



# Strategic Plan

of Educational, Creative  
and Other Activities of the  
**Czech University  
of Life Sciences  
Prague for the  
period from 2021**



Czech University  
of Life Sciences Prague

University full of life



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# **Strategic Plan of Educational, Creative and Other Activities of the Czech University of Life Sciences Prague for the period from 2021 (CZU Strategic Plan 2021+)**

## **Circumstances of the origin of the CZU Strategic Plan for the period from 2021**

The Strategic Plan of the Czech University of Life Sciences Prague for the period from 2021, the preparation of which, and discussion with the Ministry of Education, Youth and Sports (MEYS) and publication on the date and in the form determined by the Minister, is imposed on the Czech University of Life Sciences Prague by Section 21 (1) (b) of the Act on Higher Education Institutions (Act No. 111/1998 Coll.), was created under different conditions than in the past with similar strategic documents. Initially, its preparation was meant to include extensive interactive personal and group discussions of members of the academic community regarding the prepared theses of the Strategic Plan of Educational, Creative and Other Activities of the Czech University of Life Sciences Prague for the period from 2021 (hereinafter the CZU Strategic Plan 2021+). The aforementioned theses reflected “The Strategic Plan of the Ministry for Higher Education for the period from 2021” and the “Strategy for the Internationalization of Higher Education for the period from 2021”, and they were thus created as compatible with this plan.

The aim of the discussions in the CZU academic community was to identify the goals and assign to them the appropriate measures with the relevant operational objectives, which will both contribute to achieving the objectives of the relevant strategic plans of MEYS (to which CZU is committed), and which will also reflect the specifics and needs of CZU itself. However, due to the outbreak of the COVID-19 pandemic, this public discussion method had to be changed, and instead it took place in a virtual space with the use of other support activities. Given the anti-epidemic measures and the declaration of a state of emergency in the spring of 2020, the MEYS strategies were published later than had been originally planned. Therefore, and in accordance with the relevant decision of MEYS, a deadline was set for the completion of the CZU Strategic Plan 2021+ after it had been discussed in the CZU academic community, and after its final form was published at the end of March 2021.

## Preparation process of the CZU Strategic Plan 2021+

The CZU Strategic Plan 2021+ was prepared under the responsibility of the university management (specifically the relevant Vice-rectors) and the Vice-rector for International Relations and the 1<sup>st</sup> Vice-rector, the Vice-rector for Strategy and the Vice-rector for Development were entrusted with its direct coordination. This ensured a connection to the Strategic Management Support Programme, through which MEYS will provide public universities with a contribution from the state budget to meet the objectives of this CZU Strategic Plan 2021+. The university management has prepared the aforementioned theses of the CZU Strategic Plan 2021+, which, as already specified, are based on the above-mentioned MEYS strategies, which they apply to the conditions of CZU. This is also the reason why there is no absolute formal identity between the MEYS strategic plans and the CZU Strategic Plan 2021+. Other sources for preparing these theses were the annual evaluation of the Long-term (Strategic) Plan of Educational and Scientific, Research, Development and Innovation, Artistic and other Creative Activities of CULS Prague 2016–2020 presented in the Annual Report on CZU Activities for the relevant year.

A very important and valuable source for the preparation of the theses of the CZU Strategic Plan 2021+ were the results of a CZU staff questionnaire survey, which was conducted as part of the Strategic Setting of Human Resources Development at CZU project, implemented with the support of the Operational Programme Research, Development and Education. This survey, whose complete results are available on the CZU intranet, has made it possible to replace the originally intended broad discussions of academic community members, whilst maintaining a combination of “top-down” approaches – both from CZU management to academic community members, and “bottom-up” – from the academic community to the management. While suggestions for the further development of CZU by the staff of the university were first obtained from the above-mentioned questionnaire survey, suggestions from students were based on analyses performed as part of the internal quality assurance of activities at CZU. Thereby, even in a situation which did not allow for extensive personal contact or the implementation of the originally-intended active co-creation of this important strategic document due to anti-epidemic measures, it was nevertheless possible to incorporate suggestions from the academic community into the document.

The prepared theses were discussed at the CZU management level (Rector’s Advisory Board) as well as within the faculties, which presented a number of recommendations and comments. These were taken into consideration in the working version of the CZU Strategic Plan 2021+ draft, which was available for comments to the members of the CZU academic community via

the management of individual components and bodies of the university. Their comments were discussed by the CZU management and, together with the management of the faculties, the CZU Academic Senate and, if they were relevant, in particular in relation to the MEYS strategic plan, they were incorporated into the final form of the CZU Strategic Plan 2021+.

### Structure and internal context of the CZU Strategic Plan 2021+

The Strategic Plan is a long-term strategic document, thereby presenting the strategic areas of operation CZU, reflecting the priorities of the MEYS Strategic Plan for the period after 2021, and also incorporates strategic plans for internationalization. At the time when the CZU Strategic Plan 2021+ was being prepared, the Czech University of Life Sciences was also working on a separate Internationalization Strategy, which it plans to complete in 2022, based on the results of the international evaluation of the internationalization process at CZU that took place in the fall 2020. This is why the CZU Internationalization Strategy is currently part of the CZU Strategic Plan 2021+ and does not form a separate document, which is the case with the MEYS Internationalization Strategy. The CZU Internationalization Strategy is being prepared as a conceptual document that will support the fulfilment of strategic areas associated with the internationalization specified in the CZU Strategic Plan 2021+, due to the fact that internationalization organically passes through all of the areas of CZU activities, with regard to the intention to **achieve so-called experienced internationalization**. Ideally, this should be a situation where various aspects of internationalization become a common part of all activities at CZU.

The strategic areas of CZU activities are designed to help achieve the strategic areas defined in the MEYS Strategic Plans and simultaneously enable the own development of the CZU free academic environment. Their focus is defined in long-term strategic objectives that exceed the time period of 5 years. Achievement of strategic objectives will contribute to the fulfilment of the CZU Vision and Mission. Strategic objectives in individual strategic areas are specified in specific objectives. These represent possible frameworks of activities that can be implemented over shorter time periods (up to a maximum of 5 years), the fulfilment of which will contribute to the achievement of strategic objectives. Proposed measures with the corresponding objectives are determined for the specific objectives, which should aid in achieving them. The individual measures reflect the operational objectives of the MEYS strategic plans.

In accordance with the Act on Higher Education Institutions and on the basis of the CZU Strategic Plan 2021+, plans for its annual implementation will subsequently be prepared for each individual year. The implementation plan for the CZU Strategic Plan 2021+ for the specific

year will define specific priority operations (measures/activities) as part of the specific objectives of the CZU Strategic Plan 2021+ and their measures. The outputs from the operations presented in the Implementation Plan of the CZU Strategic Plan 2021+ for the relevant year should reinforce those changes that will lead to the results (i.e., expected changes) of the relevant specific objectives and the measures associated therewith. Specific objectives therefore mean predicted changes that must be achieved in order to fulfil the CZU Vision and Mission. The measures specified for them have a strategic orientation function and, during the implementation of the CZU Strategic Plan 2021+, they will be modified or supplemented with the specific approximation in the Implementation Plan of the CZU Strategic Plan 2021+ for the relevant year.

The objectives presented in this plan will be financed through the CZU Strategic Management Support Programme (hereinafter the Programme), through operational programmes co-financed from European Structural and Investment Funds, from national resources available from the funds of individual ministries, and from the own resources obtained by CZU and its components.

## CZU Vision

As part of its educational and creative portfolio and the impact of its activities on society, the Czech University of Life Sciences is a living example (national, European and global) of a socially responsible university, reflecting, fully accepting and implementing the principles of sustainability (its environmental, social and economic pillar in a projection into viability, justice/sustainability) expressed in the 17 UN Sustainability Goals (UN SDGs) and interconnected with the policy context of the European Green Deal. Based on already invested resources and future investments into staff and equipment, CZU is a university **with a digital campus**, which has managed the transition to a low-carbon university and fulfils, through its activities in economic contexts, the principles of **bioeconomics, smart circular economy and clean energy (1), agriculture and food** principles, as expressed in the EU “Farm to Fork Strategy” and they **lead to food security and sovereignty (2)**, as well as the principles associated with **smart technologies and technical solutions (3)**.

In terms of the environment, through its activities CZU fulfils the principles of **intelligent natural resource management** ensuring the **protection of the environment and human, animal and plant health (4)**, and principles leading to **reducing the negative impacts of climate change and reasonable responses to major natural disturbances (5)**, consisting of extensive floods, droughts, pandemics and other natural disasters. In terms of society, through its

activities CZU fulfils the principles of **strengthening the resilient nature of rural areas and cities (6)**.

CZU applies all of the knowledge and experience from this transition in the international dimension in its educational and creative activities, and in cooperation with partners outside of CZU. Because of this, in terms of sustainability, CZU represents a respected centre of education, research and a sought-after centre for cooperation with external partners. CZU thereby contributes to the fulfilment of the MEYS Vision, wherein universities play a key role in the education of society and in its scientific, cultural, social and economic development. The CZU contribution to the MEYS Vision is a key contribution and an irreplaceable role in the Czech Republic in fulfilling the principles of the six main profile areas of CZU activities, as shown by the graphic representation of the CZU Vision in Diagram 1:

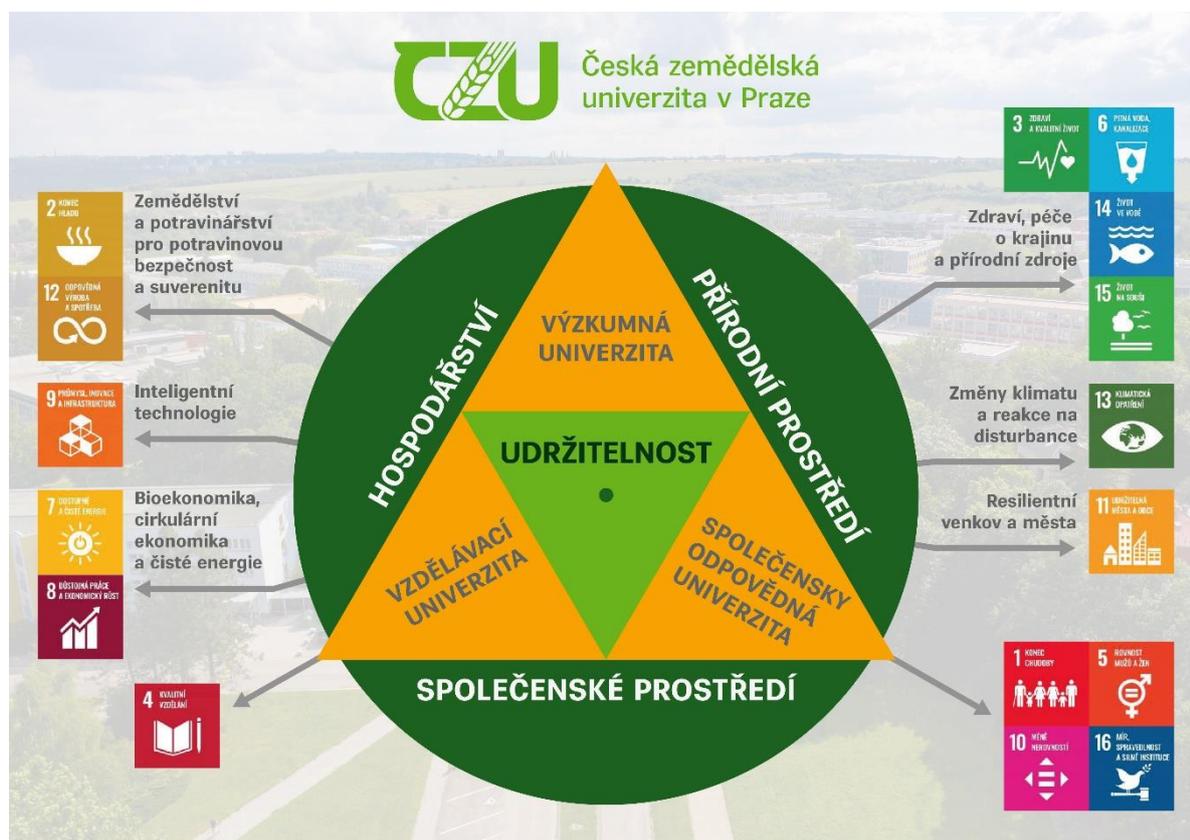


Diagram 1: Key principles of the strategic focus of CZU and their relationship to UN sustainability goals.

## CZU Mission

The CZU mission is to be a leading representative of the academic world in education, science and research, as well as in its social activities, and an entity in promoting the sustainability principles defined in the CZU Vision. It is the mission of CZU to be an excellent university primarily in its profile areas of education and creative activities (which include the agriculture industry, the food industry, forestry and wood industry, earth sciences, biology, ecology and the environment, economics, informatics and engineering, technology and materials), and to develop its activities in other areas that form an integral part of CZU operations, such as architecture and urbanism, veterinary medicine, social aspects of human life or cyber security, as well as other challenges to which CZU can contribute through its educational and creative activities. This mission means that through the use of the excellent research and development activities generated at CZU, the university is preparing competent graduates who respond skilfully in regional, national and international environments and resolve current and future problems.

The fulfilment of the mission assumes developed strategic management supporting high-quality and diverse educational processes, advanced forms of creative activities, intensive cooperation with practice and generally extensive activities at the local, regional, national and international levels. For its mission, CZU uses excellent technical, technological and staffing aspects, which guarantee its leadership in the key domains of its activities, both in the European region (with emphasis on Central Europe) and in the countries of the subtropical and tropical band. Based on innovative diversified, flexible and accessible study programmes and other educational components offered by 21<sup>st</sup> century universities (e.g., lifelong learning, virtual courses, developed internationalization), highly developed forms of strategically-managed research interconnected with high-quality and effective PhD studies, a unique campus, and with emphasis on its social responsibility, the university educates its graduates so that together they can contribute to sustainability and a quality environment for life in the Czech Republic and abroad.

## **Strategic area of CZU activities 1:**

### **HIGH-QUALITY AND COMPETENT GRADUATES ACTIVELY CONTRIBUTING TO SUSTAINABILITY AND EXPERIENCE FOR THE 21<sup>ST</sup> CENTURY**

A number of activities at CZU have long been configured to monitor and support the process aspect of quality education. However, from the analyses carried out as part of the system ensuring the quality of activities at CZU, it is evident that it is necessary to monitor the issue of outputs from performed activities and to better focus thereon. The necessity of this orientation is also supported by the results of a survey amongst CZU students conducted by Times Higher Education as part of a survey among European students (THE Teaching ranking, which was last published in 2019), where, in relation to the situation in Europe, a below average ranking was attributed to CZU in particular in evaluating preparation for so-called critical thinking. Similarly, in the evaluation of completed study programmes, students point to the need for greater interconnection with practice.

Therefore, the focus is no longer only on the pedagogical process and its individual components, but also on the fact that through its quality, based on continuous professional teacher training (e.g., responses to changes in teaching due to the COVID-19 pandemic have indicated an increase in teacher interest in information technology education for teaching), the process is able to contribute to forming quality graduates as an output from pedagogical (and creative) works. These graduates should be able to appropriately combine critical thinking with practical skills. It is also assumed, given the focus of the study programmes, that in academically oriented study programmes, the fundamental emphasis will be placed on the development of critical thinking, while professionally oriented study programmes will dominantly focus on skill applicable in practice. All of the aforementioned must be embedded in the necessary international framework so that the competencies of graduates are applicable in the international environment. In this regard, the Strategic Plan is intertwined with the CZU Internationalization Strategy, which will be available in 2022.

#### **Strategic objective 1:**

Prepare high-quality and competent graduates (the transition from emphasis on processes to a balance of emphasis on processes and outputs that are complementary) capable of critically and innovatively handling the often difficult-to-predict and changing conditions of the modern

world in its environmental, social and economic (sustainable) dimension, thereby ensuring that these graduates are socially responsible individuals who apply their acquired knowledge, skills and competences in practical life.

**Specific objective 1.1** Strengthen the preparation of all persons who are directly involved in education so that they carry out high-quality pedagogical activities, whilst paying the balanced and appropriate level of attention to both young and beginning teachers and their more experienced colleagues. Teachers who are prepared in this way will introduce into teaching new educational methods, thereby helping students to form a critical opinion on current issues and challenges addressed by the relevant study programmes.

**Indicators (target values):** Preparation of a comprehensive system for educating academic staff, based on formulated requirements for career growth and associated with further professional (pedagogical) teacher training (1 comprehensive system). Support for the implementation of specific training courses (minimum of 15 courses).

### Measures for fulfilling specific objective 1.1

- Based on an analysis of the existing institutional environment (in particular within CZU, including school enterprises), adequately incorporate into such an environment the requirements for career growth associated with further professional (pedagogical) training of teachers so that pedagogical activities ensure the preparation of high-quality graduates in high-quality study programme subjects. (Objective of measure 1.1.1: To incorporate the requirements for career growth associated with pedagogical activities into the CZU institutional environment.)
- Prepare an intensive education programme using external and foreign resources that will be focused on various groups of teachers (e.g., beginners, experienced teachers, foreign teachers, and those teaching in English study programmes). The regularly innovated program, whose innovations will be based on feedback (evaluation) processes by its participants, will take into account the necessity for systematic development of competencies of university staff in terms of the internationalization of the curriculum. The programme will educate participants with the aim of acquiring the necessary skills to work with students in areas where internal quality assurance

mechanisms identify problems. (Objective of measure 1.1.2: To prepare an appropriate training programme to support the high-quality pedagogical work of academic staff.)

- With regard to training staff involved in teaching, use newly established platforms (even informal platforms) to share examples of good practice and exchange experiences. These platforms will open up new opportunities to discuss innovation. (Objective of measure 1.1.3: To create platforms for sharing teaching experiences.)

**Specific objective 1.2** Continuously improve the methods of ensuring the quality of pedagogical activities, in particular depending on accreditations (internal accreditation and accreditation by the NAB), including the development of evaluation of the functioning of the internal accreditation system (complete the mechanism providing feedback associated with the accreditation system at CZU).

**Indicators (target values):** A set mechanism of continuous improvement and evaluation of accreditation practice at CZU in the periods between institutional accreditations, with fully functional electronic support (1 mechanism for accreditation practice feedback at CZU).

### **Measures for fulfilling specific objective 1.2**

- Based on experience with the evaluation of the quality of pedagogical activities, prepare a mechanism enabling continuous improvement and evaluation of accreditation practice at CZU in the periods between institutional accreditations. This mechanism will supplement the requirements of the National Accreditation Bureau regarding the accreditation of study programmes at CZU (both at the central and faculty level). In creating this mechanism, the experiences of IEB (Internal Evaluation Board) and evaluators and evaluation commissions will be used, on the basis of which recommendations will be made leading to the optimization of the evaluation process and quality assurance. The system will use electronic support for multi-component quality assessment in the university information system, thereby creating an integrated cycle of quality assurance of pedagogical activities. (Objective of measure 1.2.1: To prepare a mechanism to strengthen the improvement and evaluation of accreditation and associated activities at CZU.)

**Specific objective 1.3** Continue to reflect in bachelor and subsequent master's degree programmes the requirements of practice, the job market and the challenges facing society. For such pedagogical training, which also improves the ability of graduates to think critically, to strengthen the appropriate teaching background, without which this objective would be difficult to achieve, and to also use special-purpose facilities and CZU school enterprises for this.

**Indicators (target values):** Innovative study programmes (and their subjects) that strengthen critical thinking and use alternative and new teaching methods and the corresponding technologies (a minimum of 80% of study programmes).

### Measures for fulfilling specific objective 1.3

- Based on the analysis of feedback from graduates, the job market and practice requirements articulated by the Councils for Cooperation with Practice at Faculties/Institute, to develop a range of professionally oriented study programmes leading to the preparation of students in professions that are desirable and socially relevant, for the preparation of which CZU and its components have the necessary and high-quality requisites arising from the focus of their activities. (Objective of measure 1.3.1: Develop an offer of professionally oriented study programmes.)
- For academically oriented study programmes, to strengthen their connections to the challenges associated with the 6 key CZU domains articulated in the vision of this plan, as well as the circumstances associated with these domains, thereby developing the critical thinking of these students. This will be facilitated by both regular evaluations of study programmes and the promotion of innovation in these programmes in order to strengthen the preparation of students able to respond effectively to these challenges. (Objective of measure 1.3.2: Significantly interconnect academically oriented study programmes to the challenges facing society.)
- Increasingly involve in the preparation of study programmes and in their evaluation representatives working outside of CZU (including foreign representatives) and, if relevant, to include their recommendations or experience in the relevant study programmes. (Objective of measure 1.3.3: Better involve actors operating outside of CZU in the evaluation of study programmes.)

- When preparing students in professionally focused study programmes or in academically focused study programmes, which are intended to support the creation of skills, habits and competencies, as well as the acquisition of knowledge and skills to work with them to respond to current challenges in society, to take into consideration the necessary development of infrastructure and background for pedagogical activities, including alternative and innovative teaching methods and their corresponding technologies and, in this regard, to purposefully utilize the infrastructures of school enterprises and partner organizations. (Objective of measure 1.3.4: Develop a variety of pedagogical activities.)
- Based on the identification of the corresponding subjects in individual study programmes, or revision of study programmes, to set up support for their innovation during accreditations in such a way that selected innovated or supplemented subjects lead to the creation of knowledge, skills and competencies of graduates in terms of sustainability and responses to the challenges facing society, and to more significantly interconnect selected and relevant study programmes with skills usable in business activities in sustainability. (Objective of measure 1.3.5: Support education in selected subjects regarding sustainability along with the creation of the entrepreneurial skills of graduates.)
- Support the entrepreneurship of students, the establishment of student start-ups and other types of projects that ensure the transfer of knowledge between the academic sphere (in this case represented by students) and the application sphere. Support the involvement of students in innovative activities, both as part of study plans and through extra-curricular activities, including business incubators and accelerators. Include the development of competencies for entrepreneurship and innovation in study programmes in all educational areas. (Objective of measure 1.3.6: Develop the University Point One incubator and its methodological contribution for students interested in business and the transfer of knowledge and innovation into practice.)
- Around the year 2025, prepare the environment so that each student is able to complete as part of his or her studies (Bc., Mgr.) a course focused on working with professional information (search, evaluation and use to complete study or professional tasks, citation ethics questions, etc.). The courses reflect the specific aspects of individual education areas and their programmes, as well as individual

types and forms of study. They are prepared with emphasis on skills that students will use immediately as part of their studies. (Objective of measure 1.3.7: A configured system of information education for bachelor and master's degree students.)

**Specific objective 1.4** Deepen the international dimension of education so that it can help shape socially responsible graduates.

**Indicators (target values):** An increased proportion of professional subjects using the English language as part of teaching or verification of knowledge and skills (selected study programmes will have at least 10 percent of these types of subjects, of which at least one is taught as PZ (compulsory subject of specialization) or ZT (fundamental theoretical subject). Supported student mobility from abroad, where the number of incoming students from abroad will be at least 500-600 for long-term mobility per academic year, and the proportion of outgoing students will be at least 5 percent to the number of graduates of bachelor's study programmes, and at least 10 percent for follow-up master's study programmes.

### Measures for fulfilling specific objective 1.4

- Prepare incentives to increase the number of professional subjects in English that will be part of accredited programmes in the Czech language, or alternatively in the requirements for students to formulate part of the verification of knowledge or skills/competencies that will take place in English. Enable students to defend theses in English in programmes that are in the Czech language. These circumstances are clearly reflected in the Study and Examination Rules. (Objective of measure 1.4.1: Create incentives to increase the proportion of work with professional English in study programmes.)
- Continue to organize or co-organize international summer schools at CZU and summer schools for CZU students abroad as a form of development of language and intercultural training associated with professional training. As part of accreditation, to strive to ensure that summer schools are offered as optional subjects and are thereby part of the study plans (including the corresponding ECTS evaluation). (Objective of measure 1.4.2: Organize summer schools as part of study programmes.)

- Support student mobility relating to study programmes (including student internships and graduate internships), as well as alternative forms of mobility (e.g., international conferences, student case studies, data acquisition for qualification work abroad). With regard to supporting mobility, prepare a targeted system for informing about them, which will be interconnected with study programmes. Simplify the processes of recognizing the results of study mobility abroad, whilst maintaining the requirements regarding quality of study abroad. (Objective of measure 1.4.3: To promote varied student mobility.)
  
- Continue to support and provide a sufficient offer of foreign language courses for students and academic and administrative staff. (Objective of measure 1.4.4: To support a sufficient offer of language courses.)
  
- Introduce courses for the development of intercultural competences with regard to understanding the culture of the countries of partner institutions, primarily for students and staff preparing for international mobility, and teachers and other staff working with diversified groups of foreign students and staff. (Objective of measure 1.4.5: To support courses for the development of intercultural competences.)

**Specific objective 1.5** To develop a background not only for frontal teaching methods, but also for interactive and innovative education methods.

- Continue to thoughtfully develop teaching backgrounds that will support student preparation as much as possible for current needs and expectations of practice, in particular by building specific infrastructure facilities, which may include simulators, field workplaces, facilities for practical training, instrumentation, electronic resources, or even spaces where students can meet when working on team projects, etc. (Objective of measure 1.5.1: To support the development of the material background for teaching in order to correspond to current trends in teaching, as well as to the needs and expectations of practice.)

## **Strategic area of CZU activities 2:**

### **AVAILABLE AND FLEXIBLE EDUCATION FOR DIFFERENT SUSTAINABILITY DIMENSIONS**

People routinely register transformations in the economy, society and the environment, but they often find it difficult to master the results of the holistic complex of changes and the processes that led to them. This factor subsequently complicates the process of introducing fundamental and necessary innovations in terms of change, without the public accepting them, at least to a certain extent. For students, this also means that they need to acquire new skills and competencies to be able to respond to a changing environment effectively and skilfully. Sustainable education needs to be focused not only on the university students themselves, but it must, to some extent, ensure the availability of information for a wide layer of the population. The availability of appropriate information will then make it possible to work with the public using so-called transdisciplinarity and to prepare and adapt society to new trends and challenges in a way that is not forced. The generally educated population is a great advantage for explaining, for example, unpopular measures (which is the case with measures to reduce the spread of COVID-19). The COVID-19 pandemic brought to light the need to create resilient systems in education. Research done amongst CZU students and staff on studying and teaching during the COVID-19 pandemic in 2020 (spring and fall) shows that for half of all teachers, distance lecturing represents a challenge and a possible focus for subsequent development of higher education. On the other hand, neither students or teachers are inclined towards having distance seminars and practical exercises. This is exacerbated by the fact that more than half of the teachers and students fundamentally missed personal contact and interactions during distance learning throughout the COVID-19 pandemic. The findings from the research thus indicate how it will be possible (or difficult) to shape other forms of education at CZU.

#### **Strategic objective 2:**

Based on the reflection of trends, challenges and forms of the current, constantly changing society, to expand the offer of flexible forms of education for anyone who is interested from the Czech Republic and abroad (even outside the academic community). Throughout this expansion, to make intensive use of a combination of innovative (including distance and hybrid) teaching methods that are based on information and communication technologies,

along with established and proven full-time teaching methods. When using flexible forms of education, to analyse the possibilities of implementing separate modules and part of study programmes, thereby enabling the compilation of study programmes from these modules, including purely distance accredited programmes.

**Specific objective 2.1** Continue to support various methods of developing transferable competencies for students through a combination of full-time and distance learning methods in individual study programmes. In these activities, to primarily use the latest modern information and communication technologies and available virtual reality. Prepare study programmes so that the flexibility of the teaching methods used makes them highly resilient, ensuring that they immediately react to possible, and often not fully predictable changes affecting the implementation of established teaching methods (experience with measures evoked by the COVID-19 pandemic), without compromising the principles of social interaction between students and teachers.

**Indicators (target values):** Created catalogue of study programmes suitable for intensive use of distance forms of teaching (1 list), a Manual for setting up support for the social interaction of all of the participants of the educational process via a distance form (1 manual), Support for digital study aids, including virtual laboratories (a minimum of 80 aids).

### Measures for fulfilling specific objective 2.1

- Based on the outputs from regular evaluations of study programmes and other specifically-performed analyses of these programmes, to determine which of them are suitable for more intensive use of distance learning methods. For these study programmes, to configure support so that it is possible to prepare their form for distance learning as a parallel to the accredited form for full-time or part-time studies. Elements of distance methods should then be significantly applied in particular in the combined teaching form, without in any way disrupting the existing requirements for providing them at this time, and which assume the greater presence of full-time elements in teaching. To use elements of distance methods in teaching, in particular to strengthen the so-called transferable competencies of students, primarily in areas where such use will be more suitable, effective and purposeful than with regard to their development through full-time or part-time teaching. (Objective of measure 2.1.1: To adequately support selected elements of distance learning methods in study

programmes /in particular in the combined form of education/ as one of the tools for the development of transferable competencies.)

- For all study programmes (whether those identified as suitable for intensive utilization of distance learning methods, or for programmes that do not have the potential to be fully feasible in distance form), to prepare the relevant technical and other support backgrounds that enable the transfer of study programmes to the appropriate distance learning, which will be usable in particular if there is a need to transition to the so-called online pedagogical process method. This conversion must reflect the essence of each individual study programme and the degree of its possible full conversion into a so-called online (and, as a result, distance) form. (Objective of measure 2.1.2: To completely prepare for potential transition to distance learning due to external circumstances.)
  
- When preparing study programmes containing full or partial elements of distance learning, a procedure will be prepared (in the form of instructions or a manual) on how to pay greater attention to the circumstances mediating the social interaction of students and teachers. This measure should precede future developments in ICT and enable the involvement of modern forms (e.g., U. I., chatbots, etc.) in the educational process. ICT tools must remain an instrument of the pedagogical process and must not become an actor thereof. (Objective of measure 2.1.3: When implementing distance elements in education, to pay increased attention to supporting the social interaction of all participants in the educational process.)

**Specific objective 2.2** To support the availability of education and the related activities for students from disadvantaged socio-economic groups, for students with disabilities, and for students who are parents, in order to ensure that they can devote themselves fully to their studies. To also intensify this support in relation to the international education dimension regarding foreign students, but also students from the Czech Republic when they are abroad. To develop an offer that will technically and otherwise ensure the studies of these students, and which, in the end, will be available to all members of the academic community who are studying. To pay special attention to the process of working with foreign applicants and study applicants, and their integration (if they are admitted and they obtain a study visa) in the CZU environment, but also throughout the Czech Republic.

**Indicators (target values):** A comprehensive system of measures and activities aiding in the integration of various disadvantaged groups into the higher education area in the CZU environment, as well as during their study stays abroad (1 system). A complete and functioning system for the development of the international dimension of support for students with socio-economic or health disadvantages, or parents (1 system).

## Measures for fulfilling specific objective 2.2

- Supplement the established work with students from disadvantaged socio-economic groups and with health restrictions with work with students who are parents. Through this work, a comprehensive system of measures and activities will be created at CZU that will help integrate disadvantaged groups (or groups potentially exposed to certain restrictions) in various ways into the higher education realm within the CZU environment, also when these students go abroad. This comprehensive system will respect the specifics of individual faculties and institutes and will also be based on common principles and measures that apply to the university in its entirety. This system will also clearly define under which circumstances students can apply for the relevant support, how decisions will be made about these applications, and which obligations may arise for students therefrom. The system will also effectively build on external support programmes (e.g., Erasmus+). (Objective of measure 2.2.1: Complete and stabilize the support system for students from disadvantaged social groups or who have various health restrictions, as well as parents, including support for their studies abroad.)
- Develop a system for the development of the international dimension of support for students with socio-economic or health disadvantages, or parents, and to connect this system to the prepared comprehensive system of measures and activities helping disadvantaged groups in various ways. (Objective of measure 2.2.2: To develop support for the international activities of students from disadvantaged social groups and with health restrictions, or parents.)
- When working with foreign study applicants, to develop tools to identify future prospective students. Using the experience from the project implemented as part of centralized development programmes called Study in Prague, and in cooperation with the Czech National Agency for International Education and Research, or the Study in the Czech Republic initiative, to promote these tools, as well as the possibility of

studying at CZU, thereby creating prerequisites for the integration of applicants for study at CZU into the educational process, with the aim of reducing the amount of students leaving their studies early. (Objective of measure 2.2.3: To devote full attention to the process of admitting foreign students and their integration into the CZU environment.)

**Specific objective 2.3** To continue to develop lifelong learning, mainly by expanding the range of flexible courses and attractive educational activities (paid or free of charge based on financing options) designed in various ways, which will primarily increase knowledge, skills and competences in CZU activities (matters regarding sustainability issues presented in the vision of this Strategic Plan). These courses and activities will be intended for people who are not properly enrolled in the study or work in the public or private sector or those who express interest in this type of education (from children to recent graduates, various social groups in the productive age, to seniors). These courses will therefore focus on the public outside the CZU environment, and the public will in effect have access to the relevant educational resources used in the university's study programmes.

**Indicators (target values):** Clear and detailed centrally communicated information on offered lifelong learning courses at CZU (1 central information system on Lifelong Learning at CZU).

### Measures for fulfilling specific objective 2.3

- In the preparation of lifelong learning courses, to intensify cooperation with labour offices (primarily in the area of retraining courses, which will have a sustainability component). In cooperation with these offices and Councils for Cooperation with Practice operating in the individual components of CZU, to prepare a comprehensive offer of short-term courses that will provide those interested with the necessary knowledge, skills and competencies reflecting job market requirements, and responding to the challenges facing society, and to which CZU reacts. (Objective of measure 2.3.1: To newly prepare lifelong learning courses that will respond flexibly to job market requirements.)
- Create conditions for further development of so-called lifelong learning interest courses, which will saturate the public's interest in knowledge and skills in CZU activities, i.e., in the main profile areas of CZU activities defined in the vision and related to sustainability issues. The general public will thus be involved in the issues that CZU

deals with in its activities, which will comply with the principles of transdisciplinarity. (Objective of measure 2.3.2: To continue to develop lifelong learning interest courses in order to involve the public in CZU activities.)

- Prepare and issue certificates of completion for all lifelong learning courses, which will clearly describe the course and the knowledge, skills and competences associated therewith. Strengthen coordination and awareness of these courses via the development of existing CZU structures. (Objective of measure 2.3.3: To issue a certificate of completion for all lifelong learning courses.)
- All lifelong learning courses (lifelong learning courses that are already organized, courses and lifelong learning programmes enabling interconnection with accredited study programmes, lifelong learning courses relating to study programmes, or lifelong learning interest courses or courses prepared in response to job market requirements, as well as challenges that society faces) will go through an internal accreditation process prepared for this type of education. (Objective of measure 2.3.4: To prepare a unified system of internal accreditation for all lifelong learning courses.)
- Provide free public access to relevant educational resources focused on sustainability, if these resources were created only with support from public resources. These will be electronic resources for the general public (from children to seniors) that will bring closer the educational focus and results of research carried out at CZU in a form corresponding to the various social groups. (Objective of measure 2.3.5: To provide free public access to relevant educational resources focused on sustainability.)
- Based on the assessment of technical and financial requirements and interest in use, to decide on the preparation of at least one MOOC (Massive Open Online Course) with a focus on the defined framework of the main profile areas of CZU activities, which are defined in the vision and associated with issues of sustainability. The course will be available worldwide (for a fee) and will operate outside of accredited study programmes as a form of international distance lifelong learning. (Objective of measure 2.3.6: Decide on the preparation of at least one MOOC course focused on sustainability)

**Specific objective 2.4** To make the system recognition of prior learning outcomes more precise so that it reflects the requirements of the current, highly variable times, whilst not in any way reducing the established requirements for study applicants.

**Indicators (target values):** An innovative system for recognizing previous education that does not reduce the requirements and enables work with non-certified prior education (1 system).

## Measures for fulfilling specific objective 2.4

- For the results of certified (completed via a trustworthy document) prior education, the recognition of which takes place in the form of validation of foreign studies and degrees or internal evaluations of prior education in accordance with the Act on Higher Education Institutions, to complete this system in such a way that, using information and communication technologies, it is not time-consuming and administratively demanding, but that it also maintains a level of credibility and thoroughness of control. (Objective of measure 2.4.1: To set up a system for internally recognizing previous certified education in terms its lower time requirements.)
- For uncertified prior education (there are no records of it), to assess and decide, on the basis of an analysis, about the possible preparation of a system determining the conditions under which applicants can be included in existing study programmes (e.g., by passing specific commission aptitude tests directly at CZU without the necessity of having completed previous learning, or in the form of lifelong learning). Regarding a decision, to first only apply the system to applicants from the Czech Republic and, after the subsequent evaluation of experience, decide on its application to other geographical environments with the aim of preventing its abuse and administrative demands. (Objective of measure 2.4.2: To decide on the form of the system for recognizing uncertified prior education)
- For students who have not completed their studies at CZU, to issue a certificate about their studies at CZU, if they so request pursuant to the prepared internal regulations of CZU. In the form copying the diploma supplement, the certificate will inform about completed subjects and the corresponding knowledge, skills and competences as a prerequisite for information for the job market, even if there is a need to recognize previous education, which, however, did not end with graduation. (Objective of measure 2.4.3: For students who have not completed their studies at CZU, to make sure information is provided about their studies at CZU, if they so request.)

**Specific objective 2.5** Continue to develop the activities of the CZU Career Centre as a place to connect the CZU academic environment with the environment outside of CZU, thereby enabling mutual enrichment of both environments.

**Indicators (target values):** Innovative concept of courses organized by the Career Centre based on an analysis of requirements and needs of senior students (1 document).

### **Measures for fulfilling specific objective 2.5**

- Focus the activities of the CZU Career Centre not only on work with students in view of their future employment, but to also offer counselling services or lifelong learning courses to new or recent graduates and, in cooperation with the Alumni Club, to keep them in close contact with CZU and continue to be involved in their professional development. (Objective of measure 2.5.1: To innovate the focus of activities and operations of the CZU Career Centre.)

### **Strategic area of CZU activities 3:**

## **EFFECTIVE, VERY HIGH-QUALITY, INTERNATIONAL AND RESPONSIBLE PHD STUDIES AS ONE OF THE FORMS OF APPLYING THE CZU VISION IN THE EDUCATIONAL AND CREATIVE PROCESS IN THE UNIVERSITY SYSTEM**

PhD studies form a specific element in the educational system that combines the educational process with important elements of advanced independent scientific, research (generally creative) work. This special position also requires special tools for its management and further development. PhD students are a cohort of young people who are not burdened by the past and who often come up with scientifically and socially revolutionary ideas, as evidenced by their presentations at PhD conferences and seminars held at CZU and elsewhere. Their ideas sometimes contribute to the fundamental changes necessary for the optimal development of the Czech Republic and the international area. In order to maintain and further develop this “incubator of ideas”, CZU should be highly active in searching for excellent candidates whose life motto will be to “serve science”.

This should help to increase the low number of PhD graduates with regard to the number admitted to these studies, or not to extend the length of study for the maximum period allowed by the study rules for PhD studies. These are issues that are found in PhD studies not only at CZU, but also at other universities in the Czech Republic; for example, a total of 95 PhD students graduated in 2019 of the 265 that were enrolled in 2015. Therefore, it is necessary to fundamentally strengthen work with PhD students and make it more innovative, including strengthening its international dimension (only a third of the 2019 graduates stayed abroad for longer than one month) so that the resources invested in their studies are returned in the aforementioned new (and often revolutionary) ideas associated with the successful completion of studies, and with further continuation of professional activities.

### **Strategic objective 3:**

In connection with a possible change in the financing of PhD studies and the determination of new regulatory measures for these types of studies by MEYS, to innovate PhD studies at CZU so that they are socially relevant and economically efficient, and that they fundamentally contribute to the development of the scientific environment in the Czech Republic and internationally. Highly motivating incentives will be created in this regard for the timely and

successful completion of PhD studies relating to high-quality outputs from these studies (primarily prestigious publications). From amongst the PhD students supervised by high-quality supervisors, we want to educate strong personalities who are able to assert their opinions and present the results of their research activities in both the scientific and the lay community at the regional, national and international levels.

**Specific objective 3.1:** To prepare new mechanisms of financial support for PhD students so that they can fully devote themselves to PhD studies, whilst also being able to coordinate their studies and their creative activities with their personal lives. Thereby, after graduation, they can become young personalities in their fields with an overlap into the functioning of society as a whole.

**Indicators (target values):** Innovated financial support mechanism for PhD students and a new support mechanism for the excellence of their activities (1 innovated mechanism).

### Measures for fulfilling specific objective 3.1

- Innovate the CZU Scholarship Rules in the sections related to PhD studies so that the financial support of PhD students from scholarships significantly motivates excellence in studies and creative activities, and the proper completion of PhD studies. (Objective of measure 3.1.1: Innovate the CZU Scholarship Rules to reflect the new PhD studies conditions.)
- Revise the existing system of rewarding PhD students for publication outputs at the CZU level in order to stimulate high-quality international publications in accordance with the corresponding parameters of the national evaluation of science and research results (the so-called M17+ methodology at the time when this objective is being prepared). (Objective of measure 3.1.2: To stimulate PhD students to create high-quality international publications.)
- In cooperation with the components of the university (faculties) and with their participation, to prepare a financial mechanism specially focused on long-term material (financial) and knowledge/skill-based (e.g., mentoring) support of excellent students in PhD studies. (Objective of measure 3.1.3: To prepare a mechanism for long-term and comprehensive support for excellent PhD students.)

**Specific objective 3.2** Complete the formation of PhD studies as an example of advanced internationalization of CZU activities.

**Indicators (target values):** Increasing the number of outgoing PhD students, wherein all those who complete full-time studies also complete a foreign internship lasting a minimum of one month.

### Measures for fulfilling specific objective 3.2

- In cooperation with the university components (faculties), to prepare new options for expanding the involvement of high-quality foreign external academics and scientists from prestigious foreign workplaces in the work of Departmental Boards and commissions, or opponency associated with dissertations. Strengthen the possibilities for the involvement of these experts in professional consultations on the preparation and processing of dissertations, which may result in their joint supervision. (Objective of measure 3.2.1: To strengthen the involvement of foreign experts in the functioning of all parts of PhD studies at CZU.)
- Continue to support the international mobility of students of PhD study programmes as an essential part of their individual study plans. When preparing international projects, to take into account the possibility of employment for PhD students. (Objective of measure 3.2.2: To support international activities /including mobilities/ of PhD students.)
- Support supervisors who, in PhD study programmes, involve their students in the activities of international scientific communities and networks, and to support cooperation between PhD students. (The objective of measure 3.2.3 is in the wording of this measure.)

**Specific objective 3.3:** Strengthen incentive mechanisms for high-quality work with PhD students by their supervisors and generally create a high-quality environment for this work.

**Indicators (target values):** Support for the creation of an environment connecting PhD students with academic colleagues, and support for special equipment in relation to the needs and financial options of CZU.

### Measures for fulfilling specific objective 3.3

- Based on defined criteria, to innovate the long-running yearly evaluation of supervisors (number and quality of publications in the fields of study programme accreditation, in which they supervise PhD students, the number of PhD students per supervisor, the grant activities of the supervisor, and the career evaluation of the PhD students as result of the supervisor's work). (Objective of measure 3.3.1: Innovate the principles of the yearly evaluation of supervisors who supervise PhD students.)
- Continue to create conditions for adequate workspaces focused on activities related to PhD studies and, in terms of work, connect PhD students with academic staff in order to strengthen the identity of PhD students as beginning scientists and equal members of the academic community. (Objective of measure 3.3.2: To support the creation of an environment connecting PhD students with academic colleagues.)

**Specific objective 3.4** Before the start of the admission process in PhD studies, in particular during the course of this procedure, to strengthen the elements that will make it possible to work with applicants before the final decision on admission to PhD studies (primarily with those who have the prerequisites for excellent results in their studies.)

**Indicators (target values):** A created new mechanism (process) of work with PhD studies applicants (1 innovated mechanism).

### Measures for fulfilling specific objective 3.4

- Establish the mechanisms of the admission procedure in order to enable detailed and multidimensional verification of applicants for PhD studies, in a longer timeframe, potentially including the period before the formal closing of the submission of applications for these types of studies. During this period, acquaint applicants in detail with all of the circumstances (requirements and benefits) of PhD studies. This mechanism will be aided by the use of an evaluation system enabling the defining of potential excellent PhD students before they commence their studies. To create extraordinary conditions for them related to their studies. (Objective of measure 3.4.1: To create mechanisms for identifying applicants for PhD studies who have the potential to become excellent students.)

## **Strategic area of CZU activities 4:**

### **STRATEGICALLY MANAGED RESEARCH AND DEVELOPMENT ACTIVITIES EFFECTIVELY USING CAPACITIES LEADING TO THE FULFILMENT OF THE CZU VISION IN DIFFERENT SUSTAINABILITY DIMENSIONS**

The situation during the preparation of this plan was influenced by the COVID-19 pandemic and once again significantly brought to light the importance of science. Excellent science is clearly one of the strategic activities in the contemporary world. Strategically-controlled science produces all types of scientific outputs, meaning those that can be used in the present, but also those that can be fully utilized in the near or distant future. Good management of science must fulfil one fundamental condition: provide sufficient opportunities for creativity and genius, and to also inform scientists about the fundamental priorities through which they can continuously convince society of their importance. Strategic optimization of the freedom and effectiveness of research in scientific teams does not occur spontaneously, but instead begins to form strategically when they are compiled suitably, through their subsequent focus, and through permanent communication and awareness of acute problems in society. This is the only way in which science can become a respected partner in politics.

Science management at CZU is built on a good foundation. Evidence of this includes an increase in articles published in the Web of Science database (from 222 articles in 2010 to 826 articles in 2019). The increase in the quality of research activities is also confirmed by the position of CZU in the international university rankings. Since 2019, CZU has also appeared amongst the universities listed in the so-called Shanghai ranking (in the ranking valid during the preparation of this plan /end of 2020/, CZU ranked 4<sup>th</sup> out of all universities in the Czech Republic listed in this ranking). If the operational management of scientific and development activities at CZU is already implemented, as briefly documented by the aforementioned examples, it is therefore evident, from the preparation of the self-assessment report associated with the evaluation of scientific activities and part of the so-called M17+ methodology, that it is necessary to strengthen the science management strategic component. It should also respond to new challenges in this field, such as the issue of so-called open science.

### Strategic objective 4:

To continue to strategically support research and development work, to intensify such work and use the capacity of its interconnection with educational activities as unique specifics of the functionality of high-quality universities, where the connecting theme with regard to CZU is the concept of sustainability in all of its dimensions, operationalized in the CZU Vision of this Strategic Plan. To take advantage of this fact by promoting excellence in research, which acquires a significant international dimension whilst also addressing the general public.

**Specific objective 4.1:** Based on documents arising from the introduction and implementation of the so-called 17+ Methodology in the Czech Republic and at CZU, on the basis of internal analyses carried out at CZU and on the basis of the experience of implementing research projects at CZU, supported by strategic documents relating to science, research, development and innovations at the Czech Republic and the EU level, determining, for example, regional innovation strategies (RIS), to newly redefine strategically priority areas of research as of 2023, where the central point will be sustainability as a response to current challenges facing society, in interdisciplinary and transdisciplinary terms associated with the CZU Vision formulated in this strategy (including six main principles).

**Indicators (target values):** Developed and implemented scheme of priority supported areas of research at CZU, including new challenges shaping the upcoming science and development area.

### Measures for fulfilling strategic objective 4.1

- Over the course of 2023, to prepare a scheme of priority supported research areas at CZU, which will reflect the CZU Vision presented in this plan and will simultaneously correspond to existing strengths of creative activities at CZU defined according to the 17+ Methodology and findings from university systems ensuring quality of activities at CZU. These priorities will have a significant dimension and a national and international impact. At the same time, it will be necessary to define potential promising creative activities areas which are currently not formulated more significantly at CZU, but which may represent important areas of its creative activity in the future, in accordance with

strategic documents focused on science in the Czech Republic and the EU (including the formulation of regional innovation strategies at CZU). (Objective of measure 4.1.1: To prepare a scheme of priority supported research areas at CZU and promising future creative areas.)

- In fulfilling the CZU Vision, to implement stimulus mechanisms that will support the incorporation of new challenges shaping the current science and research area (e.g., open science, civil sciences, big data, artificial intelligence) into research activities at CZU in accordance with its vision. Throughout this, to constantly support and use the interconnection of these challenges (with which contemporary science is confronted) with the concept of sustainability, which will create added value for creative activities at CZU. (Objective of measure 4.1.2: To support the incorporation of new challenges in scientific research /open science, occasional science, big data, etc./ into creative activities at CZU.)
- Strengthen administrative and support background for research and development, including increasing the number of experts employed in international grant schemes, protection of intellectual property, knowledge transfer, human resources and other key areas. (Objective of measure 4.1.3: To support the development of faculty project centres, coordinated by the Rector's Office for sharing information and good practice.)

**Specific objective 4.2:** The create conditions for further improvement of scientific, research, development and other creative activities so that they effectively use the existing capacities (in particular those relating to excellent research results), and that they are simultaneously open to the building of new capacities enabling a flexible response to new sustainability challenges, both in its broader concept (the six priority principles specified in the vision) and in a narrower concept bound to the subsequent functioning of the created capacities at the moment when their original support from public sources is terminated, but the outputs from creative activities were excellent.

**Indicators (target values):** Existing long-term usability of outputs from so-called large scientific-research projects implemented at CZU in the areas of built infrastructure and created human capacities.

## Measures for fulfilling strategic objective 4.2:

- At the university level and in cooperation with its components, to prepare prerequisites for the sustainability period for excellent research projects currently being dealt with, and after this period, and for retaining excellent scientists from the Czech Republic and abroad at CZU, so that the capacities created with the support of public resources for excellent research not only continue to function, but that they also increase their efficiency with regard to the outputs from their activities, thus making them beneficial for the university as a whole and for all of its components. This also means ensuring the long-term usability of infrastructure outputs from so-called large projects (financed, for example, from operational programmes through the European Structural and Investment Funds) in order to show how they contribute to achieving excellent outputs in science and research. To set similar assumptions for other projects which were not part of the supported excellent research, but from which excellent outputs arise, and which had an international dimension. (Objective of measure 4.2.1: To continue to create conditions for the use of research outputs and the created infrastructure, and the use of human resources even after the end of the financing of these projects and the end of their so-called sustainability period.)
- Revise the mechanisms and criteria of career growth and job assertion at CZU in order to support the use of synergies of pedagogical and scientific research, with emphasis on the excellence of the outputs from these activities in both the national and international environment, and also allow fair access to employees with parental responsibilities (including maternity leave) (Objective of measure 4.2.2: To support the synergy of teaching and creative activities in their excellent dimensions during career growth.)
- To continue to support the development of material background, financial security and institutional conditions (these institutional conditions are understood as the “rules of the game” in relation to work with young and promising employees) leading to the implementation of high-quality research, development and other creative activities associated with pedagogical work, in the international dimension of these activities. This means to strengthen, through the internal mechanisms of CZU, combined with external opportunities, the human and infrastructural background to support scientific and research work, which will react quickly to new challenges in this area, improving monitoring of trends and research opportunities, and improving administrative

assistance in project preparation and implementation. (Objective of measure 4.2.3: To support mechanisms leading to high-quality creative activities.)

- Innovate mechanisms supporting participation in international type 9 projects of the Framework Program (Horizon Europe 2021–2027), but also in other international projects in order to significantly increase the number of international projects at CZU, which will help increase the international reputation of CZU. (Objective of measure 4.2.4: To support participation in international research projects.)
- Support the optimization of the use of research capacities as part of CZU by interconnecting teams, laboratory facilities and special-purpose workplaces, including school enterprises for interdisciplinary and comprehensive research covering current challenges related to the priority principles of the CZU focus and fulfilling Czech and EU strategies. (Objective of measure 4.2.5: To support the creation and development of interfaculty scientific teams/centres organizationally, and in other suitable ways.)

**Specific objective 4.3:** Strengthen cooperation with the application sphere as a way of applying the sustainability concept in the conceptualization of the vision of this plan into practice, thereby accelerating the transfer of scientific findings into their practical use. Through these activities, to also raise the profile of CZU, as well as scientific work interconnected with pedagogical work in general in addressing the general public. This will fulfil the principle of accountability of CZU activities for the lay and professional public.

**Indicators (target values):** Innovative mechanisms of communication and cooperation with the application sphere, primarily focused on fulfilling the CZU Vision (1 innovated mechanism).

### Measures for fulfilling specific objective 4.3:

- Innovate the mechanisms of cooperation with the application sphere in such a way that the outputs from creative activities at CZU can find real, rapid and effective application in relevant sectors of the economy, in state and public administration, and in non-profit organizations in the Czech Republic and abroad. When testing the outputs from CZU creative activities, to also use CZU equipment (in particular its enterprises) as experimental niches, so that it is more economical, for the application sphere outside of CZU, where possible, to take over from CZU outputs from scientific research work already verified in practice. (Objective of measure 4.3.1: To innovate the mechanisms

of cooperation with the application sphere through more significant involvement of school enterprises.)

- To conceive cooperation with the application sphere as another area of presenting CZU to the public, documenting the benefit of interconnection of creative and pedagogical activities in the international environment of universities. It will thus be necessary to support the development of activities connecting CZU to the outside world. During promotional activities addressing the application sphere and the public, emphasis will be placed on outcomes towards practice that focus on the problems that the Czech Republic and the world face in relation to sustainability in the concept specified in the vision of this plan. (Objective of measure 4.3.2: To promote the focus of CZU through cooperation with the application sphere.)

**Specific objective 4.4:** Continue activities related to awareness in ethics in scientific, research, development and other creative works as one of the manifestations of socially responsible CZU activities.

**Indicators (target values):** Support of awareness and identification of all staff with CZU ethical standards.

#### **Measures for fulfilling specific objective 4.4:**

- Fully integrate into all activities of CZU and its components the outputs associated with the field of ethics of science created as part of the project “Strategic Setting of Human Resources Development at CZU” (HRA), implemented with the support of the Operational Program Research, Development and Education. (The objective of measure 4.4.1 is in the wording of this measure.)
- Strengthen, on the level of CZU and its components, mechanisms preventing systematic publication in journals of short-lived publishing houses with non-transparent or suspicious review procedures (often under words about “journal openness” or “open science”, characterized by a very short and therefore suspicious time period from the sending of a text for publication, and by relatively high fees for publishing a text). Fundamentally focus on publishing in prestigious journals that have a great reputation in the international scientific community and in the science field.

(Objective of measure 4.4.2: To strengthen mechanisms against publications in journals with a suspicious background.)

## **Strategic area of CZU activities 5:**

### **SUSTAINABLE STRATEGIC MANAGEMENT AT ALL CZU LEVELS TO HELP REDUCE ADMINISTRATIVE BURDENS**

According to CZU employees, the administrative burden is reflected in a number of areas of the university's activities. According to a representative survey amongst these employees, 40 percent of academic staff consider their administrative burdens to be disproportionate. The administration associated with the activities of academic staff occupies on average 15 percent of their work hours, which could be used more efficiently for teaching or creative activities if the administrative burden is reduced. It is thus not a coincidence that simplification of administration and better cooperation on the part of the administration at the university and individual faculties/institutes was amongst the suggestions that the respondents stated would help them in their work. This requires a new focus on strategic management at CZU, and therefore, the university is striving to obtain the HR Award - HR Excellence in Research, which is considered an international standard for quality rules in management and human resource development in science and research. The principles of this standard should subsequently be applied throughout the strategic management of human resources, which is crucial for the university given the fact that it represents the most important investment of CZU – investment into human capital, the essence of which is that it also contributes to its own valorization.

That is also why it will be necessary to increase employee awareness (in a representative survey, almost one third of academic employees stated that they do not receive the information they require to do their work on time). Financial management is also closely associated with strategic management, wherein a significant part of the administrative burden and strategic management difficulties at all levels of the university also arise from the existing setting of the flow of funds in Czech higher education. Due to the relatively lower level of institutional funding, conceived as a significant part of the funding of the university's budget, it is necessary to also predominantly use project funding. However, doing so is administratively demanding during the preparation and during the administration and actual implementation of projects, and after they are completed. In its newly conceived strategic management, the university must also react to long-term relatively smaller funds in investment development, particularly in terms of wages (i.e., investments into human capital), wherein it is virtually impossible to open the CZU environment to a greater extent to employees from developed

countries. This strategic area logically interconnects two strategic priorities from the MEYS Strategic Plan, due to the fact that CZU considers the interconnection of strategic management based on this Strategic Plan and other CZU strategic documents, together with clever administration that reduces the administrative burden, as a key circumstance in terms of sustainability of processes at CZU.

### **Strategic objective 5:**

Bring new impetus to the strategic management of CZU and transform management processes supporting the intersection of academic autonomy and managerial responsibility (participatory management based on social capital) reflecting social processes and the context in which CZU operates in such a way that its strategic management contributes to fulfilling the UN sustainable Development Goals (UN SDGs). To create and ensure the CZU strategic management processes in order to help reduce the administrative and operational burden on management staff, as well as other CZU employees and students. In this regard, greater use should be made of tools supporting so-called smart strategic management based on the digitization of the majority of processes, on working with big data, and the principles of open science in scientific activities.

**Specific objective 5.1:** To innovate mechanisms, processes and principles for evaluating the fulfilment of the CZU Strategic Plan, other strategic documents and all activities implemented by the university and its components as fulfilling transition to participatory strategic management utilizing experience and the participation of all members of the academic community, based on an analysis of a large set of existing data in the CZU information system. To strengthen the competence of internationalization as part of innovative evaluation mechanisms.

**Indicators (target values):** Regular external evaluation of the fulfilment of the CZU Strategic Plan at relevant intervals (once every 2 years).

### **Measures for fulfilling specific objective 5.1:**

- Internal evaluations (for the CZU Strategic Plan, in the form of assessing the achievement of outputs from projects supported by the Institutional Plan, or the CZU Strategic Management Programme as of 2022, and for activities implemented at CZU

via annual evaluation reports discussed within CZU bodies) will be supplemented at time-relevant intervals with external evaluations carried out by independent companies / teams of experts from outside of CZU. External evaluations will reduce the time devoted to the administrative preparation, implementation and processing of similar evaluations by members of the academic community, or by administrative staff providing the basis for these evaluations. (Objective of measure 5.1.1: Strengthen the external evaluation of activities carried out by CZU.)

- As part of strategic management, to apply a comprehensive approach to internationalization as a cross-cutting activity affecting all university operations, along with the adoption of measures for effective coordination of internationalization activities throughout CZU and its components, as well as the setting of objectives, processes, resources, support and responsibilities for their fulfilment, monitoring and regular evaluation, including quality assessment of internationalization activities. The Czech University of Life Sciences will use its own prepared internationalization strategy (which will be prepared in 2022), which will be established in full compliance with the CZU Mission, and its creation will involve all of the relevant bodies and members of the academic community and other relevant employees. (Objective of measure 5.1.2: A prepared (and continuously updated) CZU Internationalization Strategy.)
- Based on existing experience, to develop strategic management according to an evidence-based policy (data-based decision making). In this regard, to increase the capacities for creating analyses, as well as obtaining access to databases with data on universities and the ranking of CZU in the national and international environment. In doing so, on the basis of the elaborated ICT development strategy at CZU, to implement innovated and extensively using digital processes of preparation, discussion, implementation and evaluation of strategic and operational measures and communication of outputs from strategic management processes. (Objective of measure 5.1.3: To fundamentally use digital processes in the strategic management of CZU.)

**Specific objective 5.2:** As part of the strategic management of the university, to strengthen the incentive component associated with the evaluation of the performance of individual staff within the university and its components in such a way that the financial and other stimulus

area is flexibly defined so as to fulfil the objectives and vision of this strategy, and to strengthen human capital at CZU.

**Indicators (target values):** Innovative internal wage regulation of the university that takes into account the motivational component in a desirable way

## Measures for fulfilling specific objective 5.2

- When providing bonuses to staff, to more significantly take into account the flexibility options for the personal bonus and evaluate the share of each individual employee in the development of CZU in accordance with the ideas embedded in this CZU Strategic Plan, as well as their contribution to the quality of CZU activities. (Objective of measure 5.2.1: Create options for greater flexibility of the personal bonus.)
- Innovate the mechanisms of fund allocation and part of the CZU budget methodology in order to reflect not only the measurable contribution of individual CZU components to the fulfilment of CZU objectives determined in the CZU Strategic Plan 2021+ and its Implementation Plans (evaluation of past performance), but to also ensure that they support innovative plans in the future, which it is not yet possible to support via evidence outputs (investments in future performance). When supporting “investments into future performance”, to take into consideration the proportion of these performances by components of the university, wherein the contribution amount from individual components will symbolize (and mean) the willingness of individual components to support defined changes and plans for the future. As part of this distribution, to support elements of competition for the distributed resources. (Objective of measure 5.2.2: Innovate the CZU budget methodology.)

**Specific objective 5.3:** During strategic management, strengthen elements of investments into human and social capital existing at CZU (generally into the intellectual capital of CZU).

**Indicators (target values):** Targeted and regular meetings of key staff with the aim of strengthening participatory management and sharing the vision, mission and key values of the university (5 meetings per year / different groups/). Surveys amongst academic community members focused on various circumstances of CZU operations (minimum of once every two years).

### Measures for fulfilling specific objective 5.3:

- Develop regular joint meetings of representatives of individual CZU components, conceived as a space to exchange experiences, examples of good practice, support for mutual awareness of various areas of activity (and the results of activities) of the components of the university, which will generally contribute to strengthening the so-called social capital of CZU (i.e., wealth of relationships between people based on trust), thereby reducing transaction costs (agreement costs and costs for the checking/evaluation of carried out activities), which always exist in management. (The objective of measure 5.3.1 is in the wording of this measure.)
- Support mutual cooperation with universities and higher education institutions and other partners in the Czech Republic and abroad in terms of resolving issues related to improving the strategic management of universities, as well as other issues associated with the functioning of universities in the Czech Republic and abroad and contributing to the fulfilment of the vision of this plan. (The objective of measure 5.3.2 is in the wording of this measure.)
- Implement CZU Career Rules as a tool for keeping high-quality staff at CZU and, to the same extent, also a tool enabling the problem-free and legal termination of the employment of employees who do not specifically contribute, via their activities, to the fulfilment of CZU strategic objectives and do not significantly contribute to CZU activities in general. In this regard, to prepare and implement a new university-wide system of impartial staff evaluation. (Objective of measure 5.3.3: To implement Career Rules.)
- Create a virtual counselling and information centre for CZU employees, which should reduce the burden on senior employees associated with administrative, accounting and labour law issues relating to the normal operation of CZU (among other things with the aim to obtain and evaluate suggestions for optimizing processes at CZU and its components). (Objective of measure 5.3.4: To create an information centre for CZU employees.)
- Create new and attractive forms of staff awareness at all management levels and develop the concept of participatory strategic management at CZU as a way to involve the academic community in its management. (Objective of measure 5.3.5: To

strengthen the awareness and involvement of employees in CZU management processes in new ways.)

**Specific objective 5.4:** Refine the personnel management so that it fundamentally supports the achievement of the objectives in this strategy and strategically contributes to the development of CZU.

**Indicators (target values):** Established programme for preparing younger staff to work in CZU management positions (1 system). Ensuring effective internal communication and the Smart CAMPUS mobile concept (functional mobile communication and information application).

### Measures for fulfilling specific objective 5.4:

- For tenders for academic positions, ensure that they are open in the international space as a tool limiting so-called inbreeding (a situation where employees only come from their employer's environment). Foreign experience should be required for beginning academic employees, and for long-term employees of CZU, a demonstrably significant international dimension of their activities should be required, which will again strengthen new ideas and practices making their way into the CZU environment. (Objective of measure 5.4.1: To support openness of tenders for academic positions and the international experience of staff.)
- Set up a system for working with younger employees, some of whom may become managers at various levels in the future (including research team leaders or study programme guarantors). To continuously prepare these individuals for such positions (e.g., using a mentoring system), so that a generational change can be made in various management positions without any issues. (Objective of measure 5.4.2: Prepare younger / beginning / employees for management positions.)
- In response to the results of the project "Strategic Setting of Human Resources Development at CZU", implemented with the support of the Operational Program Research, Development and Education focused on obtaining the HR Award, to incorporate all of its outputs into the operations of the university regarding work with employees. Given that the HR Award may be taken into account in the quality assessment by the National Accreditation Bureau and in the evaluation of research

organizations as part of the 17+ Methodology, priority attention will be devoted to this issue. The functional and relevant structures created during the implementation of the aforementioned project will be maintained, used and developed after the project ends as an important support factor for improving the strategic management of the university. (Objective of measure 5.4.3: Fully incorporate the outputs from the project “Strategic Setting of Human Resources Development at CZU” into the operations of CZU.)

- Ensure that the newly established mechanisms and systems at CZU meet gender equality requirements (opportunities, treatment, evaluation) – i.e., gender mainstreaming. These will then be regularly monitored, evaluated, and revised if necessary. (Objective of measure 5.4.4: Set up a system of suitable monitoring and evaluation of gender equality.)

**Specific objective 5.5:** Create a background for the implementation of the principles of smart (intelligent) strategic management limiting unnecessary administration and reducing the administrative complexity of processes and activities implemented at CZU

**Indicators (target values):** Digitized administrative processes, including ensuring of user-friendly configurations (minimum of 12 processes). Seminars focused on the effective use of backbone applications (e.g., UIS, E-Spis, Magion) and their extensions, as well as other applications simplifying administrative activities (minimum of 6 times per year).

### Measures for fulfilling specific objective 5.5

- Improve or radically innovate (or change), where necessary and based on analyses, the information systems and other electronic resources that CZU works with (or acquire new ones), in order to reduce administrative burdens by simply and quickly providing the necessary data for evaluation of pedagogical, creative and other activities, in the preparation of accreditations or in project management and financial management. The ideal solution is to achieve an “information at the touch of a button” situation. Process automation in the form of a superstructure and preparation of processes for automation as part of the University Information System UIS, E-Spis, Magion, etc. Digitization and automation of selected processes with emphasis on financial control, accounting and staffing agenda, and configuring their management

using approval workflow, including archiving. (Objective of measure 5.5.1: To use information systems in an essential way to reduce administrative burdens.)

- When completing the material and infrastructural support activities background for activities at CZU, to pay attention to sufficient staffing of high-quality employees who will provide administrative and technical services to members of the academic community in their activities. As part of the interconnection with the corresponding information systems and databases, it will be possible to reduce the administrative burden at all levels of CZU management (primarily in positions where this management is done by academic staff whose work cannot be dominated by administrative activities). (Objective of measure 5.5.2: To support administrative activities through staff.)
  
- Adopt innovative measures (reflecting the anticipated changes due to the COVID-19 pandemic) to increase the quality of activities associated with the organization of mobility (physical and virtual/combined), in particular as part of monitoring the maintenance of mobility organization standards, digitization of administrative processes, preparation before departure and availability of information for students. The necessary measures will be developed for the full application of tools for electronic exchange of information about studies, electronic identification and electronic recognition of credits from study mobilities, which primarily means the need to fully implement the European Commission initiative Erasmus Without Paper (CZU has already implemented many of its elements), or the possibly related European Student Card, EMREX, and to actively use a single digital gateway. (Objective of measure 5.5.3: To implement and effectively use a single digital gateway.)
  
- Wherein analyses carried out at CZU identify it as suitable, to increase the efficiency of administrative and other processes through the sharing of capacities, or the creation of joint workplaces and bodies amongst universities. Among other things, these can be joint university evaluation panels, shared evaluator databases, etc. (Objective of measure 5.5.4: To monitor options and potentially apply the sharing of defined capacities.)

## **Strategic area of CZU activities 6:**

### **A HIGH-QUALITY, INTERNATIONAL AND SUSTAINABLE ENVIRONMENT FOR THE IMPLEMENTATION OF CZU STRATEGIC MEASURES**

In addition to the areas of operations directly related to the MEYS Strategic Plan, during the preparation of this CZU Strategic Plan 2021+, CZU also identified areas that result from the needs of CZU relating to the environment in which everyone who comes into contact with CZU operates. It does not necessarily therefore find parallels in the MEYS Strategic Plan, but instead reacts to the direct needs of CZU so that the university can better deal with potential issues to which it may be exposed. These are issues that will significantly support the resilience of CZU. This area essentially transversely passes through the previous five strategic areas of CZU activities, because it identifies the development of the necessary environment for fulfilling all (or most) prior strategic objectives, but also for the own development of CZU relating to achieving its vision.

The specific objectives and the corresponding measures were created on the basis of internal analyses at CZU and were discussed in various committees during the preparation of this Strategic Plan.

#### **Strategic objective 6:**

Strive to create a fully resilient environment for all CZU activities, ensuring that this strategic objective can be updated annually with respect to the needs of CZU in terms of pedagogical activities, creative activities and other related activities leading to the fulfilment of this Strategic Plan.

**Specific objective 6.1:** To support the development of material, technical, infrastructural and other securing necessary for pedagogical activities (including the development and strengthening of practical teaching), scientific, research, development and other creative activities for cooperation with the application sphere and operations in the regions, in such a way that the background contributes to the sustainability of CZU activities and shapes CZU in this regard as a leading university in the international environment.

**Indicators (target values):** Development of material, technical, infrastructural and other securing on a larger scale in relation to available resources and CZU investment activity plans

### Measures for fulfilling specific objective 6.1:

- With the aid of investment activities in connection with investment activity plans, to improve the quality of all infrastructure for all activities at CZU (including dormitories and the Mensa, libraries and school enterprises). When implementing investment (in particular construction) activities, to ensure that they fulfil the priority principles defined in the CZU Vision (mainly to strive to implement intelligent green technologies and environmentally friendly technologies and buildings) and contribute to them so that by 2040, CZU is an emission-neutral university. (Objective of measure 6.1.1: To improve the CZU infrastructure.)
- To make the CZU open campus more attractive so that it is an example of sustainability for the public that visits the campus, and that it shows the public the results of the fulfilment of this strategy. The campus means not only the university campus in Suchbátka and Malá Chuchle, but also other CZU campuses in a reasonable manner. (The objective of measure 6.1.2 is in the wording of this measure.)
- In accordance with the prepared CZU Internationalization Strategy as of 2022, to create a fully functional “Welcome Centre” as a counselling and assistance centre for foreign employees (scientific research and pedagogical) and for foreign PhD students, thereby facilitating their full integration into the CZU environment and life in the Czech Republic. To subsequently expand this centre to provide similar services for foreign bachelor and master’s students. (Objective of measure 6.1.3: To create a so-called Welcome Centre.)

**Specific objective 6.2** Strengthen support for activities related to the operation of CZU that include the dimensions of sustainability, adaptation and mitigation, economic rationality and social responsibility (environmental friendliness, including reaction to climate change, economic efficiency and acceptance in society).

**Indicators (target values):** Support for knowledge transfer and innovation with emphasis on the central theme of sustainability – in the form of support for student organizations

(minimum of 2 per year), raising awareness of intellectual property management (minimum of 8 trainings per year), and promoting a sustainable lifestyle (minimum of 1 campaign per year).

## Measures for fulfilling specific objective 6.2:

- Conceive (and thereby support) the functioning of student organizations as a supplement to the educational process, which enables students to prepare for sustainability in the form of “learning by doing” (students learn in student organizations through their own activities), in particular with regard to the formation of transferable skills (e.g., teamwork, social responsibility). (Objective of measure 6.2.1: To support the activities of student organizations as actors contributing to the high-quality functioning of CZU, in particular in terms of its educational component.)
- For all CZU activities, in particular those related to the priority principles of CZU activities (including school enterprises) presented in the vision of this plan, similarly to the newly-emerging activities (which may be, for example, focused on veterinary medicine, Zoonosis, sustainable alternative management methods, including innovative technologies in agriculture and forestry, Industry 4.0, etc.), when they are developed and subsequently implemented, to focus on their interconnection with the objectives of UN sustainable development (e.g., for accreditation – even though these standards do not require it, to show how the relevant study programme contributes to sustainability with regard to the aforementioned UN objectives). (Objective of measure 6.2.2: To support interconnection of CZU activities with sustainability principles.)
- Utilize the professional CZU background for dealing with social problems; involve CZU in the life of civil society and to support civic activities of employees and students, including volunteering. (The objective of measure 6.2.3 is in the wording of this measure.)
- Support the valorisation of knowledge and its transfer into practice; support technology transfer and innovation. Support start-ups and spin-offs and other suitable forms of effective transfer and the use of the innovative knowledge of CZU employees in practice. (The objective of measure 6.2.4 is in the wording of this measure.)

- Take into consideration regional CZU activities and activities that support the retention of qualified persons in structurally disadvantaged regions. (The objective of measure 6.2.5 is in the wording of this measure.)
  
- During business trips and employee and student mobility, to prefer environmentally friendly modes of transport and, if it is not possible to use them, to implement a compensation programme. (The objective of measure 6.2.6 is in the wording of this measure.)
  
- When purchasing and consuming and disposing (waste) of energy, water, materials, as well as food and other items consumed by CZU and its components, to promote the sustainability vision enshrined in the vision of this plan. (The objective of measure 6.2.7 is in the wording of this measure.)

**Specific objective 3:** To raise public awareness about CZU as an example of the sustainable functioning of the university in all aspects of its operations.

**Indicators (target values):** Communicate in suitable ways with the interested public and defined target groups and inform them about the results and potential of CZU employees – participation in presentation of domestic and international events (minimum of 8 events per year).

### Measures for fulfilling specific objective 6.3

- Continue reporting on CZU activities in the good practice of sustainability reporting and presenting CZU as a socially responsible university. Engage in activities in the national and international environment that coincide with the focus of CZU on the priority principles specified in the CZU Vision, even if they are not directly of an academic or research nature (e.g., fair trade issues, etc.). (Objective of measure 6.3.1: To support the principles of CZU social responsibility and report on them.)
  
- Support the community dimension of the university environment; strengthen the shared identities of CZU, the social integration of students as a prevention of study failure; develop the social capital (the wealth of their relationships and interactions) of

students. For foreign students, this also means developing (in collaboration with student organizations and other actors) integration activities aimed at supporting their integration into the life of the academic community. From a more general perspective, such activities will lead to the profiling of the international character of the university, which will be the main focus of the CZU Internationalization Strategy as of 2022 (experienced internationalization). (Objective of measure 6.3.2: To develop cultural and, in the case of foreigners, integration activities strengthening the identity of CZU.)

- To continue to organize social and leisure activities with the participation of members of the academic community and the public (in particular graduates, including strengthening the role of the Alumni Club), wherein it is possible to present sustainable and socially responsible CZU activities. To strengthen and intensify the work of the CZU Alumni Club. (The objective of measure 6.3.3 is in the wording of this measure.)
- To strengthen the availability of the results of creative activities for the general public in various forms; to support the popularization of science and the communication to target groups of its benefits for society. (The objective of measure 6.3.4 is in the wording of this measure.)
- To synergistically develop information support of applicants when they are choosing study programmes and career counselling in order to adapt the study form and support services to the changing characteristics of the applicants. (The objective of measure 6.3.5 is in the wording of this measure.)
- Through the identification of suitable persons amongst foreign students and the identification of suitable foreign graduates, to set up a system of long-term cooperation with these foreign persons in relation to CZU. It will possible on this basis to develop a graduate programme (organization of events for current foreign students, use of students to promote study in the Czech Republic through various channels [e.g., student blogs, active groups of ambassadors amongst foreign students, surveys among them]) and involve these persons (foreign students and graduates) in the promotion of CZU abroad. (Objective of measure 6.3.6: To set up a cooperation system with foreign graduates.)





Czech University of Life Sciences Prague  
Kamýcká 129, 165 00 Praha-Suchdol, Czech Republic  
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