state and the university provides long-term guarantees, while details are set out in individual funding agreements.

On the other hand, individual performance in the TÉR system can also contribute to the overall performance of the university, which can indirectly influence future funding. The performance of institution-level indicators (which are aggregates of individual performance) can directly influence access to additional funding.

However, performance-based funding puts pressure on individual research performance. High dependence on external funding (up to 50% of salaries may have come from grants in the past) can create uncertainty and stress for researchers.

3.3 Vasyl Stefanyk Precarpathian National University (Ukraine)

Introduction

Vasyl Stefanyk Precarpathian National University holds a prominent position within Ukraine's higher education and research landscape. It consistently ranks among the top institutions in the region and is recognised nationally for its academic excellence, scientific productivity, and international collaboration. The university is a key driver of intellectual and socio-economic development in the Ivano-Frankivsk region and serves as a strategic hub for cross-border cooperation through partnerships with other European institutions.

Its national standing is further reflected in its performance across various domestic and international rankings, including strong representation in the Times Higher Education, Scopus, Webometrics, and UniRank listings. The university is also actively engaged in implementing national research reforms and has aligned its strategy with the Ministry of Education and Science of Ukraine's priorities, including the integration into the European Research Area (ERA).

Within the evolving system of research evaluation in Ukraine, Vasyl Stefanyk Precarpathian National University is both a subject and an agent of transformation. It has participated in national attestation processes and competitive funding schemes administered by the Ministry and the National Research Foundation of Ukraine.

Executive summary: most important findings and recommendations for the reform

The internal research assessment system at Vasyl Stefanyk Precarpathian National University has developed into a well-structured and comprehensive mechanism for monitoring academic performance at the departmental level. The system unifies research activity data with internationalisation data and educational engagement data, and institutional visibility into a single framework which applies uniformly across faculties. The standardised indicators, together with weighted scoring, create a system that provides transparency and accountability and supports internal benchmarking and awareness. The addition of 360-degree feedback to the process enhances it by bringing qualitative information about leadership and institutional engagement and collaboration.

The system functions mainly through quantitative data collection while serving as a reporting tool instead of strategic development support. The system reports on past achievements yet lacks mechanisms to explain the reasons behind these results and to apply this knowledge for future planning. The university lacks a defined relationship between assessment results and its funding model and resource distribution systems. The system operates as an observation tool instead of a transformation tool at present.

Research assessment – the description of the system

The university uses a single numeric system to track departmental performance through three rating dimensions, which include scientific and international activity, teaching and expert engagement, and brand development. The research assessment exists within the first dimension of this triadic structure and receives the majority of weighted performance scores. The model measures research productivity through Scopus and Web of Science publication numbers, h-index values, externally funded projects,

student publication outputs, patents, and professional affiliations. The system converts each indicator into points through established coefficients to generate departmental performance scores both at the total level and per individual member. The system evaluates multiple research outputs yet fails to consider both disciplinary differences and the research context and strategic value of studied topics.

Methodology

The methodology depends on self-reporting from departments combined with verification from centralised offices to create a detailed system that ensures verifiability. The metrics primarily consist of quantitative data which uses fixed-point coefficients to measure indicators, including Scopus/Web of Science publications, h-index averages, monographs, conference organisation, patent output and international project participation. The detailed scoring framework provides clear and comparable data, which enables internal benchmarking and diagnostic review.

The 360-degree assessment method introduces qualitative judgment data through structured feedback obtained from faculty deans, research offices, and internal reviewers. The assessment scores evaluate performance aspects that include collaboration and initiative, and procedural responsibility, which relate to institutional effectiveness, although they do not measure scientific results directly. The combination of indicators in the system enables the university to develop research evaluation models that focus on development and reflection.

The system lacks explicit impact evaluation and stakeholder engagement and narrative forms of evidence, which restricts its ability to measure the real-world relevance of academic research. The system functions as a management tool instead of a funding instrument because its outputs serve internal dialogue purposes without connecting to strategic budget allocations.

Research Assessment Processes

Vasyl Stefanyk Precarpathian National University implements the research assessment process as an organisational system to evaluate academic department effectiveness. The annual assessment process starts with departmental submission of structured reports through university-approved templates. The reports include multiple indicators which measure research output, together with international engagement, teaching responsibilities, expert involvement, and branding activities. The assessment system uses specific coefficients to convert each data point into standardised scores.

The submitted data requires internal verification by administrative units, which include the Research and Development Office, the International Office, the Library and the Methodological Department, based on indicator type. The validation process maintains both consistency and authenticity of the provided evidence.

The departmental scores undergo normalisation through a process that considers the number of full-time academic staff members to ensure fair comparisons between different-sized units. The consolidated ranking report combines departmental scores with their average performance levels. The institution uses a 360-degree evaluation system, which collects qualitative feedback from different stakeholders, including faculty peers and deans. The feedback system assesses internal cooperation and leadership quality and strategic task responsiveness, which serves as an additional evaluative layer for branding and organisational development.

The system delivers detailed transparency about academic activities yet operates primarily as an information-based diagnostic tool. The assessment results do not have an official connection to the university's financial or resource distribution systems. The collected data provide useful information about departmental performance, but their impact on strategic resource allocation and research development support remains restricted.

Funding distribution mechanisms

At the institutional level, each university in Ukraine develops its own methodology for distributing the core research funding it receives from the government. The government funding serves as an extra resource for universities instead of their primary financial source. Universities distribute their funds through performance indicators, which they establish internally to measure research outputs such as publications and patents, and external grants and other quantifiable achievements. Institutional research funding allocation processes are based on quantitative models based on publication scores, but some universities are increasingly moving towards hybrid approaches that integrate performance indicators with strategic priorities and societal impact assessments.

Public funding for university research is now channelled through several distinct mechanisms, defined in the state budget and governed by the Ministry of Education and Science (MES).

Since 2020, Ukraine has introduced base funding for research at universities, allocated according to the results of a formal research assessment. This is essentially a block grant intended to support ongoing R&D capacity at universities that demonstrate strong research performance. The Cabinet of Ministers established a procedure (Resolution No. 652, 2018) for a periodic “state attestation” (evaluation) of universities’ research activity. Based on the latest attestation results, universities are categorised into performance groups. Only those in the top tiers (Categories A or B) qualify for core research funding from the state.

The base funding is provided via a dedicated budget program (“Support for Priority Directions of Scientific Research in HEIs”). Each qualifying university signs an agreement with the Ministry to execute a research development plan in its accredited scientific fields, and funds are disbursed accordingly.

A substantial portion of university research funding comes through competitive grants, where projects are selected based on peer review and merit. The National Research Foundation of Ukraine (NRFU), established in 2018, is a key instrument for this. In 2023, the NRFU had UAH 505 million (ca. 12,4 million euros) earmarked for grants to researchers across universities and research institutes.

The NRFU runs open calls to fund fundamental and applied research projects, including special calls for young scientists. Competitive funding also includes state R&D contracts for specific national needs (so-called “state order” projects).

The state budget also supports certain research activities through targeted programs. For example, funding is set aside for the maintenance of unique research infrastructure and national heritage scientific facilities. During the ongoing war, emergency programs have been developed to replace scientific equipment and rebuild laboratories damaged by hostilities. These targeted funds, while outside regular allocations, form part of the broader research funding ecosystem tied to government priorities.

How does it influence researchers?

The current funding and assessment system impacts researchers' behaviour and the academic environment, together with their career trajectories in Ukraine's universities. Research productivity stands as the main success factor for institutions as well as the foundation for career growth because national evaluations and institutional assessments focus on publication output and h-index metrics. Academic staff prioritise their research output and high-impact international journal publications because the policy emphasises publications in major scientometric databases, including Scopus and Web of Science.

Researchers modify their work plans to fulfil these requirements by choosing topics that lead to journal publication, writing in English, and building partnerships with international researchers to access more publication opportunities. The accomplishments in these areas now directly influence professional advancement opportunities. The Ministry of Education and Science demands that Docent (Associate Professor) and Professor candidates must demonstrate at least 10 publications in internationally recognised journals, among which several need Scopus or Web of Science indexing. Academic professionals who focus mainly on teaching need to show research output to move forward in their career development.

University funding policies reinforce this dynamic by fostering competition among institutions and within universities themselves. Because funding opportunities are concentrated among a limited number of universities, institutions benchmark their performance against peers. At the departmental level, competition for ranking positions can lead to positive outcomes, such as the establishment of mentoring programs for early-career researchers and seminars designed to improve publication quality. However, the system still relies heavily on quantitative indicators, which can create unintended consequences.

The funding and assessment system has improved professional standards and made Ukrainian university research more consistent with international standards. At the same time, its strong reliance on quantitative indicators continues to shape academic culture, sometimes at the expense of innovative or high-risk research. The main challenge for developing a sustainable research environment with diversity involves finding an equilibrium between quantifiable outputs and wider quality and impact assessments.

4. The road to reform: self-evaluation of the research assessment systems and their compliance with Agreement for Reforming Research Assessment and Coalition for Advancing Research Assessment (CoARA)

In this chapter, we want to think about the current evaluation practices in our countries in comparison with the commitment that we've promised to fulfil by signing the Agreement and membership in CoARA. These practices, the way we play the evaluation game, and thus the issues identified, may differ between our three countries. Metrics may be the point where all the priorities meet. Interpreting the reform globally generates false expectations, e.g. that metrics are an undesirable method in the evaluation. This is not entirely true. However, we expect tensions between newly promoted qualitative frameworks and quantitative legacy systems. There are several studies showing that the legacy of metric-based systems is still strong and has much to do with the cultural heritage (Kulczycki, 2023) and mistrust in the objectivity of peer review (Arnold, 2011). This applies foremost for the Central and Eastern European region (see the following chapters mapping major problems in the Czech Republic, Hungary and Ukraine), but other tensions apply in the disciplinary contexts regardless of the location[3]. Therefore, the proper use of metrics, as well as the importance of peer review, together with mechanisms for ensuring its quality and legitimacy, must be communicated and promoted within our institutions. At the same time, we must carefully consider the disciplinary expectations in terms of how they are evaluated, according to their typical scientific communication and quality notions. As noted before, the way to reform may greatly differ in various national contexts, and the reliance on metrics is strong, especially at the national levels (Czech Republic, Hungary and Ukraine). One of the most important weaknesses of the reform at institutions is therefore the perception of external evaluations' criteria. Even if we aim to reduce the negative influence of metrics, the way may elsewhere be successful only when these tensions are balanced. For this, proper interpretation of CoARA commitments is crucial.

Statistical arguments are sometimes used against the use of journal metrics to evaluate individual articles and authors, which may not be constructed correctly.[4] Yet, notwithstanding the objective criticisms of these arguments, the use of impact factor, and thus AIS and other related metrics, to evaluate articles and individuals is rejected because of the effects of metrics on behaviour and publication patterns. Therefore, replacing one metric with a "better" metric, but the same in type, is not sufficient for responsible evaluation, which is a very complex concept. The need to understand the limitations of bibliometric analysis is, at best, mentioned in the methodological part of the analysis, but at worst, this understanding may be completely ignored in practice.[5]

[3] E.g. Scientists at odds on Utrecht University reforms to hiring and promotion criteria. (2021, August 9). Nature Index. https://www.nature.com/nature-index/news/scientists-argue-over-use-of-impact-factors-for-evaluating-research.

[4] Waltman L, Traag VA. Use of the journal impact factor for assessing individual articles: Statistically flawed or not? F1000Res. 2020 May 14;9:366. doi: 10.12688/f1000research.23418.2. PMID: 33796272; PMCID: PMC7974631.

[5] Some IDEA applications use national CRIS and WoS data to display institutional performance through various parameters related to journals. While there is a caveat about the limitations, the developers encourage institutions to use it for decision-making. The comprehensiveness of the application, its presentation and the authority of the creators give the impression of accuracy and validity.

Even abroad, however, there is little evidence that awareness of the limitations of bibliometrics has led to a complete end to the use of such analyses for evaluation.[6] The wholesale removal of metrics from evaluation[7] may raise uncertainty about the objectivity of other evaluation models in fields where metrics are perceived as an accepted measure of scientific prestige.[8]

4.1 Masaryk University (Czechia)

The evaluation culture and the starting points for the research assessment reform in the Czech Republic

The national evaluation methodology M17+ is based on the peer review and includes an assessment not only of outputs but also of the environment, research inputs and future strategies. It provides feedback to research organisations and is consistent in overall design with national systems in countries with a developed evaluation culture. Both the Office of the Government of the Czech Republic and the MEYS have become members of CoARA and declare the full compliance of the system with the Agreement commitments, as proved e.g. by the fact that the bibliometric analyses of Module 2 are commented on by the expert panels, and that there is other four modules based predominantly on peer review. However, the relationship of implementation to the central idea or the conversion of a well-intentioned rule into practice may fail in the details or some processes. In our experience, systematic reforms of research assessment in the Czech Republic are still rare, lack complexity and integration into lower levels, and are not linked to a change in the overall culture.

Major problems in the national and institutional research assessment practices

Based on the description and analysis of the state of the art in the previous chapters, we identified two levels of problems in the research evaluation regimes: general (Czech nationwide) and institutional (specific to MU). The general issues largely apply to the scholarly community at MU, too. We tried to identify issues from the perspective of compliance with the CoARA commitments, but also with common values in the responsible research assessment concept.

General problems

- Although the system obviously offers a view of a much wider range of issues, the mindset of many Czech scholars prefers easily measurable scientific production in all evaluation contexts. To support this statement, we provide the following example: the M17+ methodology is intended to evaluate the quality of institutions, but unofficially (as seen in many discussions and the decision-making processes), the publication performance is the major condition for grading institutions at the national level. From this perspective, we see a problem of losing the credibility of

[6] Curry, S., Gadd, E & Wilsdon, J. (2022). Harnessing the Metric Tide: indicators, infrastructures & priorities for UK responsible research assessment. Report of The Metric Tide Revisited panel, December 2022. ISBN 978-1-7397102-1-7. https://doi.org/10.6084/m9.figshare.21701624.
[7] Woolston, C. (2021). Impact factor abandoned by Dutch university in hiring and promotion decisions. Nature 595, 462, doi:10.1038/d41586-021-01759-5.
[8] Chawla, D. S. (2021). Scientists at odds on Utrecht University reforms to hiring and promotion criteria. Nature index (9 August). https://www.nature.com/nature-index/news-blog/scientists-argue-over-use-of-impact-factors-for-evaluating-researchcvdsvd.

measuring what matters, while we keep giving too much weight to measuring something that doesn't matter.

- At virtually all levels, evaluation relies predominantly on journal-level metrics of prestige (JIF, AIS and quartile rank derived from them), the h-index, and then impact metrics (citations), which are perceived as advanced in terms of style. The notorious limitations of the impact factor and the inappropriateness of various other metrics in research evaluation are well known, but they are still widely used and misinterpreted. A good example of this from the Czech environment is seeking the “perfect metric”, i.e. considering it an acceptable remedy to replace the impact factor in the assessment of "quality" with another metric - e.g. the Article Influence Score, arguing for the higher accuracy and predictive power of the metric.
- Understanding the complexity, understanding the vocabulary, and using buzzwords. Also, “the cargo cult" – changes are implemented superficially, formally, without a deeper understanding of complexity and changes in the overall culture. Nor can new principles be implemented while tolerating unwanted or bad behaviour. For example, the comments of the expert panels on bibliometric analyses, while on the one hand they correctly use the word "influence" in the context of what they show by journal metrics, on the other hand they directly interpret quartile profiles as the quality of disciplines (e.g., education is considered low quality based on this approach).
- Misinterpretation and simplification: The notion of quality or performance is replaced by indicators to measure it or by measurable features. For example, in the Czech Republic, as seen from the guiding documents to the national evaluation, the “societally relevant research” is seen as the set of respective **outputs** (patents, software, etc.) or seen through economic indicators (licenses).
- Missing quality notions: disciplines have not managed to define criteria in the assessment that could align with their quality notion and communication patterns.
- Integration of the reform into the life of the whole institution at all levels. It is not uncommon to use a reasonable evaluation model at the level of the whole institution (e.g. Academy of Sciences), but the same institutions is not able to promote the same reforms at lower levels (e.g. Institutes). Especially at faculties and institutes, researchers' careers are directly influenced to a large extent by metrics, including the most bizarre ones.
- The evaluation gap[9] – a phenomenon that the criteria in assessments do not match the character or goals of the research under evaluation or the role that the researcher aims to play in society.
- Low awareness among the academic community about the reform in general or about the already existing reforming activities at their own institutions.
- Underestimation of the expert role of research managers and administrators. Decision-making based on influence or status without sufficient expertise.

Institutional

- The missing institutional “evaluation policy” or framework that would secure the shared and respected principles and values across all levels. Consequently, the central research assessment system may comply with CoARA commitments; however, we cannot ensure the same for the level of faculties/departments.
- System of rewarding individuals that is predominantly based on the rewarding of prestigious journals without any other quality notion.
- Awards that are promoted as “excellent scientific achievement awards”, but are evaluated against the source in which they are published.

[9] Wouters P. F. (2017) ‘Bridging the Evaluation Gap’, Engaging Science, Technology, and Society, 3: 108–18.

- Faculty/institutes-specific core research funding mechanisms relying solely on the publication performance.
- Awards that are attributed due to the prestige of the source, instead of a qualitative review of the importance and impact of the particular scientific work.
- A narrow range of outputs that are eligible to be included in different evaluations and thus limiting the impact tracking. The publishing system is diverse, and nowadays research, especially in the humanities and some social sciences, consists of non-traditional outputs that could have a great societal, social or scientific impact.
- Straightforward assessment of individuals against their performance perceived from other, external assessments without considering the relevance, validity, and equity of these external assessments.
- Narrow criteria in the assessment for promotion and careers, namely 1) evaluation of eligibility to be a Ph.D. supervisor by the simple publication counts or 2) bizarre metrics requested to report in individual Ph.D study plan (total journal impact factor), 3) other.
- Low awareness about the principles of the reform, about alternatives in research assessment methods beyond traditional metrics.

4.2 University of Pécs (Hungary)

The road to reform at UP

UPECS is committed to the reform of research appraisal. A strategic goal is the certification of the Human Resources Strategy for Researchers (HRS4R). The preparation of HRS4R is underway, the situation analysis has been carried out, and the two-year action plan is being implemented. UP joined the Coalition for Advancing Research Assessment (CoARA) in autumn 2024 and is committed to renewing its research assessment practices.

In Hungary, HUN-REN is coordinating the work on CoARA. The national recommendations on journals of dubious practice and the NREN's open scientific statement point in the direction of reform. The transformation of the Hungarian Research Network (HUN-REN) into a more efficient and merit-based system will also affect the research environment at UP.

Major problems in the institutional research assessment practices

The main concerns include:

- Previous over-reliance on bibliometric indicators in national research assessment.
- A "publish or perish" mentality that may emphasise quantity over quality.
- The challenges of open access and predatory journals, as opposed to the push for high prestige (Q1) journals.
- Insufficient attention to the specificities of different disciplines (one-size-fits-all approach).
- Unequal distribution of research resources, with a few (leading) researchers holding the majority of resources ("feudal" system).

- A significant proportion of researchers' salaries are funded by grants, leading to insecurity and stress.
- The principles of responsible research assessment (DORA, Leiden) are not yet fully integrated into national and institutional systems.

These issues represent potential areas for improvement for UP in further refining its research evaluation system and putting the principles of responsible research evaluation into practice.

4.3 Vasyl Stefanyk Precarpathian National University (Ukraine)

The road to reform at PNU

PNU plans to enhance its European research assessment standards connection through a step-by-step process of moving away from metric-based evaluation. The institution will shift its emphasis toward understanding context while embracing diversity and real-world effects. The university must implement qualitative assessment techniques as part of its internal evaluation procedures to advance its transition. The university will use narrative summaries together with case studies of impact and peer reviews that showcase diverse academic contributions. The university recognises the necessity to develop an explicit and uniform policy framework for responsible research assessment. The policy will adopt the principles of the Coalition for the Advancement of Research Assessment (CoARA) to create a future-oriented framework for assessment.

The university plans to develop human capital through dedicated training programmes for academic and administrative staff on data use, evidence-based decision-making and accountable metrics. The digital infrastructure is already undergoing modernisation as a top priority. An integrated research information system will ensure compatibility with national platforms, automate data collection, reduce administrative work and provide real-time performance indicators.

The ability to interpret results is of strategic importance. The university will improve its advisory structures by involving experts from both internal and external sources who will contextualise quantitative results and identify direct investments and their societal relevance. The central evaluation unit will be given stronger powers to establish direct links between resource allocation and evaluation results and achieve inter-faculty coherence.

The university plans to involve researchers together with early-career academics and administrative staff to develop new assessment frameworks which will ensure their practicality and acceptance. Through this participatory approach, PNU can establish trust while increasing transparency to develop a research environment which embodies inclusivity, excellence, and impact.

Major problems in the institutional research assessment practices

The key institutional problems can be summarised as follows:

- Current evaluation systems use uniform evaluation criteria for disciplines that require different standards and quality benchmarks.
- The academic community's habitual use of bibliometric metrics, including publication count, h-index, and journal impact factor, as quality indicators, hinders the implementation of peer review and quality assessment options.
- University data collection systems, which are largely fragmented, in turn create administrative inefficiencies, while generating inconsistent results and errors.
- Reward systems favour prestigious publication locations rather than evaluating research based on its social impact and educational value.
- The implementation of accountable research evaluation systems, such as CoARA or DORA, has shown inconsistent implementation across faculties and departments.
- The academic staff promotion process relies on outdated and arbitrary metrics that require both a minimum number of publications indexed by Scopus and the journal's overall impact factor.
- Academic staff demonstrate limited understanding of international reform principles as well as different assessment methods.

In conclusion, Ukraine's research assessment and funding system faces deep-rooted challenges - from disciplinary imbalances and limited institutional capacity for qualitative evaluation to unreliable data, overreliance on quantitative metrics, and rigid financial management structures. While the introduction of performance-based base funding marks a step forward, without greater flexibility and real financial autonomy for universities, reforms risk remaining fragmented and insufficiently effective.

5. Conclusion

Post-communist countries have long been absent from studies concerning the history of science, on which the recent research assessment reform, most recently represented by the Coalition on Advancing Research Assessment, builds. Emanuel Kulczycki (2023) argued that in the context of centrally planned science within the former Soviet Union, a national research evaluation systems and assessments of research impacts through mostly quantitative measures came into existence decades before New Public Management and Western European systems, namely the development of scientometrics already in the first half of the twentieth century. It is important to consider the heritage, geographical, cultural and historical context for understanding the differences between ways of confronting the global challenges of the publish or perish culture, questionable academia problems, obsession with metrics, language preferences, etc., depending on the location of a given science system.

We do not invoke the geopolitically sensitive approach as an excuse or cherish nostalgia for this heritage. Rather, the success or failure of reform hinges on how well we understand the ways in which the evaluation games are played in Western and Central-Eastern or peripheral countries, and how varying practices are valorised. These variations are deeply rooted in the specific scientific systems of each country or region. Although the straightforward judgments are usually aimed at the overreliance on metrics, in this report, we also disentangle deeper contexts for the reform. Our aim, for example, is to shift the prevailing mindset that relies heavily on metrics, while still acknowledging their potential when used appropriately. Thus, the reform is not about choosing between peer review and metrics, nor about uncritically adopting external models or imposing imported ideas. Instead, it lies in grasping and interpreting reformative concepts, in the way evaluation practices are applied, and in the values that underpin them. In this regard, we must count specifically on the response in our countries and choose an appropriate approach to our common reforming goal.

In this report, we strived to disentangle the most pressing problems in research evaluation processes in our institutions and countries from the point of view of research assessment reform and the overall concept of responsible evaluation. This concept has no exact criteria, mandatory tasks, prescribed structures or obligatory toolbox. Rather is defined by a set of recommendations for different academic areas, shared values and ethical principles. The EDUC Strategy will follow to define priorities as possible steps for the reform suggested in this report.

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