

**MU Strategic Plan Implementation Scheme for 2020  
Annex 2**

# **Masaryk University Research Framework for 2021–2025**

# Introduction

The research framework of Masaryk University (MU) for years 2021–2025 is based on the current Masaryk University Strategic Plan for 2016–2020, thus affirming the long-term mission and vision of the university. The future development of Masaryk University emphasizes international ambition and excellence. The university management is aware that research output and quality are contingent on openness toward other countries, education of own young scientists, stimulating environment with motivation instruments, improvement of supporting processes and services, and regular evaluation of research quality at all levels.

## 1 Mission and vision in research, development and innovation

### Mission

- Masaryk University strives to create and disseminate knowledge, thus enhancing the quality of life and fostering cultural growth in the community. This mission stems from the university's founding values.

### Vision of MU Strategic Plan for 2021–2025

**By the year 2025, Masaryk University shall be:**

- an internationally visible European university with strong repute in the academic community
- a sought-after employer attracting excellent and renowned scholars and their teams as well as young talented scientists on postdoctoral and junior research posts
- a successful university complying with top quality and performance criteria of international rankings

### Long-term vision

**In the long-term perspective, Masaryk University strives to become:**

- an internationally renowned institution and an outstanding university within the Czech higher education and research area, an example of quality, attractiveness, internal culture and integrity of its work and study environment as well as active and responsible influence on society.

## 2 Goals in the area of research, development and innovation. Strategies of achievement

### Goals:

- Develop **high quality research output at all constituent parts of Masaryk University** through adequate instruments considering differing levels of current research output and specifics of various fields of study, and support for **interdisciplinary topics** and cooperation across disciplines
- Enhance targeted support in order to **hire and maintain excellent scientists and their teams**; create motivational conditions to attract **high quality postdoctoral staff**
- Strengthen **efficiency and quality of doctoral studies** and **attract international applicants**

### Strategies of achievement of goals:

- **Motivational system of internal budgeting and funding research**
- **Open personnel policy** at the level of faculties and units, targeting academics and researchers from outside the university
- **Organizational and material base including professional research support services** to maximize the contribution of key scientists and their teams
- **Higher standards for doctoral studies in all disciplines** emphasizing the quality of research results of doctoral students, obtaining international experience during doctoral studies and observing the study schedule

## 3 Instruments for achievement of research strategy

### Measures and activities for achievement of goals:

- Strengthening cooperation with the **International Scientific Advisory Board of Masaryk University** in research evaluation
- Introduction of **internal formative evaluation of research** at the level of faculties, other constituent parts of the university and individual research teams
- Introduction of a motivational **system of funding research** at the university, taking into account the results of national evaluation under Methodology 2017+ (encouraging motivation of all faculties and other constituent parts of MU)
- Creation and implementation of **investment strategy for the reconstruction and development** of research infrastructure

- Emphasis on **research priorities with an impact on society**, utilizing MU's unique expertise
- **Revision of internal grant schemes**, including programmes of the Grant Agency of Masaryk University, importance of gaining international grants (ERC and others), support for interdisciplinary topics and young scientists
- Introduction of **transitional funding for ERC** and other grantees
- Enhancement of **targeted support for hiring excellent scientists** and winning prestigious international grants (H2020/HE, ERC, MSCA, involvement in European projects) and encouraging involvement of MU scholars in European-wide research structures.
- Using **HR Award** to encourage open HR policy at further constituent parts of the university
- Support for **targeted work with talented scientists** within their career development
- Emphasizing **research ethics** as part of personal academic integrity
- Ensuring transparent **access to the university research infrastructures** to internal and external users and promoting **shared laboratories** (core facilities)
- Development of **research databases and improvement of data sharing** among research teams across faculties and institutes
- Introduction of support tools for enhancement of **application of research results**
- Setting the system of **presenting and communicating science to the public**
- Defining the instruments for enhancing the **graduation rate of doctoral students** and their gradual implementation
- Implementing **doctoral study standards** considering the specifics of individual disciplines
- Enhancement of support for **research projects of doctoral students** through internal grant competition
- Fostering **cooperation with foreign and Czech universities** and research units, e.g. **institutes of Czech Academy of Sciences** in research and doctoral studies

## Selected established institutional instruments supporting research strategy:

- **Rector's consultative body *International Scientific Advisory Board (ISAB)***: The members of the international board are Professor Josef Jiříčný (*Swiss Federal Institute of Technology, ETH Zürich*), Professor Peter Williamson (*University of Cambridge*), Professor Thomas A. Henzinger (*Institute of Science and Technology, IST Austria*) and Professor Marie-Janine Calic (*Ludwig-Maximilians-Universität München, LMU*). The third meeting of ISAB at MU was held at the end of 2018. Intense talks and negotiations are held at individual constituent parts of the university as well as with the university management during the two-day ISAB meeting. The event results in written recommendation in the area of research and doctoral studies, to be subsequently implemented.
- **Grant Agency of Masaryk University**: Masaryk University supports excellence in research inter alia through internal projects within the Research Support Programme of its grant agency. The programme currently offers several types of support, namely Excellent Results, International Grants Arrangements, Interdisciplinary Research Projects, and Individual High Risk/High Gain

Projects. The most important selection criterion in all types of programmes is the applicant's research excellence and quality of the grant proposal. Since the year 2018, Masaryk University has organized the *MUNI Award in Science and Humanities*, which focusses on newly hired excellent scientists, ERC grant holders and highly rated ERC applicants upon recommendation of MU International Scientific Advisory Board.

– **Instruments encouraging open HR policy**

- The *Regulations on Competitive Selection Procedures of Masaryk University* emphasize the international element in hiring new employees. All selection procedures are announced in English, the selection procedures for senior academic posts (associate professor, professor) must be published in international media and each selection procedure must contain the requirement for internationally relevant research profile of applicants. At least one member of the selection committee for senior posts must be an expert from abroad. The Regulations also introduced the possibility to directly address an excellent applicant, provided all conditions are met.
- The *Programme for HR Policy Support*, announced by the Rector, aims at the financial support for hiring new excellent academic and other staff, in particular experts from other countries.
- **MU Directive Sabbatical leave** specifies the terms of granting sabbatical leave to MU staff and procedure of organizing stays of foreign experts at MU during their sabbatical leave.
- The **Habilitation Procedure and Professor Appointment Procedure Regulations** introduced the obligation to submit proposals for habilitation procedures and all their requisites in English or in another foreign language, depending on the practice in the discipline. Masaryk University has thus become the first Czech higher education institution that introduced such obligation (effective from 31 December 2020).

– **Centre for Scientometric Support:** MU realizes the necessity of international comparison of publication output. The rate of inclusion of bibliometrics into the various area of research work has increased since 2014, when MU started to use the analytic tool *InCites* from *Clarivate Analytics*. This instrument enables MU monitoring its research outputs and their indexation on the platform *Web of Science*, and thus is able to compare the selected parameters with the world competitors. The most important outputs of qualitative evaluation of research include annual evaluation interviews with the faculties, information for national evaluation, continuous monitoring and seeking excellent areas of research and preparation of analyses for habilitation and professor appointment procedures.

– **International Staff Office** provides support for foreigners who work at MU on a long-term basis and their families in the process of relocation to the Czech Republic. The office provides support and assistance before and immediately after arrival. They provide practical advice to employees from abroad throughout their stay in the Czech Republic. (*Assistance was provided to 65 foreigners and 18 family members in 282 situations in 2018. The office processed 965 queries from foreigners during the year.*)

– **Process of internal review of project applications for funding from grant schemes:**

- The **Board for Strategic Research Projects**, an advisory body of the Rector, whose member are qualified experts from various fields of study and university constituent parts,

assesses the submitted projects in terms of content, necessity, relation to strategic objectives of the university and financial demands.

- **Expert committee for assessment of instrumentation purchase plan** assesses purchases of all instruments with the acquisition price over 1 million CZK. The committee is composed of experts from various disciplines. The aim of the committee is to consider the purchase of instruments with regard to their usefulness and proof of concrete application in order to maximize the use of existing instrumentation.

## Indicators

The above stated strategic aims of Masaryk University in science, research and innovation for the period of the next strategic plan shall be monitored and measured mainly through the following indicators:

- Average citation rate of research results indexed in world databases, in particular Web of Science and Scopus
- Proportion of scientific publications of MU authors in 5 %, 10 %, 25 % and 50 % of the most globally cited publications in the given discipline
- Proportion of publications of MU authors in the first and second quality quartiles of journals in the given discipline
- Number of successful international grant projects in which MU is in the role of principal investigator or co-principal investigator (in particular Framework Programmes for Research and Innovation)
- Number of prestigious individual research grants obtained (ERC, EMBO, Wellcome Trust, MSCA etc.)
- Number of registered national and international patents

## 4 National and international context

In accordance with the national and European policy goals in the area of research, development and innovation, the research strategy of MU is based mainly on the openness in the international context and on the orientation to excellence. The university increases the quality of its research, creates conditions for the development of excellent research teams, strengthens internationalization and gains and raises high quality scientists.

These facts may be demonstrated through a number of results, for instance through the proportion of scientific publications created at MU in cooperation with international workplaces. The proportion was almost 55 % in 2018. Most publications were created in cooperation with institutions in the USA (14 %), Germany (13 %), Great Britain (11 %), France (8 %), Italy (8 %) and Slovakia (8 %).

International cooperation naturally contributes to the quality of research results. The most cited publications of MU authors in 2007–2018 were created in cooperation with the *University of California*, *University of Toronto*, *Harvard University*, *Centre National de la Recherche Scientifique*, *University of Texas System*, *Assistance Publique Hopitaux Paris*, *University of Barcelona*, *Ruprecht Karls University Heidelberg*, *Max Planck Society* and *Helmholtz Association*.

Another significant success attesting to the quality of research output is rating 16 publications of 2018 as *Highly Cited* by the *Web of Science*.

MU actively participates in international programmes for the support of research. It is one of the successful Czech institutions in the hitherto rounds of the *Horizon 2020* Framework Program for Research and Innovation. MU was the second best organization in terms of funds obtained and number of successful project applications in 2018.

Besides, six outstanding researchers from MU won the personal excellence ERC grants.