INTERNATIONAL EUROPEAN UNIVERSITY

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KPI GOALS
OF SCIENTIFIC ACTIVITIES AND RESEARCH

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CONTENT

1. INTRODUCTION

A critical element in successfully achieving goals and objectives for the development of scientific activities and research, according to the 2021-2031 Development Strategy of International European University, is determining, aligning, and achieving measurable indicators of successful activity or Key Performance Indicators (KPI).

International European University (hereinafter referred to as the University) has identified 16 Key Performance Indicators (KPI) that align with the goals of the 2021-2031 University Strategy.

The University will set a range of ambitious but realistic and achievable goals regarding these KPI per each calendar year for structural units involved in scientific and research activities (hereinafter referred to as Units), as well as for programs, projects, and individual researchers. These goals will be coordinated during discussions at Academic Councils of Institutes and the University and can be updated periodically by decision of the University Academic Council.

The KPI system in science and research consists of 5 KPI and 43 metrics applied at 4 levels of KPI achievement: individual researcher, program/project, individual unit, and the University as a whole. The Academic Council will set annual and quantitatively measurable goals for these metrics and monitor their achievement.

2. MISSION AND VISION OF UNIVERSITY'S SCIENTIFIC AND RESEARCH ACTIVITIES

Mission:

To design an ecosystem for supporting advanced scientific activities and innovative solutions that address priority contemporary issues related to achieving sustainable development goals.

Vision:

Visible presence and recognition of the University at the national level and at the global international stage in specific areas as a leading research center with its own scientific schools and institutes.

3. KPI AND METRICS OF SCIENCE AND RESEARCH

To achieve the above-mentioned mission and vision by 2031, the University has set the global KPI in science and research:

to increase the quality, quantity, and impact of research, research grants, and innovations at IEU.

The achievement of this global KPI will be monitored through the following **second-level KPI system**:

Table 1

A range of KPI in science and research

KPI	Title	Content
KPI 1	***Research excellence***	Increase in the scientific and social impact of our research
KPI 2	***Funding diversification***	Increase in volumes and share of scientific and research grants funded by external national and international/foreign grantors
KPI 3	***Experience in youth science and support for young scientists***	Increased involvement of young scientists, postgraduates, and students in the scientific community, efficiency of their mentorship and research
KPI 4	***Knowledge exchange***	Achievement of excellence in knowledge exchange according to the University's Open Science Policy
KPI 5	***Research potential***	Improving the quality of researchers and enhancing the research infrastructure

The second-level KPI applies **sets of metrics** for their achievement that differ for each level: for the University as a whole, for structural units (Education and Research Institutes, Departments, research laboratories, centers, etc.), at the program/project level, and for individual researchers ***(Table 2)***.

Table 2

KPI achievement metrics

KPI metrics	Level of coverage	State of application
KPI 1. Research excellence		
Number of scientific publications affiliated with the University in journals indexed by Scopus and Web of Science per year	University, unit, program/project, researcher	Applied
Number of scientific publications per calendar year	Unit, program/project	Applied
Number of publications by the academic staff in specialized journals of category B per calendar year	Researcher	Applied
University citation index in international databases	University	Applied
Number of citations in Google Scholar per calendar year	Unit, program/project	Applied
Number of citations in SCOPUS per calendar year	Unit	Applied
Number of publications with FWCI of at least 0.8	Unit	Implemented
Growth in the Hirsch index over the calendar year: in Google Scholar in SCOPUS	Unit, researcher	Applied

KPI metrics	Level of coverage	State of application
Number of co-authored studies with international partners	Program/project, researcher	Implemented
Number of published monographs, textbooks, and study guides affiliated with the University as a publisher per calendar year	Program/project, researcher	Implemented
KPI 2. Funding diversification		
Share of the budget allocated to research	University	Applied
Share of external research funding	University, unit	Implemented
Number of obtained research grants	University, unit, researcher	Applied
Share of international grants and projects in total external funding of science and research	University, unit, researcher	Implemented
Number of obtained international research grants	University, unit, program/project, researcher	Applied
Number of participants in grant projects	University, unit, program/project	Implemented
KPI 3. Experience in youth science and support for young scientists		
Number of people enrolled in PhD and post-doctoral programs per year	University, unit, program/project	Will be implemented after postgraduate licensing
Number of postgraduate/doctoral students who successfully obtained a degree per year	University, unit, program/project	Will be implemented after postgraduate licensing
Level of satisfaction of postgraduate students (according to surveys) with scientific supervision and conditions of postgraduate training	University, unit, program/project	Will be implemented after postgraduate licensing
Level of satisfaction of young scientists (according to surveys) with conditions for research and scientific development	University, unit, program/project	Implemented
Number of international internship programs for young researchers participated in per calendar year	University, unit, program/project, researcher	Implemented
Number of young scientists involved in research and development projects (percentage of the total number of project supervisors) per year	University, unit, program/project	Implemented
Percentage of young researchers (students, postgraduates, young scientists) who received grants or scholarships per year	University, unit	Implemented
Number of joint scientific publications involving young researchers (students, postgraduates, doctoral students) per year	University, unit, program/project, researcher	Implemented

KPI metrics	Level of coverage	State of application
Number of winners of national and international competitions for scientific papers, research, and development prepared during the year	University, unit, program/project, researcher	Applied
KPI 4. Knowledge exchange		
Number of obtained copyright certificates, patents, licensed agreements and awards of excellence	University, unit, program/project, researcher	Applied
Number of held scientific events (conferences, seminars, round tables, etc.)	University, unit, program/project, researcher	Applied
Number of published materials of peer-reviewed conferences/meetings (key points of presentations) with a publication date within the reporting period	University, unit, program/project, researcher	Applied
Number of publications placed in the University repository	University, unit, program/project, researcher	Implemented
Number of new spinouts	University, unit, program/project, researcher	Implemented
KPI 5. Research potential		
Share of the academic staff involved in research	University, unit	Applied
Share of Doctor of Sciences involved in research	University, unit, program/project,	Applied
Number of operating research infrastructure facilities (research laboratories, centers, innovation parks, clusters, etc.)	University, unit	Implemented
Number of scientists who are members of editorial boards of scientific publications indexed in SCOPUS and/or Web of Science	University, unit, program/project, researcher	Applied
Number of issuing University scientific publications (book, periodical, and non-periodical)	University, unit, program/project, researcher	Implemented
Share of young scientists (under 35 years old) among the academic staff	University, unit, program/project	Implemented
Increase in the scientific level of the academic staff: acquisition of academic degrees and titles by the academic staff	University, unit, program/project, researcher	Applied
Number of international research internships undergone within a year	University, unit, program/project, researcher	Applied
Share of funding for the establishment and equipment of new research infrastructure facilities (laboratories, centers) in the total budget for science and research expenditures for the calendar year	University, unit, program/project	Implemented
Percentage of achieved program/project operational plan indicators	Program/project	Implemented

KPI metrics	Level of coverage	State of application
Public engagement: percentage of employees taking part in four or more events to promote science and research	University, unit, program/project,	Implemented
Public engagement: number of events to promote science and research participated during the year	Researcher	Implemented

4. FEATURES OF APPLYING KPI METRICS IN SCIENCE AND RESEARCH

To assess the achievement of KPI, they are measured on a calendar year basis (with a publication date within the reporting period). It is expected that reports on the achievements of relevant indicators will include data if these indicators are affiliated with the University.

Scientometric indicators are used to **measure the impact of research**. Overall impact is assessed using the FWCI (Field-Weighted Citation Impact) determined by SCOPUS over a five-year interval. It is an indicator of the average citation impact that compares the actual number of citations received by an article with the expected number of citations for articles of the same document type, publication year, and subject area. The indicator is always determined with reference to the global baseline level of the entire Scopus database, which is 1.00.

The FWCI of 1.00 indicates that publications of the business entity have been cited exactly as expected based on the global average for similar publications.

The FWCI of more than 1.00 indicates that publications have been cited more than would be expected based on the global average for similar publications. For example, 2.11 means that publications have had 111% more citations than the global average.

The FWCI of less than 1.00 indicates that publications have been cited less than expected based on the global average for similar publications. For example, 0.87 means 13% fewer citations than the global average.

We assess the **social impact (assessment and transformational contribution)** using alternative metrics. Alternative metrics are non-traditional indicators complementing traditional citation impact metrics, such as the impact factor and the Hirsch index

Altmetrics is a company providing information on where articles are used. It is a system tracking the attention of research findings, such as scientific articles and datasets on the Internet. It is achieved by obtaining data from three main sources:

- Social media: Twitter, Facebook, Google+, Pinterest, and blogs;
- Traditional mass media: both mainstream (The Guardian, New York Times) and specific scientific (New Scientist, Scientific American, etc.).
- Online reference managers: Mendeley and CiteULike.

When applying these metrics, it should be noted that Altmetrics measures attention rather than quality. People pay attention to publications for various reasons, and not all of them are positive. Altmetrics simply tracks public attention. Altmetrics tracks direct attention, meaning the attention focused on a specific scientific paper or dataset. In order for posts about a scientific paper to be considered using Altmetrics, they should contain a

hyperlink to the scientific paper or an official citation of it. This metric will report the number of mentions of the article.

To implement the University Development Strategy, it is expected that the University community will interact with the non-academic public in its scientific and research activities. The public engagement KPI reflects the percentage of the staff participating in four or more science and research popularization events at the institutional level. Such events can include the following:

- Contribution to a website, online portal, or creation of a blog linking to research and/or creation and maintenance of a social media profile (on relevant channels available to the non-professional audience);
- Development of online/social media portals, games, apps, websites, and/or cross-platform projects;
- Participation in training programs aimed at building researchers' potential in public communication and interaction;
- Preparation of informational leaflets, newsletters, or articles for the non-professional audience.
- Development and/or organization of small school interactions and open lab days, including prop design;
- Creation of educational materials and/or development of teaching techniques to support teachers and students at the primary and higher levels of primary school;
- Cooperation and/or participation in outreach festivals and public engagement events;
- Conducting public scientific experiments or research; workshops, events, debates, and discussions with public engagement.
- Creation of opportunities for dialogue with policymakers and broader stakeholders to ensure that research informs or affects changes in policy and legislation;
- Providing opportunities for public engagement and involving a wide range of stakeholders to ensure that research informs or affects changes in behavior or practice;
- Consulting with stakeholders/communities affected by the research to inform the research process;
- Building the potential of stakeholders and communities affected by the research to identify and communicate their needs, which could potentially influence the research area.

5. THE PROCESS OF MONITORING KPI IMPLEMENTATION

Monitoring KPI implementation involves regular data collection and analysis at all levels of management.

Key stages:

1. **Data collection**: Researchers, program/project managers, Departments, and Institutes submit biannual reports on progress towards achieving target KPI. Data is collected using an electronic system aggregating the results from each level.

2. **Data analysis**: The University Academic Council and Institute administration review KPI achievements quarterly, assess outcomes, and identify deviations.
3. **Corrective actions**: If any KPI are not achieved or there is a risk of non-achievement, the University and Institutes develop corrective actions.
4. **Annual report**: At the end of each year, the Scientific and Methodical Council draws up a final report on the KPI achievement approved by the Academic Council and submitted to the University Advisory Board for consideration.

A traffic light indicator system is applied to report on the progress in achieving KPI:

- Green (GR) indicates that the particular policy or activity is progressing well, with no significant risks anticipated.
- Red (R) indicates a problem area that could threaten the progress in science and research if corrective actions are not taken.
- Yellow (Y) represents less significant issues or those that are uncertain or still developing.

This approach allows showing the resilience of scientific and research activities for each defined achievement level across various KPI assessment areas. Each metric is assigned a traffic light indicator, which is then aggregated to provide an overall resilience indicator for the entire KPI.