

REPORT ON THE INTERNAL EVALUATION OF THE QUALITY OF EDUCATIONAL, CREATIVE AND RELATED ACTIVITIES, 2022



Czech University
of Life Sciences Prague

University full of life

Schváleno Radou pro vnitřní hodnocení České zemědělské univerzity v Praze – 29. května 2023

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Table of Contents

1 / Introduction	7
2 / Institutional environment and setting of management measures	8
3 / Changes achieved in the System of Quality Assurance and Internal Quality Assessment of the CZU	12
3.1 / Internal Assessment Board of CZU	12
4 / Changes achieved in the internal evaluation of educational activities	15
5 / Changes achieved in the internal evaluation of creative activity	18
6 / Changes achieved in the internal evaluation of related activities	20
7 / Final Recapitulation	23



1 / Introduction

The **Report on the Internal Evaluation of the Quality of Educational, Creative and Related Activities, 2022** summarises the status achieved in the area of quality assurance and internal evaluation of educational, creative and related activities in accordance with Section 77b(3)(b) of Act No.111/1998 Coll., on Higher Education Institutions and on Amendments and Supplements to Other Acts (Act on Higher Education Institutions). This report describes the ongoing development and achieved qualitative outcomes of the Czech University of Life Sciences in Prague in the area of quality assurance and internal evaluation of educational, creative and related activities and measures taken to eliminate any identified shortcomings. The report is drawn up in connection with the **Report on the Internal Evaluation of the Quality of Educational, Creative and Related Activities 2017**, which has been updated annually in recent periods with supplements describing changes achieved in the quality assurance system and relevant management measures. This report is prepared in accordance with the internal regulation of the Czech University of Life Sciences in Prague **Rules of the system of quality assurance of educational, creative and related activities and internal evaluation of the quality of educational, creative and related activities of the Czech University of Life Sciences in Prague**.

The system of internal evaluation and quality assurance at the Czech University of Life Sciences in Prague is based on the European Standards for Higher Education „**Standards and Guidelines for Quality Assurance in the European Higher Education Area**” and is formulated in the **Strategic Plan of Educational, Creative and Other Activities of the Czech University of Life Sciences in Prague for the period from 2021**, the level of strategic goals and specific objectives is annually reflected in the **implementation plans of the strategic plan** of the Czech University of Life Sciences in Prague for the period 2016-2020. The general framework of the activities of the Czech University of Life Sciences in Prague is described annually in the **annual activity reports and annual management reports**, and the **CSR report of the CZU** is also published annually.

2 / Institutional environment and setting of management measures

The Czech University of Life Sciences in Prague (hereinafter referred to as the "CZU") has a functional system of quality assurance and internal evaluation of educational, creative and related activities, which is clearly defined and interconnected with the in-house and internal regulations of the CZU, enabling the continuous development of the University in accordance with European standards and the demands placed on a comprehensive educational process, the development of society and the culture of the academic environment. An integral part of this system is the mechanisms enabling its dynamic development, which are based on evaluations and feedback; only in this way is it possible to continuously raise the generally accepted standards related to the educational process linked to the creative and related activities of the university.

The objectives of the system of quality assurance and internal evaluation at the Czech University of Life Sciences are in line with and support the fulfilment of the mission of the Czech University of Life Sciences, which is defined by **the Strategic Plan of Educational, Creative and Other Activities of the Czech University of Life Sciences in Prague for the period from 2021**, specific activities are specified annually in the **plans for the implementation of strategic plans** (updates of long-term plans of the Czech University of Life Sciences). From the perspective of the mission of the CZU, quality means on the one hand the innovative development of all aspects of the University's activities (educational, scientific research, international and in connection with practice) in traditionally strong fields that have long been associated with the CZU, on the other hand, the CZU also understands its mission as the introduction of new scientific research, educational and international practices in diversified areas of contemporary scientific and social interest that correspond to the long-standing profile of the CZU. The system of quality assurance and internal quality assessment is an important pillar, especially in the preparation of quality graduates who are employable on the labour market and at the same time contribute to the development of civic life, to the implementation of diverse creative activities with support in scientific and research activities and to connecting the university with the non-academic world through the transfer of innovation, knowledge and technology. At the same time, the mission of the CZU is implemented in an international environment and aims to contribute to

the benefit of the regions in which the CZU operates, as well as to the benefit of the entire Czech Republic and the world. Currently, this includes issues such as sustainability in its environmental, economic and social context, bioeconomy or biotechnology, and the university's Corporate Social Responsibility (CSR). From the point of view of the quality management system, CZU's mission is to act as an **excellent university** primarily in its profile areas of education and creative activity (such as agriculture, food science, forestry and timber, earth sciences, biology, ecology and environment, economic disciplines, computer science and engineering, technology and materials) and, at the same time, to develop its activities in other areas that form an integral part of the functioning of the CZU, such as architecture and urban planning, veterinary medicine, social aspects of human life or cyber security and other challenges to which the CZU can contribute with the quality of its educational and creative activities.

The quality management system is based on and continues to develop **6 strategic areas of activity of the CZU**, which are implemented through specific objectives and measures for their implementation:

- QUALITY AND COMPETENT GRADUATES ACTIVELY CONTRIBUTING TO SUSTAINABLE LIVING AND PRACTICE FOR THE 21ST CENTURY.
- ACCESSIBLE AND FLEXIBLE EDUCATION FOR THE DIFFERENT DIMENSIONS OF SUSTAINABILITY,
- EFFECTIVE, HIGH QUALITY, INTERNATIONAL AND RESPONSIBLE DOCTORAL STUDIES AS ONE OF THE FORMS OF IMPLEMENTING THE VISION OF THE CZU IN THE EDUCATIONAL AND CREATIVE PROCESS IN THE UNIVERSITY SYSTEM,
- STRATEGICALLY MANAGED RESEARCH AND DEVELOPMENT ACTIVITIES EFFECTIVELY USING CAPACITIES LEADING TO THE FULFILMENT OF THE CZU VISION IN VARIOUS DIMENSIONS OF SUSTAINABILITY,
- SUSTAINABLE STRATEGIC MANAGEMENT AT ALL LEVELS OF THE CZU HELPING TO REDUCE ADMINISTRATIVE BURDEN,

■ A QUALITY, INTERNATIONAL AND SUSTAINABLE ENVIRONMENT FOR THE IMPLEMENTATION OF THE CZU'S STRATEGIC ACTIONS.

The **internationalisation strategy** was completed in 2022, and the approval of the relevant Boards of CZU will take place in the following year. This strategy elaborates on an important component of the related activities - **internationalisation**. CZU is moving towards a commitment to so-called lived internationalisation, where internationalisation organically permeates all areas of CZU's activities. The Czech University of Life Sciences in Prague intends to base its future activities on a bilingual environment for its students and staff.

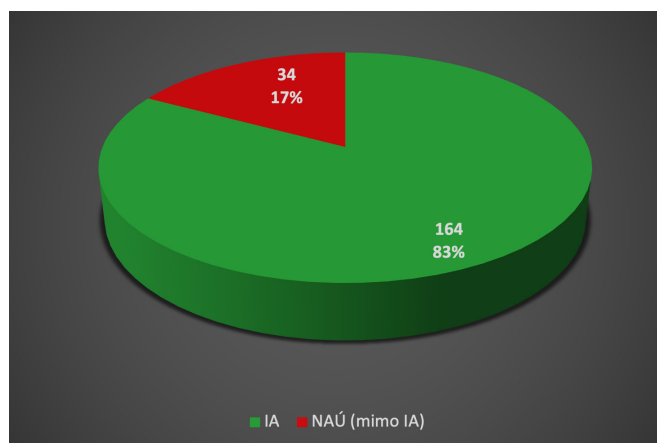


Figure 1 Percentage of approved study programmes within IA and outside IA as of 31/ 12/ 2022.

On 30 November 2018, CZU received **institutional accreditation** (hereinafter referred to as "IA") for 7 areas of education in which CZU implements most of its study programmes:

- a) the field of education **Biology, Ecology and Environment** and within it Bachelor's, Master's and doctoral degree programmes,

- b) the field of education **Economic disciplines** and within it Bachelor's and Master's degree programmes,
- c) the field of education **Computer Science** and within it Bachelor's, Master's and doctoral type study programmes,
- d) the field of education **Forestry and Wood Technology** and within it Bachelor's, Master's and doctoral type study programmes,
- e) the field of education **Food Science** and within it Bachelor's and Master's degree programmes,
- f) the field of education **Earth Sciences** and within it Bachelor's, Master's and doctoral type of study programmes,
- g) the field of education **Agriculture** and within it Bachelor's, Master's and doctoral programmes.

The granting of institutional accreditation has allowed the in the design and implementation of study programmes (see Fig. 1 and 2). However, CZU did not receive institutional accreditation in the field of education Engineering, Technology and Materials, and within the fields of education Computer Science, Food Science, CZU was not granted a doctoral type of study programmes implemented under the auspices of institutional accreditation. Since 2018, these and other areas of education in which CZU carries out its activities have been thoroughly monitored in terms of the required standards and generally accepted criteria, so that in the future it can be possible to expand the areas to all areas that CZU has applied to the National Accreditation Office for Higher Education (hereinafter referred to as "NAÚ"). The management of CZU has also adopted a

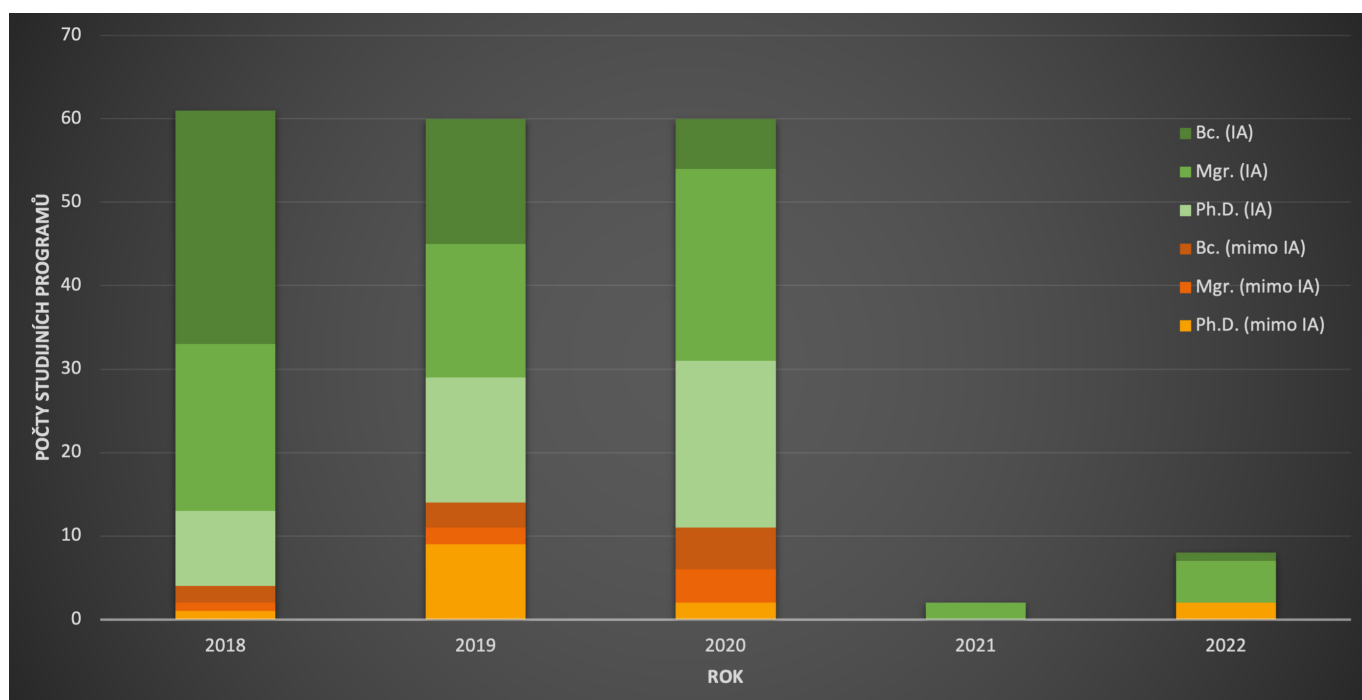


Figure 2 Distribution of Bachelor's, Master's and doctoral degree programmes (SP) within and outside institutional accreditation (2018-2022).

number of incentive instruments to support these areas. At present, however, the individual units of the CZU that are affected by the possible extension have not requested the CZU Board to initiate an application for extension of institutional accreditation.

CZU carries out its activities in a total of 15 areas of education. The granted institutional accreditation places significant demands on the quality assurance and evaluation of the activities of the CZU, including the continuous development of this system. The main pillar of the quality management system at the Czech University of Life Sciences comprises the **Rules of the Quality Assurance System for Educational, Creative and Related Activities and Internal Quality Assessment of Educational, Creative and Related Activities of the Czech University of Life Sciences in Prague** (valid from 15/ 6/ 2017). These rules define the basic principles of the management of the evaluation system, which are further elaborated by individual internal regulations, these guidelines define the basic rules and procedures, including feedback mechanisms, which together form a comprehensive framework of the functional quality management system at the CZU.

The **Vice-Rector for the Quality of Educational and Creative Activities** is responsible for the coordination of the quality management system and methodically guides the Vice-Deans who are responsible for quality assurance and evaluation at individual faculties. The deans of the faculties have responded to the increasingly important role of the quality management system in recent years and currently there are vice-deans at the faculties who are directly responsible for quality without other associated activities such as pedagogy. The Vice-Rector holds regular meetings with Vice-Deans where important aspects of the quality management system are discussed.

The Vice-Rector for the Quality of Educational and Creative Activities manages the **Department for the Quality of Educational and Creative Activities** of the Rectorate (hereinafter referred to as "OKVTC"), which provides the agenda, conceptual and methodological activities related to the quality assurance of educational, creative and related activities and the internal evaluation of the quality of educational, creative and related activities at the CZU in Prague and prepares documents for the internal quality evaluation. It coordinates, cooperates and communicates with individual actors entering into the process of quality assurance and evaluation of educational, creative and related activities, participates in the functionality of feedback mechanisms and evaluation, supervises corrective and preventive measures and measures taken to improve quality assurance and internal evaluation at the Czech University of Life Sciences in Prague. At the same time, it monitors and implements new trends in the field of quality assurance and internal evaluation at universities.

The quality management system is discussed annually at individual committees of the CZU, including:

- **Internal Evaluation Board** (hereinafter referred to as "RVH") - the central body of the CZU responsible for quality assurance of educational, creative and related activities.

- **Rector's College/Dean's College** - at these colleges, important aspects and standards of the entire quality management system are discussed according to the individual level in accordance with the long-term plan - that is, analyses, data, strategies for educational, creative and related activities and other activities required by the HE Act are discussed. In accordance with the in-house and internal regulations of CZU, these committees also discuss the plans for accreditation of study programmes, habilitation and appointment procedures and significant changes in the implemented study programmes. Other changes in the implemented study programmes are also discussed at the faculty level, which are not, for example, subject to the information obligation towards the Ministry of Education, Youth and Sports of the Czech Republic (hereinafter referred to as "MŠMT").

- **Scientific Council of the CZU and the Scientific Councils of the Faculties** - from the perspective of the quality management system, information on quality and strategy in the field of creative activities with an overlap mainly into the implemented doctoral study programmes is discussed in these councils. According to the Higher Education Act, the Scientific Council of the CZU approves the intention to cancel the accreditation of a study programme and influences, for example, the composition of the Internal Evaluation Board. The development of the quality management system at CZU is presented annually to the Scientific Council of CZU together with the relevant feedback mechanisms.

- **The Academic Senate of the CZU and the Academic Senates of the Faculties** - the Academic Senate of the CZU discusses mainly quality reports and amendments to these reports. Academic senates of the faculties enter the quality management system in accordance with the in-house and internal regulations of the University, e.g. by discussing plans to accredit study programmes of the respective faculties.

- **The University's Board of Trustees** - discusses mainly quality reports and amendments to these reports.

- **Pedagogical Council** - a board where the quality of educational activities is regularly discussed at the university level. The activities of the Pedagogical Council are attended by the Vice-Rector for Pedagogical Activities and relevant Vice-Deans and representatives of faculties, including, for example, representatives of the study departments of individual faculties. A representative of the Quality Department of the Rectorate is also part of the Pedagogical Council.

These committees discuss individual reports in the field of quality management, discuss partial reports on the fulfilment of standards and indicators related to the quality management system and, in proportion to their competences, discuss issues and documents related to the accreditation of study programmes and fields of management carried out at CZU.

In terms of quality management of educational, creative and related activities, the guarantors of study programmes and other actors of

the quality management system play a key role - e.g. the guarantor of a specialisation, the guarantor of a study subject, the head of a department. The settings and competences of persons within the quality management system are determined by Rector's Regulation No. 3/2018 **"Definition of competences for evaluation and quality assurance of study programmes at the CZU in Prague"**. The responsibilities of the individual Vice-Rectors are also anchored by Rector's Regulation No.1/2022 **"Definition of the activities of the Vice-Rectors, the Bursar and the Chancellor"** - this is an amendment due to the creation of a new functional position of the Vice-Rector from 1 2/. 2022 - **Vice-Rector for Development and Sustainability**. This directive describes the participation of Vice-Rectors in the management of the quality system. The role of the Rector in this system is precisely defined by the legislative framework.

In recent years, CZU has voluntarily anchored completely new elements in its management structure that allow for a higher level of involvement of external evaluators and experts in the form of feedback. In 2019, CZU set up International Scientific Council established as an advisory body to the Rector and the Internal Assessment Board of the Czech University of Life Sciences in Prague to assess the strategic goals, vision and mission of the CZU, especially in the field of educational, creative and related activities and to evaluate their quality. The Council is composed of seven members who are internationally renowned experts with high scientific and moral credentials. The current Chairman of the Board is prof. Bill Hansson of the Max Planck Institute for Chemical Ecology in Germany. The International Scientific Council meets annually:

- discusses the quality of educational activities at the CZU, especially the quality of accredited study programmes, proposes recommendations and gives suggestions for further development;
- discusses the quality of creative activities at the CZU, especially the quality of publications, project activities and other creative activities, proposes recommendations and gives suggestions for further development;
- discusses the quality of related activities carried out at the CZU, proposes recommendations in this matter and gives suggestions for further development;
- assesses compliance with quality standards, in particular in relation to the document Standards and Guidelines for Quality Assurance in the European Higher Education Area, proposes recommendations in this regard and gives suggestions for further development;
- comments on strategic documents, stated goals, vision and mission of the CZU, proposes recommendations and gives suggestions for further development;
- provides opinions and recommendations for the development of the CZU.

Continuous development based on properly set feedback mechanisms aimed at self-reflection should be an integral part of quality

system management. As a tool for obtaining adequate and unbiased feedback, CZU uses **external institutional evaluation**. The long tradition of regular international evaluations of the Czech University of Life Sciences carried out by international experts (in 1993, 1999 and 2006) was covered in 2011 by the document The system of Czech University of Life Sciences Prague Quality Assurance (Self Evaluation Report), which formed the basis for the report of the experts on quality assessment of activities from universities associated in the Euroleague for Life Sciences - ELLS network (Wageningen University and Research, University of Natural Resources and Life Sciences / BOKU/ Vienna, Warsaw University of Life Sciences, University of Copenhagen - Faculty of Science, University of Hohenheim-Stuttgart, Swedish University of Agricultural Sciences, Czech University of Life Sciences Prague). CZU has also passed the **MICHE evaluation** (internationalisation evaluation) in 2021.

The set-up of the institutional environment of CZU was assessed in 2022 by an **external evaluation of the National Accreditation Office for Higher Education**. The conclusions of this external evaluation will be provided to the CZU in 2023 through the External Evaluation Report of the University. In 2022, the international external evaluation of the **Institutional Evaluation Programme (IEP)** was successfully completed. This is an assessment under an independent agency in the European Quality Assurance Register for Higher Education (EQAR), which is a full member of the European Association for Quality Assurance in Higher Education (ENQA). The intent of this assessment is to **support higher education institutions and systems in developing their strategic leadership and change management capacity through a process of voluntary institutional assessments**. The IEP evaluation committee visited the CZU first in March 2022, and the second visit took place in May 2022, when the committee members met with the university management, individual faculties, representatives of the CZU bureaus, students, alumni, as well as stakeholders who have experience with the CZU environment. These meetings mapped in detail the processes of the quality management and quality assurance system at CZU. Subsequently, the CZU received a final report describing the evaluation of the CZU, the report also defines potential areas for further development and improvement. The report was published to all CZU employees via the intranet and is valuable feedback that plays a crucial role in the further development of the quality system and other strategic activities. The conclusions of the IEP evaluation and impulses for further development were summarised by the HEC in Recommendation No. 1/2023.

The IEP evaluation positively perceived the mechanisms that the CZU has internally implemented within the quality evaluation system - e.g. **annual evaluation of study programmes**. The teaching quality standards, greater student involvement in teaching quality assessment processes, failure rates, especially for doctoral programmes, and other strategic activities and quality assurance mechanisms were also discussed. Some of the recommendations of the IEP report are to **compile an objective critical analysis of the strengths and weaknesses** of all faculties and to develop a unified strategy that describes which weaknesses need to be further developed with respect to the CZU institution as a whole. This is closely related to the recommendation to align the individ-

ual strategies at the university and faculty level so that faculty strategies contribute more explicitly to overall institutional goals. According to the IEP recommendations, roles in the quality management system should be more clearly specified in the areas of creative quality assurance, internationalisation and HR. In addition to their conclusions in the form of final reports, the evaluations carried out also provided managers with very valuable experience, both from individual meetings with their subordinates and colleagues during the evaluations, and from ongoing discussions and the **formulation of self-evaluation reports**. For the formulation of the self-assessment reports, working groups are appointed, to which management staff, representatives of the RVH, individual committees of the CZU and faculties, students and graduates are nominated according to the requirements of the evaluation. Self-assessment reports form an important tool for the development of quality management at the CZU.

Czech University of Life Sciences in Prague received on 12/ 11/. 2021 the prestigious HR Excellence in Research Award, the so-called HR Award. It has thus joined the community of organisations that guarantee the European standard of staff care and has demonstrated that it is one of the universities that meet the parameters of a transparent educational and scientific research institution of the 21st century. The HR Award is awarded by the European Commission through Euraxess for excellence in the management of human resources in a scientific environment. It is a confirmation for the CZU that in the area of recruitment and employment of (not only) academic-scientific staff it follows the rules set by the Charter and the Code and the internal set-up of processes. And it represents a proof that it is a quality employer for potential employees from all over the world. As part of the demanding process of meeting the conditions leading to the prestigious HR Excellence in Research award, the CZU has committed to the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (Charter and Code). In accordance with this act, the project **Strategic Setting of Human Resource Development at CZU** CZ.02.2.69/0.0/0.0/18_054/0014642 funded by the OP VVV (HRA CZU) was launched.

The turbulent period of the last few years, which the CZU has felt especially at the moment of the introduction of restrictions responding to the pandemic covid-19, which affected the events at the CZU in 2019-2020 and the subsequent economic turbulence, led to the need to respond urgently to external aspects in the management system. In the area of management processes, it was necessary to set rules for online/hybrid forms of teaching and meetings of individual boards or management of faculties and departments of the university. The pandemic measures have significantly affected not only the form of meetings of the university boards, but also all activities of the university, especially educational activities. During and after the end of the pandemic restrictions, the CZU carried out a number of **analyses**, and the conclusions and experiences were used to optimise some management measures at the CZU, which remain and will continue to remain in the quality management and assurance system. In general, it can be stated that the significant external influences of the last few years **have**

fundamentally changed and accelerated the path to digitalisation of processes – in terms of educational activities, there has been a significant increase in non-contact elements in teaching. University staff, lecturers and students have significantly increased their skills in online/hybrid forms of teaching and negotiation in recent semesters. Where necessary, corrective actions were taken in coordination with the faculties **by the implemented mechanisms**. A great emphasis was also placed on the continuous improvement of teachers' qualifications in the field of online teaching and testing. CZU applies the concept of long-term training of academic staff in pedagogical skills, for example within the **Strategic Management Support Plan**. Educational activities are organised both at the Rectorate level and at the level of individual faculties. Due to the changes brought about by external attributes, a number of feedback mechanisms were implemented, including a questionnaire survey coordinated by the Faculty of Social Sciences of Charles University between 15/ 5/. 2021 and 30/ 6/. 2021 on the **impact of the covid-19 pandemic on learning and teaching**, both from the perspective of students and teaching staff.

On the basis of the resources already invested and future investments in personnel and material equipment, the CZU is a university with a digital campus that has managed the transition to a low-carbon university and is fulfilling the principles of **bioeconomy, smart circular economy and clean energy**, agriculture and food sector principles expressed in the EU strategy in its economic context. From the perspective of management measures, online/hybrid forms of management/negotiation reduce to some extent the level of communication between colleagues, which carries over into line management. Largely as a result of various constraints, a number of managers, such as heads of departments, have begun to formalise communication with their subordinates, which may limit the regular transfer of information to the rank and file of the university. The university management has responded to these realities by introducing regular **meetings between heads of departments and the management of the faculties and the university**, where key issues of strategic decisions and university development are discussed.

CZU regularly participates in a number of **centralised development projects**, where great emphasis is placed on the analysis of the state of the art in the field of teaching quality. The conclusions of these projects contribute to methodological and terminological recommendations, which are reflected in the internal and internal regulations of CZU.

At the same time as the Report on the Internal Quality Assessment of Educational, Creative and Related Activities is being prepared at the level of the CZU, individual faculties prepare the Evaluation Report on Creative Activities and Activities Related to Educational and Creative Activities for the period 2018-2022. These reports of individual units of the CZU complement the documents from the field of educational activities (regular evaluation reports on the implementation of study programmes) and serve as a basis for the assessment of development over the past period. The individual faculty reports detail in particular:

- vision and goals of the faculty in the field of creative and related activities,
- development of staffing with regard to the fulfilment of the vision and objectives of the Faculty,
- tools for internal assurance and evaluation of creative activity,
- significant results achieved according to the 2017+ Methodology in Module 1,
- significant results achieved according to the 2017+ Methodology in Module 2,
- significant results achieved in the field of project activities,
- evaluation of the link between educational and creative activities with regard to the fields of education, social relevance of creative activities,
- evaluation of the degree to which the vision and goals of the faculty have been met.

ASSESSMENT OF THE STATE OF AFFAIRS THE SATISFACTION IS INCREASING IN COMPARISON TO 2017:

The Czech University of Life Sciences has received institutional accreditation in seven areas of education; the accreditation covers a significant share of the implemented study programmes. With the granted institutional accreditation, the CZU has set and continues to optimise a number of important management measures. Compared to 2017, there has been a significant shift in the management of the quality system; this system now forms a fundamental basis for assessing the fulfilment of quality standards in the field of educational, creative and related activities. In 2018, the development of the quality assurance system led to the establishment of the Rectorate's Quality Department for Educational and Creative Activities. Subsequently, individual faculties and the Institute of Education and Counselling (hereinafter referred to as "IVP") responded to the developing quality system at CZU - the responsibility for quality was gradually entrusted to individual vice-deans, while the growing importance of the quality management system led to the inclusion of quality in the form of a separate responsibility for individual vice-deans. The Vice-Rector for Quality of Educational and Creative Activities thus methodically leads the vice-deans, whose responsibility is only the quality management system, which has considerably streamlined the individual management processes. The past years have brought a number of unexpected changes in terms of the quality management system, when the management of the CZU and individual faculties had to react quickly to the changing environment. It is undeniable that many management processes are gradually shifting to digital form, and educational and related activities have significantly expanded their form in online and hybrid forms over the period under review. These new challenges had to be taken into account in the development of the quality management system, using the experience gained over time, the feedback and the individual correlations between them. The changes that were implemented in this context clearly demonstrate that the CZU was able to react very quickly and adequately without any impact on the quality of individual activities. The fact that CZU has subsequently optimised some processes in correlation to some feedback mechanisms and analyses

speaks of the processes of reflection and development of the management system being very well set. CZU has undergone an important international evaluation of the IEP, which from the perspective of quality management offered a number of additional incentives for further development, but mainly served as an important feedback to the constantly developing system. The conclusions of the institutional evaluation are perceived very positively. In the past period, CZU has made significant efforts to incorporate elements of external evaluation into its development. Feedback from renowned foreign experts on individual activities, development of the strategy, vision and mission of CZU is a key pillar of continuous improvement of the set processes.

EVALUATION

Strengths: Within the framework of the granted institutional accreditation, the majority of study programmes are successfully implemented; The processes and procedures related to the quality management system of CZU are optimised on the basis of experience and feedback; The turbulent period of the past years has demonstrated the ability to respond to external stimuli within the framework of management measures without reducing the set quality of the implemented activities; Completed external institutional international evaluation of the IEP; Establishment of the International Scientific Council and its role in the development of the quality system; Definition of new priorities within the Strategic Plan of Educational, Creative and Other Activities of the Czech University of Life Sciences in Prague for the period from 2021.

Weaknesses: Despite the significant development of the information systems of the CZU in the past five years as an important management support tool, it is still necessary to dynamically develop these systems, automate and digitalise management processes.

Opportunities: New trends in the development of higher education; Development of digitalisation and electronic communication; Systematic development of educational areas (especially areas not covered by institutional accreditation).

Threats: Formalisation of established procedures and processes also with regard to hybrid/on-line elements in the management area.

SUGGESTIONS:

- **Continue to take into account the development of the quality management system based on experience and the setting of feedback mechanisms, including external and international evaluations of the CZU.**
- **Develop the University's information systems so that the outputs from the systems enable effective quality management and reporting without significant administrative burden. Complete the linking of the information system for managing the results of creative activities with the WoS database. Further extension of the information system managing project activities at the CZU.**

3 / Changes achieved in the System of Quality Assurance and Internal Quality Assessment of the CZU

From the institutional point of view, the key document for the system of quality assurance and internal evaluation is that entitled the **Rules of the system of quality assurance of educational, creative and related activities and internal evaluation of the quality of educational, creative and related activities of the Czech University of Life Sciences in Prague**. These were created on the basis of the requirements arising from the Higher Education Act and accreditation standards and in quality assurance and evaluation of all activities implemented at the University they also use the long-term procedures and existing experience at CZU. The quality assurance and evaluation system is applied to:

EDUCATIONAL ACTIVITIES,

- Bachelor's and Master's education,
- doctorate education.
- lifelong learning,

CREATIVE ACTIVITY

RELATED ACTIVITIES, including

- management and administration of data, data categorisation,
- cooperation with practice and fulfilling social responsibility,
- international activities,
- care and services for students,
- the quality and care of academic and non-academic staff,
- habilitation procedure and procedures for appointment of professors,
- spatial, instrumental, material, informational and administrative security,
- maintaining and developing the academic environment,
- financial security,
- the activities of the school estates.

The system of quality assurance and internal evaluation of educational, creative and related activities has long been anchored at the Czech University of Life Sciences and continuously developed on the basis of analytical activities and feedback mechanisms. In addition to internal and external feedback, one of the basic elements of development is the discussion of the system settings by the

individual boards of the CZU, which enables the individual boards of the University and the actors of the quality system at individual levels to assess and develop the quality of the implemented activities in a comprehensive and long-term manner. The experience related to the granting of institutional accreditation led to a gradual amendment of some internal regulations of the CZU:

- Rector's Regulation No. 8/2020 „**Procedure for Quality Assurance and Internal Evaluation of Study Programmes at the CZU**” replaced Rector's Regulation No. 12/2018.
- Rector's Regulation No. 6/2020 „**Rules for the preparation and granting of authorisation to implement study programmes under institutional accreditation at the Czech Technical University in Prague**” replaced Rector's Regulation No. 5/2018 - Rules for the preparation and approval of study programmes under institutional accreditation at the Czech University of Life Sciences in Prague. The replacement has elaborated the competences, procedures and responsibilities throughout the life cycle of study programmes implemented under institutional accreditation.
- Rector's Regulation No. 7/2020 „**Rules for the preparation and approval of plans to submit an application for accreditation of study programmes implemented outside of institutional accreditation at the CZU**” replaced Rector's Regulation No. 11/2017 - Rules for accreditation of study programmes outside of institutional accreditation at the CZU in Prague. The replacement has elaborated the competences, procedures and responsibilities throughout the life cycle of study programmes implemented outside the granted institutional accreditation.
- Rector's Regulation No. 5/2020 „**Rules for the preparation and approval of plans to submit an application for accreditation of the habilitation procedure and the procedure for appointment to professor at the CZU**” replaced Rector's Regulation No. 4/2019 - Rules for the preparation of accreditation of the habilitation procedure and the procedure for appointment to professor at the CZU. The replacement has led to the elabora-

tion of competences, procedures and responsibilities throughout the life cycle of management disciplines implemented at the CZU.

An important tool for ensuring and internally evaluating the quality of educational and creative activities is the functioning of backbone information systems, especially the University Information System (which provides access to a range of information to the academic community, university staff and the general public, many of the system's services are available only after authentication), which provide the necessary data for monitoring the established indicators and quality criteria (from admission procedures to the results of final examinations). Information systems are the basic pillar for a comprehensive quality system consisting mainly of:

a) Study programme panel - annual evaluation of the study programme, data from the information system are analysed by the Rectorate's OKVTC and are submitted to the study programme guarantors at annual intervals.

b) Education area panel - an annual discussion between academics and practitioners.

c) Study programme evaluation report - a summary evaluation of the study programme, which is carried out at least once during the accreditation period.

d) Working Commissions of the HEC - Working Commissions of the HEC are established in particular for the purpose of discussing plans to accredit a study programme/field of management, to extend the accreditation of a study programme/field of management, to extend a study programme, or they are established in general for the purpose of analysing one of the quality system standards or assessing the fulfilment of the standards in implemented study programmes (e.g. assessment of the quality of final theses, CŽV, etc.).

Feedback mechanisms play an essential role in the system of quality assurance and internal evaluation at the CZU. Feedback and its role in the quality management system is described in the Rector's Regulation No. 8/2019 „**Procedure for Evaluation and Provision of Feedback Mechanisms in the Field of Internal Evaluation of the Quality of Educational Activities at CZU**“, feedback mechanisms are formed mainly by:

- Evaluation of study subjects by students in the CZU's information system;
- Evaluations carried out by the Institute of Education and Counselling,
- Evaluation by graduates;
- Analysis of graduate unemployment.

3.1 Internal Assessment Board of CZU

In accordance with Section 12a(1) of Act No. 111/1998 Coll., on Higher Education Institutions and on Amendments and Supplements to Other Acts (Act on Higher Education Institutions), as amended, the **Czech University of Life Sciences' Internal Evaluation Board** is the central body of the quality assurance and internal evaluation system. The RVH is a self-governing academic body of the CZU, currently with 21 members. The members of the Internal Evaluation Board represent individual units of the CZU and are experts in particular in the areas of education for which the CZU has been granted institutional accreditation. The composition of the Internal Evaluation Board has undergone a gradual evolution, whereby the representation of faculty management on the Board has been minimised in order to promote its independence. Currently, some faculties have vice-deans on the RVH, who then form an important feedback loop from the council meetings to the faculties and vice versa from the faculty to the council.

The primary goals of the RVH include:

- Rules of the system of quality ensuring and internal quality assurance at the CZU
- Assesses the fulfilment of the standards of applications and implemented activities.
- Grants authorisation to implement study programmes within the framework of institutional accreditation, approves the submission of applications for accreditation of study programs outside the institutional accreditation of NAU, approves the submission of applications for accreditation of NAU management disciplines.
- Approves requests to extend/submit accreditation of degree programmes outside of NAU's institutional accreditation and authorises such matters within the framework of the institutional accreditation granted.
- Discusses and approves changes to accredited study programmes.
- Discusses annual and summary evaluations of study and life-long learning programmes.
- Regularly discusses and approves corrective actions towards the implemented activities: grants/evaluates control reports towards the implemented study programmes/management fields.
- Discusses and approves and ensures the development of activities in the field of quality assurance and internal quality assessment at the CZU.
- It cooperates with other Boards, including the International Scientific Council of CZU.
- Discusses the draft report on the internal evaluation of the University and its amendments.

After the establishment of the Internal Evaluation Board and the granting of institutional accreditation, the Board focused on new accreditations of study programmes. Currently, a large amount of the Council's activity is devoted to the evaluation of the imple-

mented study programmes and the discussion of extensions of the accreditation periods of the already implemented study programmes.

One of the tools used by the RVH to develop its activities is the RVH **recommendations**, of which the RVH has issued several over the years:

- Recommendation No.1/2023 - the subject of this recommendation is to **ensure objectivity and further development of activities in the provision and internal evaluation of the quality of educational and creative activities at CZU.**
- Recommendation No. 1/2019 - **rules for preventing conflicts of interest in the habilitation and professorship procedures at the CZU.** The subject of this recommendation is to ensure objectivity in the course of the habilitation and appointment procedure at the CZU.

Thus, the RVH regularly reflects on feedback mechanisms and experience with setting up a system of quality assurance and internal evaluation at the CZU. In the light of several years of experience, the RVH draws attention to the need to gradually reduce the administrative burden placed on study programme guarantors and persons involved in the internal quality assurance and evaluation of educational and creative activities. Following the experience of actors entering the processes of evaluation and quality assurance, suggestions are collected that could lead to innovation of some formulations of the internal regulation „Rules of the system of quality assurance of educational, creative and related activities and internal evaluation of the quality of educational, creative and related activities of the Czech University of Life Sciences in Prague (effective from 15/ 6/ 2017)”. This internal regulation was anchored prior to the granting of institutional accreditation and some settings could not reflect any experience that CZU gradually gained after the granting of institutional accreditation. The RVH is also intensively dealing with the situation in the field of quality

assurance of theses, where one of the recommendations of the Council is to further develop the analysis of the quality of theses, the RVH also recommends the establishment of RVH committees for the evaluation of the quality of theses at regular intervals, and these committees should focus on the quality of theses according to the established standards for bachelor's, master's and doctoral theses and the conformity with other texts. The RVH also focuses strongly on the situation regarding the length of study of students in doctoral study programmes, the role of supervisors and the further development of accredited doctoral study programmes, including in terms of the failure rate.

An important aspect for quality assurance and internal quality assessment is the quantitative but also qualitative analysis towards the individual areas of education (see Fig. 3) of individual parts of the CZU. Such an analysis is carried out annually through the so-called **Faculty Evaluation Report**, which summarises the basic outputs for the past period in the context of the pillars of evaluation of research organizations (Methodology 2017+), and above all expresses the degree of self-reflection and satisfaction with the achieved status in this context, contains a brief description of the intended steps and measures as a tool for strategic management of the quality system at the CZU, which should guarantee the continuous development of quality. The evaluation report concludes the evaluation of the past period, i.e. the calendar year in the area of creative activities and related activities and the academic year in the area of educational activities, which was continuously implemented by partial summary information and reports discussed in individual Boards of the CZU. This assessment thus summarises the situation resulting from the situation assessment documents in the period under review.

A very important aspect in the quality assurance process is the cooperation with practice. In this respect, the status of the **Councils for Cooperation with Practice** has proved to be successful at individual faculties. At the institutional level, this essential element is ensured, inter alia, through the so-called **panel of learning**

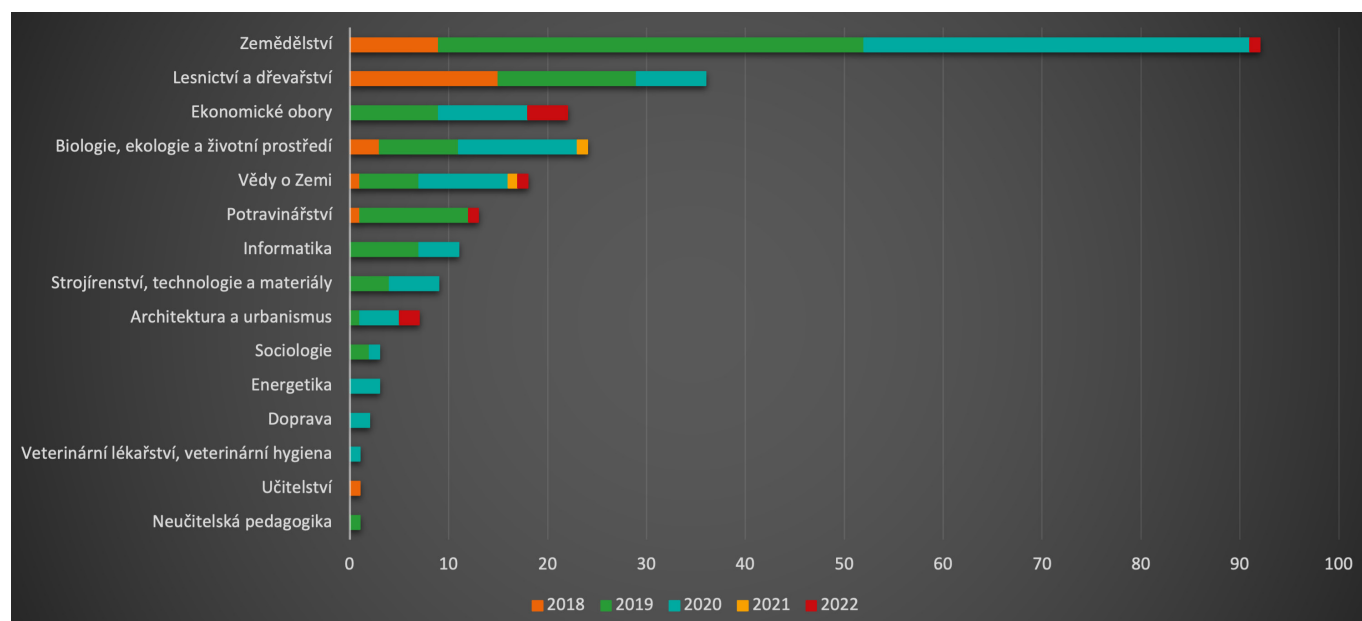


Figure 3 Distribution and evolution of the classification of study programmes in the areas of education between 2018 and 2022.

areas. It is a mediation of discussion between the academic community (especially representatives of study programme guarantors, members of the RVH, students, academic staff, but also graduates) and representatives of important partners from practice who have years of experience with the employment of CZU graduates. Due to the fact that the expected scope of the discussion could not be fulfilled in a non-contact format, the panel of education areas was held only twice - in 2019 and 2022 - due to the covid-19 pandemic. Nevertheless, this important feedback was very inspiring for the development of the educational areas and the study programmes implemented in them.

The Internal Evaluation Board has established and maintains a list of internal and external evaluators, which the Board regularly includes in evaluation panels in the field of educational, creative and related activities. The list of evaluators is divided according to the individual areas of education in which the CZU carries out its activities and currently includes more than one hundred renowned experts who are ready to provide the Board with their expertise and possible practical experience if necessary.

ASSESSMENT OF THE STATE OF AFFAIRS IN COMPARISON TO 2017:

In 2018, the deans of the individual faculties resigned from the Internal Evaluation Board, which helped to steer the Board towards greater objectivity and independence in quality assurance and internal quality evaluation. The Internal Evaluation Board is a respected, functional board at the CZU, which discusses all major issues of the quality assurance system. The RVH has established a number of new tools for the development of quality standards, e.g. in the form of inspection reports and RVH recommendations. In the new accreditation system, most of the study programmes implemented at the CZU have been accredited; therefore, the RVH has gradually focused on assessing quality assurance in the already accredited study programmes, with gradual re-accreditation of study programmes (extension of the accreditation period). The Internal Evaluation Board participated in the external evaluations carried out, and its conclusions and recommendations are transferred into the changes and adjustments made in the development of the system of quality assurance and internal evaluation of educational, creative and related activities. Since 2017, the experience with the functioning of the RVH has led to a gradual amendment of some internal regulations, especially those describing the procedures and competences during the accreditation of study programmes and fields of management. The transfer of experience from the implementation of these activities to these regulations has helped to remove some of the imprecision and to define the procedures in a comprehensive and specific way in relation to the problems that these procedures have so far brought. The quality assessment system is evolving towards greater digitisation, and shared forms are being used to assess educational and creative activities in particular. The Power BI reporting tool is used over the backbone information systems of CZU, which enables the creation

of various correlations and reports. This tool can be used for correlations and analyses of the individual boards, but also as a tool of the Internal Evaluation Council and the quality departments of the Rectorate and individual faculties.

EVALUATION

Strengths: *Reflecting the previous experience in setting up the quality assurance system and the Internal Evaluation Board; Long-term transparency and objectivity of the work of the RVH; Implementation of the reporting interface - Power BI; Strengthening and analysis of new elements in the feedback mechanisms that reflect the need to monitor the established aspects of teaching, by which the CZU responded to external changes that affect the system of quality assurance and internal evaluation.*

Weaknesses: *Despite the development of information systems, the "accreditation module" is still incompletely implemented, which does not yet allow for the widespread deployment of the module; The workload of the members of the RVH and internal evaluators entering the internal quality assessment processes; The complex integration of external experts into the quality assessment process.*

Opportunities: *Continued continuous development of quality management system tools in the University's information systems and digitalization of processes; Increased integration of students and experts from practice into the quality assurance and internal evaluation system.*

Threats: *Satisfaction with the status and workload of evaluators that can formalise evaluation processes.*

SUGGESTIONS:

- **Complete the implementation of the "accreditation module".**
- **To deepen the capabilities of the newly introduced reporting systems, thus enabling the interconnection between the individual information systems of the CZU.**
- **To further reflect on the experience and feedback gained during the implementation of the activities in the next period.**
- **Define priorities for the development of the internal evaluation and quality assurance system in relation to external evaluations.**

4 / Changes achieved in the internal evaluation of educational activities

Entrance examinations for study at individual units of the CZU are regularly **evaluated during the Rector's colleges and the report on them is part of the annual Report on the Evaluation of Teaching Activities for the Scientific Council of the CZU.** Admission procedures are one of the standards assessed towards the implemented study programmes. Due to the timing of the state matriculation exams and the admissions procedure at the CZU, the faculties and the institute do not yet take the results of the state matriculation exams into account, due to the short time interval between them and the complexity of the administrative preparation of the admissions exams (multiplied by the application of administrative procedures). With regard to the profile of the study programme, the content of the entrance examination varies depending on the profile subjects corresponding to the expected requirements of the

applicant. For some faculties and study programmes, the written part of the entrance examination for subsequent Master's degree programmes may be waived, depending on the average of grades from the previous bachelor's degree in the given programme. The aim is always to test candidates' knowledge and skills in disciplines that are relevant to their study programmes. During the admission examinations for doctoral study programmes, the candidate's professional erudition, orientation in the subject matter and ideas about the research focus of the dissertation are assessed in the form of an interview. The admission procedure for doctoral studies also includes an assessment of the applicant's language skills in the form of an oral examination in two languages. The number of applications for studies and the number of students enrolled in the respective first years are shown in Table 1-4.

	2018			2019			2020			2021			2022		
	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.
FAPPZ	3 453	1 080	105	4 116	1 117	92	4 217	1 220	90	4 558	1 344	94	4 979	1 305	82
FLD	2 810	305	65	1 476	308	75	1 490	295	62	1 641	259	57	2 321	239	43
FTZ	341	273	73	475	357	67	460	434	54	620	524	44	513	512	47
FŽP	1 790	699	64	2 039	783	99	2 556	991	91	2 282	793	65	2 278	730	60
PEF	5 000	3 035	72	5 297	2 636	68	5 467	2 762	57	6 053	3 009	71	7 423	2 995	53
TF	1 190	226	43	1 130	206	42	1 231	253	20	1 272	246	22	1 580	258	12
IVP	286	0	0	315	0	0	306	0	0	502	0	0	491	0	0
ČZU	14 870	5 618	422	14 848	5 407	443	15 727	5 955	374	16 928	6 175	353	19 585	6 039	297

Table 1 Number of applications for each year.

	2018			2019			2020			2021			2022		
	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.	Bc.	Mgr.	Ph.D.
FAPPZ	1 383	570	86	1 655	580	71	2 001	685	58	1 687	616	61	1 629	647	43
FLD	704	191	43	738	193	39	724	182	28	685	151	29	738	142	20
FTZ	134	72	40	155	68	48	160	112	23	199	117	19	105	93	25
FŽP	925	297	42	960	305	51	1 259	441	47	916	347	38	893	291	38
PEF	2 013	1 269	51	2 189	1 389	46	2 832	1 558	35	2 668	1 663	26	2 666	1 581	25
TF	695	123	42	656	103	32	699	166	19	619	170	18	683	141	10
IVP	131	0	0	151	0	0	146	0	0	133	0	0	130	0	0
ČZU	5 985	2 522	304	6 504	2 638	287	7 821	3 144	210	6 907	3 064	191	6 844	2 895	161

Table 2 Number of students enrolled in the relevant first years.

	2018			2019			2020			2021			2022		
	Bc.	Mgr.	CELKEM	Bc.	Mgr.	CELKEM	Bc.	Mgr.	CELKEM	Bc.	Mgr.	CELKEM	Bc.	Mgr.	CELKEM
FAPPZ	2 298	1 112	3 410	2 626	1 056	3 682	3 070	1 111	4 181	3 141	1 083	4 224	3 083	1 139	4 222
FLD	1 347	385	1 732	1 348	401	1 749	1 359	392	1 751	1 276	347	1 623	1 297	305	1 602
FTZ	271	167	438	287	167	454	304	231	535	349	258	607	278	289	567
FŽP	1 954	749	2 703	2 010	670	2 680	2 047	749	2 796	1 945	747	2 692	1 895	669	2 564
PEF	4 873	3 582	8 455	5 215	3 338	8 553	6 073	3 247	9 320	6 588	3 306	9 894	6 738	3 179	9 917
TF	977	282	1 259	960	258	1 218	1 097	268	1 365	1 059	304	1 363	1 033	283	1 316
IVP	353	0	353	371	0	371	379	0	379	356	0	356	344	0	344
ČZU	12 073	6 277	18 350	12 817	5 890	18 707	14 329	5 998	20 327	14 714	6 045	20 759	14 668	5 864	20 532

Table 3 Number of students as of 31/ 12 of the respective calendar year.

Some faculties of CZU have signed memoranda with the CAS on cooperation in doctoral study programmes. For example, students of the CZU have a unique opportunity to become part of the research teams of the Institute of Organic Chemistry and Biochemistry (IOCB) and to work here as part of doctoral study programmes. In this way, the doors to other top workplaces of the Academy of Sciences are opened for PhD students.

quality of educational activities is based on the Rector's Regulation No. 8/2020 "The Procedure of quality assurance and internal evaluation of study programmes at CZU", which implements setting up of the system at CZU in particular in accordance with the Act No. 111/1998 Coll., on Higher Education, as amended, Government Decree No. 274/2016 Coll., on Accreditation Standards in Higher Education, as amended, and the methodical materials of the

	2017		2018		2019		2020		2021		2022	
	studující	přerušeni	studující	přerušeni	studující	přerušeni	studující	přerušeni	studující	přerušeni	studující	přerušeni
FAPPZ	169	62	188	76	199	65	223	59	237	55	226	67
FLD	164	20	151	54	149	59	126	64	127	58	123	42
FTZ	66	34	85	32	92	30	102	27	105	30	109	26
FŽP	164	60	154	62	157	65	169	60	172	58	157	60
PEF	114	43	129	38	134	35	139	38	125	37	121	22
TF	65	26	88	27	80	27	78	23	67	24	57	23
IVP	0	0	0	0	0	0	0	0	0	0	0	0
ČZU	742	245	795	289	811	281	837	271	833	262	793	240

Table 4 Number of students of doctoral study programmes by faculties in 2017-2022 (as of 31/ 12 a particular year).

Based on the following Table 5, more and more foreign students are attending CZU - internationalisation can be perceived as an important element of the quality of educational activities.

Rok	2018	2019	2020	2021	2022
Počet	2 765	1 346	4 760	5 531	5 819

Table 5. Number of foreign students in Bachelor's and Master's programmes (excluding exchange students and life-long learning participants) - as of 31/ 12 of the particular year.

CZU has traditionally offered a wide and very diverse range of study programmes, not only in agricultural and forestry, but also in technical, economic, biological and social science fields. The areas of education covered by the implemented study programmes (see Fig. 4) are largely protected by the institutional accreditation granted. A completely new area, which is covered by the FAPPZ study programme from 2020, is the area of Veterinary Medicine, Veterinary Hygiene.

The implementation and development of the quality system in recent years has adequately responded to the requirements imposed by the legislative framework on universities. Ensuing the

National Accreditation Bureau for Higher Education further, in compliance with the Quality Assurance System Rules for Educational, Creative and Related Activities and for Internal Quality Assessment of the Educational, Creative and Related Activities of CZU Prague, with the Rules of Procedure of the Internal Evaluation Council of the CZU Prague and with the internal regulations applying to the rules of preparation and approval of study programmes within the institutional accreditation, rules for accreditation of study programmes outside of institutional accreditation, and the rules for the preparation of habilitation procedure accreditation and the full professorship appointment procedure. The directive thus establishes a set of rules and procedures according to which the quality of implemented study programmes is ensured and evaluated (see Fig. 5). **At the CZU, every study programme is treated equally, regardless of whether it is subject to institutional accreditation or submitted to the NAU for accreditation,** this applies both during the approval of the intention to accredit a study programme and after the accreditation of the study programme, i.e. during the implementation of the study programme.

High demands are placed on the standards of ensuring the study programme at its inception, when, after an **inter-faculty com-**

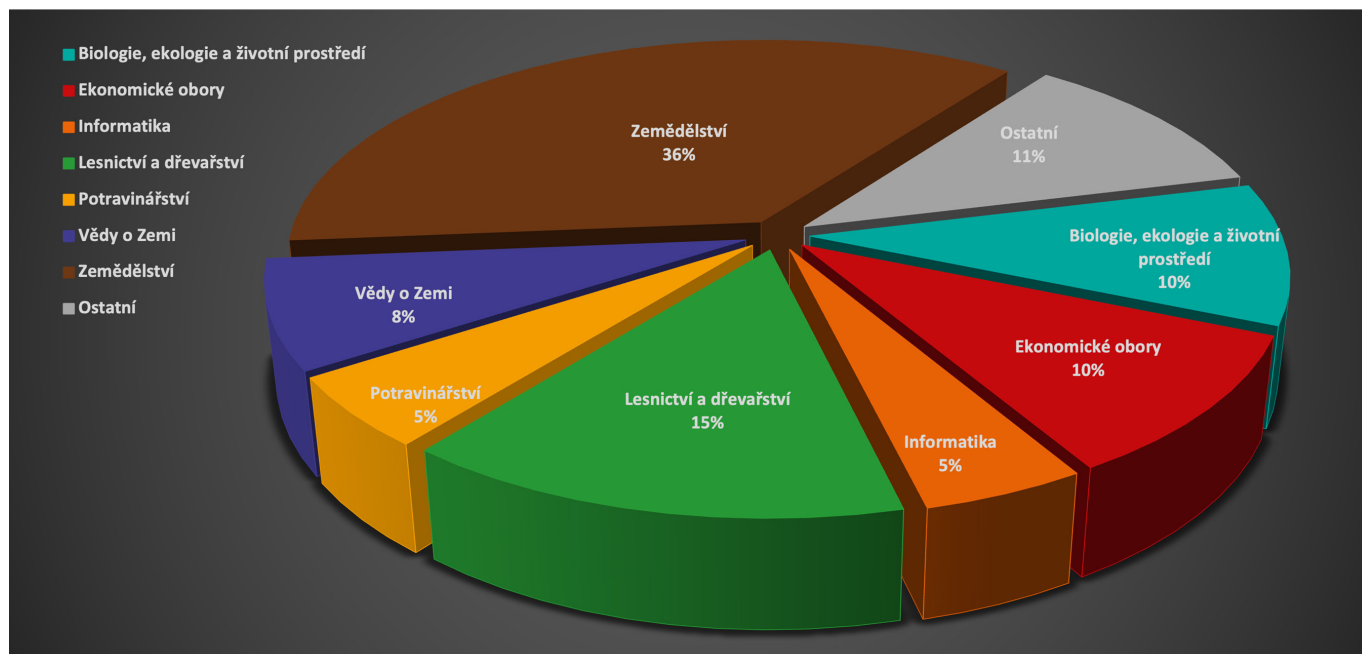


Figure 4 Representation of the fields of education in the implemented study programmes as of 31/ 12/. 2022.

ment procedure, discussion of the intention to accredit the study programme at the faculty boards and the Rector’s College, the RVH establishes a workingcommittee (the number of submitted applications for accreditation of the study programme is shown in Fig. 6), which comprehensively assesses the intent of the study programme, in parallel with the work of this committee, the OKVTC of the Rectorate assesses the fulfilment of the formal requirements for the study programme.

selected so that the Committee, as far as possible, covers all fields of education relevant to the study programme in question. The Committee in particular:

assesses the guarantees of proper security and development, especially in terms of staffing and fulfilling the requirements arising from the relevant provisions of the Act, sub-legislative legal regulations, the requirements of the NAB, and the internal and by-laws of the CZU;

The members of the **RVH Working Committee** shall be at least three representatives of the RVH (working group), of whom, where possible, at least one representative of the RVH shall be from the relevant field of education, and another member of the Committee shall be at least one internal or external evaluator, who shall be

considers the opinions of the Faculty’s Scientific Council and the Rector’s College;

includes a recommendation for approval or disapproval or return for completion.

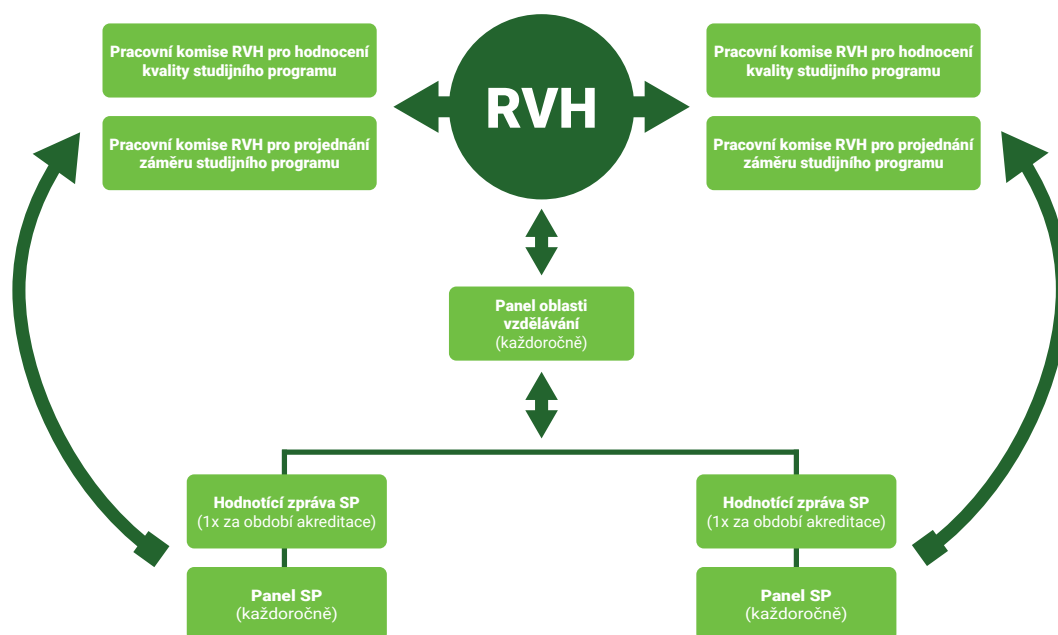


Figure 5 Scheme of the procedure of quality assurance and internal evaluation of study programmes at CZU.

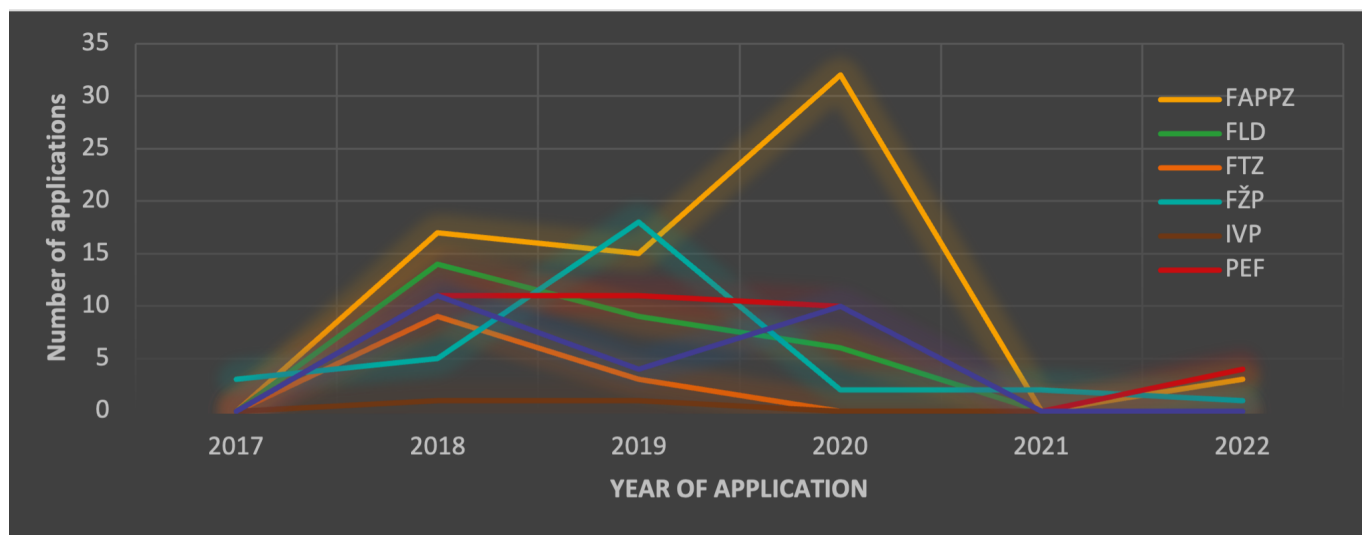


Figure 6 Number of submitted applications for accreditation of a study programme by individual faculties.

If, in the course of assessing the accreditation of a study programme, the RVH considers that the study programme provides sufficient fulfilment of the standards and adequate provision for accreditation, but nevertheless the RVH sees specific opportunities for improvement of certain qualitative indicators, it may order the guarantor of the study programme to prepare an audit report. Monitoring reports are then submitted to the RVH at specified times and map how the study programme is developing in a specific area. The number of audit reports that have been submitted to the RVH is shown in Figure 7.

programme evaluation report), which is usually carried out once per accreditation period.

- The **process of processing the programme review report** - the review report may be awarded by the NAU or the RVH.
- Extension and renewal of the authorisation to pursue a study programme and changes to a study programme in the course of its pursuit

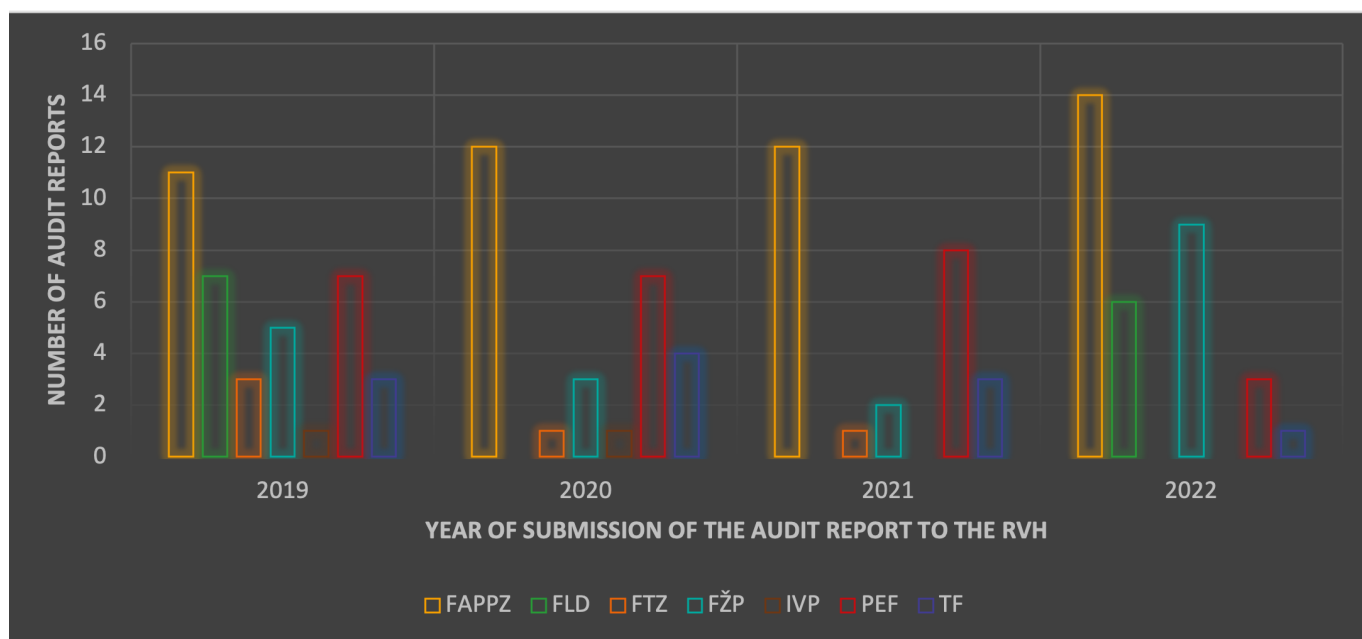


Figure 7 Number of audit reports by year of submission to the RVH.

After the accreditation of a study programme, the in-house and internal regulations of the CZU clearly define the responsibilities and competences of the study programme guarantor and the methods of evaluation of the study programme during its implementation:

- **Regular evaluation of the study programme** - annual evaluation (study programme panel) and summary evaluation (study

- Processing of approved extensions and renewals of the authorisation to carry out a study programme and changes to the study programme during its implementation
- Termination of authorisation to carry out a study programme

Annual evaluation of the study programme - the study programme panel - the activities of the study programme panel take

Průměrné závěrečné hodnocení závěrečných prací:			
Hodnocení ZP	Četnost známky	Zastoupení	Průměrné hodnocení
1	20	64,52 %	1,4194
2	9	29,03 %	
3	2	6,45 %	
4	0	0,00 %	
Celkový součet	31	100,00 %	

Průměrné hodnocení dílčích zkoušek při SSZ:			
Hodnocení SSZ	Četnost hodnocení	Zastoupení	Průměrné hodnocení
1	72	58,06 %	1,5565
2	36	29,03 %	
3	15	12,10 %	
4	1	0,81 %	
omluveno	0	0,00 %	
Celkový součet	124	100,00 %	

Figure 8 Preview data from the study programme report - state final examinations (Power BI interface).

place during the academic year, the outputs of the evaluation are implemented after the end of the academic year. The output of the study programme panel is a partial evaluation report on the quality of the study programme, which serves as the basis for a comprehensive evaluation of the study programme in the form of a study programme evaluation report, which is submitted by the study programme guarantor to the RVH at least once per study programme accreditation period. The study programme guarantor organises and manages the meetings of the panel, carries out the evaluation of the study programme and produces the report of the study programme panel. Panel members include representatives of the faculty, representatives of the academic staff of the relevant study programme, students and graduates of the relevant study programmes, external or internal experts, e.g. State Examination Board members and Practical Training Cooperation Board members. The report of the study programme panel includes a description of the achieved status in the field of study programme quality,

progress in the fulfilment of study programme objectives, SWOT analysis of the study programme, recommendations for further activities and development of the study programme, and measures to eliminate risks, if any. Since 2022, the CZU has been using the **Power BI interface** to compile the study programme report (for an example, see Fig. 8).

The functionality of the system is the responsibility of the Rectorate's OKVTC (the number of curriculum panel reports is shown in Fig. 9), information on the course of **state final examinations, study success rates, study group sizes, graduate unemployment rates** and other information related to educational, creative and related activities that are linked to a specific study programme are submitted to the study programme guarantors. For doctoral programmes, the correlation between the educational and creative activities of supervisors and doctoral students is also important.

Summary evaluation of the study programme - evaluation

report of the study programme - the relevant study programme guarantor, in cooperation with the Vice-Dean of the relevant faculty, prepares a study programme evaluation report for a period determined by the RVH, but at least once per study programme accreditation period. For study programmes that are accredited by the NAU, evaluation takes place mainly in the middle of the accreditation period. The evaluation report of the study programme is prepared following the previous evaluation in the monitored period and reflects partial reports from the study programme panels and from the relevant educational field panels. The documents for the report are also submitted to the guarantors via the Power BI interface (see Fig. 10). This evaluation provides the guarantor with the opportunity to assess and respond to the long-term development of quality standards during the implementation of the study programme. While a one-year insight will not allow a proper assessment of all aspects and specific developments, a comprehensive evaluation already provides a more complete picture of what problems may be occurring in the implemented study programme and what measures can be chosen to minimise them. The report prepared by the guarantor is subsequently submitted to the

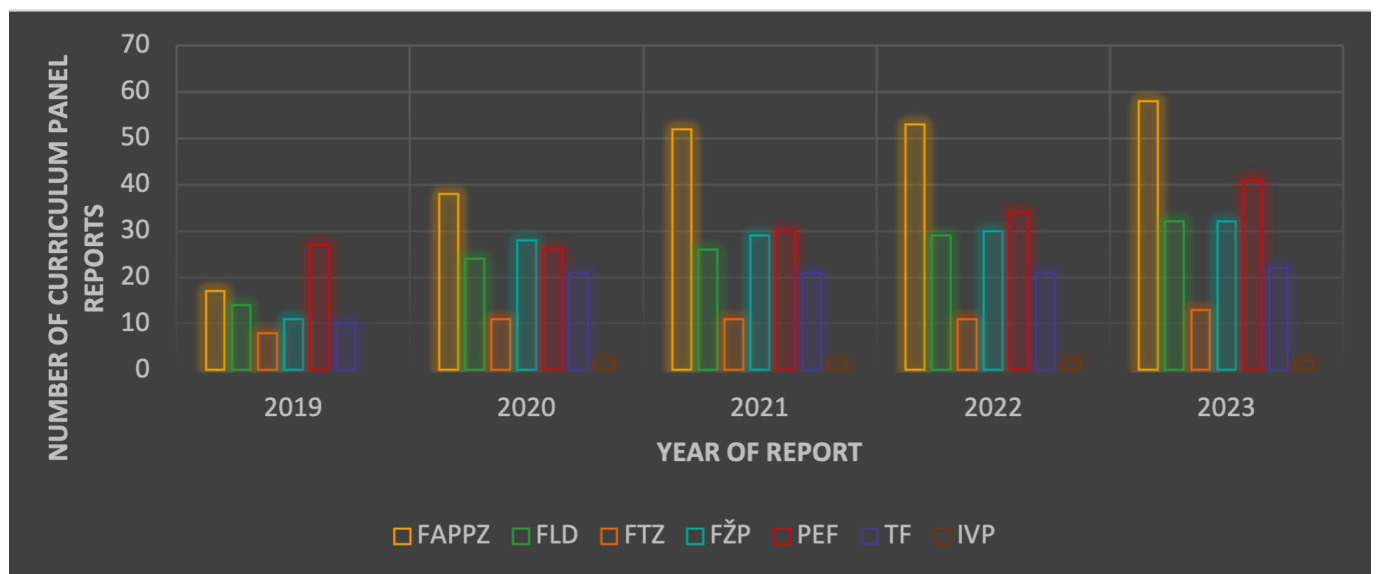


Figure 9 Number of curriculum panel reports submitted to the RVH in the relevant years.

working committee of the RVH. The Commission members include, at least, three representatives of the RVH, of whom at least one is the RVH representative for the relevant field of education if possible. For a study programme implemented in more than one field of education, a member of the Commission is, if possible, also a member of the RVH for the other field(s) of education in which the study programme is implemented. Furthermore, the Commission consists of one internal evaluator for the relevant field of education and at least one **external evaluator from practice** or an institution other than the CZU for the given field of education.

the guarantors of study programmes/courses to monitor feedback from students to individual study courses, but also to specific teachers. The evaluations are generated dynamically based on information from the schedules. The evaluation form is divided into areas in which the course can be evaluated in terms of lectures or exercises, if they are scheduled. One area is also devoted to the teachers who participated in the teaching of the student (students evaluate a specific teacher) and one free area is intended for the insertion of a verbal evaluation. Responses are anonymised and made available at several levels of the quality management system - from the teacher to the course and programme supervisor to the faculty and university management. No one from the Czech University of Life Sciences in Prague has access to the unanonymised student responses, the UIS (University Information System) supplier will not provide the data to the Czech University of Life Sciences before anonymising it. The system also allows students to evaluate the course of the exam. In the case of identified deficiencies in individual subjects or teachers, the evaluation enables managers to take measures to improve the quality of teaching. The management of faculties and head of the department, as part of their responsibility for the long-term personnel and professional development may request an extended evaluation of the IVP course and, according to the results, may order members of the faculty involved in instruction to participate in professional seminars and training courses organised by the IVP or by another body in order to increase the didactic, pedagogical and linguistic competences of the teachers. The selection reflects the results of the evaluation of educational activities and the experience of the teachers concerned. The electronic evaluation system via UIS also enables the evaluation of teaching at workplaces outside the ČZU campus, i.e. in consultation centres. In these cases, standard evaluation mechanisms are used, while the conditions for providing teaching outside the CZU campus are still being analysed in detail by the Rector's colleges and faculty boards. CZU is involved in projects that address the issue of micro-certificates as proof of completion of, among other things, lifelong learning courses. The area of

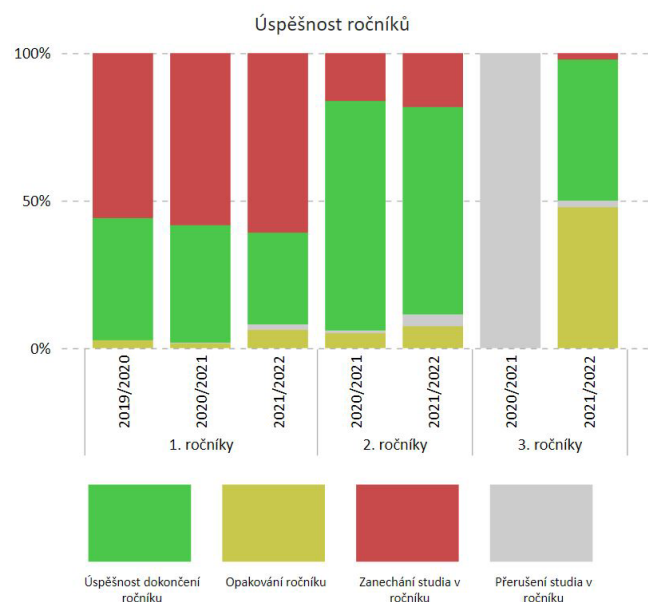


Figure 10 Preview of data from the summary assessment - academic success (Power BI interface).

The university information system offers students the opportunity to comment on the quality of the study programmes provided. It is a basic feedback mechanism usable at all levels of the quality management system, which allows, for example, through filters,

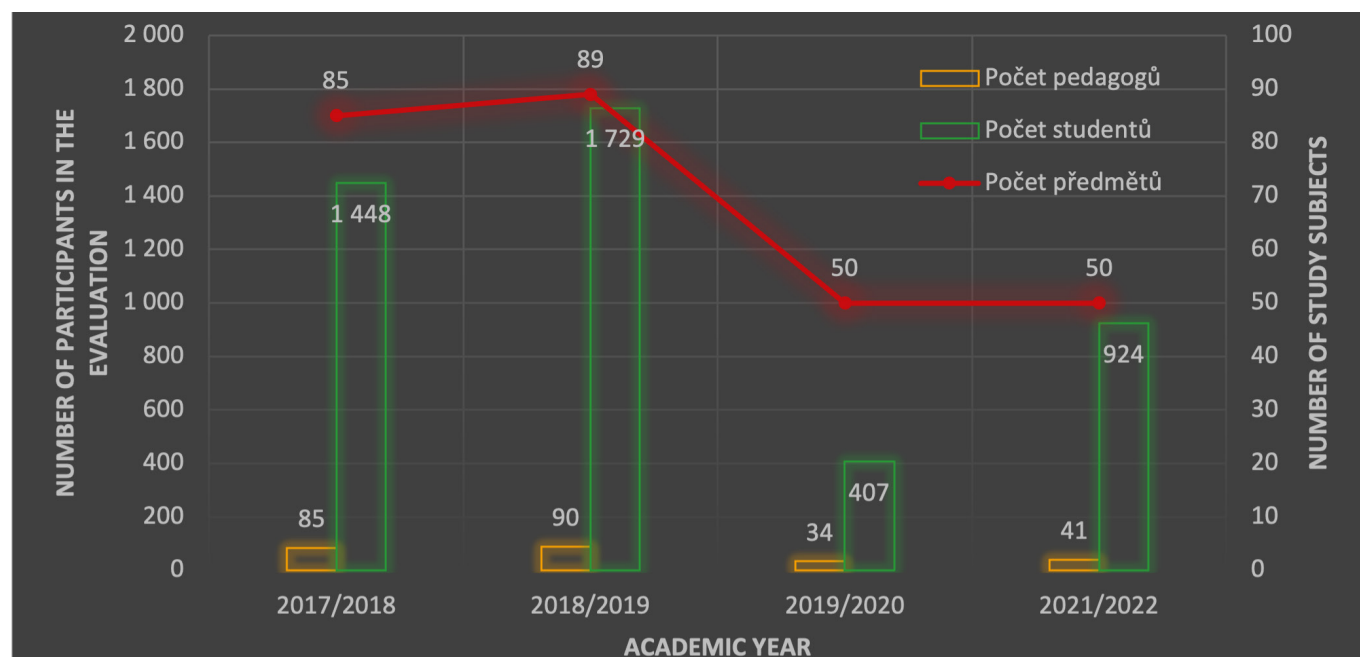


Figure 11 Numbers of IVP evaluation surveys conducted (academic years 2017/2018 to 2021/2022).

quality assurance of lifelong learning (CŽV) courses is receiving increasing attention and the introduction of a uniform evaluation of CŽV courses is planned as part of the project activities.

IVP Evaluation Survey - Evaluation of Study Courses - develops a survey on the provision of study courses in the University Information System. The evaluation was previously carried out through paper questionnaires, but has gradually been digitised and transferred to an information system. The evaluation by the IVP focuses on a specific study subject, both lectures and practical lessons within this study subject are evaluated. The selection of the study subject corresponds to the long-term evaluation plan or may be implemented following a request by the Head of the Department or the study subject guarantor, in agreement with the study programme guarantor, at the request of the study programme guarantor or at the request of the faculty management (the number of inspections carried out is included in Figure 11). At the request of the Head of the Department, and in agreement with the study programme guarantor, of the study programme guarantor or of the faculty management, an investigation may also be carried out only with a specific teacher. The results of the sub-investigations are processed by the IVP in the form of an evaluation report. The

IVP will present the evaluation report to the faculty management and the study programme guarantor. **Summary evaluations** for individual parts of the CZU and for the entire CZU are prepared after the end of the respective academic year and are provided to the management of individual faculties by the IVP. The summary evaluation for the CZU is discussed at the Rector's College and the Internal Evaluation Council.

The results of the monitored items for the teaching of the subjects included in the survey in the past years (2017/2018 to 2021/2022) reach above-average values of the scale both from the point of view of students and academic staff at CZU. A review of the average values of the overall results presented in both time series shows that the findings for the observed phenomena are fairly constant. If there is a tendency for a slight increase or decrease in the total values, this is a change of a hundredth or tenth, it is not a significant fluctuation. More significant differentiation can be found at the faculty/institute level - here the results are analysed in detail and used as an additional source of information for improving the quality of teaching by the respective vice-deans. Significant is the fact that very favourable results from the point of view of students and teachers at the level of CZU were achieved even in unusual and

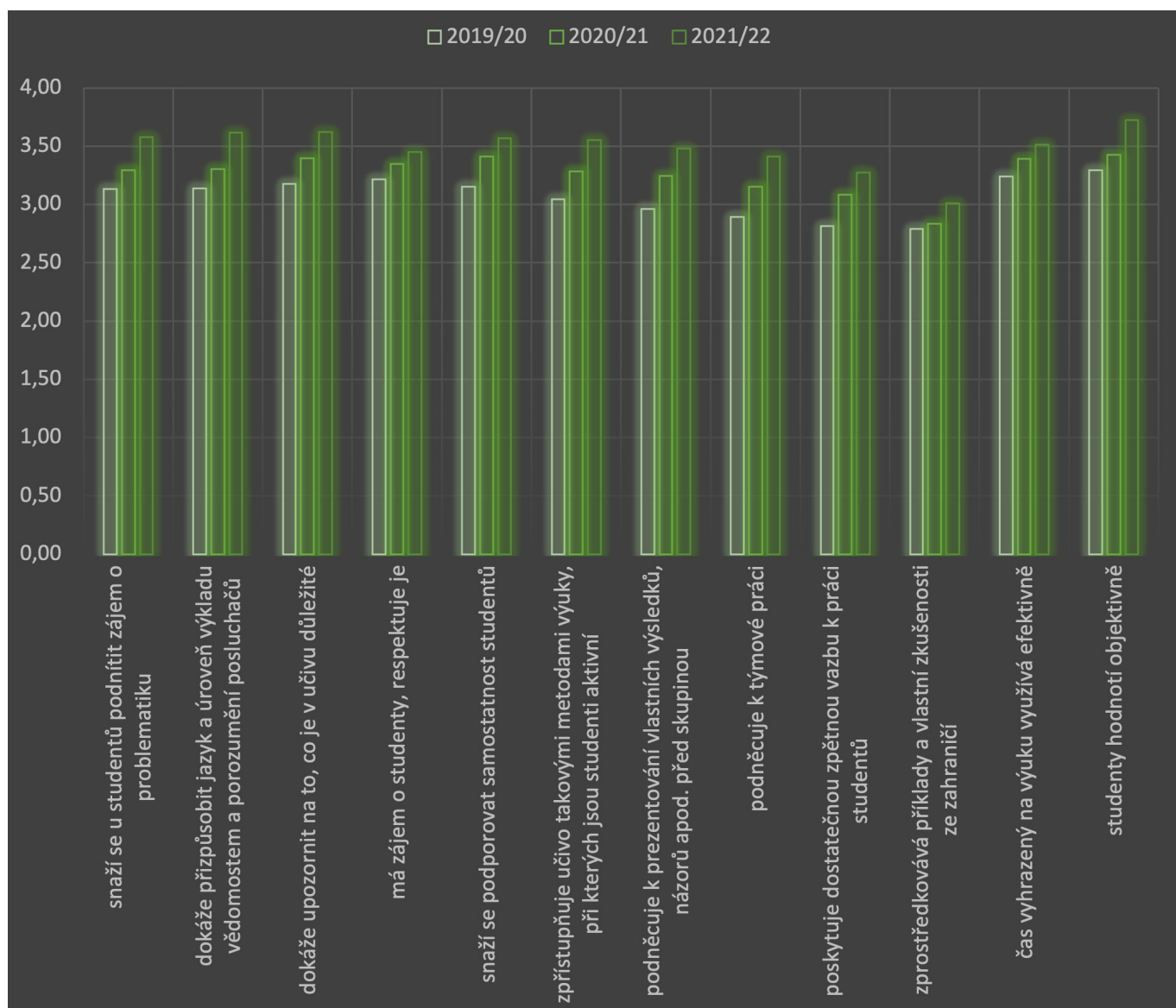


Figure 12: Assessment of student teachers' activities in the academic years 2019/2020 to 2021/2022 (average).

until then less used conditions of study implemented by remote forms of education, which indicates the flexibility and rapid adaptation of both the established system of education and its actors (an example of the results of the survey is shown in Fig. 12).

Another important aspect of the feedback comprises the **evaluations carried out by graduates** and the **analysis of graduate unemployment**. These feedbacks are implemented and processed annually by the Department for Quality of Academic Activities of the Rectorate in cooperation with the Student Affairs Office of the Rectorate. Summary evaluations for individual parts of the CZU and for the entire CZU are provided to the management of individual faculties. The summary evaluation for the CZU is discussed at the Rector's College and the Internal Evaluation Council. For example, a total of 50 courses taught at the faculties/institutes in the winter and summer semesters of 2021/2022 were included in the survey. 41 teachers and 924 full-time and combined students expressed their opinions.

CZU also addresses those interested in extending their education through courses or entire **lifelong learning programmes** (see Tab. 6). Faculty and institute representatives often collaborate with regional partners from the economic and governmental spheres on vocationally oriented lifelong learning courses, and the content of the courses is also discussed and evaluated in cooperation councils with practice. In the case of **University of the Third Age (U3V) courses** its virtual form is also very important. The faculties and the institute appreciate the opportunity to help lifelong learning courses to improve the qualifications of those interested. In some cases, the nature of the courses requires the teachers to present the entire semester's worth of material in a relatively condensed time frame in an accessible manner, but at a high professional level, or to present findings from extensive research, which is a testament to the quality of these academic staff at CZU. In relation to the University of the Third Age, the programmes offered not only deepen the existing knowledge of participants in this form of education, but also present new knowledge, fields and technologies that are otherwise inaccessible to seniors.

	2018	2019	2020	2021	2022
Kurzy ČŽV orientované na výkon povolání	28	9	19	19	18
Zájmové kurzy ČŽV	2	0	3	4	4
Kurzy Univerzity 3. věku	34	31	35	34	43
Kurzy ČŽV CELKEM	64	40	57	57	65

Table 6 Courses and lifelong learning programmes (always as of 31. 12).

ASSESSMENT OF THE STATE OF AFFAIRS IN COMPARISON TO 2017:

Most of the study fields have already been fully transformed into study programmes, most of which are implemented within the framework of the granted institutional accreditation (currently only units of students are completing their studies in the study fields). Re-accreditation of these study programmes is and will be gradually taking place. CZU has long had a stable number of students and a stable proportion of students between the different types and forms of education, and the degree of internationalisation, which is reflected in the growing number of students from abroad, is also a stable element. In recent years, pressure has been exerted to optimise the ratio of the number of students per teacher and the number of students per thesis/dissertation supervisor, and limits of these per academic staff member have been set in the CZU systems, which cannot be exceeded. The mechanisms for the development and implementation of study programmes, including feedback mechanisms, have been firmly established at the CZU, which together form an ever-evolving system of assurance and internal evaluation of educational activities. A change in internal and internal regulations has enabled full electronic registration of studies from the winter semester 2019/2020. Starting in 2019, study programme guarantors are required to submit annual reports describing the status of their study programmes. These materials serve as a basis for the RVH documenting the assurance of all standards during the accreditation of the study programme, and are also intended for the management of the CZU and individual faculties. Feedback mechanisms designed for the development and quality assurance of educational activities have been progressively computerised. This was, among other things, a response to the shift of educational activities to online and hybrid forms of learning. In the long term, the quality of teaching was not significantly affected by external influences (pandemic covid-19). Dynamically changing conditions in educational activities have contributed to the rapid development of the ability of teachers and students to use the necessary technologies for contactless ways of communication, teaching and learning.

EVALUATION

Strengths: *The portfolio of accredited study programmes corresponds to the vision and mission of the University, with a significant part of this portfolio of study programmes being implemented under granted institutional accreditation; Increasing the qualifications of teachers in the areas of non-contact teaching; Newly acquired infrastructure for hybrid forms of teaching.*

Weaknesses: *High student failure rates, especially in doctoral programmes; Low student participation in voluntary feedback schemes.*

Opportunities: *In the future, minimise possible overlaps of accredited study programmes, e.g. by reducing their number, higher use*

of specialisations within one study programme; Based on student evaluations, connect teaching more with practice; Continue to strengthen the pedagogical competences of teachers.

Threats: The impact of artificial intelligence on educational activities; High student failure rates in some degree programmes and specific subjects

SUGGESTIONS:

- *The development of artificial intelligence must be taken into account in the context of educational activities, and internal and internal regulations should be adapted to this new element in the near future - e.g. in terms of the quality of final theses.*
- *Further develop tools for evaluating lifelong learning.*
- *Further develop the evaluation of teaching at workplaces outside the premises of CZU (in consultation centres).*
- *Further motivate faculty to reduce the student to teacher ratio.*
- *Continue to strive to improve the quality of final theses.*
- *Further deepen cooperation with practice in the development and implementation of study programmes, e.g. by preparing other professionally oriented study programmes.*
- *Continue to address the issue of unsuccessful students in various CZU committees (especially the RVH) and to take measures to reduce the rate of student failure.*
- *Closely monitor the number of final qualifying theses per teacher and take appropriate measures to prevent a disproportion in the number of qualifying theses conducted by individual academic staff.*



5 / Changes achieved in the internal evaluation of creative activity

The creative activity of CZU is one of the main priorities that is given attention in all strategic materials determining the long-term framework of activities leading to the fulfilment of the basic goal of CZU, namely to profile itself as a significant research and innovative university. The annual evaluation of the quality of scientific and research activities of the CZU includes information on:

- **research projects carried out at CZU,**
- **publishing activities of members of the academic community,**
- **doctoral studies, including the evaluation of internal grant agency projects,**
- **qualification growth of academic staff.**

From the point of view of the quality system, it is also crucial to link creative and educational activities, especially in doctoral study programmes. The outputs of creative activities are evaluated through the Rector's College and the Scientific Council of ČZU, as well as the International Scientific Council, while the connection with educational activities is assessed by the RVH through annual reports and summary reports of implemented study programmes. Attention to this connection is paid especially to supervisors of doctoral study programmes, as these persons place a high emphasis on **quality creative outputs**, without which it is impossible to play the role of a full-fledged supervisor of doctoral students at the CZU. The quality of creative outputs is evaluated at CZU in particular with regard to the Evaluation of Research Organizations and Evaluation of Programmes of Special Purpose Support for Research, Development and Innovation according to the M17+ Methodology, where five basic modules are reflected:

- quality of selected results,
- research performance,
- societal relevance of research,
- viability/viability
- strategies and concepts.

According to this methodology, the quality of e.g. publication results is assessed with a breakdown into decile and individual quartiles according to AIS WoS, but also other modules of this methodology, which are also transferred to the motivation programmes of individual faculties. A sophisticated institutional **incentive system** serves as a pillar for the development of the quality of creative activities, in which CZU employees and students of doctoral study programmes are rewarded for their quality creative outputs. The tools of the incentive system are based primarily on formal recognition and financial awards, which are supported in a university-wide context, but also at the level of individual faculties or their organizational units - departments. The **Rector's Award for publication outputs of CZU employees listed in the Nature index** can be considered as motivational tools supporting the quality of creative activity. The prize is awarded to CZU employees and their teams for a scientific publication or a popularisation or applied publication listed in the Nature index (in 2022, 22 publications with 63 authors affiliated with ČZU were awarded). CZU employees are also regularly awarded for publication output in journals ranked in the 1st decile of WoS (104 publications with 147 authors will be awarded in 2022). The **Rector's Prize competition for students of doctoral study programmes for the best publication output** is also announced annually (in 2022, 50 students of doctoral study programmes applied; the authors of the 20 best publication outputs received a diploma for the Rector's Prize accompanied by a financial reward).

It is the adopted motivational tools that lead to an ever increasing quality of creative activity, as confirmed by Tab. 7-8. More and more publications are published in the first and second quartiles according to AIS WoS.

The total number of articles in the top decile has doubled since 2017, while the number of articles in Q4 according to AIS WoS is at a similar level to 2017.

	2017				2018				2019				2020				2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
FAPPZ	36	69	46	43	58	78	51	49	80	68	67	43	86	111	73	49	127	192	70	35	121	136	69	31
FLD	68	36	38	57	75	40	47	25	101	61	44	43	93	75	38	12	109	90	34	17	122	93	21	8
FTZ	8	14	13	7	13	16	21	8	18	27	18	13	28	37	28	12	20	47	21	11	25	42	17	7
FŽP	50	56	36	22	72	58	37	21	105	51	48	19	118	86	41	18	145	94	55	16	147	77	34	8
PEF	4	2	0	18	1	2	3	18	3	5	22	15	6	15	34	20	10	43	17	18	27	42	6	20
TF	5	3	12	5	5	7	12	6	10	9	10	3	5	13	19	5	7	27	16	3	7	24	8	3
IVP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ČZU	171	180	145	152	224	201	171	127	317	221	209	136	336	337	233	116	418	493	213	100	449	414	155	77

Table 7 Articles registered in the Web of Science database divided by faculties and quartiles in the respective WoS fields.

	2017	2018	2019	2020	2021	2022
D1	75	77	103	123	122	135
Q1	171	224	317	336	418	449
Q2	180	201	221	337	493	414
Q3	145	171	209	233	209	155
Q4	152	127	136	116	136	78

Table 8 Number of IF/AIS articles by quartile.

	2017	2018	2019	2020	2021	2022
	D1	D1	D1	D1	D1	D1
FAPPZ	15	18	23	23	35	23
FLD	35	28	37	31	32	36
FTZ	3	2	4	11	2	10
FŽP	20	28	37	57	49	64
PEF	1	0	1	1	3	2
TF	1	1	1	0	1	0
IVP	0	0	0	0	0	0
ČZU	75	77	103	123	122	135

Table 9 Publications in D1 according to AIS WoS.

However, there is some disparity between the quality of outputs within the individual components, which can be seen in Tab. 9, which describes the development of publications in the first decile according to AIS.

Since 2017, there has also been a significant increase in the number of articles indexed in the WoS database compared to articles in the Scopus database. This trend is due to the transition of individual faculties to high-quality publications as a result of the implementation of the 2017+ Methodology (see Tab. 10).

The quality of outputs is also reflected in **Module I - Quality of selected results** according to the Methodology of Evaluation of Research Organisations of the Government Council for Research, Development and Innovation (the so-called M17+ Methodology). For the year 2021, CZU submitted 44 results, of which 3 results were graded one, 9 results were graded two, 19 results were graded three, 12 results were graded four and 1 result was graded five.

The processes of evaluation and quality assurance of creative activities are oriented towards excellence also in the field of projects implemented at the CZU. The trend of increasing the quality of creative activities of CZU employees and students of doctoral study programmes is reflected in the number of **international (especially scientific) projects obtained** - see Tab. 11.

Among other things, 17 international Horizon Europe consortium projects were launched in 2022, as well as one **ERC Consolidator Grant** and one grant **MSCA Post-doctoral Fellowships**. Researchers from CZU have also been awarded a number of new projects by the GAČR, including JUNIOR STAR (Trajectories of genome evolution in convergent organisms) and POSTDOC INDIVIDUAL FELLOWSHIP OUTGOING (Co-evolution of lice and aphids with their hosts and symbionts). During 2022, three major projects were launched, for which the CZU serves as a coordinator. The primary mission of REFOREST is to provide new solutions that enable farmers in Europe and associated countries to help with food production, carbon sequestration and biodiversity. BETTER Life aims to support early career researchers in socially engaged life sciences research to address current societal chal-

	2017		2018		2019		2020		2021		2022	
	WoS	Scopus	WoS	Scopus	WoS	Scopus	WoS	Scopus	WoS	Scopus	WoS	Scopus
FAPPZ	194	54	236	54	258	54	319	23	424	8	357	13
FLD	199	37	187	37	249	37	218	21	250	17	244	20
FTZ	42	16	58	16	76	16	105	2	99	4	91	16
FŽP	164	22	188	22	223	22	263	11	310	4	266	6
PEF	24	63	24	63	45	63	75	34	88	27	95	40
TF	25	99	30	99	32	99	42	16	52	7	42	12
IVP	0	0	0	0	0	0	0	0	0	0	0	1
ČZU	648	291	723	291	883	291	1 022	107	1 223	67	1 095	108

Table 10 Number of outputs in WoS and Scopus databases by faculties.

	2017	2018	2019	2020	2021	2022	CELKEM PRWOJEKTŮ
FAPPZ	2	2	6	9	9	12	16
FLD	2	3	3	7	10	13	17
FTZ	2	5	5	5	6	9	15
FŽP	3	4	7	9	9	15	22
PEF	1	2	10	17	19	23	33
TF	0	2	3	4	4	3	5
IVP	0	0	1	2	2	3	4
Rektorát	0	0	0	3	7	10	11
ČZU	10	18	35	56	66	88	123

Table 11 Number of international research projects at CZU in the years 2017-2022. (Note: Some projects were carried out over several years and are counted in each year - the total number of projects indicates the total number of projects carried out over the whole period.)

lenges. The ECO-READY project will develop an observatory that will act as a unique source of information providing a real-time assessment of the food system.

In 2022, CZU continued the implementation of three projects supported by the Operational Programme Research, Development and Education (OP VVV) under the call for excellent research. The projects were as follows:

- Excellent Research in Support of Adaptation of Forestry and Wood Industry to Global Change and the 4th Industrial Revolution (EVA).
- Establishment of an Excellent Scientific Team at the Faculty of Forestry and Wood Sciences at CZU in Prague and its Instrumental and Technical Facilities Focused on Mitigation of Climate Change Effects in Forests (from gene level to landscape level).
- Centre for the Study of the Formation and Transformation of Nutrients in the Food Chain.

The **scientific excellence of CZU** is underlined by two individual grants under Horizon Europe. The first ever ERC grant at CZU was awarded to Petr Keil with his project Biodiversity Dynamics Across a Continuum of Space, Time, and their Scales (BEAST). Another great success is the project Effects of Climatic Extremes On eCO-system Stability (COCOS) from the Marie Skłodowska-Curie Actions - Postdoctoral Fellowships scheme.

Other projects that support structural and scientific excellence are: Improving the quality of the internal grant scheme at the CZU, Support for the development of international mobility of researchers II and the project Inter-Excellence/Inter-Inform (Office for the support of international projects in the field of Life Sciences III).

The data summarised above show that in terms of projects supported by national entities, the CZU is among the most prestigious sources of support for creative activity.

International research, development and creative activities focus on projects supported by **Horizon Europe**. In 2022, 35 projects

from the Horizon 2020/Horizon Europe programme were addressed at CZU, more than doubling the number of projects compared to the previous year. In addition to the projects already mentioned, many others have been launched.

In addition to these projects, the University has been involved in projects from the Erasmus, Interreg, COST, etc. The evolution of institutional support and research funding including external projects is summarised in Table 12.

ASSESSMENT OF THE STATE OF AFFAIRS IN COMPARISON TO 2017:

CZU has long placed significant emphasis on the quality of creative activities, which is reflected in a significant increase in the number of quality publication outputs in the first decile, first and second quartile according to AIS WoS. However, even the targeted motivational tools of the Rectorate and individual faculties have failed to significantly prevent disproportionality of quality results at individual units of the CZU. This disproportionality is also reflected in the distribution towards the areas of education in which the CZU carries out its activities. A similar development took place in project activities, when compared to 2017 there was a significant increase in foreign projects implemented at the CZU. CZU continues to strive to achieve a balance in the quality of results in the key disciplinary groups in which it operates. In particular, some industry groups offer a higher potential in achieving quality outputs. It can be stated that the CZU has been successful in increasing the quality of its publication outputs and projects in the long term.

EVALUATION

Strengths:

The research focus of the university and the long-term trend of increasing the quality of publication outputs and the growing share of project activities with international overlap, with the associated increase in resources from the field of creative activities; Modern equipment of laboratories and workplaces, which allows the imple-

	2017	2018	2019	2020	2021	2022
FAPPZ	3 431 334,00	3 431 337,00	7 167 800,00	7 167 800,00	8 086 300,00	8 009 800,00
FLD	1 621 090,00	1 621 090,00	3 438 600,00	3 438 600,00	4 300 000,00	4 293 300,00
FTZ	570 266,00	570 267,00	1 243 800,00	1 243 800,00	1 237 300,00	1 225 600,00
FŽP	1 935 487,00	1 935 485,00	4 318 900,00	4 318 900,00	4 755 900,00	4 710 900,00
PEF	6 136 111,00	6 136 112,00	12 212 200,00	12 212 200,00	9 899 600,00	9 806 100,00
TF	1 650 586,00	1 650 584,00	2 876 400,00	2 876 400,00	2 905 600,00	2 878 200,00
IVP	261 125,00	261 126,00	461 300,00	461 300,00	319 500,00	315 600,00
Rektorát	37 222 001,00	37 221 999,00	31 719 000,00	31 719 000,00	31 570 800,00	31 239 500,00
ČZU	52 828 000,00	52 828 000,00	63 438 000,00	63 438 000,00	63 075 000,00	62 479 000,00

Table 12 Development of institutional support (IP) and research funding including external projects (grants and IP) (in CZK thousands) between 2017 and 2022.

mentation of excellent research projects; Broad incentive mechanisms to support quality outputs.

Weaknesses:

Disproportionality of quality outputs of creative activities between individual parts of the CZU and individual organizational units.

Opportunities:

Searching for new foreign project partners and new types of challenges; Increasing the number of excellent international scientific projects, increasing the share of quality outputs (Q1 and Q2) compared to other results in the fields of education in which the CZU carries out its study programmes, especially in certain subject groups.

Threats:

Competition in the field of applications for grant support, instability in the rules and conditions of external grant agencies; Publication in journals of some publishers bearing the characteristics of predatory journals.

SUGGESTIONS:

- **Support interdisciplinary research teams and international research teams. Continue to take supportive measures leading to quality creative activity.**

- **Further support the development of the University's profile disciplinary groups..**
- **Targeted and effective support of quality creative activities at individual faculties, thus to compensate for the disproportion of quality outputs between some parts of the CZU and scientific disciplines carried out at the CZU.**
- **Attract promising scientists from abroad and to enable their long-term career growth at CZU.**



6 / Changes achieved in the internal evaluation of related activities

Spatial and instrumental facilities are an essential support for the development of educational and creative activities. Due to the constantly increasing demands on the quality of academic staff, it is necessary to develop and improve mechanisms for the development and monitoring of the necessary adjustments/changes in the premises and equipment of CZU. These activities are linked to the preparation of the annual activity reports each year and also in line with the evaluation of the strategic plan, but also in the case of the corresponding centralised development projects or PDSD. In recent years, CZU and its faculties have invested primarily in equipment to ensure the quality of educational activities during on-line forms of teaching.

The **CZU Library** is an important element in the area of related activities, especially in terms of providing citation resources and support to students and staff. The CZU Library has also been involved in the development of academic staff training programmes for a long time. Courses, seminars, individual consultations and other activities in this area are closely related to the education of doctoral students, but are even more often devoted to the use of information resources in teaching and in their own creative activities. The aspect of evaluating the results of creative activity is becoming increasingly important. A new - and in the future very important - element of academic staff training provided by the library is various aspects in the field of open science. The CZU Library is preparing new courses dedicated to the issues of working with research data, its storage and sharing - including the preparation of a data **management plan**. Other courses for CZU employees are focused mainly on effective work with electronic information resources, citation managers and tools for evaluating the results of scientific publishing (especially the WoS and Scopus citation databases, including the analytical tool InCites). Due to the

interest, courses are also offered on the prevention of publishing in predatory journals or managing social networking profiles for science. Seminars on the creation and management of scientific identifiers (especially ORCID) are already held regularly.

Increasing staff competencies is essential from a quality perspective in the rapidly changing environment of higher education institutions. In 2022, CZU created the **Career Code** as a new internal regulation that establishes motivational tools for remuneration of employed persons depending on their performance and the quality of their work, sets new rules and the obligation to create career plans and regular evaluations of their ongoing performance. The continuous effort of the CZU to improve the qualification and education of academic and other employees can be described as the main point of the functional system of internal evaluation and quality assurance management. A number of trainings and employee qualification upgrading took place in the past years within the **HR AWARDS project (Strategic setting of human resources at the CZU in Prague)**. Soft skills courses are regularly held at the CZU, which have enabled employees to expand their knowledge in many areas of their professional development:

- Managerial skills,
- Communication skills,
- Time management

English language classes are also offered for university employees, thanks to which interested parties can deepen their language skills, which are crucial for the optimal functioning of the ČZU, free of charge. An important pillar of the CZU's HR strategy is the effort to accommodate its employees during any professional breaks. In cases where it is technically feasible, CZU also accommodates

	2018/2019		2019/2020		2020/2021		2021/2022	
	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní
FAPPZ	89	34	61	14	22	11	85	31
FLD	8	10	11	19	52	3	52	3
FTZ	18	87	14	64	8	38	21	32
FŽP	52	87	40	28	9	52	73	89
PEF	153	0	142	0	122	0	90	3
TF	27	8	23	14	12	4	52	3
IVP	5	6	3	3	5	8	3	1
ČZU	352	232	294	142	230	116	376	162

Tab. 13 Mobilita - počty výjezdů (studenti - Erasmus STA, STT).

requests to work from home. CZU has developed a **Gender Equality Plan** for the period 2022-2024. CZU operates a company-run children's group called **Školka Poníček**, which it established pursuant to Act No. 247/2014 Coll. to enable its employees - parents - to return to work even when caring for a small child, who can be placed in this children's group with regular kindergarten-style care..

Cooperation with practice is evaluated annually at the Rector's Colleges, where individual faculties and institutes submit regular reports on this cooperation. This is a broad area that is permeated by both educational and creative activities, and includes activities such as job fairs for students of CZU, consultations for the application sphere, etc. Cooperation with practice in connection with educational activities is implemented at individual faculties through the **Councils for Cooperation with Practice**. The conclusions of this cooperation should also be reflected in the development of the study programmes implemented at CZU.

Internationalisation (from teaching in foreign languages, foreign teachers and researchers, study of foreign students to mobility of students and employees or international research) is an integral part of the functioning of the CZU (see Tab. 13). Regular evaluation of international activities takes place at the Rector's and Deans' Colleges and at the Scientific Council of the CZU once a year.

CZU maintains its leading position among Czech universities in terms of international activities. Internationalisation at CZU has long been developed in conjunction with teaching in foreign languages (specifically English). In recent years, there has been a **significant increase in study programmes taught in English**. This step has also strengthened the offer of study courses taught in English, which, among other things, can be used by incoming students on Erasmus mobility (see Tab. 14). Due to a change in the standards for accreditation of study programmes, **English-taught courses** are also offered to students studying in

	2018/2019		2019/2020		2020/2021		2021/2022	
	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní
FAPPZ	207	13	149	19	58	9	105	17
FLD	71	5	68	24	11	20	3	5
FTZ	25	7	21	9	3	3	37	4
FŽP	79	25	93	17	59	2	75	16
PEF	3382	0	306	0	220	0	155	5
TF	24	14	57	2	13	10	3	5
IVP	3	20	5	0	5	0	4	5
ČZU	3791	84	699	71	369	44	382	57

Table 14 Mobility - number of arrivals (students - Erasmus STA, STT).

	2018/2019		2019/2020		2020/2021		2021/2022	
	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní
FAPPZ	35	225	13	128	15	52	50	314
FLD	25	61	22	0	14	8	14	8
FTZ	51	114	57	115	16	60	27	76
FŽP	37	88	20	91	3	8	29	187
PEF	46	52	7	0	15	0	14	8
TF	64	107	32	44	21	19	14	8
IVP	6	17	1	12	0	3	9	6
ČZU	264	664	152	390	84	150	157	607

Table 15 Mobility - number of trips (staff - Erasmus STA, STT).

	2018/2019		2019/2020		2020/2021		2021/2022	
	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní	Erasmus	Ostatní
FAPPZ	25	73	7	18	7	4	20	35
FLD	23	75	19	50	7	15	1	15
FTZ	14	108	9	8	3	0	13	0
FŽP	5	37	2	11	0	2	11	16
PEF	16	32	8	12	9	0	1	15
TF	55	8	20	5	10	5	1	15
IVP	7	7	2	1	0	1	15	15
ČZU	145	340	67	105	36	27	62	111

Table 16 Mobility - number of arrivals (staff - Erasmus STA, STT).

Czech. This approach supports the international reach of educational activities.

As part of the internationalisation process, pressure is also exerted on students of the CZU to go to a foreign institution at least once during their studies as part of the Erasmus programme (such a foreign internship is compulsory in doctoral study programmes). Internationalisation has been significantly affected in recent years by the covid-19 pandemic. Due to the restrictions, **student** and staff **mobility** could not take place at all or with major restrictions in 2019 and 2020. An integral part of foreign mobilities are also employees of CZU and employees coming from partner institutions (Tab. 15 - 16) International relations are also supported by visits and stays of foreign guests at CZU, including ambassadors of some embassies in the Czech Republic. Relations with foreign partners are institutionally secured by bilateral agreements with universities abroad. Activities in international organisations and university networks are an important investment in the quality of international activities. A key activity has long been participation in the Euroleague for Life Sciences (ELLS), where the CZU mainly participates in two joint (joint and double degree) programmes.

The increasing quality of activities at the CZU also influences the position of the CZU in international rankings of higher education institutions. The Czech University of Life Sciences appears in one of the five main areas ranked in the latest QS World University Rankings (2022) by discipline, namely Life Sciences & Medicine. In the competition of universities with medical faculties, this is an excellent ranking, with Palacký University also in the main subject area, only Charles University and Masaryk University being better ranked. In the field of Agriculture & Forestry, which falls under the main subject area of Life Sciences & Medicine, CZU ranked **62nd as the best university in the Czech Republic**. In the field of Environmental Sciences, CZU ranks 201st-250th worldwide and is also the best in the Czech Republic together with Masaryk University. The most comprehensive edition of the QS World University Rankings to date evaluated more than 15,700 different academic programmes from 1,594 institutions around the world. In 2022, 103 new educational institutions were added to the list. This ranking is the result of the work of the entire academic community. In 2019, CZU was ranked 151st in the field of Agriculture and Forestry. -200th and in the field of Environment, the CZU did not feature in this ranking at all..

A great comparison of 700 universities in terms of fulfilling the environmental dimension of sustainability is provided by the QS World University Rankings. The Czech University of Life Sciences in Prague is ranked 158th and is the best among Czech universities (2022).

The Academic Ranking of World Universities (ARWU), a prestigious and one of the oldest rankings evaluating the research activities of universities (also known as the Shanghai Ranking), has published data for the year 2022, according to which CZU is ranked **4th in the Czech Republic** (together with CTU). Worldwide, the CZU is ranked 801st -900th place out of approximately 2,500 ranked universities (there are over 30,000 universities in the world).

CZU first appeared in this ranking in 2018, when it was ranked 5th in the Czech Republic (and 901st-1000th globally). Moving up the rankings in five years demonstrates the increasing quality of research at our university.

CZU has adopted a **social responsibility strategy** that is linked to the Sustainable Development Goals. There is a position of a **Corporate Social Responsibility and Sustainability Coordinator** at the CZU, who reports to the Vice-Rector for Development and Sustainability. At the same time, the CZU has established the **Sustainable Development Council**, which will serve as an advisory body. CZU annually summarises its social responsibility activities in a **non-financial CSR report**. In 2022, CZU became the top-ranked university in the Czech Republic in rankings assessing social responsibility and sustainability. **In the UI GreenMetric Ranking 2022, CZU was ranked 45th overall** out of a total of 1,050 universities and colleges from around the world. Based on the evaluation of the implementation of the sustainability principles, the management of CZU has plans to strengthen its social responsibility by implementing the newly adopted Gender Equality Plan. CZU regularly announces the CZU Campus Sustainability Challenge student competition with the aim of strengthening the sustainability of the CZU campus. In 2022, a total of three student projects were entered into this competition, from which the expert committee selected a project of a small biogas plant for implementation based on the presentations. Its installation on the CZU campus should be completed by the student team in 2023.

ASSESSMENT OF THE STATE OF AFFAIRS IN COMPARISON TO 2017:

CZU has been increasing the level and quality of space and instrumentation through long-term conceptual activities so that the campus equipment reaches the expected international standards necessary for solving excellent research projects and at the same time the space and instrumentation provide a modern environment for the implementation of educational activities. Since 2017, investment has also been made in equipment and resources that enable the inclusion of online and hybrid elements of teaching and communication in educational activities. These technologies were used to equip lecture rooms, classrooms and conference rooms, as well as laboratories. Significant investments were also made in the development of information systems - the creation of a new intranet, a new communication platform for employees, the Power BI interface, etc. After the covid-19 pandemic subsided and the restrictions on travel were lifted, the rate of arrivals and departures of students and teachers slowly increased. In connection with the continuous modernisation of the instrumentation, it is necessary to increase the qualifications of the employees. In this respect, the CZU has a sophisticated network offering a number of courses and educational events. Since 2017, the social responsibility of CZU has also been firmly anchored in the management structure; the position of the social responsibility coordinator was created, who reports directly to the

Vice-Rector. This step has significantly increased awareness of social responsibility among students and employees of CZU.

EVALUATION

Strengths: Modern spatial and instrumental facilities of CZU; Ability of individual departments to adapt to new conditions and optimise set processes (e.g. dormitories and canteen, CZU Library); Continuous activities developing competences of employees and students; Very good long-term positioning of CZU in important international rankings reflecting the quality of universities; Developed responsibility for social responsibility, which is anchored in the management structure of CZU; High level of internationalization.

Weaknesses: Persistent restrictions (covid-19) preventing travel, and even so lower student interest in mobility in previous years.

Opportunities: Developing the concept of working with graduates in the overall strategy of the University..

Threats: Reflection of anti-epidemic measures and other external influences, including energy prices, into the management of the CZU.

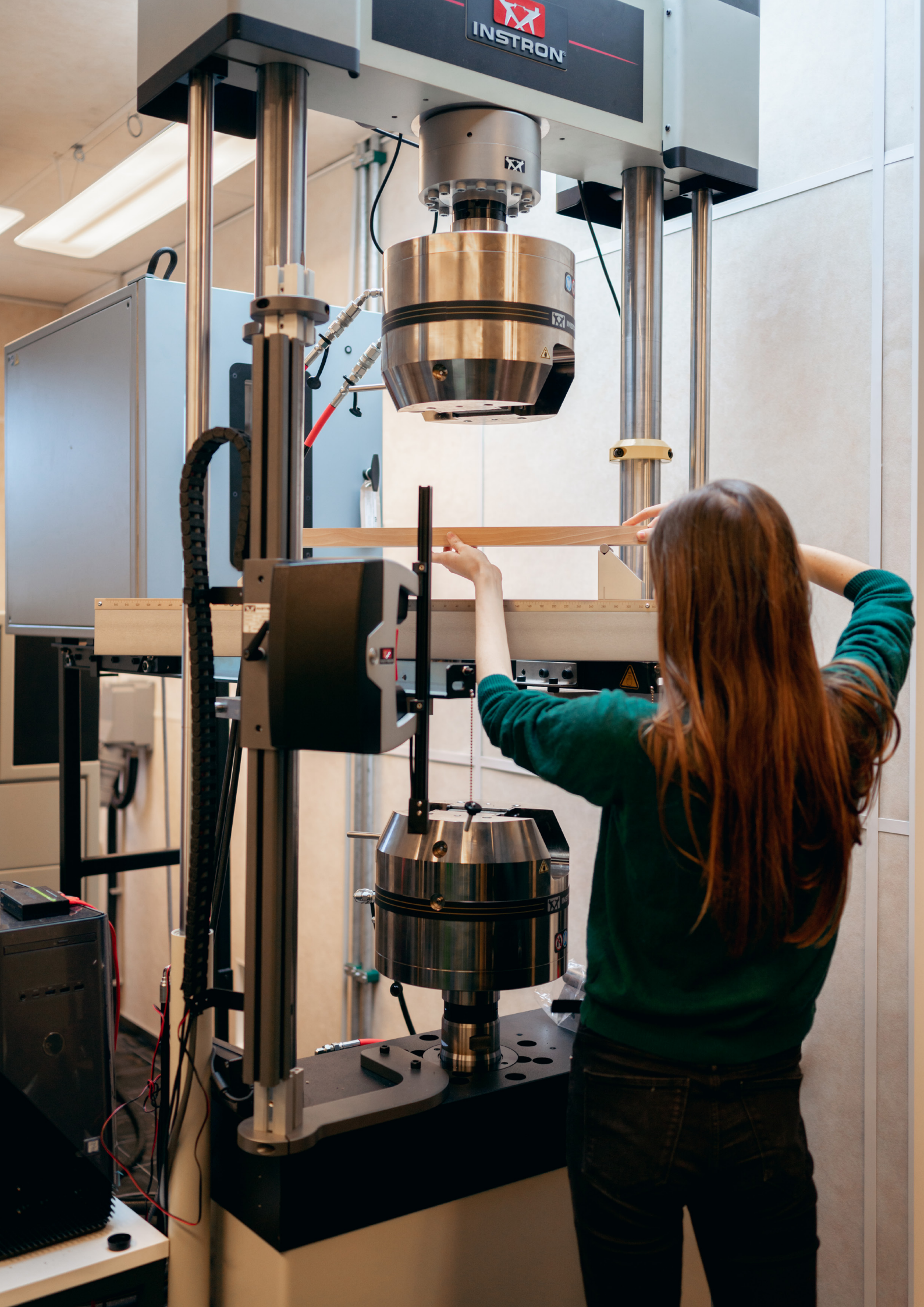
SUGGESTIONS:

- Further develop CSR activities at CZU.
- Increase the international impact of accredited study programmes and activities.
- Attract quality teachers and researchers from abroad, support the involvement of foreign teachers in educational and creative activities at the CZU.
- Continue to use data from international university rankings to analyse the position of the CZU and to develop the university's governance mechanisms.
- Improve the material and spatial facilities on the CZU campus and in the „consultation centres“.



7 / Final Recapitulation

This report on internal quality assessment describes the progress since the last report (2017) and expands the information that CZU prepares annually in the form of supplements to these reports (2018, 2019, 2020, 2021). The system of quality assurance and internal evaluation of educational, creative and related activities is firmly established at the CZU and its units, and based on the activities analysed in this report, it can be stated that it has developed significantly at the CZU in recent years, and the basic mechanisms of evaluation and quality assurance have been stabilised, leading to ever-increasing demands for excellence. The implemented system is continuously developed and improved on the basis of the experience gained and feedback mechanisms. External evaluations of the CZU, including the international evaluation of the IEP, which the CZU has passed, enable the fulfilment and development of internationally recognised standards that are set for prestigious and excellent higher education institutions. This development is also supported by the self-assessment reports that are prepared for these external evaluations and, beyond the legislative framework, serve as an important feedback for most of the activities carried out by the CZU. A functional system of internal evaluation and quality assurance has stood up to the turbulent times to which educational and research institutions have been exposed in recent years. The fact that the quality assurance system of CZU can dynamically reflect changing external and internal conditions shows that it is fully functional. In the near future, we can expect a number of new challenges to which the quality assurance and management system at CZU will have to adapt quickly, such as artificial intelligence and its gradual implementation in university environments.





Vydala Česká zemědělská univerzita v Praze

Kamýcká 129, 165 00 Praha-Suchbát

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