



**MASARYK
INSTITUTE
OF ADVANCED
STUDIES
CTU IN PRAGUE**

STRATEGIC PLAN

**of the Masaryk Institute
of Advanced Studies,
CTU in Prague**
for the Period 2023-2025

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Mission:

The Masaryk Institute of Advanced Studies of the Czech Technical University in Prague builds on the traditions and needs that led to its foundation. It is an institution that responds to the social science challenges of technological transformation and reflects them in both research and education. MIAS educates high-quality managers who are and will continue to be instrumental in implementing various innovations. Their qualifications must therefore include an understanding of current technological trends, a commitment to social responsibility, and an awareness of the necessity of lifelong learning. The quality of education is a key condition for the development and economic growth of society, its cohesion, and, last but not least, the standard of living of its citizens. MIAS has long been involved in the training of teachers of technical subjects and places emphasis on the development of teaching methodology at the level of secondary schools, higher education pedagogy, and lifelong learning. It views internationalization as an important tool for the development of study programs and research. Therefore, high-quality language training for students and the development of language competences among academic staff are essential parts of its educational processes. The Institute is strengthening cooperation with other parts of CTU in Prague and, through its public activities, fulfils the societal role of universities.

Vision:

The Masaryk Institute of Advanced Studies of the Czech Technical University in Prague aims to become a leading university institution that responds to contemporary societal challenges. The long-term development of the Institute is based on conceptual approaches that go beyond immediate particular interests and strive for deeper synergies within CTU. These approaches make it possible to distinguish between short-term effects and long-term trends and to create space for international cooperation. The Institute is committed to the principles of humanity and ethics in both teaching and research, upholding non-discrimination and equal opportunities. Teaching must reflect the latest findings of scientific research while responding to practical needs. In making use of modern didactic tools and approaches enabled by contemporary technologies, the human and social dimensions of education must not be lost. The authority of the university teacher is grounded in their knowledge, research achievements, practical experience, and their ability to inspire students with their subject, to present them the magic of own discovery, and the pursuit of knowledge. The Institute fosters an environment based on collegiality, mutual respect, and the full development of the personal potential of every student and staff member, in support of both educational goals and research tasks, under clear and transparent rules known to all.

1. EDUCATION

The study programs offered by MIAS are built on two main pillars: Engineering pedagogy, and Economics and management with a focus on innovation.

Currently, MIAS offers a bachelor's study programme in Teacher training for Practical Education and Vocational Training. In cooperation with other CTU faculties, it is preparing follow-up master's programs in Secondary School Teaching, with subject specializations in Informatics (Faculty of Information Technology), Mathematics, Physics, Chemistry (Faculty of Nuclear Sciences and Physical Engineering), Mechanical Engineering (Faculty of Mechanical Engineering), Civil Engineering (Faculty of Civil Engineering), and Electrical Engineering and Cybernetics (Faculty of Electrical Engineering). These programs will be delivered at the respective faculties, with MIAS providing the pedagogical, psychological, and teaching methodology components.

The second pillar is represented by the field of economics and management, including the bachelor's program Economics and Management and the master's program Innovation Project Management. In this area, a transition from academically to professionally oriented education is underway. The first

professionally oriented cohorts of the Economics and Management bachelor's program began their studies in the academic year 2023/2024. The professionally oriented master's program Innovation Project Management is planned for accreditation in 2025.

A strategic goal is to develop additional master's programs combining teacher education with economics and management, such as Teaching Economic Subjects at Secondary Schools and a School Management program. The accreditation of these programs will be contingent upon the transformation of MIAS into a faculty.

The core values of MIAS in the strategic management of education are the recruitment of **high-quality applicants, effective collaboration with industry, and lifelong learning.**

1.1 Increasing Interest in Study Programs Among High-Quality Domestic and International Secondary School Students

- Use the development and accreditation of new teacher training programs to foster broader cooperation with secondary schools, with the long-term goal of improving the quality of student preparation and increasing their interest in CTU study programs.
- Strengthen promotion aimed at international students to increase the number of high-quality participants in English-language programs and other MIAS-organized activities (ERASMUS, ATHENS, Summer School, preparatory courses).

1.2 Improving the Quality and Success Rate of Study

- Launch the activities of Study Program Boards, serving as advisory bodies to program guarantors.
- Regularly evaluate grading and causes of study failure by course and study program.
- Regularly assess final state exams, the quality of bachelor's and master's theses, and take effective measures to improve quality.
- Expand and improve the range of technical subjects with a focus on new technologies and relevance for future managers.
- Strengthen the internationalization of education (courses in English, EuroTeQ, ERASMUS, ATHENS, IPW), with an emphasis on language training.
- Involve visiting academic staff in teaching (teaching fellows, Fulbright scholars, academic and research stays).

1.3 Integrating Practice into Teaching

- Develop and improve internships as part of the curriculum.
- Invite professionals from practice into teaching.
- Connect teaching with practical project work, including international settings (International Project Workshop, Summer School, ATHENS).
- Organize specific events for students and possibly the public in cooperation with partner institutions.
- Establish, maintain, and develop cooperation with alumni.

1.4 Defining the Role and Goals of Lifelong Learning

- Develop lifelong learning activities related to the CTU environment (language courses for CTU staff, integration of foreigners, higher education teaching methodology, etc.).

- Develop lifelong learning activities specific to MIAS (language and communication courses for English-speaking instructors, teaching methodology courses, modern technologies in teaching, innovative teaching methods, etc.).
- Develop lifelong learning programs for the general public (University of the Third Age, coaching, language courses).
- Develop lifelong learning activities for specific companies and institutions (e.g. civil servants, corporate management).
- Promote lifelong learning aimed at qualification enhancement (supplementary teaching methodology training, advanced English for teachers, training for educational counsellors).
- Support non-degree study (especially for international students – semester-long paid stays).
- Develop preparatory courses for international students wishing to study at CTU both in Czech and English.

2. SCIENCE, RESEARCH, AND CREATIVE ACTIVITIES

Masaryk Institute of Advanced Studies of CTU in Prague will focus its research activities primarily on areas related to the study programmes it offers. In the field of future teacher education, the emphasis will be placed on applied research in pedagogy, teaching methodology, psychology, school management, and the use of new digital tools to enhance the quality of the educational process. While the core of this research is centred on secondary (and partly primary) schools, an expansion of research interest is anticipated towards so-called engineering pedagogy, including teaching methodology of technical education at the university level and teaching methodology aspects of adult education. In the field of management and economics, MIAS will primarily focus on applied research in the area of innovation and other topics emerging from socio-economic challenges in both global and local contexts, including climate change. Basic research in economics will not be neglected either, as it is essential for the further development of the master's degree programme. In line with current trends, it is necessary to connect academic staff with in practice experienced experts in research projects and to embrace interdisciplinary overlaps – such as the use of new technologies, contemporary sustainability demands (economic, environmental, and social), new management approaches reflecting the modern types of enterprises (start-ups), and the response to rapidly changing consumer behaviour. Last but not least, the transfer of knowledge from academia to practice through the commercialisation of research and development outputs is also a priority. It is also essential to further develop contract research, engage in development projects, and strengthen internationalisation in all areas of creative activity.

The core values for MÚVS in the strategic management of science and research are: **Interdisciplinarity, Quality, Internationalisation, and Partnership.**

2.1 Interdisciplinarity

Given the nature of MIAS, interdisciplinarity is a defining feature. In this regard, MIAS aims to build internal collaboration across all CTU units as well as with external partners, focusing on the following key themes:

- The role of information and communication technologies in education, with special attention to virtual and augmented reality.
- Teaching competencies of teachers of technical subjects at secondary schools and technical universities.
- Integrated management of research and development output commercialization processes, with an emphasis on product and service valuation in start-up companies.
- Agile transformation and agile management as part of sustainable management practices.

- Long-term sustainable development of quality of life in environmental, spatial, social, and economic dimensions.

2.2 Quality – Research Excellence

We value the quality of our research more than its quantity, and every individual who progresses and succeeds in their career is a valuable asset to our students, staff, MIAS, CTU, and society. Therefore, we aim to:

- Build and modernize research infrastructure.
- Share and connect knowledge, skills, and competencies, and effectively use modern technologies across CTU.
- Support scientific and publishing activities of staff.
- Regularly evaluate the quality of achieved results in areas such as publishing activity, grant performance and success rates, membership in national and international professional associations and societies, invited lectures, gatekeeping roles, and membership in editorial boards of prestigious domestic and international journals.
- Develop the newly established Center for Law, Finance, and Technology.
- Organize regular high-quality events aimed at experience sharing in the form of conferences and workshops for the professional public.
- Regularly hold “creative research workshops” for internal MIAS employees, with the potential to expand participation to other CTU departments.

2.3 Internationalization

MIAS addresses current socio-scientific challenges through collaboration with international partners and strengthens the internationalization of both its staff and students, especially by:

- Enhancing international cooperation in research, particularly within the Horizon Europe program and other funding calls.
- Expanding and effectively utilizing PostDoc positions.
- Creating an environment for foreign academic and research staff.
- Supporting staff participation in international academic and research stays.

2.4 Partnership

MIAS is closely linked to the application sphere – private, public, and non-profit – through its interdisciplinary character, practice-oriented bachelor’s program, and its provision of lifelong learning courses, thus contributing to the third role of universities. In research, we aim to:

- Build quality partnerships across CTU on joint research projects and publications.
- Establish long-term partnerships with the application sector through contract research.
- Involve primarily master’s students in research through short-term research topics suggested by practice partners.
- Support development projects based on knowledge, experience, and skills sharing in the context of building an open institution.

3. HUMAN RESOURCES AND ENVIRONMENT

Human resources represent a fundamental asset for the development of university institutions. Attracting and retaining top-quality teachers and researchers is not solely a matter of financial remuneration—although it is undoubtedly an important factor—but is also significantly influenced by opportunities for personal development and the conditions provided for teaching and research. Workplace relationships, a collegial atmosphere, and the quality of services and benefits also play important roles. A successful development of the Institute requires an effective personnel strategy that prioritizes the engagement of key academic staff in full-time roles. Only in this way can teaching and creative activities be fully developed and interconnected across the Institute, and staff members can identify with the institution's goals. Agreements on work performed outside employment and part-time positions should serve rather to enrich teaching or support research teams.

The core values of MIAS in the strategic management of human resources are **Expertise, Collegiality, Personal Development, and Non-Discrimination.**

3.1 Increasing the University's Attractiveness for High-Quality Domestic and International Staff

- Support personal development and qualification advancement of staff.
- Create a high-quality working environment based on mutual respect and cooperation.
- Strengthen staff internationalization.
- Regularly evaluate academic and research staff.
- Set up a system of evaluation/interviews for administrative and technical-economic staff.

3.2 Creating a Pleasant and Welcoming Place for Work and Study

- Improve the internal environment of the workplace, including “greening” the building.
- Use MIAS building spaces efficiently.
- Organize team-building activities to strengthen workplace cohesion.
- Strengthen activities and communication that foster collegial relationships between teachers and students.
- Open the workplace to the public through discussions and workshops.
- Support extracurricular activities of students and student associations.

3.3 Digitalization of Activities and Operations, Data-Driven Decision-Making

- Take appropriate measures and increase investments to ensure cybersecurity at the Institute.
- Use digitalization to improve teaching and develop modern teaching tools.
- Consistently use digital tools (EZOP) for preparing, submitting, and evaluating projects.
- Establish a system for collecting data from CTU MIAS study systems to analyze admissions, study success/failure, the quality of final theses, and state exam results.
- Use pilot projects to test the functionality of planned classroom layouts during actual teaching.
- Set up the internship system to increase its capacity and develop a digital registration system for internships.
- Increase the use of library services.
- Strengthen the use of the intranet to inform students and staff.
- Gather more detailed feedback from students and alumni on completed courses and study programs and incorporate this data into curriculum improvements.
- Systematically experiment with innovations in teaching and internal processes and apply the acquired experience.

- Establish a digital registration system for internships.
- Analyze the functionality of the website and optimize it, or prepare a new website.
- Improve the use of social media for MIAS promotion.
- Make better use of the CTU Lifelong Learning Portal (ČŽV).

4. Financial Management, Organization, and Processes

In a turbulent era marked by financial instability and limited opportunities for securing additional funding, it is essential not only to react to the current situation but also to maintain a medium- and long-term perspective on the Institute's financial planning. High-quality management that utilizes process management tools, transparent rules, and decision-making processes combined with the flexibility to respond effectively to new challenges forms the foundation for building a dynamically developing institution.

The core values of MIAS in strategic institutional management are **Long-Term and Sustainable Development, Quality Management, and Transparency in Decision-Making.**

- Strengthen data analysis for establishing a long-term, functional financial system for the Institute's operations.
- Enhance the Institute's economic activities and contract research to secure supplementary funding for its operations.
- Establish a system of financial remuneration for staff involved in project execution and contract research.
- Analyze the direction of the Institute and its academic level with respect to quality standards at CTU and the fulfilment of CTU's strategic plan. In cooperation with CTU deans and heads of economics departments/institutes within faculties, seek mutually beneficial opportunities for collaboration and strengthen activity complementarity.
- Assess the administrative and financial demands of a potential organizational transformation of MIAS from an institute to a faculty.
- Present the results of this analysis for discussion on supplementing the proposal for MIAS's transformation into a faculty in the updated CTU strategic plan and, if the outcome is favourable, begin preparations for the transformation.

Prague, December 6, 2023