



# Plan for the Implementation of the Strategic Plan of Educational and Scientific and Research, Development and Innovation, Artistic or Other Creative Activities of the University of Chemistry and Technology Prague for the year 2022

Submitted by  
prof. Dr. RNDr. Pavel Matějka  
Rector

Discussed by the Scientific Council of UCT Prague  
on 15. 11. 2021

Approved by the Academic Senate of UCT Prague  
on 16. 11. 2021

Approved by the Board of Trustees of UCT Prague  
on 26. 11. 2021

## Introduction

In accordance with Act No. 111/1998 Coll., the **University of Chemical Technology in Prague** (hereinafter referred to as "UCT Prague") submits, on Higher Education and on Amendments and Supplements to Other Acts (hereinafter referred to as the "Higher Education Act"), the strategic document **Plan for the Implementation of the Strategic Plan of Educational and Scientific and Research, Development and Innovation, Artistic or Other Creative Activities of UCT Prague for the Year 2022** (hereinafter referred to as the "IPSI 2022"), which is an annual refinement of the Strategic Plan of Educational and Scientific and Research, Development and Innovation, Artistic or Other Creative Activities of the University of Chemical Technology in Prague for the period from 2021 (hereinafter referred to as "SI 2021+").

The IPSI is based on the structure of the SI 2021+ and within the individual priority objectives it lists the measures and activities on which UCT Prague will focus in fulfilling its mission in a given year. In 2022, UCT Prague will continue the implementation of the SI 2021+ measures already started in 2021 and will start the gradual implementation of other planned measures listed in SI 2021+. The IPSI 2022 also includes selected measures and activities to meet the priority objectives of UCT in the field of internationalisation.

For (co-)financing of specific measures of the SI 2021+ from 2022 onwards, UCT Prague plans to use, among other things, funds from the state budget from the new Programme for the Support of Strategic Management of Higher Education Institutions for the years 2022 - 2025 (hereinafter referred to as "SMSP"). In order to secure the necessary sources of funding for the implementation of the development priorities of UCT Prague from 2022, the preparation of project applications for the calls for the Jan Amos Komenský Operational Programme (hereinafter referred to as "OP JAK") will be initiated. In order to finance measures related to the adaptation of UCT Prague to new forms of learning and the changing needs of the labour market, UCT Prague also plans to submit project applications to the programme of financial support of the Ministry of Education funds from the National Renewal Plan 2022 - 2023.

A mandatory annex to the document is the Plan of Investment Activities of UCT Prague for 2022, the outline of which is determined by the Ministry of Education, Youth and Sports.

## Priority objective 1: Develop competencies directly relevant to life and practice in the 21st century

Operational objective: Support for the development of staff competences for teaching and curriculum development (MoE SI2021+: 1A)

Measure: Development of pedagogical and other competencies for teaching and curriculum development (O\_01)

- Teaching will take place in **pedagogical skills development courses** for PhD students and academic staff to support initial and continuing teacher education, with a focus on the use of interactive and innovative teaching methods. The aim of these courses is to develop the didactic competencies and practical skills of the participants in the field of pedagogy, psychology and IT. The content and format of the courses take into account the use of distance, online and hybrid forms of learning (blended learning<sup>1</sup>).
- Competency development, especially for novice teachers, will be supported through completing **field placements** at domestic and foreign partner institutions to **enhance** their **teaching competencies**. The internships will contribute to the motivation of teachers to apply the new experience gained to innovate teaching at UCT Prague and, in the case of foreign internships, will also enable the development of their language competencies to strengthen the international environment of the school.
- The acquisition, enhancement and development of practical pedagogical skills and experience of doctoral students will be motivated through a **university-wide pedagogical project**. The project will involve full-time PhD students who are actively involved in teaching and whose training workplaces are the departments of the University of UCT Prague.
- To support the **increase of language competences** and the internationalisation of the university environment, **internal language courses for PhD students and staff** will be organised by the Institute of Languages. For PhD students, intensive specialised English language courses will be offered, focusing mainly on professional and academic language, including the presentation and communication skills necessary to join international research teams, as well as semester-long courses for learning other foreign languages. In order to develop the language competences of employees who use foreign languages in their work, English and other foreign languages will be taught in the form of semester-long courses *synergy with the operational objective "Support for language and intercultural training of students and staff of universities"*.

Funding sources: SMSP, Erasmus+, DKRVO, own resources.

Measure: Motivation of academic staff to develop pedagogical competencies (O\_02)

On the basis of the analysis of the results of student surveys on the quality of teaching and performance of teachers, as well as on the basis of direct dialogue with students, and also on the basis of the analysis of needs and requirements for the development of pedagogical competences directly from teachers at different stages of their career, proposals will be prepared to support the career development of academic staff at UCT Prague.

Sources of funding: own resources

---

<sup>1</sup> Blended learning - a term for combined learning, i.e. the combination of standard (face-to-face) teaching with online learning materials (e-learning)

**Measure: Sharing good practice and innovation in educational activities (O\_03)**

At the university-wide **Pedagogical Conference**, a public evaluation of the innovative pedagogical projects supported in the internal grant competition will be carried out. Experience with different forms of education will be shared, especially the use of distance learning elements (blended learning), the inclusion of multimedia in teaching, project-based learning or workshops with industry experts. Sharing of project outputs, own experiences and open discussion of the participants of the Pedagogical Conference will also be a source of suggestions for improving the quality of teaching.

Funding sources: PPSŘ

**Operational objective: Development of methods for quality assurance of education and verification of learning outcomes (MoE SI2021+: 1B)**

**Measure: Optimization of the process of quality assurance of educational activities (O\_04)**

- Within the framework of **improving the quality assurance of education and the development of study programmes**, an analysis of the contribution of the set model of the common basis of bachelor study programmes at the UCT Prague to the quality of education will **be completed**. The input for the analysis will be the feedback from graduates and finding out their interest in studying at UCT Prague. Processing of statistics and other documents from data available in internal IS or other information sources will be ensured. The output will be background material for study programme guarantors for regular evaluation of study programmes.
- Gradual implementation of newly prepared **standards of educational activities for individual forms of distance education** (staffing, technical equipment, teaching methodology, knowledge verification) focused on the fields of chemistry, food science and economics education.
- On the basis of the evaluation of the outputs of the internal quality assessment of study programmes at all three levels of study and feedback from students / graduates / employers / representatives of professional associations, the **content and structure of study programmes** accredited at UCT Prague will be continuously **optimised** as necessary. In the development of new study programmes and modifications of existing ones, good practice from domestic and foreign universities of similar orientation as well as European standards will be taken into account.

Sources of funding: own resources, EU funds (OP RDE), CDP, SMSP, NPOs.

**Operational objective: Strengthening the link between studies and practice and preparation for future employment (MoE SI2021+: 1C+)**

**Measure: Incorporation of the development of general competencies required in practice into the curricula (O\_05)**

Based on the results of a comparative analysis of the need for and quality of teaching transferable skills in the study programmes offered at UCT Prague, suitable courses and seminars will be prepared and implemented for students **to develop selected transferable skills within** the range of optional (complementary) courses from the lifelong education offer.

Funding sources: SMSP, own resources.

**Measure: Promoting student entrepreneurship (O\_06)**

At the central level, student entrepreneurship (**student ideas**) will be supported by offering training courses, professional consultations, or providing office space for launching their own projects, especially in the pre-startup phase.

Sources of funding: own resources.

**Measure: Development of targeted cooperation with practice in education, involvement of practitioners in teaching (O\_07)**

- In cooperation with experts from the application sphere, the **transfer of general knowledge and procedures from practice into teaching** will continue, in the form of lectures by industry experts, professional workshops, new trends and information technologies incorporated into teaching or project-based learning with the solution of real problems from practice. The aim will also be to maintain a high proportion of final student theses and projects directly linked to cooperation with companies or to ongoing research projects. The priority is to ensure the implementation of student internships and work experience in companies. Theoretical technical teaching will continue to be effectively combined with practical knowledge and skills in the specialised laboratory training. Interdisciplinarity in teaching will be promoted in existing accredited study programmes by offering courses from similar and related disciplines, with the aim of increasing the flexibility and employability of graduates in the labour market.

Sources of funding: own resources, OP RDE.

- Intensive **collaboration with secondary schools** will continue to **facilitate the transition between secondary and higher education**, by promoting the teaching of chemistry and other technical and natural science subjects.
  - Applicants to study at UCT Prague will be offered the on-line preparatory course "*Prepare yourself*" for profile subjects - mathematics, chemistry and English to verify their sufficient level of knowledge from secondary school and their readiness for a smooth transition to further university studies. For students enrolled in the first year, preparatory courses in laboratory techniques will be offered to learn the basics of laboratory work.
  - The very popular *Summer and Autumn Schools* for secondary school teachers and students will continue to be organized, with the aim of sharing new trends and knowledge in different areas of chemistry, which in turn will serve to motivate secondary school teachers to enrich chemistry teaching and motivate gifted students to study chemistry.
  - The successful and proven methodological and professional support of secondary school students in the preparation of their professional work within the framework of secondary school vocational activities (SSVA) will continue. Information on the website will be regularly updated by UCT Prague.
  - UCT Prague will help (co-)organize the National Chemistry Olympiad and support the participation of the national team in the International Chemistry Olympiad.
  - Support will be provided to patron secondary schools in different regions of the Czech Republic. Practical laboratory instruction will be provided for secondary schools that do not have their own laboratory facilities.
  - Online interactive platforms addressing target groups of potential applicants for study at UCT Prague will be operated (*Open Days, Chemistry content incubator*) using modern communication tools that correspond to the changing characteristics and attitudes of current applicants for study at the university.
  - To introduce the study of chemistry as an attractive and promising discipline to primary and secondary school pupils, proven interactive projects (*Hour of Modern Chemistry, Chemistry Club*) will be used.

Funding sources: SMSP, own resources, subsidies from the Ministry of Education.

- The **regional presence of UCT Prague in the Ústí nad Labem region and activities helping to retain qualified people in structurally disadvantaged regions** will be supported. The University Centre in Litvínov is expected to start teaching in the newly accredited study programme "Industrial Technologies and Materials Engineering", which was prepared in cooperation with experts from ORLEN Unipetrol, ORLEN UniCRE and the Faculty of Engineering of the Czech Technical University and on the basis of consultations with other industrial partners in the Ústí nad Labem region. The study programme should be focused on training specialists in new chemical and food technologies, biotechnology, process and chemical engineering. Education will be complementary to the ongoing changes in the industrial and social profile of the Ústí nad Labem and Karlovy Vary regions from coal-based energy to new directions respecting the principles of decarbonisation technologies with the support of new forms of management and IT resources. The study programme will include existing forms of teaching and effective modern teaching trends in technical, industry-oriented education - project-based learning, workshops in an industrial environment, modern distance learning and actively guided excursions and practice combined with efforts to involve students also in research and development projects implemented in the region concerned, including cross-border cooperation.

Funding sources: IP, own resources.

**Measure: Support for active involvement of learners in the teaching/life at the university (O\_08)**

Through the support of the internal **student grant competition for social projects**, the social integration and development of student competencies to increase their employability on the labour market will continue to be supported. The Student Grant Competition provides funding for cultural, social, educational or sporting activities that have a positive impact on relations within the academic community. Online student social projects will also be supported. Familiarisation, integration and sports courses will be organised at all levels of study. The tutoring programme for students will continue to be developed.

Sources of funding: own resources, SMSP.

**Measure: Promoting a transparent link between curricula and the applicability of studies in practice (O\_09)**

The great involvement of experts from the application sphere in the evaluation committees of the Student Scientific Conference will continue to be supported.

Sources of funding: own resources, PSV.

**Measure: Innovation of study programmes by development trends in the needs of the labour market (O-10)**

An analysis of suitable data sources will be initiated to set up a systemic cooperation with representatives of employers of our graduates, professional unions and associations, and the Alumni Club in order to obtain relevant information on the quality of accredited study programmes taught at UCT Prague in terms of the employability of graduates in the rapidly evolving labour market. Based on the outputs of the analysis, micro-credentials will be prepared and offered in various specialisation areas taught at VŠCHT Prague.

Funding sources: SMSP, NPO.

**Measure: Motivational support for students (O\_12)**

Gifted students will be **motivated** by scholarships for outstanding academic results or representation

of the school in extracurricular activities.

Funding sources: SMSP, own resources.

**Measure: Promotion of LLE offer through career guidance (O\_13)**

In cooperation with other public universities, UCT Prague will participate in the formulation of standards of services provided by counselling centres at universities. The staff of the Counselling and Career Centre will also be trained in selected areas related to the development of the services offered by CCC. More specifically, it will focus on the collection and analysis of data for reducing academic failure in the first year of undergraduate studies in terms of predicting academic failure and the timely application of proposed interventions using the experience of other collaborating universities. UCT Prague will again participate in the preparation of the programme for the annual job fair with a focus on all years of study. Preparations for the launch of a multi-purpose Portal of Opportunities for University Students will continue by preparing background analyses and negotiating the scope and forms of cooperation between universities, which will cover mobility opportunities, internships and work placements, job offers, mentoring, educational courses, etc.

Sources of funding: own resources, CDP.

**Operational objective: Developing the professional profile of the study and strengthening its prestige (MoE SI2021+: 1D+)**

**Measure: Development of cooperation with Higher Vocational Schools (O\_14)**

UCT Prague will continue to cooperate with higher vocational schools in the development of the study programme Conservation - Restoration of Arts and Crafts. The **cooperation with the university** will be used in the creation of educational videos for the presentation of basic and key chemical and technological processes from company practice within the practice-based teaching.

Sources of funding: own resources, EU funds (OP RDE).

**Operational objective: Support for building infrastructure for interactive methods of education and integration of learners (MoE SI2021+: 1E+)**

**Measure: Modernisation and renewal of infrastructure for education (O\_15)**

- In accordance with the strategic document Infrastructure renewal master plan of UCT Prague, **which** represents a detailed plan for the construction renewal and development of all parts of the university, preparation of **reconstruction works in Building B (Studentská and Šolínova Streets)** will be started, **associated with the construction of laboratories in the** premises vacated from the long-term lease, as well as **reconstruction works in Buildings A (Technická 5) and B (Technická 3)** of the premises vacated by the relocation of some faculty and rectorate departments to the newly reconstructed office space in Building B (Zikova Street). The reconstruction work will be aimed at creating a modern and safe environment for the implementation of theoretical and practical teaching and research. Furthermore, the preparation of project documentation for the **technological extension into the courtyard of Building B** will continue. Continuous reconstruction and modernisation of buildings and technological equipment in the premises of the University Halls of Residence in Jižní Město, Prague 4 will continue. **Reconstruction work** will begin at the training and recreation facility in **Jáchymov**. The next stage of the **reconstruction of teaching, leisure and accommodation facilities** will be implemented at the **Běstvína** Student Learning Centre.



- The gradual **renewal and modernisation of the machinery and equipment of teaching facilities and laboratories** at all units of the university used for teaching in accredited study programmes at all levels of study will be continued in order to further strengthen the quality and competitiveness of the educational process at the UCT Prague.

*For more detailed information, see the Plan of Investment Activities of UCT Prague for 2022, which is an integral annex to this document (Annex 1).*

Sources of funding: own resources, programme funding from the Ministry of Education, EU funds (OP RDE, OP EIC), NPOs.

## **Priority objective 2: Improve the availability and relevance of flexible forms of education**

**Operational objective:** Increasing the use of distance learning methods in full-time study programmes (MoE SI2021+: 2A)

**Measure:** Innovative solutions for increasing the efficiency and quality of distance education and assessment (O\_17)

- Through the implementation of **innovative pedagogical projects** supported in the internal competition for the support of pedagogically oriented innovative projects of students and academic staff (PIGA), elements of blended learning will be implemented in teaching. Projects introducing innovations to existing curricula or courses will be supported, e.g. by incorporating forms of distance learning, workshops or project-based learning. Furthermore, projects for the creation and innovation of study guides and other study materials of a multimedia character for students and academic staff of UCT Prague and students and teachers of primary and secondary schools will be supported, while study guides should also support the teaching of combined forms of study. Pedagogical innovation projects aimed at creating and innovating LLE courses will also be supported.
- New supporting technologies for effective teaching of economics subjects will be introduced with the use of new types of technological equipment through partnership of public universities.
- The improvement of IT support for distance learning teachers will continue, including the provision (or strengthening) of staff capacities of the relevant professional rectorate departments (CIS, Institute of Teaching and Humanities).

Funding sources: CDP, own resources.

**Operational objective:** Development of the range and innovation of methods of flexible forms of education, including online education (MoE SI2021+: 2B)

**Measure:** Developing flexible forms of education (O\_19)

Furthermore, the reform and development of the LLE department at UCT Prague will continue and steps will be taken to improve the external and internal promotion and popularization of LLE. **The offer of LLE will be gradually expanded by new corporate, commercial and pedagogical courses**, including courses offered in English, the organisation of summer schools and the production of popularisation and educational videos for U3A participants. A unified record of the educational courses offered within the framework of LLE will be implemented and LLE will be integrated into the Student Information System (SIS). In order to increase the informational value of evidence of the



results achieved in lifelong learning for trainees or their employers, standardised certificates will be issued to graduates of courses.

Sources of funding: own resources, SMSP, NPOs.

### Priority objective 3: Increase the efficiency and quality of doctoral studies

Operational objective: Strengthening the quality, openness and internationalisation of doctoral studies (MoE SI2021+: 3C)

Measure: Strengthening external and international elements in the assessment of learning outcomes and scientific activities of PhD students (O\_21)

The implementation of the OP RDE project will continue until the end of 2022 with 14 projects selected by the **internal grant competition IGRA@UCTP of UCT Prague**, which aims to support internationalisation, mobility, interdisciplinarity of research and the development of professional and linguistic competencies of doctoral students. The documentation of student projects is kept in English, a mandatory part of a successful student project is to complete a research or educational activity abroad. The project workers and their mentors, as well as the professional and administrative staff responsible for the organisation of the competition, receive support training in selected thematic areas. The experience gained from the implementation of the IGRA@UCTP competition will be reflected in the improvement of the quality of the internal grant scheme at UCT Prague.

Sources of funding: EU funds (OP RDE), own resources.

Measure: Requirements for international mobility of DSP students (O\_22)

A scholarship fund will be established at the school level to support the fulfilment of the requirement for international mobility of doctoral students in accordance with the DSP accreditations granted. *Synergy with the SI operational objective "Developing international mobility of students and workers".*

Funding sources: Erasmus+, own resources.

Measure: Motivation of PhD students and supervisors to successfully complete their studies in good time (O\_23)

A discussion will be initiated in the academic community to introduce a bonus system for supervisors and doctoral students to motivate them to complete their doctoral studies on time. If necessary, the incentive method for calculating the basic doctoral scholarship will be revised to include the required number of obligations fulfilled for the specified sections of study.

Source of funding: own resources.

Measure: Supporting and facilitating the transition of DSP graduates into subsequent careers(O\_24)

- Within the internal grant competition (VIGA) of VŠCHT Prague , **scientific projects of DSP students** will be supported. The administration of VIGA will now be carried out fully electronically in the internal IS within the newly implemented Project and Contract Register (PCR) module. Doctoral students will electronically submit project applications and administer reports within one module. As part of the services of the Counselling and Career Centre of UCT Prague, **mentoring**

will be offered to PhD students as a tool for shaping their future career path. DSP graduates will be offered jobs in industry and research spheres.

- Within the framework of LLE, **additional courses in Czech and English will be offered to DSP students to strengthen transferable competencies and** their awareness, especially in the areas of dissemination of results, application and protection of results of scientific and research activities and research and development management. Successful course graduates will receive a certificate.
- The **development of communication skills of PhD students** will be supported in order to acquire theoretical knowledge and practical skills in presenting their research work in a popularizing form intended for the general public through the production of media outputs to various communication channels of UCT Prague.

Funding sources: SMSP, own resources, PSF, DKRVO, EU funds.

**Operational objective: Improving conditions for successful studies, including support for balancing studies with family life, and strengthening the social integration of PhD students (MoE SI2021+: 3D)**

**Measure: Definition of the status of PhD students (O\_25)**

The implementation of the recommendations from the MEP evaluation will be initiated and the EC's comments on the submitted HR Award documents concerning the definition of the status of PhD students will be addressed. Based on the discussion between the faculties and the university management, the platform to support doctoral studies will be further developed. The platform brings together agendas related to all aspects of doctoral studies at UCT Prague.

Sources of funding: own resources, SMSP.

**Measure: Balancing doctoral studies and work with family life in the early stages of an academic career (O\_26)**

The CCC's individualised support services for PhD students will be further supported and developed.

Sources of funding: own resources, CDP.

**Measure: Space, social facilities, equipment and services for PhD students (O\_27)**

- **Information, education and support services** will be provided to PhD students through the service rectorate departments in relation to appropriate grant schemes. The functionality and quality of the IS for evaluation of results and outputs of PhD students (e-Doctorand) will be continuously improved.
- Doctoral students will be supported **in writing and publishing their dissertations** in accordance with the rules for internal structuring, uniform formats and graphic design (setting up uniform templates). DSP students will be financially supported in commissioning the printing and binding of their dissertations. In a formal way these measures significantly strengthen the prestige of dissertations published at UCT Prague.
- In accordance with the strategic document **Master Plan for the renewal of the infrastructure of UCT Prague**, reconstruction works and modernization of buildings in the Dejvice Campus (laboratories in Building B - Studentská and Šolínova Streets, vacated premises of the Rectorate and Faculty support departments in Building A and B (Technická Street). Furthermore, the preparation of design documentation for the **courtyard extension to the courtyard of Building B**

will continue. The next stage of the **reconstruction of teaching, leisure and accommodation facilities** will be carried out at the **Běstvína** Student Learning Centre; *synergy with the operational objective "Support for building infrastructure for interactive learning methods and integration of learners"*.

- The **technical and instrumental equipment of teaching spaces and laboratories** at all units of the university used for teaching in accredited doctoral study programmes will be gradually **renewed and modernised** in order to further strengthen the quality and competitiveness of the educational process at UCT Prague; *synergy with the operational objective "Support for building infrastructure for interactive methods of education and integration of learners"*.

*For more detailed information, see the Plan of Investment Activities of UCT Prague for 2022, which is an integral annex to this document (Annex 1).*

Funding sources: SMSP, own resources, DKRVO, other grants, programme funding of MoE, OP JAK.

## **Priority objective 4: Strengthen strategic management and effective use of R&D capacity in universities**

**Operational objective:** Completion of a comprehensive transformation of the environment and setting up of R&D&I processes at UCT Prague (MoE SI2021+: 4A)

**Measure:** Implementation of MEP recommendations (O\_28)

- **Systematic support of Open Science** at UCT Prague will be developed according to European standards as a necessary step leading to the promotion of high-quality research and the internationalization of the research and innovation environment. The implementation of Open Science principles will bring about a complete transformation and adjustment of internal processes that will affect education, the research environment and the innovation potential of research results. Within the measure the following is foreseen:
  - Establishment of the **Open Science Support Centre within the CIS**. Provision of university-wide educational, methodological and support activities (training, seminars/webinars) for early career researchers (especially PhD students) and other research and support staff to raise awareness of Open Science principles and practices (Open Access, FAIR principles for data, use of persistent identifiers, Creative Commons public licenses, as well as promotion of research integrity (principles and good research practice). Support the use and integration of persistent identifiers, especially ORCID iD for authors into internal systems (e.g. OBD and others) or DOI for digital objects (publications, data). Monitoring the progress of the implementation of Open Science at UCT Prague.
  - Adoption of the '**Strategy of UCT Prague for the Promotion of Open Science**'. A working group will be established at UCT Prague to support the implementation of Open Science, which will deal with the priority areas of Open Science, the preparation of the strategy, its adoption and an action plan for implementation in a given year. Within UCT and its faculties, the R&D department, CIS, the foreign or project department, and also the teaching department will cooperate on the topic of Open Science. This will include, for example, the introduction of Data Management Plans (DMP) into the internal grant competition, as well as the organisation of a Data Stewardship course for PhD students - the need for recognition, positive motivation and more.
  - Deepening **cooperation in the field of Open Science**. At the national level, UCT Prague will cooperate closely with the National Technical Library (NTL), in particular the implementation

of European standards in the NCIP R&D&I project will be supported (e.g. by joining the national consortium for ORCID, DOI (DataCITE), support will also focus on the organization of doctoral schools, etc.). The University will actively participate in the building of a data infrastructure for research data in the Czech Republic, which will subsequently be part of EOSC (European Open Science Cloud). UCT Prague will also try to actively participate in the Open Science Working Group of the European University Association (EUA). Collaboration on the European DocEnhance project will continue within the Data Stewardship Wizard course, which supports the management of research data according to FAIR principles for PhD students.

- In cooperation with the Department of Economics and Management of UCT Prague, an analysis of the functioning of intellectual property protection and technology transfer at UCT Prague will be prepared, including a comparative analysis with transfer departments at other universities.
- The translation of internal HRM documents into English will continue.

Funding sources: DKRVO, own resources, EU funds (OP RDE, Horizon 2020).

**Measure: Strengthening administrative and support facilities for research and development (O\_29)**

The number of project specialists for international grant schemes will be increased, and the services provided in the field of intellectual property protection and technology transfer will be strengthened, with an emphasis on legal and economic expertise in the field of intellectual property protection and transfer of R&D&I results into practice; *synergy with the operational objective "Support for the development of professional apparatuses providing support services for academic staff and university operation"*

Funding sources: DKRVO, own resources, grants from other providers.

**Operational objective: Promoting excellence and societal relevance of research (MoE SI2021+: 4C)**

**Measure: Taking into account societal needs at national and global level in the research priorities of UCT Prague (O\_30)**

- Traditional **long-term cooperation with partners from industry**, but also from other sectors, will be supported **to address research topics with high societal relevance**, such as environmental protection, recycling, nuclear waste disposal, hydrogen technologies, energy storage, waste recycling (European Green Deal), health, protection of cultural heritage, etc., leading to higher added value for society. The cooperation should lead not only to high-quality applied research, but also to the education of top young scientists (an example is the cooperation with Lafarge Cement and ČEZ on testing a new environmentally friendly cement-metallurgical technology developed at the University of Applied Pharmaceutical Research, The Parc, which successfully links the research cooperation of the University of Science and Technology Prague, the Faculty of Science of the Charles University and the Institute of Chemical Engineering of the Academy of Sciences with Zentiva to accelerate the process of innovation in the field of research and development of pharmaceuticals, or the cooperation within the Unipetrol Research and Education Centre UniCRE dealing with the development of inorganic technologies). As part of the support of high-quality research and development in priority areas of public interest in the health sector, the research team of UCT Prague will participate in the project of the National Institute of Virology and Bacteriology. We will continue to establish promising cooperation with small and medium-sized enterprises in Prague and other regions, making maximum use of the potential of the Kralupy Technopark and the know-how of the faculties.
- **Services in the field of intellectual property protection and technology transfer will be further**

**developed** to ensure the protection of intellectual property of R&D&I results generated at UCT Prague and their commercialization. Partners in the application sphere will be systematically sought out and active support systems will be developed to increase the success of commercial exploitation of applied research results at UCT Prague.

- In the form of an **internal competition for junior grants** (JIGA), promising junior academic and scientific staff will be financially supported in the implementation of their own innovative research, independent publishing activities and establishing active foreign cooperation to increase their success in obtaining domestic and foreign grants.
- The creation of sufficient spatial capacity and the gradual **modernisation of instrumentation and technological equipment for science and research** will continue in accordance with the Infrastructure Renewal Master Plan of UCT Prague in all units of the University, with the aim of further strengthening the competitiveness and excellence in the areas of basic and applied research carried out at VŠCHT Prague. For the duration of the grants, grant holders for high-quality research will be provided with the premises of newly built and equipped laboratories.

*For more detailed information, see the Plan of Investment Activities of UCT Prague for 2022, which is an integral annex to this document (Annex 1).*

Sources of funding: own resources, EU funds (OP RDE, OP EIC), NPOs, subsidies from other domestic and foreign providers, DKRVO, programme funding of the Ministry of Education.

**Operational objective:**      **Development of international cooperation in the field of R&D&I (MoE SI2021+: 4D)**

**Measure:**      **Organisational support for international mobility of academic and non-academic staff - consultancy, administration (O\_31)**

The staffing capacity of the service units (Science and Research Department, International Department), which provide advisory, **organisational and administrative support for international mobility of** academic and non-academic staff, will continue to be improved and, if necessary, expanded.

Sources of funding: own resources.

**Measure:**      **Increase the proportion of academic and non-academic staff with foreign experience (O\_32)**

**Initiation grants** from the Dagmar Procházková Fund will support the scientific projects of academics with international experience who are expected to connect their future professional career with UCT Prague.

Sources of funding: own resources, DKRVO.

**Measure:**      **Obtaining special-purpose R&D&I support from international sources (O\_33)**

Support for researchers applying for grants from international sources will continue in the form of providing information and consultation services and training activities, especially for the Horizon Europe Framework Programme - using the outputs of the Kompas project (Anlupa application). Support for researchers in the preparation of international R&D&I projects will be further provided within the newly established Project Centre. To support the involvement of new applicants in consortium projects, an **incentive scheme** will continue to be used to **support applicants in joining international R&D&I programmes**.

Sources of funding: own resources, DKRVO, grants from other providers.

**Operational objective:** Popularization of natural sciences and results of creative activities of UCT Prague (MoE SI2021+: other priority objectives II10)

**Measure:** Popularisation of science with an emphasis on chemistry (O\_34)

The **results of the creative activities of UCT Prague** will be popularized regarding the general public, with an emphasis on the target group of potential applicants for study at UCT Prague, through active participation in projects and events popularizing science (Night of Scientists, Photo Competition; The World (is) Chemistry, ChemQuest, Youth Academy, ScienceFest, etc.). It will use not only proven face-to-face events, but also alternative online forms responding to the current social situation and changing communication habits of the current population. UCT Prague will support both staff and students in developing teaching and communication skills with a focus on communicating current knowledge of science and research to the general public in a popular form. The appearance of academic and scientific staff from UCT Prague in the media will be supported, and the results of their work will also be presented through various communication channels. It will also support the prestige of Czech scientists, universities and science and research in general within the context of the Czech Presidency of the EU Council in 2022.

**Funding sources:** SMSP (*funding implemented within the framework of the so-called Other Priority Objectives of the university's SI*), own resources, sponsor donations, CDP.

## **Priority objective 5: Capacity building for strategic management of higher education**

**Operational objective:** Implementation of strategic priorities at UCT Prague (MoESI2021+: 5A)

**Measure:** Evaluation of the Implementation of the Strategic Plan of UCT Prague (O\_35)

An evaluation of the implementation of the Strategic Plan for the year 2021 will be carried out on the basis of the evaluation of the fulfilment of the values of indicators set at the level of individual operational objectives. This evaluation will be annexed to the Internal Quality Assessment Report or its annual Supplement.

**Sources of funding:** own resources, SMSP.

**Operational objective:** Strengthening of strategic management at UCT Prague (MoE SI2021+: 5B)

**Measure:** Developing internal capacity for strategic management (O\_36)

- Relevant documents for international university rankings (QS, THE) will be prepared on an ongoing basis in order to maintain and strengthen the university's position in selected world rankings, both general (ranking among the world's top 500 universities) and sector-specific, focusing in particular on chemical, material and food sciences.
- The activities of the Strategy and Development Department will be expanded to include the analysis and extraction of data from internal information systems and public data sources for reporting purposes and the preparation of documents for management and decision-making of



the University management and its units, including the strengthening of staff capacity.

- Rectorate and faculty managers and members of academic senates will be offered the opportunity to develop their management and decision-making competencies through specialised training courses focused on the specific needs of the academic environment.

Sources of funding: own resources, SMSP.

**Measure: Implementation of the Responsible Purchasing Strategy at UCT Prague (O\_37)**

Work will be started on the preparation of the implementation of the responsible purchasing strategy at UCT Prague, which is associated with setting up basic rules and internal processes in the organization to ensure the gradual implementation of public procurement in a socially responsible manner. In the area of responsible purchasing, UCT Prague will actively participate in a joint project of HEIs for the use of good practice and setting voluntary standards for HEIs in various areas of the Sustainable Development Goals (SDGs).

Sources of funding: own resources, CDP.

**Measure: Development of internal mechanisms for the distribution of funds and remuneration of academic staff (O\_38)**

Data and other documents containing information will be prepared for a comprehensive analysis of the mechanisms of distribution of funds to the individual units of the university. The results of the analysis will then be used for possible adjustment of the system of division of payroll, operating and investment funds within UCT Prague.

Sources of funding: own resources, SMSP.

**Measure: Support for self-governing academic bodies (O\_39)**

The implementation and setup of software support to ensure fully electronic elections for Academic Senates (faculty and university-wide) will be completed, with its planned use for elections to be held in all electoral groups in the autumn of 2022. To support hybrid forms of meetings of self-governing academic bodies, appropriate conference equipment will be installed in the Rector's meeting room. A discussion will be initiated on the topic of the rules for remuneration of members and officers of Academic Senates so that they are ready for implementation for the forthcoming period.

An electronic information platform will be created for the needs of the Board of Trustees, which will enable sharing of documents, simplify agenda preparation and also facilitate communication between Trustees among themselves and between the Board of Trustees and the University management.

Sources of funding: own resources, SMSP

**Measure: Development of cooperation, coordination and common identity within UCT Prague (O\_40)**

- The preparation and **organization of the celebration of 70 years of independence of UCT Prague** will be supported.
- In order to support the development of cooperation, strengthen the common identity and coordinate the implementation of the planned process changes at the level of the institution and individual units of UCT Prague, opportunities will be created for **meetings of staff from different departments** across the university.
- The **current internal communication channels** will continue to be developed to effectively inform the academic community, other employees and alumni about the University's operations,



management intentions and activities to fulfil the intentions. As part of the internationalisation of the university environment, the **development of English versions of internal communication channels** will continue.

- The Alumni Club's support will be focused primarily on events related to the celebration of the 70th anniversary of the university's autonomy.

Sources of funding: own resources, SMSP.

**Operational objective:** Promoting cooperation and exchange of experience between universities and capacity development for strategic management at national level (MoE SI2021+: 5C)

**Measure:** Strengthening cooperation and sharing of good practice between HEIs (O\_41)

The potential for collaboration and sharing of good practice among public universities will be exploited in addressing a number of thematic areas supported under the 2022 Centralised Development Programme projects, by engaging in both "small" projects and collaborative projects involving 18 or more HEIs. UCT Prague will continue to actively participate in the implementation of the strategy and policy of open science and open data at a national level.

Funding sources: CDP, own resources.

**Operational objective:** Strengthening of strategic human resources management at UCT Prague (MoE SI2021+: 5D)

**Measure:** Strengthening human resources capacities (O\_42)

In order to improve competencies in different areas of activity, **staff will be offered the possibility of utilising specialised online courses** provided in the form of external services, including language courses. Psychological counselling services for staff will be further provided and strengthened.

Sources of funding: own resources, SMSP.

**Measure:** Preventing academic "inbreeding" (O\_43)

A **broad discussion will be initiated** in the academic community **about the introduction of the obligation to obtain at least a minimum of foreign professional experience** for those graduates of UCT Prague who wish to develop their professional career at UCT Prague and apply for employment. The selection procedures for the chosen positions will be published in an appropriate manner on respected web portals, including foreign language ones, so as to reach as many potential internal and external candidates as possible, including from abroad.

Sources of funding: own resources.

**Measure:** Remuneration of academic staff in relation to results and quality of activities for the university (O\_44)

Within the framework of employee remuneration, the extraordinary **contribution** of specific **employees** to the work results and development of UCT Prague **in various areas of their professional life** will be **recognised** by the awarding of the Rector's Prize and the Julia Hamáčková Prize for the consideration of gender aspects in professional activities at UCT Prague. Students are awarded the Julia Hamáčková Prize for incorporating gender and/or gender identification analysis into their

studies.

Funding sources: PSR.

**Measure:** Implementation of HRS4R principles - obtaining and maintaining the HR Award (O\_45)

Activities will be carried out to deal with the European Commission's comments on the submitted documents in the preparatory phase for the HR Award, which is awarded by the European Commission to research institutions that implement HRS4R (The Human Resources Strategy for Researchers). The application for the award will be resubmitted once the comments have been addressed. Settlement of the European Council's comments will mainly include the implementation of a survey of the needs of the target group of scientists at UCT Prague, modification of the GAP analysis and action plan based on the results of the survey and other actions related to the organizational and administrative process leading to the HR Award and modification of the UCT Prague website.

Funding sources: SMSP, own resources.

**Priority objective 6: Reduce the administrative burden on university staff so that they can focus on their vocation**

**Operational objective:** Simplifying the transfer of information to public administration and improving the availability and circulation of information through the continued digitisation of agendas (MoE SI2021+: 6A)

**Measure:** Development of information systems, digitisation of agendas (O\_46)

In line with legislative requirements, existing internal information systems will be further developed to reduce the administrative burden and improve functionality and user-friendliness. The first stage of the implementation of the **new Identity Management System (IDM)**, which was acquired in the previous year, will begin by setting up the technical framework for data exchange between the Student Information System (SIS) and the IDM. **Support for electronic processes in the Economic Information System (EIS) will be extended** (electronic approval of changes in property records, monitoring of payments by payment cards, computerisation of the business travel agenda). Within the **Personnel Information System (PIS)**, modules enabling electronic circulation of personnel and payroll documents and entry of multiple funding sources via a web client will be put into regular operation. Further development of the **Grants and Projects (GaP)** system will continue, based on the requirements of system users and the technological possibilities of obtaining data from external sources. Within the **Financial Information System (FIS)**, modifications will be made to the stores module with regard to the electronic recording of the circulation of pressure cylinders. As part of the development of the **Student Information System (SIS)**, UCT Prague will focus on the computerization of fees and applications related to studies, the implementation of electronic documents and their replacement of paper forms, the automation of the creation of documents for the decision-making of the faculty management and the analysis and preparatory steps for the implementation of the connection of the student information system to the FIS file service.

In cooperation with other public universities, selected tools and security policies in the area of information security management and cyber security will be implemented. Awareness-raising and educational courses in the field of cyber security will be organized for target groups at UCT Prague.

Safety documentation will be created/updated to ensure all requirements arising from legislation are met.

Funding sources: CDP, own sources, SMSP.

**Operational objective:** Support for the development of professional apparatuses providing support services for academic staff and university operations (MoE SI2021+: 6C)

**Measure:** Creation of new centralised support centres (O\_47)

The gradual expansion of the centralized services of the established **Project Centre** will continue to support the project researchers of R&D projects, mobility, international and educational projects, projects from operational programmes, etc. The spatial provision of the Project Centre will also be completed.

Sources of funding: own resources, grants from other providers, CDP.

**Measure:** Promoting capacity sharing in the framework of university cooperation to reduce administration (O\_48)

UCT Prague will actively participate in the activities of the Association of Research Universities and the Association of Technical Universities, of which it is a member. It will share examples of good practice aimed at reducing internal administration and bureaucracy and supporting the digitization and computerization of agendas related to the management of not only educational and scientific research activities, but also other supporting activities (economics, HR).

Sources of funding: own resources.

## Internationalisation strategy

### Prioritní cíl I1: Developing global competencies of students and staff in higher education

**Operational objective:** Support for language and intercultural training of students and staff of higher education institutions (MoE SI2021+: I1A)

**Measure:** Foreign Language as an Integral Part of Study and Work at UCT Prague (O\_49)

- Financial and organizational support will be provided for the **hosting of foreign experts** at UCT Prague, especially from partner institutions. Thanks to this activity, students and employees will have a unique opportunity to participate in classes led by renowned foreign experts without having to leave the campus of UCT Prague. This measure also benefits the development of existing and the creation of new contacts for future cooperation in various areas of teaching and scientific research.
- In order to **support the interest of students of Czech-language study programmes in taking courses taught in English**, rules will be implemented for provision of a bonus on successful completion of **English-taught** courses in selection procedures for students' mobility abroad.

- Steps will be taken to prepare rules for the compulsory completion of part of the courses in English in selected Czech-language Master's degree programmes.

Funding sources: SMSP, own resources.

**Operational objective: Development of international mobility of students and staff (MoE SI2021+: I1B)**

**Measure: Targeted offer of international mobility for students and staff (O\_51)**

- The **two-way mobility of students and staff will be supported**, primarily within the Erasmus+ programme, but also outside the framework of this programme, with the aim of gaining international experience and contacts for the future involvement of students, academic and non-academic staff in international projects, designing and adapting study programmes, teaching in a foreign language or providing support for the activities of the institution at various levels. Both short and long-term stays will be supported. A quality information service will be provided to students and staff, including the use of a web application for mobility searches. The mobility offer will be adequately promoted among both students and staff.
- **Possibilities of preparing packages of courses for outgoing students** that will be equivalent in content and credit intensity to the courses taught in the selected study programmes at UCT Prague will be discussed and verified. Completion of these courses during semester-long study stays at partner universities abroad will be a prerequisite for their subsequent recognition within the study programme at UCT Prague and will reduce the risk associated with prolonging studies.

Funding sources: Erasmus+, SMSP, earmarked funding of the Ministry of Education, own resources, OP RDE.

**Measure: Mobility support for those on social security benefits and the socio-economically disadvantaged (O\_52)**

**Increased financial support for mobility for those on social security benefits and socio-economically disadvantaged students** will be provided using the opportunities offered by the Erasmus+ programme and the special fund from the MOBI scholarship programme.

Sources of funding: own resources, Erasmus+, SMSP.

**Measure: Improving the quality of activities related to the organisation and digitisation of mobility (O\_53)**

- In cooperation with co-hosting public universities, the functionality of **measures for the development of virtual mobility in universities** will be tested and examples of good practice will be shared.
- The **possibility of further development of the computerisation of the administration of mobility processes** with a link to existing university information systems will **be analysed**. Sharing experiences and examples of good practice with other public universities will be used to address the issue.

Sources of funding: own resources, CDP, SMSP.

Operational objective: Development of professional competencies of UCT Prague staff in the field of internationalisation (MoE SI2021+: I1C)

Measure: Systematic development of employees' competencies in the field of internationalisation and their motivation to participate in mobility (O\_54)

Awareness among employees of the opportunities of various types and forms of mobility will be **strengthened** using internal communication tools - the internationalisation window in the SPIN magazine, the website of the Foreign Department, etc. Information workshops will be organised for potential candidates for international mobility among academic and scientific staff and other employees. The development of information systems to support mobility and the digitisation of mobility administration processes will continue.

Sources of funding: own resources, SMSP.

## Prioritní cíl I2: Internationalisation of university study programmes

Operational objective: Increasing the number and quality of study programmes offered in foreign languages and joint study programmes (MoE SI2021+: I2A)

Measure: Quality assurance of study programmes and courses taught in English (O\_56)

The **promotion of the subject** survey among students will be **strengthened**, including in subjects taught in English. For **selected subjects taught in English**, **feedback forms** will be used to focus on quality verification of English-taught subjects in comparison with their Czech equivalents.

Sources of funding: own resources.

Operational objective: Inclusion of the international dimension in the structure of study programmes, including mobility windows (MoE SI2021+: I2B)

Measure: Incorporating international student mobility as an integral part of the curriculum (O\_57)

In relation to the current financial resources and study programmes, the analysis of the possibilities to ensure the organisational and financial **fulfilment of the obligation to complete some form of foreign cooperation**, with a preference for outgoing mobility, within doctoral study programmes, in accordance with their accreditation, will continue; *synergy with the operational objective "Strengthening the quality, openness and internationalisation of doctoral studies", PC3*. For Master's degree programmes, the organisation of semester-long study stays at partner universities with an appropriate choice of subjects to guarantee the recognition of learning outcomes achieved during the stay abroad will be preferred.

Sources of funding: own resources, (MOBI programme), Erasmus+.

## Prioritní cíl I3: Simplifying the process of recognition of foreign education

Operational objective: Implementation of automatic recognition of education and study results abroad (MoE SI2021+: I3A)

Measure: Unification of the Process and Criteria for Automatic Mutual Recognition of Results from Study Abroad at UCT Prague (O\_58)

At UCT Prague, the digitalization of **the process of automatic recognition of education from abroad** will be launched; *synergy with the operational objective "Improving the recognition of prior learning results in further studies", PC2.*

Sources of funding: own resources, Erasmus+.

## Prioritní cíl I4: Creating an international environment at universities and their promotion abroad

Operational objective: Support for the development of international marketing of universities and the Czech Republic in general (MoE SI2021+: I4A)

Measure: Provision of comprehensive information services to prospective foreign students (O\_59)

The **foreign-language website of UCT Prague will be modified and expanded** to provide clear, structured, practical and up-to-date information for foreign students (e.g. offer of study programmes, method of recognition of foreign education, description of the process of obtaining visas, overview of services provided to students, basic information about student life at UCT Prague and in Prague itself).

Funding sources: CDP, own sources, SMSP.

Measure: Institutional Scholarship Programme for International Students (O\_60)

**Motivationally, in the form of scholarships, the recruitment of talented foreign students** to study programmes taught in English will be **supported** and their **excellent academic achievements** will also be rewarded. The scholarships will support the voluntary initiative of students beyond the basic study obligations and their participation in **improving the study conditions of foreign students** at UCT Prague **and their integration** into the life of the school.

Funding sources: SMSP, own resources.

Measure: Presentation of UCT Prague abroad using joint national initiatives (O\_61)

Marketing activities related to the **promotion of UCT Prague abroad** will be implemented **to attract students** to study programmes taught in English and **academics, scientists and other staff** to fill vacant positions, using proven marketing tools such as participation in foreign higher education fairs, by using agencies recruiting foreign students, promoting study programmes on portals aggregating study offers, and by actively engaging in social media and other forms of online promotion reaching

specific target groups. The preparation of printed materials and other promotional items will also be important. The use of the **Study in Prague** platform, which was created on the basis of previous successful cooperation between Prague public universities, will continue and the Study in Prague website will be continuously updated, which will now include information on research profiles of Prague universities and on opportunities for doctoral studies in Prague.

Funding sources: SMSP, own resources.

**Operational objective: Development of services offered to international students and workers (MoE SI2021+: I4B)**

**Measure: UCTP Welcome Centre (O\_62)**

Within the framework of the established **Welcome Centre of UCT Prague**, the website with practical information for potential foreign applicants to UCT Prague will be continuously updated. It will be a set of specific, practical information necessary for successful relocation to the Czech Republic and to work at UCT Prague. If necessary, relevant adjustments to the internal MOBIS information system will be made on the basis of practical experience. The effective functioning of the UCT Prague Welcome Centre will be supported by the participation of UCT Prague employees in training courses and visits to similar departments at other Czech public universities.

Funding sources: SMSP, own resources.

**Measure: Development of cooperation with international student clubs (O\_63)**

Traditional forms of active cooperation with the international student associations IAESTE UCT Prague and Erasmus Student Network ESN UCT Prague will be developed in organizing and providing services for outgoing and incoming students. Both associations will be provided with infrastructural facilities, targeted financial support and the cooperation necessary for their activities.

Funding sources: Erasmus+, own resources.

**Operational objective: Work with foreign students and graduates (MoE SI2021+: I4C)**

**Measure: Setting up a system of cooperation with foreign students and graduates (O\_64)**

**Various forms of cooperation with foreign students and graduates** will be further supported and developed to promote outward mobility to their home countries. We will strive to involve more foreign graduates in the Alumni Club of UCT Prague and to use their ties to their "alma mater" to promote university studies at UCT Prague among potential applicants for study, in the form of various communication and promotional activities and other activities strengthening internationalization within UCT Prague.

Sources of funding: own resources.



## Prioritní cíl I5: Strengthening the strategic management of internationalisation

Operational objective: Support for comprehensive internationalisation at institutional level (MoE SI2021+: I5A)

Measure: Institutional strategies for internationalisation (O\_65)

UCT Prague will continuously use the updated Action Plan resulting from the results of the MICHE (Monitoring Internationalization of Czech Higher Education) evaluation organized under the auspices of DZS, MOE and EC. The Action Plan will be updated and developed to strengthen internationalisation at UCT Prague in accordance with new priorities in the field of internationalisation at national and international level and new internal and external aspects in the operation of UCT Prague.

Sources of funding: own resources

Measure: External quality assessment of activities (O\_66)

The activities of **an external advisory panel** will be initiated, consisting primarily of renowned foreign experts involved in the evaluation of UCT Prague according to the Methodology 2017+ and supplemented by other experts from among the employers of our graduates (representatives of the CAS, the Association of the Chemical Industry of the Czech Republic, the Federation of the Food and Drink Industries of the Czech Republic, etc.), who can professionally assess the quality of activities implemented at UCT Prague. In the following period, this panel will be used for external evaluation of the quality of activities and assessment of strategies developed for individual areas of activities of VŠCHT Prague; *synergy with the operational objective "Building capacity for strategic management at VŠCHT Prague", PC5).*

Sources of funding: own resources, SMSP.

Operational objective: Support for international cooperation strategic partnerships and membership of international networks/organisations (MoE SI2021+: I5B)

Measure: Connection of UCT Prague to international networks (O\_67)

Cooperation with foreign (mainly European) related institutions in the field of research and education, in the organisation of summer schools and in the implementation of programmes to support student and staff mobility will continue to be supported and developed. For participation in international networks such as European Universities, Erasmus+ Strategic Partnerships, etc, central support will be provided at the level of the institution through the services of the Rectorate support offices.

Funding sources: SMSP, own resources, Erasmus+.

## Conclusion

In the Plan of Implementation of the Strategic Plan of Educational and Creative Activities for 2022, UCT Prague lists a number of measures whose implementation will contribute to the fulfilment of its mission, i.e. the education of high quality university-educated professionals for industry, public and state administration, as well as top researchers and scientists contributing to the increase of the country's competitiveness and the development of an economy based on knowledge and innovation. An integral and permanent part of the mission of UCT Prague is also the active public promotion and popularization of technical and natural science disciplines, including their latest trends. All planned activities implemented within the framework of the 6 priority objectives of the strategic plan of UCT Prague and 5 priority objectives in the field of internationalization are aimed at strengthening the leading position of UCT Prague as a competitive top educational and research institution in the field of basic and applied research with a significant social impact within the Czech Republic and the entire Central European region.

In 2022, the implementation or sustainability of projects funded by EU operational programmes for the period 2014-2020 will continue, including strategic university-wide projects within the framework of the OP RDE, the solution and administration of which involves all parts of the university, including the rectorate departments. Some of these projects will be completed in 2022. In parallel, applications for support will be prepared for the newly announced relevant calls for domestic and foreign providers of special-purpose (grant) support and the preparation of strategic projects for the announced and announced calls for the 2021-2027 programme period (OP JAK, OP TAC, Horizon Europe) will be launched in order to obtain funds for the development and improvement of the main and supporting activities of the university in the coming years. UCT Prague will actively participate in projects prepared within the National Renewal Plan, which are expected to be implemented in the period 2022 - 2024.

In 2022, the preparation and gradual implementation of investment projects related to the general renovation and reconstruction of premises for the provision of teaching, scientific research and other activities of UCT Prague will continue. There will also be a gradual renewal of the instrumental infrastructure needed to ensure quality laboratory teaching and scientific research activities. The limiting factor for all investment projects will be the amount of available funds.

In order to effectively finance the planned activities of the IPSI 2022, UCT Prague will use all available public financial resources, institutional and special-purpose, as well as its own resources obtained from cooperation with industry.

## Abbreviations used:

CDP	Centralised development programme
LLE	Lifelong education
LC德罗	Long-term conceptual development of the research organisation
DSP	Doctoral study programme
EU	European Union
FTF	Fair Transformation Fund
HRS4R	Human Resources Strategy for Researchers
IP	Institutional programme
IT	Information Technology
JIGA	Junior Internal Grant Agency of the University of Technology Prague
MOE	Ministry of Education, Youth and Sports
NRO	National Renewal Plan
PBD	Personal bibliographic database
OP	Operational programmes
OP JAK	Operational Programme Jan Amos Komenský
OP EIC	Operational Programme Enterprise and Innovation for Competitiveness
OP TAC	Operational Programme Technologies and Applications for Competitiveness
OP RDE	Operational Programme Research, Development and Education
PIGA	Pedagogical internal grant agency of the University of Technology Prague
CCC	Counselling and Career Centre
IPSI	Implementation Plan of Strategic Plan
SIS	Student Information System
SZ	Strategic Plan
SIGA	Scientific internal grant agency of the University of Science and Technology Prague
HVS	Higher vocational school
UCT Prague	The University of Chemistry and Technology, Prague

## *Annex 1: Plan of investment activities of UCT Prague for 2022*

### *1. Summary of investment activities for 2022*

In accordance with the Strategic Plan of UCT Prague for the period from 2021, UCT Prague plans to implement investment actions in 2022 to ensure the development and renewal of construction, mechanical and instrumental and IT infrastructure associated with the implementation of the planned measures presented in the Implementation Plan of the Strategic Plan of UCT Prague for 2022.

In accordance with the Development Master Plan, the UCT Prague plans to start the implementation of several construction and investment activities (projects) related to the construction modifications of buildings A and B in Dejvice in 2022, as well as the continuation of the reconstruction of student halls of residences in the Prague 4 - Kunratice campus and the reconstruction of the Běstvína Student Learning Centre. Due to delays in preparatory or implementation work or difficulties in securing funding for construction, the implementation of some projects has been postponed from the originally planned earlier years to 2022.

The planned building modifications in Buildings A and B are mainly connected with optimizing the use of space capacity and also take into account the development requirements of individual departments of the faculties and the Rector's Office for the next period. In 2022, the renovations of the office space for the dean's office, the rector's office and part of the school's management, started in autumn 2020 (Zikova Street). Following this relatively major modernisation of the administrative premises of the Dejvice campus, work will begin in 2022 on the construction of modifications to the premises primarily for the purposes of laboratory activities in Building B (Studentská and Šolínova Streets) and reconstruction works in the relocated and existing premises in Building B (Technical 3).

An integral part of the reconstructions and building modifications of the university campus in Dejvice will be the continuous implementation of measures resulting from the fire safety solution. The preparation of the design documentation for the construction in the courtyard of Building B will also continue.

As part of the reconstruction of the student learning centre Běstvína (Chrudim district), the construction of a medical dispensary and sports facilities is planned for 2022.

In 2022, it is also planned to continue the gradual reconstruction of the university halls of residences in Jižní Město and the recreational and training facility of UCT Prague in Jáchymov, directed by the SÚZ of UCT Prague.

A total of 7 partial investment projects related to teaching are planned for 2022 at UCT Prague (Dejvice Campus, Běstvína Teaching Centre).

In addition to the construction works, partial development and renewal of the mechanical and instrumental infrastructure for the educational and research activities of UCT Prague within the individual units of the university is also planned for 2022.

The main limiting factor that will fundamentally affect the implementation of all investment projects in 2022 will be the amount of financial resources that UCT Prague will be able to obtain under institutional or earmarked funding.

### *2. List of individual investment projects to be implemented in 2022*

- 1. Completion of the reconstruction of the premises vacated from the lease in building no. p. 1903 (building B), Zikova Street, Prague 6 - office part*

**Brief description:** a comprehensive reconstruction of part of Building B (Zikova Street), which were long-term leased to the Czech Technical university (CTU) until the end of 2017, due to the completely unsatisfactory and dilapidated technical condition of these premises. The reconstruction of the office space was started in 2020 and includes both structural modifications, including the implementation

of new media distribution and the construction of new IT infrastructure, as well as the equipping of the premises with AV equipment and furniture. The new premises are intended for the needs of deaneries, rectorate departments and also institutes that do not implement practical laboratory teaching. The project will also include a general reconstruction of sanitary facilities, communication areas and entrance areas to the building, including the installation of turnstiles at the entrances. A total of 9,600 m<sup>2</sup> of usable area will be reconstructed, of which the net usable area is 5,400 m<sup>2</sup>. No building permit is required for the reconstruction of these premises.

**Estimated cost of the project excluding VAT:** CZK 178 million excluding VAT (CZK 2 million for design documentation, CZK 148 million construction works, CZK 9 million AV equipment, CZK 19 million for interior equipment), of which the subsidy from the Ministry of Education amounts to CZK 150 million and own resources CZK 29 million.

**Framework timetable of the event:** 2018 - 2023 (preparation of construction documentation 2018 - 2020, 09/2020 - 12/2021 implementation of the construction, 01/2022 - 03/2022 equipping with AV technology and furniture).

**Justification of the project - link to priorities SI2021+ and IPSI:2022:** This project is part of the Master Development Plan of UCT Prague. Its implementation will enable further follow-up stages of the school's development (reconstruction of the vacant space after the administrative offices in other buildings on the Campus, building into the courtyard of Building B), operational optimization of the buildings, expansion of teaching and research spaces, solving the unsatisfactory level of fire safety, increasing the level of OHS and meeting current hygiene regulations; *PC1 - measure for Modernization and renewal of educational infrastructure (O\_15); PC3 - measure for Space, social facilities, instrumentation and services for PhD students (O\_27); PC4 - measure for Taking into account societal needs at national and global level in research priorities and resource allocation within the institution (O\_30).*

**Synergistic links to other investment actions:** this project will be followed by the reconstruction of other parts of the campus buildings under investment projects II and III; investment project IV will also be linked to this project.

**Description of the current status of the investment project in 2022:** completion of the construction part of the reconstruction (12/2021).

**Work plan for 2022:** implementation of interior equipment (AVT, furniture), expected completion by 03/2022.

**Estimated expenditure in 2022 and sources of funding:** CZK 43 million excluding VAT; programme financing (Programme 133 220), own resources.

## II. Commencement of design work for the comprehensive reconstruction of the premises vacated from the lease in building no. p. 1903 (building B), Studentská and Šolínova Streets, Prague 6 - laboratory part

**Brief description:** a comprehensive reconstruction of parts of the building of UCT Prague No. 1903, Prague 6 - Dejvice, situated in Šolínova and Studentská streets, which were long-term used by CTU until the end of 2017 (in the form of a lease) and are now in a completely unsatisfactory technical condition. The aim is not only to adapt them to modern premises for the needs of UCT Prague, but also to meet all fire-technical, safety and hygiene regulations and standards.

The project will include a general reconstruction and conversion of unusable and non-functional office space into modern chemical laboratories designed for practical teaching of students in all types of study programmes (bachelor, master, doctoral), as well as for high-quality basic and applied research. In total, 960 m<sup>2</sup> of new laboratory space will be built, meeting all OHS and fire safety requirements, and equipped with efficient air conditioning, new media distribution and new IT infrastructure. The reconstruction of the laboratory space is synergistically connected with the reconstruction of the office space - workrooms for academic staff and students (approximately 1,270

m<sup>2</sup>). In total, this will create 2,230m<sup>2</sup> of quality space for the needs of faculty institutes, Central Laboratories and other university-wide research facilities. Within the framework of the project, the office space will also be adapted for the needs of the central rectorate workplaces (320 m<sup>2</sup>). In addition, 51m<sup>2</sup> of space for student lecture halls and rooms will be reconstructed. The project will also include a general reconstruction of sanitary facilities (120 m<sup>2</sup>) and communication areas (1,820 m<sup>2</sup>) while a small part of the premises will be adapted for IT needs (15 m<sup>2</sup>). A building permit will be required for the reconstruction of these premises with a total usable area of 4,700 m<sup>2</sup> (or a net usable area of 2,870 m<sup>2</sup>), as part of the premises is being changed from office to laboratory use.)

**Estimated implementation date:** 2022 -2024; the date of commencement of processing of the project design for the reconstruction of the building is planned for the 2nd quarter of 2022; by the end of 2022, it is planned to prepare the tender documentation for the selection of the contractor for the design documentation and to launch a tender for the contractor for the design documentation. The design documentation is expected to be completed by the end of 2023.

**Estimated cost of the project excluding VAT:** The total projected cost of the entire project is CZK 238 million excluding VAT (of which CZK 188 million for construction works and design documentation, CZK 50 million for interior equipment), programme financing, EU funds (OP JAK), National Investment Plan, own resources (note: the scale of the planned investment project is so large that it cannot be implemented only from VŠCHT Prague's own resources).

**Link to SI 2021+ and IPSI:2022:** Due to the long-term critical shortage of suitable premises for university teaching and scientific research activities, in particular quality laboratory space and also adequate administrative facilities in the buildings owned by UCT Prague, the reconstruction of the vacated premises is necessary to remedy the current critical situation in terms of space. This project is part of the overall Development Master Plan of UCT Prague. Its implementation will enable further follow-up stages of the school's development (reconstruction of the vacated space after the administrative offices in other buildings of the university campus, building into the courtyard of Building B), operational optimization of the buildings, expansion of teaching and research spaces, solving the unsatisfactory level of fire safety, increasing the level of OHS and meeting current hygiene regulations, especially in laboratories (e.g. efficient HVAC). The implementation of this project will significantly improve the spatial, working and teaching conditions for all faculties of the University and some of the Rector's offices. Selected departments from Building A and Building B (part of Technical Street) will be relocated to the newly renovated premises; *PC1 - measures for modernization and renewal of educational infrastructure (O\_15)*, *PC3 - measures for space, social facilities, instrumentation and services for PhD students (O\_27)*, *PC4 - measures for taking into account societal needs at national and global level in research priorities and allocation of resources within the institution (O\_30)*.

**Synergistic links to other investment projects:** continuity with the reconstruction of the administrative premises completed in 2022 (investment project I); investment project IV will also be linked to this project.

**Description of the current status of the investment project in 2022:** basic consideration of the use of space within the framework of the Master Plan of UCT Prague.

**Work plan for 2022:** start processing construction documentation.

**Expected expenditure in 2022 and sources of financing:** costs related to the preparation of tender documentation for the contractor of the design documentation in the amount of up to CZK 10 million ; own resources.

### III. Start of the reconstruction of moved and existing premises (phase I) in building no. 1903, Technická Street, Prague 6 - laboratory part

**Brief description:** the project concerns the reconstruction of a part of the building of UCT Prague No. 1903, Prague 6 - Dejvice, situated in Technická Street, which will be vacated as part of the dislocation

of some faculty and rectorate departments to the newly renovated premises (see Action I) after their return from the long-term lease of CTU.

The vacated premises will require a complete reconstruction, the purpose of which is not only to adapt to modern premises for the needs of UCT Prague, but also to meet existing safety and hygiene regulations and standards.

The project will include a general reconstruction and rebuilding (including media distribution and building new IT infrastructure) of the existing, long intensively used mainly office and laboratory space into modern chemical laboratories designed for practical teaching of students in all types of study programmes (bachelor, master, doctoral), as well as for quality basic and applied research. In total, 960 m<sup>2</sup> of new laboratory space will be reconstructed, meeting all OHS and fire safety requirements (equipped with efficient air conditioning). The reconstruction of the laboratory space is synergistically connected with the reconstruction of the office space - the offices of academic staff and students (180 m<sup>2</sup>). In total, this will create 1140 m<sup>2</sup> of quality space for the needs of the faculty departments. As part of the project, the rest areas for students (60 m<sup>2</sup>) will be further modified. The project will also include a general reconstruction of sanitary facilities (70 m<sup>2</sup>) and communication areas (250 m<sup>2</sup>). No building permit will be required for the reconstruction of these premises (total floor area of 1,520 m<sup>2</sup>, of which the net floor area is 1,270 m<sup>2</sup>).

**Estimated implementation date:** 2022 – 2023.

**Estimated cost of the project excluding VAT:** CZK 88 million (of which CZK 63 million for construction works and design documentation, CZK 25 million for interior equipment).

**Link to SI 2021+ and IPSI 2022:** Due to the long-term critical shortage of suitable premises for university teaching and scientific research activities, especially quality laboratory space and also adequate administrative facilities in the buildings owned by UCT Prague, the reconstruction of the vacated premises is absolutely necessary. The implementation of this project will significantly improve the spatial, working and teaching conditions at the workplaces of all 4 faculties of UCT Prague. This project is part of the Master Development Plan of UCT Prague. *PC1 - measure for Building infrastructure for education, PC3 - measure for Space, social facilities, instrumentation and services for PhD students (O\_27), PC4 - measure for Taking into account societal needs at national and global level in research priorities and allocation of resources within the institution (O\_30).*

**Synergistic links to other investment projects:** continuity with the reconstruction of administrative premises completed in 2022 (see investment project I) and with investment project III.

**Description of the current status of the investment project in 2022:** basic consideration of the use of space within the Master Plan of UCT Prague

**Work plan for 2022:** implementation of construction works and interior equipment of student laboratories for teaching biochemistry and microbiology; preparation of construction documentation for the reconstruction of the remaining premises.

**Estimated expenditure in 2022 and sources of funding:** costs related to the reconstruction and interior equipment of the biochemistry teaching laboratories in the amount of CZK 18 million, excluding VAT, as well as costs associated with the processing of construction documentation in the amount of approximately CZK 3 million CZK; Programme funding, own resources.

#### IV. Implementation of fire-safety solutions within the reconstruction of buildings no. 1903 and 1905 (buildings A and B), Prague 6

**Brief Description:** As part of the planned extensive general reconstruction in Buildings A and B, the following system measures will be continuously implemented in the fire safety solution of these buildings:



- installation of electrical fire alarm detectors in all areas of both buildings with the potential for the escape of gases and vapours that may endanger the health and life of persons. In logical continuity with the electrical fire alarm system, the installation also includes a gas detection element;
- the construction of protected escape routes with forced ventilation can be conducted in stages, where resistant elements of the building structure must be added first and the replacement of existing doors with fire-resistant doors can be implemented later on;
- construction of new safe storage facilities for pressurised gas cylinders (inner courtyard of Building A).

**Estimated implementation date:** 2021 - 2025 (continuous implementation of the fire safety measures in the framework of the ongoing reconstruction works in buildings A and B)

**Estimated cost of the project excluding VAT:** CZK 85 million excluding VAT.

**Relationship to the SI 2021+ and IPSI:2022:** this project is a very important part of the Master Development Plan of UCT Prague. Its implementation will allow to solve the unsatisfactory level of fire safety and significantly increase the standard of OSH; *PC1 - measures for modernization and renewal of infrastructure for education (O\_15)*, *PC3 - measures for space, social facilities, instrumentation and services for PhD students (O\_27)*, *PC4 - measures for taking into account societal needs at national and global level in research priorities and allocation of resources within the institution (O\_30)*.

**Synergistic links to other investment projects:** interdependence with investment projects I and II.

**Description of the current status of the investment project solution in 2022:** verification of the functionality of the fire safety equipment within investment project I, technical solution of the fire safety equipment for investment projects II and III in progress.

**Work plan for 2022:** preparation of design documentation of the fire safety equipment for investment projects II and III; preparation of design documentation and implementation of the construction of the pressure cylinder storage facility.

**Estimated expenditure in 2022 and sources of financing:** construction costs of the pressure cylinder warehouse of CZK 10 million. CZK without VAT and costs associated with the preparation of technical documentation for fire safety equipment in the amount of CZK 1 million excluding VAT; Programme financing, own resources.

## V. Courtyard extension in building no. 1903 (building B), Prague 6

**Brief description:** the building in the courtyard of building B will connect the spaces on the side of Studentska, Zikova and Technicka Streets. The design envisages the construction of technology halls, a social centre with quality refreshment facilities and a number of new modern laboratories located over five floors. The area of laboratories and technical premises is planned to be 5,500 m<sup>2</sup>, office space should occupy an area of 750 m<sup>2</sup>. An area of 2,690 m<sup>2</sup> will be set aside for social, welfare and catering purposes. The building will also include an underground car park with a capacity of about 300 parking spaces. For the construction of the new premises with a total useful area of 17,700 m<sup>2</sup>, or a net useful area of 14,900 m<sup>2</sup>, it will be necessary to prepare relatively extensive construction documentation.

**Estimated implementation date:** 2022 - 2025 (2022 - 2023 design documentation, 2024 - 2025 construction implementation).

**Estimated cost:** CZK 895 million excluding VAT (CZK 45 million excluding VAT for design documentation, CZK 800 million excluding VAT for construction, CZK 50 Million excluding VAT for interior equipment)

**Link to SI 2021+ and IPSI:2022:** this project is part of the Master Development Plan of UCT Prague. The construction of a modern courtyard technology building in the courtyard of Building B will lead to a significant increase in available space capacity with a positive impact on the increase in the space needs satisfaction index identified in the Master Plan by 15-20% to 85%; *PC1 - measures for modernisation and renewal of infrastructure for education (O\_15), PC3 - measures for space, social facilities, instrumentation and services for PhD students (O\_27), PC4 - measures for taking into account societal needs at national and global level in research priorities and resource allocation within the institution (O\_30).*

**Synergistic links to other investment projects:** continuity with investment projects I to III.

**Description of the current status of the investment project in 2022:** basic architectural study.

**Work plan for 2022:** implementation of the tender for the contractor of the project documentation and start of its preparation.

**Estimated expenditure in 2022 and sources of funding:** CZK 10 million excluding VAT; own resources.

## VI. Reconstruction of the Běstvína Student Learning Centre - infirmary, summer house, sports field

**Brief Description:** The next part of the reconstruction works focused on the medical dispensary, wooden summer house for leisure use and modification of outdoor sports fields.

**Estimated implementation date:** 2022 (preparation of design documentation and actual implementation of the construction).

**Estimated cost:** CZK 6 million excluding VAT.

**Link to SI 2021+ and IPSI:2022:** this project is part of the Master Development Plan of UCT Prague. Modernization of the infrastructure of the student learning centre will allow to significantly improve the quality of practical field teaching, increase the standard of familiarization courses for the first year of undergraduate studies, sports courses, popularization events for primary and secondary school students and preparatory courses for the Chemistry Olympiad; *PC1 - measures for modernization and renewal of infrastructure for education (O\_15).*

**Synergistic links to other investment projects:** no direct links to other investment projects.

**Description of the current status of the investment project in 2022:** basic architectural study of the entire area, construction of social facilities and wastewater treatment plant.

**Work plan for 2022:** implementation of the construction of the infirmary, summer house and sports pitches.

**Estimated expenditure in 2022 and sources of funding:** CZK 6 million excluding VAT; own resources.

## VII. Purchase of land by the halls of residence buildings in Prague 4 - Kunratice from the City of Prague to the ownership of UCT Prague

**Brief description:** the purchase of land (6,000 m<sup>2</sup>) by the halls of residences in Prague 4 - Kunratice from the City of Prague to the ownership of UCT Prague or its partial exchange for other land owned by UCT Prague.

**Estimated implementation date:** 2022.

**Estimated cost:** max. CZK 15 million excluding VAT.

**Relationship to SI 2021+ and IPSI:2022:** this project is part of the overall master development plan of the University of VŠCHT Prague.

**Synergistic links to other investment projects:** no direct links to other investment projects.

**Description of the current status of the investment project in 2022:** negotiations with the City of Prague are ongoing.

**Work plan for 2021:** land acquisition/land swap.

**Estimated expenditure in 2022 and sources of funding:** CZK 15 million excluding VAT; own resources.

### VIII. Acquisition of machinery and equipment for the renovation and modernisation of workplaces

Within the faculties and central departments of UCT Prague it is planned to purchase instrumentation to a total value of CZK 509.1 million Excluding VAT, and within the Technopark Kralupy, which focuses on applied marketable research, another CZK 7.4 million excluding VAT. The acquisition of the equipment depends on securing sufficient financial resources in 2022.

The following text gives an overview of the plans for the acquisition of machinery and equipment for individual units of UCT Prague:

#### Faculty of Chemical Technology (FCHT)

Instrumentation and technological equipment will be acquired to ensure teaching and research in the fields of the faculty's competence (inorganic chemistry and inorganic technology, metal materials and corrosion engineering, glass and ceramics, solid state chemistry, organic technology, solid state engineering and chemical technology of monument restoration).

Estimated INV funds: CZK 141.1 million excluding VAT.

Sources of funding: EU funds (OP JAK) and other public sources, own resources.

The most expensive purchased devices (> CZK 5 million excluding VAT):

- 15 T 150 mm dry cryo magnet with sufficient cooling capacity for bulky HT superconducting discs (CZK 25 million excluding VAT),
- IJD/PVD system for thin film preparation (CZK 16 million excluding VAT),
- hot pressing apparatus for large volumetric materials with high density (CZK 20 million excluding VAT),
- STA-MS with ultra-precise thermogravimetry (CZK 7 million excluding VAT),
- PPMS for transport, magnetism and optomagnetism measurements (CZK 25 million excluding VAT),
- Raman spectrometer (CZK 5.5 million excluding VAT).

#### Faculty of Environmental Protection Technology (FEPT)

Instrumentation and technological equipment will be acquired to ensure teaching and research in the fields of the faculty's competence (petroleum and alternative fuels technology, gaseous and solid fuels and air protection, water and environmental technology, energy and environmental chemistry).

Estimated INV funds: CZK 25.7 million excluding VAT.

Sources of funding: EU funds (OP JAK) and other public sources, own resources.

The most expensive purchased devices (> CZK 2 million excluding VAT):

- GC-MS/FID instrument set (CZK 2.8 million excluding VAT),
- TGA-DSC-MS (CZK 3.5 million excluding VAT).

#### Faculty of Food and Biochemical Technology (FFBT)

Instrumentation and technological equipment will be acquired to support teaching and research in the faculty's fields of competence (biotechnology, biochemistry and microbiology, carbohydrates and cereals, milk, fats and cosmetics, and food and nutrition analysis).

Estimated INV funds: CZK 98.4 million excluding VAT.

Sources of funding: EU funds (OP JAK) and other public sources, own resources.

The most expensive purchased devices (> CZK 5 million excluding VAT):

- basic 150 kV transmission electron microscope with EDS (CZK 15 million excluding VAT),
- ultra-effective performance liquid chromatograph with tandem high-resolution mass spectrometric detector (CZK 15 million excluding VAT),
- equipment for pulsed electric field (PEF) treatment of foodstuffs - (solid and liquid samples) (CZK 8.5 million excluding VAT),
- equipment for high-pressure treatment of foodstuffs (CZK 10 million excluding VAT),
- technological line for production, isolation and separation of selected food components (reactor, extractor, evaporator, crystallizer, centrifuge, periphery) (CZK 9.3 million excluding VAT),
- UHT unit with homogenisation for food processes (CZK 10.2 million excluding VAT).

### Faculty of Chemical Engineering (FCI)

Instrumentation and technological equipment will be acquired to ensure teaching and research in the fields of the Faculty's competence (analytical chemistry, physical chemistry, chemical engineering, mathematics, physics and measurement technology, computer and control technology).

Estimated INV funds: CZK 163.5 million excluding VAT.

Sources of funding: EU funds (OP JAK) and other public sources, own resources.

The most expensive purchased devices (> CZK 5 million including VAT):

- inductively coupled plasma mass spectrometer (CZK 6 Million excluding VAT)
- multifunctional confocal microscope Raman Imaging Microscope System (multiple excitation wavelengths, 3D technology, with the possibility of additional expansion (CZK 6.9 million excluding VAT),
- liquid chromatograph with triple quadrupole mass spectrometer (LC-MS) (CZK 12 million excluding VAT),
- microwave reactor (CZK 8 million excluding VAT),
- nanoFTIR (CZK 6.9 million excluding VAT)
- Malvern PEAQ-DSC with autosampler (for aqueous solutions) (CZK 5.7 million excluding VAT).

### Technopark Kralupy

Instrumentation and technological equipment will be purchased to provide facilities for scientific research workplaces operating in the Technopark in the fields of construction chemistry and related material fields and equipment for the experimental workplace in the Cement Works Čížkovice.

Estimated INV funds: CZK 7.4 million excluding VAT.

Sources of funding: own resources, EU funds (OP EIC) and other public sources.

The most expensive purchased devices (> CZK 1 million excluding VAT):

- addition of the existing lifters (CZK 1.5 million excluding VAT),
- photoacoustic air quality measuring instrument INNOVA 1512 (CZK 1.5 million excluding VAT).

Within the framework of the joint **rectorate workplaces**, UCT Prague plans to invest approximately CZK 99 million excluding VAT in machinery and instrumentation in 2022. Funding will be provided mainly from own resources or from the programme funding of the Ministry of Education.

### Central laboratories of UCT Prague

Testing, measuring and laboratory instruments for the analysis of chemicals and materials will be renewed in the amount of CZK 52 million in 2022. The most expensive purchased devices (> CZK 5 million excluding VAT):

- upgrade of 500MHz NMR spectrometer (fixed phase attachment) (CZK 15 million excluding VAT)
- wave-dispersive (CZK 6.2 million excluding VAT),
- high Performance Liquid Chromatograph with High Resolution Mass Spectrometry (HPLC-HRMS) (CZK 19 million excluding VAT).

### Computer Centre of UCT Prague

It plans to purchase, expand or renew software and licences and modernise the basic IT infrastructure in the amount of CZK 47 million. in 2022. The most costly investments (> CZK 5 million excluding VAT):

- central storage for data storage (DB, servers, share) - VC + CIS (CZK 18 million excluding VAT),
- renewal of AV equipment in classrooms and large lecture halls (CZK 15 million excluding VAT),
- computer system for scientific calculations (CZK 5 million excluding VAT).
-