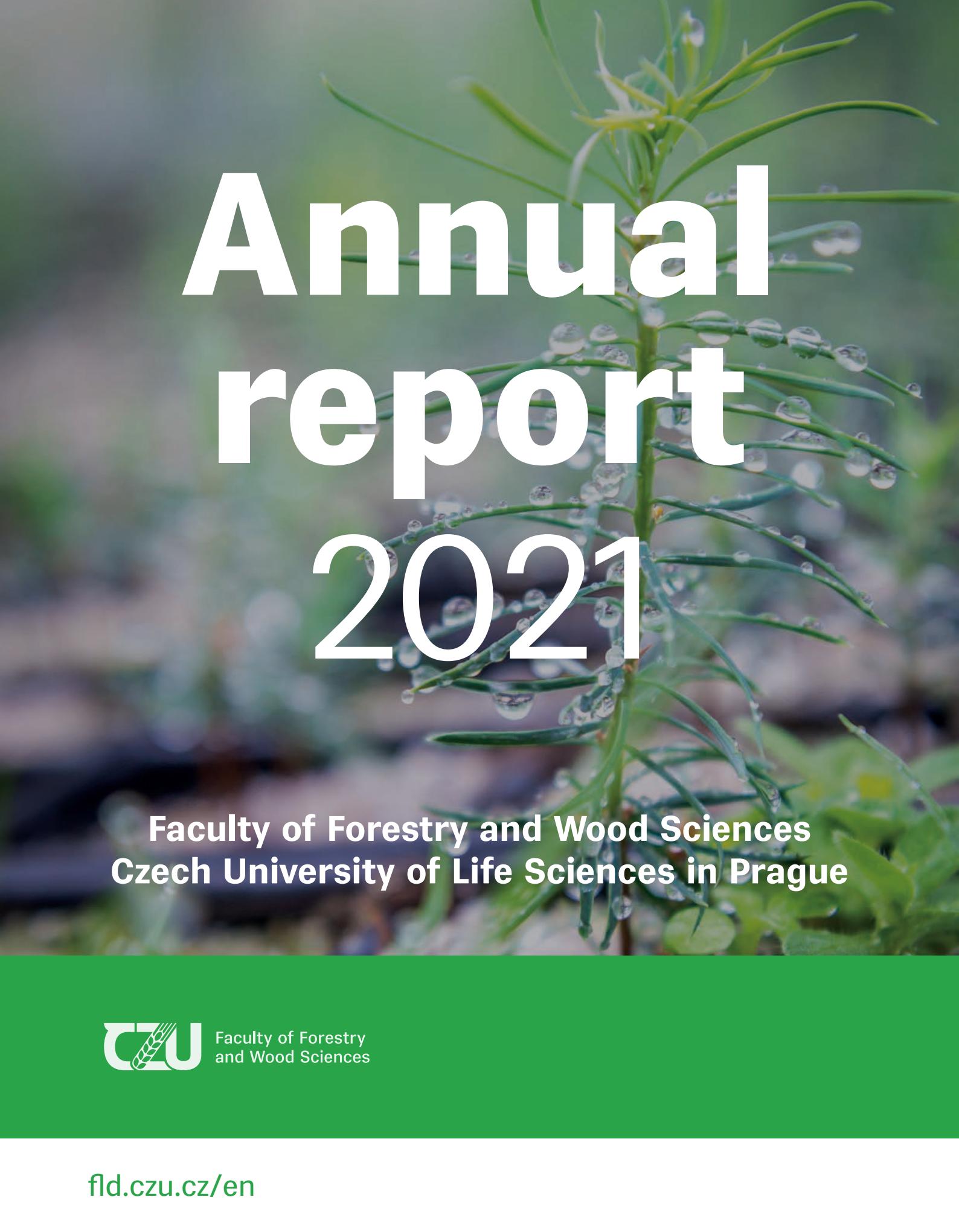


Annual report 2021

A close-up photograph of a pine tree branch. The branches are covered in numerous small, clear water droplets, likely from morning dew. The needles are long and thin, radiating outwards from the branches. The background is blurred, showing more of the green foliage of the tree.

**Faculty of Forestry and Wood Sciences
Czech University of Life Sciences in Prague**



Faculty of Forestry
and Wood Sciences

**Faculty of Forestry and Wood Sciences
Czech University of Life Sciences in Prague
Annual Report 2021**

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1

Introduction



1 Dean's introductory words



Despite all the optimism we had about the pandemic situation at the beginning of 2021, Faculty activities were affected by the ongoing pandemic throughout the year.

The year 2021, especially the first half, was marked by online lectures, hybrid teaching and testing, and limited foreign activities and Faculty events. However, I am pleased to say that, even in 2021, this difficult period did not have any significant negative effects on the teaching or research activities of the Faculty. I see 2021 as very successful. Many thanks to all departments and staff who contributed to this success. Each department is specific in a certain way and contributes to overall Faculty performance in its comparative advantage: excellent publications, application outputs, participation in international projects, or high performance in education.

In terms of the Faculty's conceptual development, the FLD Strategic Plan 2021+ was prepared and approved by the Faculty bodies in 2021. Every year, the annual plan for its implementation, as well as the funding of its objectives, will be based on this document. The set development plans were presented and discussed in the academic

community, at the Faculty's Scientific Board, and in the Academic Senate.

In 2021, the Faculty provided teaching in all accredited bachelor's and master's degree programmes. The first graduates completed their studies in the study programme Timber Constructions and Structures based on Wood. Final exams of students who completed half (in the case of master's programme students even three quarters) of their studies online were specific. A favourable trend in education is the increasing number of students receiving merit scholarship.

After a one-year break, a summer school was held for our students, which followed on from two very successful previous events abroad. This time it was with a focus on forests and semi-natural farming in Slovakia. In addition, two summer schools for foreign students took place at our Faculty; the first was with a focus on forestry, the second on wood sciences, both with great success and the ambition to continue in the years to come. A less favourable fact was the stagnation of foreign mobility of students and teachers and the limited implementation of the Faculty programme to support visits and lectures of experts from abroad as well as trips of Faculty staff and PhD students to lecture and research stays and internships abroad.

The Faculty's priority in scientific research

is outputs in the form of publications in the Nature Index category, in journals of the first decile, the first two quartiles and, of course, outputs applicable in practice. Supported Faculty programmes for excellent science, motivation of employees and PhD students, quality application outputs, popularization of science, and transfer of scientific results into teaching were subordinated to this strategy. The result is the historically highest number of publications in journals in the Nature Index category (12 in total) and in journals with impact factor (249 in total). Another very positive result is that more than 80% of them were published in journals of the first and second quartiles, and almost half of all publications have the first author from our Faculty.

The year 2021 was also successful for the Faculty in terms of obtaining international projects. Faculty support for involvement in international consortia has proven to be the right way to succeed in Horizon 2020, Horizon Europe, and LIFE programmes. The result is the support of four project applications, with the Faculty being the coordinator of the entire project consortium in one of them. In 2021, a total of 13 international and 49 national projects were implemented at the Faculty.

As for international activities, the Faculty participated in the organization or co-organization of several international scientific meetings and conferences, the most important of which were the annual conference of the European Forestry Institute (EFI) and the IUFRO conference.

In the area of investment, the Faculty carried out the construction of a Faculty warehouse

in 2021 and began two stages in the project of completion and reconstruction of the so-called old FLD building. In total, the Faculty managed non-investment funds to a total amount of CZK 349.5 million and made investments for CZK 68.2 million. The Faculty budget made it possible not only to recruit new pedagogical and scientific research staff and postdocs, but also to increase the total amount of salary funds.

In 2021, we also dealt with the social aspect at the Faculty in the form of the second year of the FLD Family Day, a Christmas concert, and the publication of an internal newsletter. In the area of social responsibility, it is certainly worth mentioning that in addition to regular events, the Faculty participated in the opening of the "Tree of Life" place of reverence at the Motol University Hospital, as well as financial and material assistance to municipalities in the South Moravian region affected by the tornado.

In the annual report for 2020, I wished I could evaluate 2021 even more positively than 2020. Looking back on 2021 and evaluating it, I can say that, despite the various limitations and complexities of the time, last year was a real success for the Faculty. I believe that my evaluation of the following year will be the same, or even more positive.

prof. Ing. Róbert Marušák, PhD.

dean



High-tech pav



2

Basic FLD data



2 Basic FLD data

Full name and address of the Faculty

Full name

Faculty of Forestry and Wood Sciences
Czech University of Life Sciences in Prague

Faculty address

Czech University of Life Sciences in Prague
Faculty of Forestry and Wood Sciences
Kamýcká 129
165 00 Praha – Suchdol

English translation of the Faculty name

Faculty of Forestry and Wood Sciences
Czech University of Life Sciences Prague

Commonly used abbreviations

FLD ČZU
FLD
FLD CZU (in English)
FLD (in English)

Organization chart and structure of FLD



Composition of the Academic Senate, the Scientific Council and the FLD Management

FLD Academic Senate

Academic staff

doc. Ing. Oto Nakládal, Ph.D.,
předseda
prof. Ing. Jaroslav Červený, CSc.
doc. Ing. Vlastimil Hart, Ph.D.
doc. Ing. Martin Jankovský, PhD.
Ing. Radim Löwe, Ph.D.
Ing. Roman Modlinger, Ph.D.
doc. Ing. Vítězslava Pešková, Ph.D.
doc. Ing. Peter Surový, PhD.

Students

Bc. František Čepický
Samuel Gavaá
Ing. Anna Herrová
Ing. Václav Silovský

FLD Scientific Board

Internal members – FLD employees

prof. Ing. Róbert Marušák, PhD.,
Chairman
prof. Ing. Jaroslav Červený, CSc.
doc. Ing. Milan Gaff, PhD., until 19. 4. 2021
doc. Ing. Monika Sarvašová Kvietková,
PhD., from 20. 4. 2021
doc. Ing. Miroslav Hájek, Ph.D.
doc. Ing. Vlastimil Hart, Ph.D.
prof. RNDr. Tomáš Hlásny, PhD.

prof. Ing. Jaroslav Holuša, Ph.D.

doc. Ing. Tomáš Kušta, Ph.D.

prof. Ing. Milan Lstibůrek, MSc., Ph.D.

doc. Ing. Vítězslava Pešková, Ph.D.

prof. Ing. Vilém Podrázský, CSc.

prof. Ing. Jiří Remeš, Ph.D.

doc. Ing. Peter Surový, PhD.

prof. Ing. Miroslav Svoboda, Ph.D.

prof. Ing. Luděk Šišák, CSc.

prof. Ing. Marek Turčáni, PhD.

Internal members – other CZU faculties and workplaces

prof. Ing. Martin Hanel, Ph.D.

prof. Ing. Václav Hejnák, Ph.D.

doc. Ing. Milan Houška, Ph.D.

doc. Ing. Bohdan Lojka, Ph.D.

doc. Ing. Jiří Mašek, Ph.D.

External members:

prof. Ing. Marek Fabrika, PhD.

prof. Dr. Ing. Libor Jankovský, CSc.

prof. RNDr. František Kačík, Ph.D.

Ing. Petr Král

Ing. Tomáš Krejzar, Ph.D.

prof. RNDr. Ing. Michal V. Marek, DrSc., Dr. h. c.

Ing. Tomáš Pařík

Ing. Pavel Rus

Ing. Lenka Trandová

doc. Ing. Petr Zahradník, CSc.

Ing. Milan Zerzán

Management of the Faculty of Forestry and Wood Sciences

Dean

prof. Ing. Róbert Marušák, PhD.

Vice-deans

Ing. Radek Rinn,
First Vice-Dean, Vice-Dean for Strategy,
Development, and International Relations

Ing. Jan Kašpar, Ph.D.,
Vice-Dean for Quality Assurance

doc. Ing. Tomáš Kušta, Ph.D.,
Vice-Dean for Science, Research, and
Doctoral Studies

Ing. et. Ing. Markéta Kalábová, Ph.D., Vice-
Dean for Education

Secretary

Ing. Martin Prajer, Ph.D.



3

Educational activities



3 Educational activities

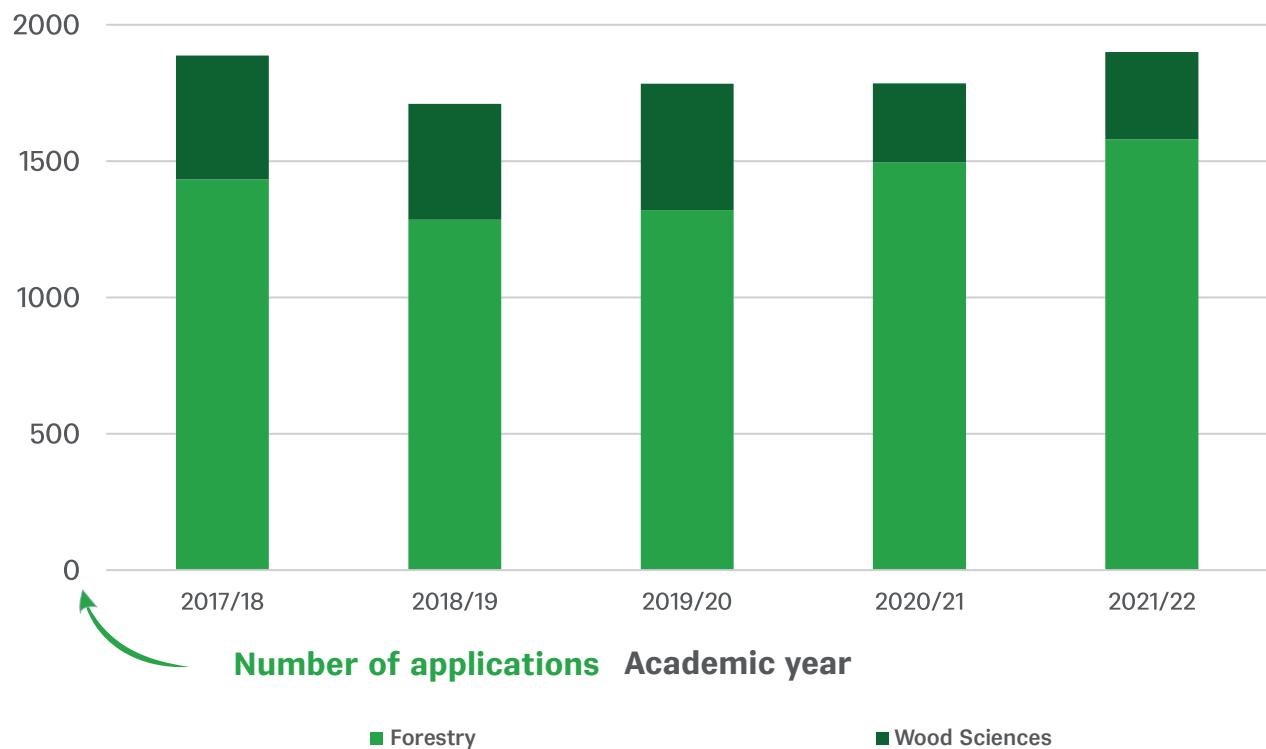
The educational activities of the Faculty were also partially affected by the coronavirus pandemic in 2021. Teaching in the summer semester took place completely in a distance environment through the MS Teams and LMS Moodle platforms. The winter semester of the academic year 2021/22 began in hybrid form; lectures took place in lecture rooms and were also broadcast online to avoid the accumulation of a large number of students. Practical lessons took place only in person.

Admission exams took place at the beginning of June 2021 according to plan. Interviews in Czech for Czech-taught study programmes for foreigners and interviews in English for English-taught study programmes took place online via Skype.

A total of 1,900 applications were enrolled, which is 44% enrolment submitted in the two application stages, with a predominance of admission exams, on the basis of which interest in forestry study programmes. 1,400 students were admitted. Interest 838 students were subsequently in studying at FLD is increasing.



Development of the number of applications to study at FLD over the last 5 years



As of 31 October 2021, a total of 1,731 students were studying at FLD, of which 1,370 were in bachelor's and 361 in master's degree fields of study and programmes. The final state exams took place at the turn of May and June. A total of 254 students successfully completed their studies, of which 151 in bachelor's and 103 master's degree programmes. The employability of FLD graduates in the labour market is almost 100%.

FLD enables to study in full-time and combined form, where a larger proportion of self-study is expected. As part of bachelor's and master's studies, FLD offered 10 full-time study programmes and 5 study programmes in combined form in 2021.

STUDY PROGRAMMES OFFERED IN 2021

The aim of the Faculty of Forestry and Wood Sciences is to educate personalities with independent critical thinking. The intention is for graduates to be able to use the scientific research knowledge of the Faculty, which they will subsequently apply in practice.



f = full-time form of study
c = combined form of study

Cz = in Czech
En = in English

BACHELOR'S DEGREE PROGRAMMES

FORESTRY • specialized in **Forest Ecosystems Protection and Silviculture (Cz, f/c)**

FORESTRY • specialized in **Economics and Management of Forestry (Cz, f/c)**

WOOD SCIENCES

• specialized in **Business in Woodworking and Furniture Industry (Cz, p)**

WOOD SCIENCES

• specialized in **Wood Processing (Cz, f/c)**

GAME MANAGEMENT AND WILDLIFE CONSERVATION (Cz, f/c)

CONSERVATION OF NATURAL OBJECTS AND TAXIDERMY (Cz, f)

SYSTEM ARBORISTICS (Cz, f)

FORESTRY • specialized in **Forest Ecosystems Protection and Silviculture (En, f)**



MASTER'S DEGREE PROGRAMMES

FOREST ENGINEERING (Cz, f/c)

WOOD ENGINEERING (Cz, f/c)

**TIMBER CONSTRUCTIONS AND STRUCTURES BASED ON
WOOD (Cz, f)**

FORESTRY, WATER AND LANDSCAPE MANAGEMENT (En, f)

DOCTORAL STUDY PROGRAMMES

**APPLIED GEOINFORMATICS AND REMOTE IN
FORESTRY (Cz/En, f/c)**

**FIRE PROTECTION OF FOREST, TIMBER, AND WOOD-
BASED MATERIALS (Cz/En, f/c)**

FOREST BIOLOGY (Cz/En, f/c)

**ECONOMICS AND MANAGEMENT OF FORESTRY AND
WOOD INDUSTRY (Cz/En, f/c)**

FOREST MANAGEMENT (Cz/En, f/c)

**FOREST PROTECTION AND GAME MANAGEMENT
(Cz/En, f/c)**

SILVICULTURE (Cz/En, f/c)

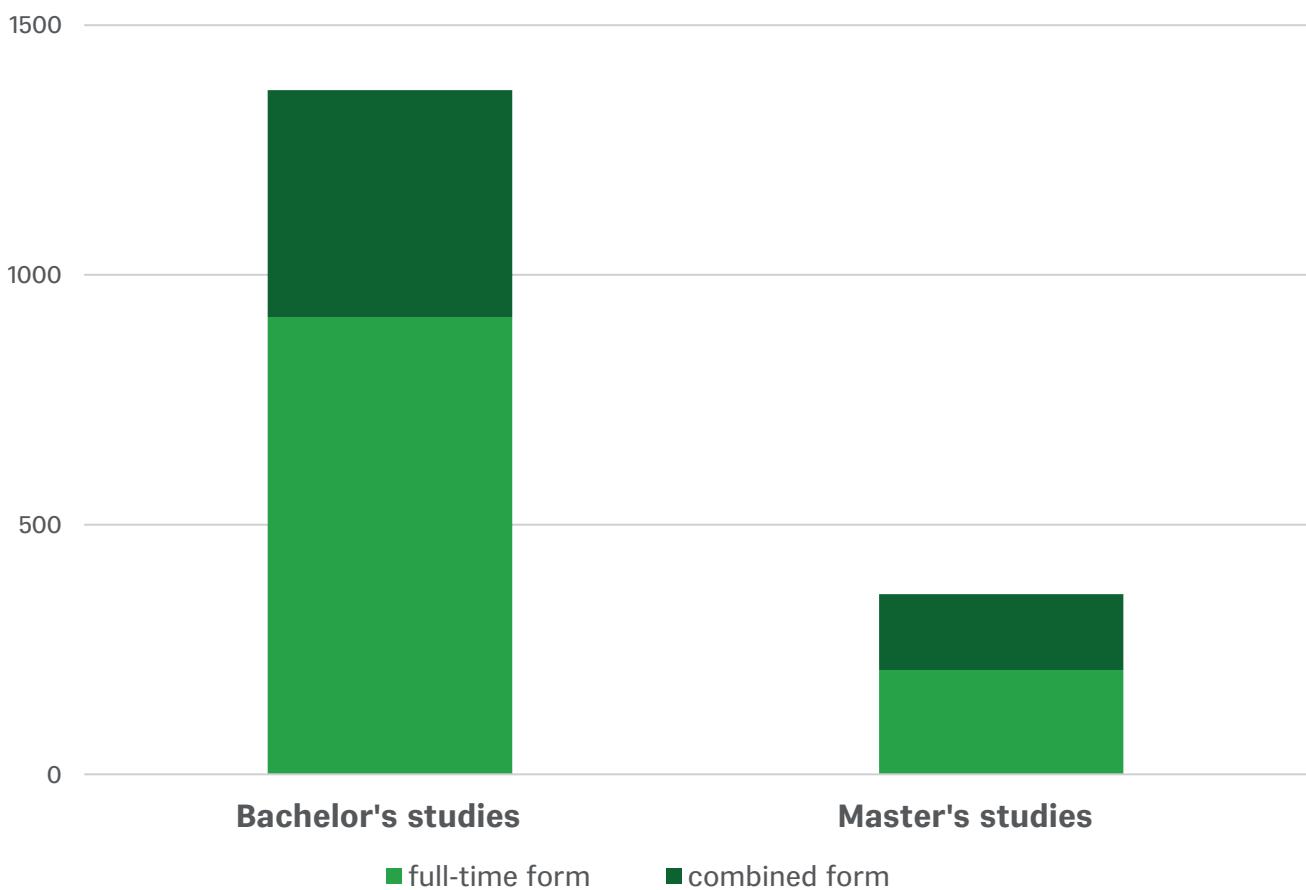
**WOOD PROCESSING AND FORESTRY MACHINERY
(Cz/En, f/c)**

GLOBAL CHANGE FORESTRY (En, f/c)

Form of study

The proportion of combined study students out of the total number has been similar for the last 5 years; in 2021, it was around 35% of students.

Number of students in full-time and combined form of in bachelor's and master's studies



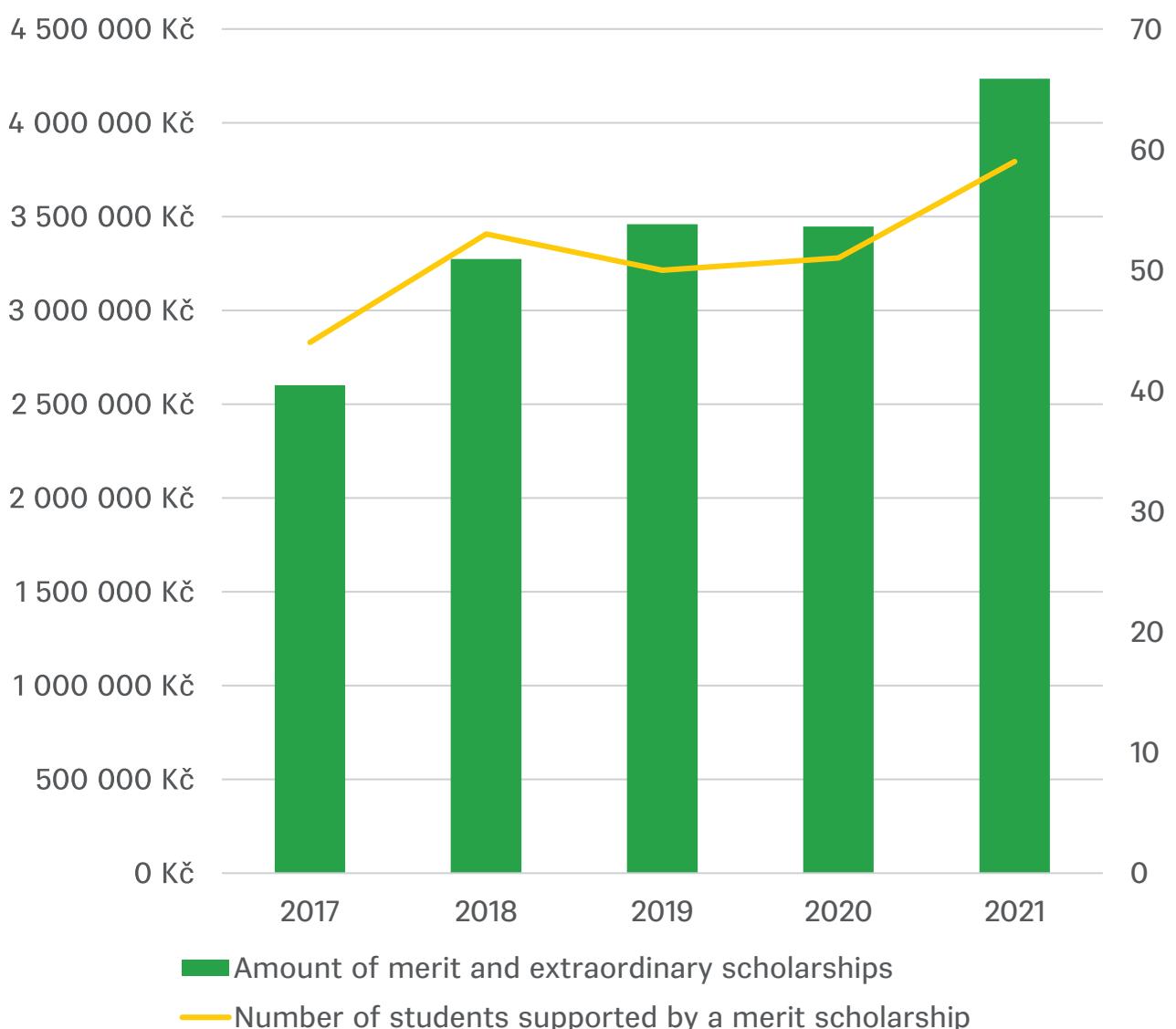
Awards in 2021

- 6** students received the Rector's Award for excellent results in their studies.
- 12** students were awarded the Dean's Commendation for excellent results throughout their studies.
- 13** graduates received the Dean's Award for excellent final thesis.

Scholarship programmes

FLD supports students through an extensive scholarship programme. This type of support includes: scholarships for first years, merit scholarships, scholarships for young researchers who participate in the work of departments beyond the scope of their study duties, Dean's Awards for excellent results in study or for quality elaboration of bachelor's and master's theses, accommodation, sports, and social scholarship.

Development of merit and extraordinary scholarships at FLD in 2017–2021







**Quality of educational
and creative activities**

4

4 Quality of educational and creative activities

Accreditation and quality of study programmes

From the point of view of accredited study programmes, 2021 differed significantly from previous years. In 2021, no new or existing study programmes were accredited, so full attention could be paid to working to improve the quality of the existing ones. Based on the results of questionnaires from students as well as teachers, the syllabi of study subjects were gradually adjusted. An important part of these feedback mechanisms is also forestry and woodworking practice. Thanks to the improving epidemic situation, it was also possible to hold a personal meeting of the Council for Cooperation with Practice, where the requirements for Faculty graduates were intensively discussed.

Changes in the organization of compulsory student internships have also made a significant contribution to improving the quality of FLD study programmes. Due to the Faculty's own educational activities, practical lessons play an important role, and therefore attention must be paid to this area in the years to come.

The guarantor of the study programme was changed for two master's degree



programmes and one doctoral programme, namely the study programmes Wood Engineering, Timber Constructions and Structures based on Wood, and Wood Processing and Forest Machinery. These changes, especially in master's degree programmes, were also associated with adjustments to study plans.

Lifelong learning

In 2021, lifelong learning started to be implemented at a larger scale. In addition to the University of the Third Age, which

is already well-established at FLD, vocational training also begun. The first block of lectures was held of the annual course for employees of Military Forests and Estates of the Czech Republic, which is focused on semi-natural forest management. The whole year also included the preparation of an MBA course focused on top management in forestry, which will be carried out in cooperation with Prague International Business School and will start in 2022.

Publishing activities

In FLD's publishing activities, the Covid-19 pandemic had a positive effect. Thanks to distance learning, the creation of e-learning study materials has been significantly accelerated. A number of online study aids, as well as teaching videos and other study materials were created. In addition, nine university textbooks were published by FLD in 2021 in printed form.



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DO NOT COVER
天線内蔵
カバーしないで

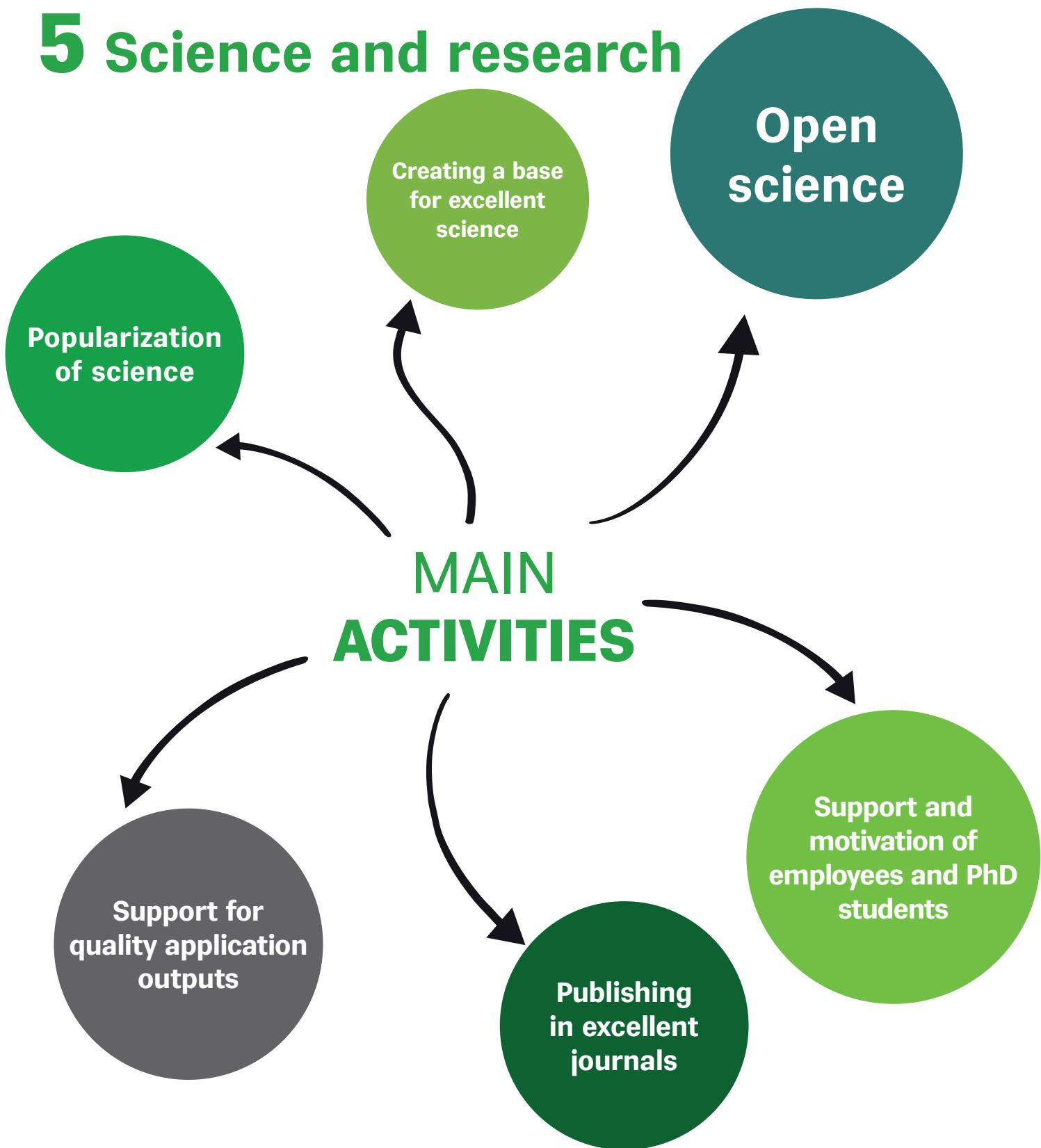




5

Science and research

5 Science and research



Support and motivation of employees and PhD students

Employees

- acquisition of significant and strategic projects, especially of important international scientific teams
- publishing in excellent journals (registered in the Nature index and first decile on WoS according to AIS)
- FLD involvement in international consortia
- creating excellent outputs in the category for society and practice
- search for quality junior researchers from abroad
- long-term internships abroad
- popularization of science at FLD



PhD students

- awarding above-standard scholarships to active PhD students – a total of more than CZK 25 million was paid
- long-term internships abroad, conferences, and training activities
- creation of the PhD-Kamos Programme, which is intended for new foreign PhD students

Support from Internal Grant Agency projects:

54 projects supported

58 PhD students

Funded projects totalling almost CZK **9** million

Thanks to the support of IGA FLD, a total of **43** articles in journals published in the WoS database were created.

support
application IGA
outputs Popularization
of science
Wood Publications
science WoS
Nature index Forestry
PhD students Quality
Science and research

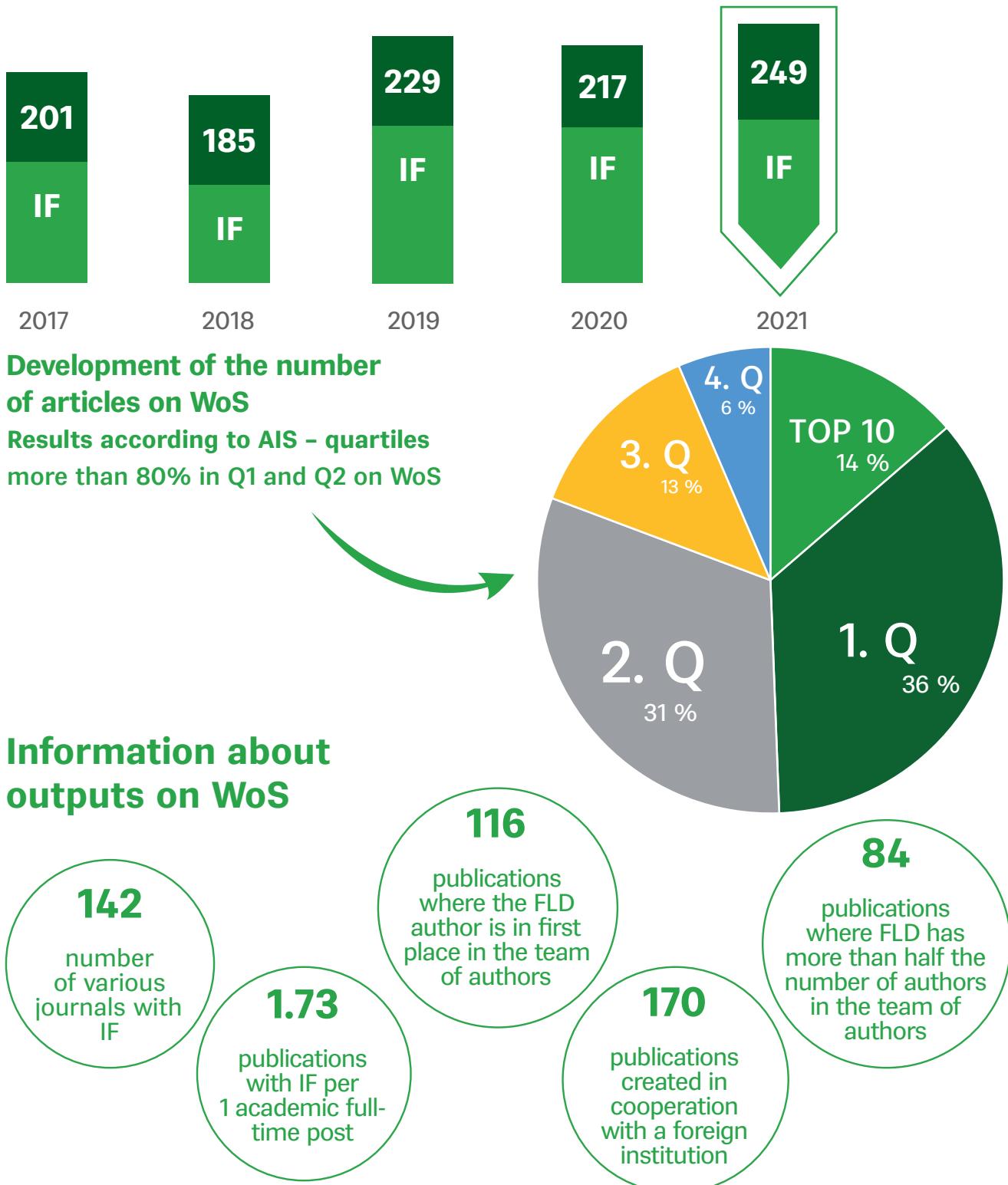
Open access Projects
A Newsletter motivation
for Practice

vision

FLD excellent
science
growth Journal



Publishing in excellent journals



Articles in Nature Index

Concerns about reported harvests in European forests
Hlásný T.; Marušák R.
(journal: **Nature**)

Evidence for reduced immune gene diversity and activity during the evolution of termites
He, S.; Stiblik P
(journal: **Proceedings of the Royal Society B**)

Recovery of logged forest fragments in a human-modified tropical landscape during the 2015-16 El Niño
Matula R.
(journal: **Nature Communications**)

Early Summer Soil Moisture Contribution to Western European Summer Warming
Stegehuis A. I.
(journal: **Journal of Geophysical Research: Atmospheres**)

Directional turnover towards larger-ranged plants over time and across habitats
Kopecký M.
(journal: **Ecology Letters**)

High aboveground carbon stock of African tropical montane forests
Svoboda M.
(journal: **Nature**)

Hidden patterns of insect establishment risk revealed from two centuries of alien species discoveries
Liebhold A. M.
(journal: **Science Advances**)

Natural disturbance impacts on trade-offs and co-benefits of forest biodiversity and carbon
Mikoláš M.; Svitok, M.; Bače R.; Buechling A.; Trotsiuk V.; Kozák D.; Begovič, K.; Čada V.; Ralhan D.; Dušátko M.; Ferenčík M.; Frankovič M.; Gloor R.; Hofmeister J.; Janda P.; Kameniar O.; Lábusová J.; Majdanová L.; Nagel T. A.; Pavlin J.; Pettit J. L.; Rodrigo R.; Rydval M.; Schurman J.; Synek M.; Vostarek O.; Zemlerová V.; Svoboda M.
(journal: **Proceedings of the Royal Society B**)

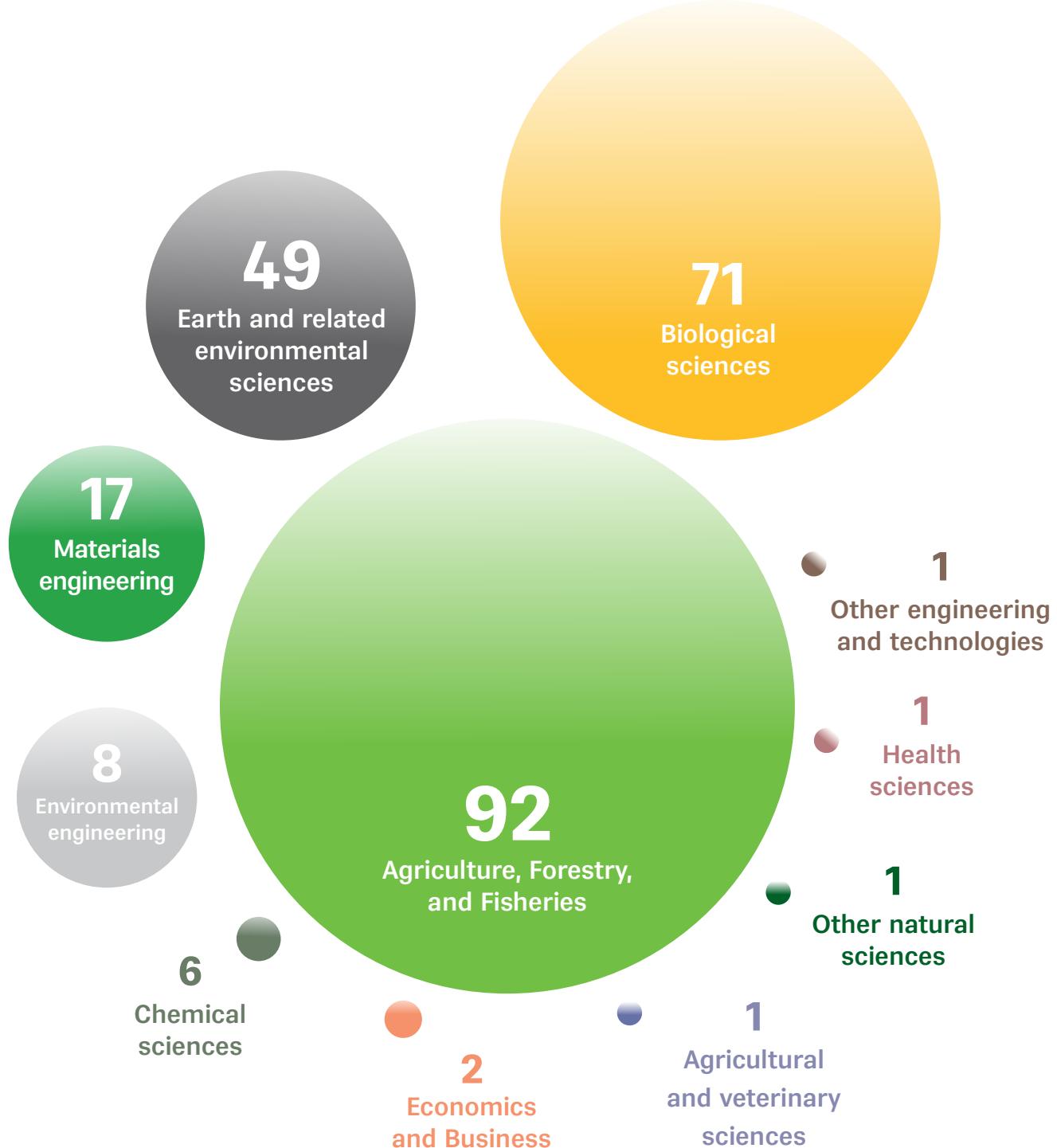
A living bdelloid rotifer from 24,000-year-old Arctic permafrost
Iakovenko N.
(journal: **Current Biology**)

Animal lifestyle affects acceptable mass limits for attached tags
Ježek, M.; Painter M.; Silovský V.
(journal: **Proceedings of the Royal Society B**)

Increased longevity due to sexual activity in mole-rats is associated with transcriptional changes in the HPA stress axis
Burda H.
(journal: **eLife**)

Both Cyclone-induced and Convective Storms Drive Disturbance Patterns in European Primary Beech Forests
Pettit J. L.; Pettit, J. M.; Janda P.; Rydval M.; Čada V.; Schurman J. S.; Nagel T. A.; Bače, R.; Saulnier M.; Hofmeister J.; Matula R.; Kozák D.; Frankovič M.; Mikoláš M.; Svoboda M.
(journal: **Journal of Geophysical Research: Atmospheres**)

Number of articles on WoS according to the FORD classification



Improving the quality of doctoral studies



Doctoral studies (as of 31 December 2021)

- 31** students enrolled in the study for academic year 2021/22
- 105** full-time students
- 22** students in combined form
- 52** foreign students
- 21** successfully defended dissertation theses

Publishing activities of PhD students

- 87** publications on WoS (total of 73 PhD students)
- 34** publications where the PhD student is in first place in the team of authors
- 34** publications by PhD students which were created in cooperation with a foreign institution

Popularization of science

- Employees' outputs at professional seminars and in the media
- Another Newsletter for Practice published – supplement to Lesnická práce magazine
- Presentation of the Faculty's outputs to the public – "Popularization of science"

Support for quality application outputs

A total of 54 application outputs

- | | | | |
|----|----------------------------------|---|--------------------------------|
| 4 | professional monographs | 2 | prototypes, functional samples |
| 7 | chapters in a book | 1 | proven technology |
| 14 | articles in an anthology | 5 | items of software |
| 1 | patent | 9 | summary research reports |
| 5 | utility model, industrial design | 4 | audio-visual items |
| | | 2 | certified methodologies |







6

Internationalization

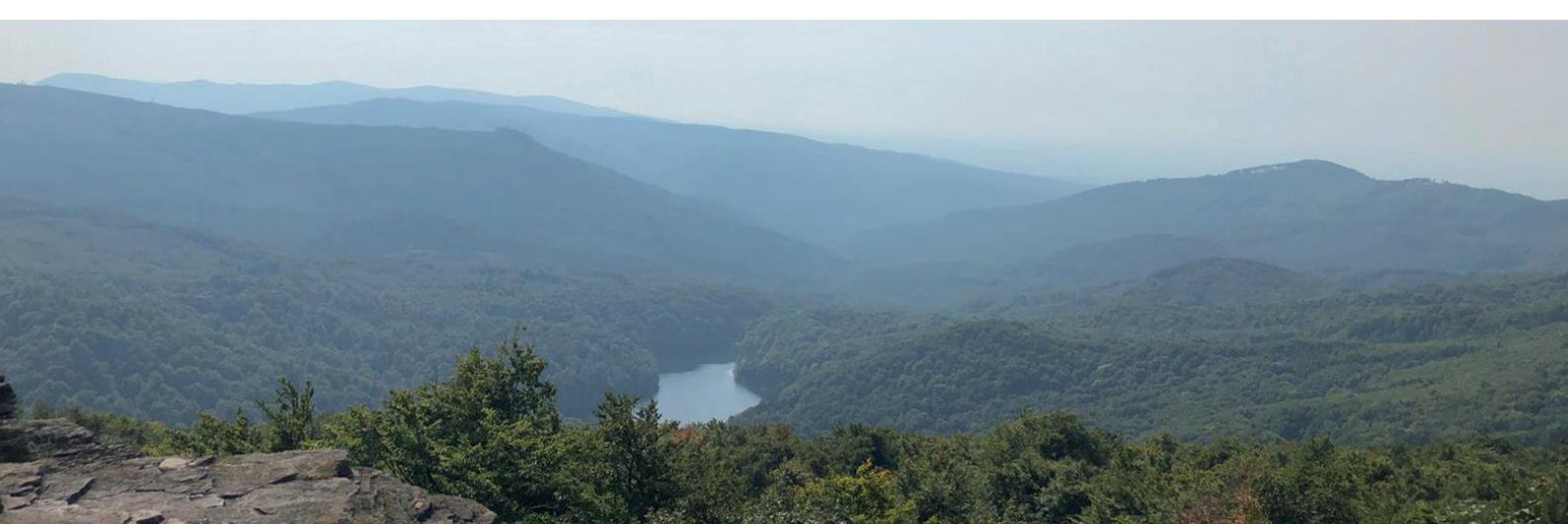
6 Internationalization

In 2021, the FLD Strategic Plan 2021+ was approved by the Faculty bodies, in which the area of internationalization is explicitly mentioned as an area permeating all Faculty activities and which deserves significant support.

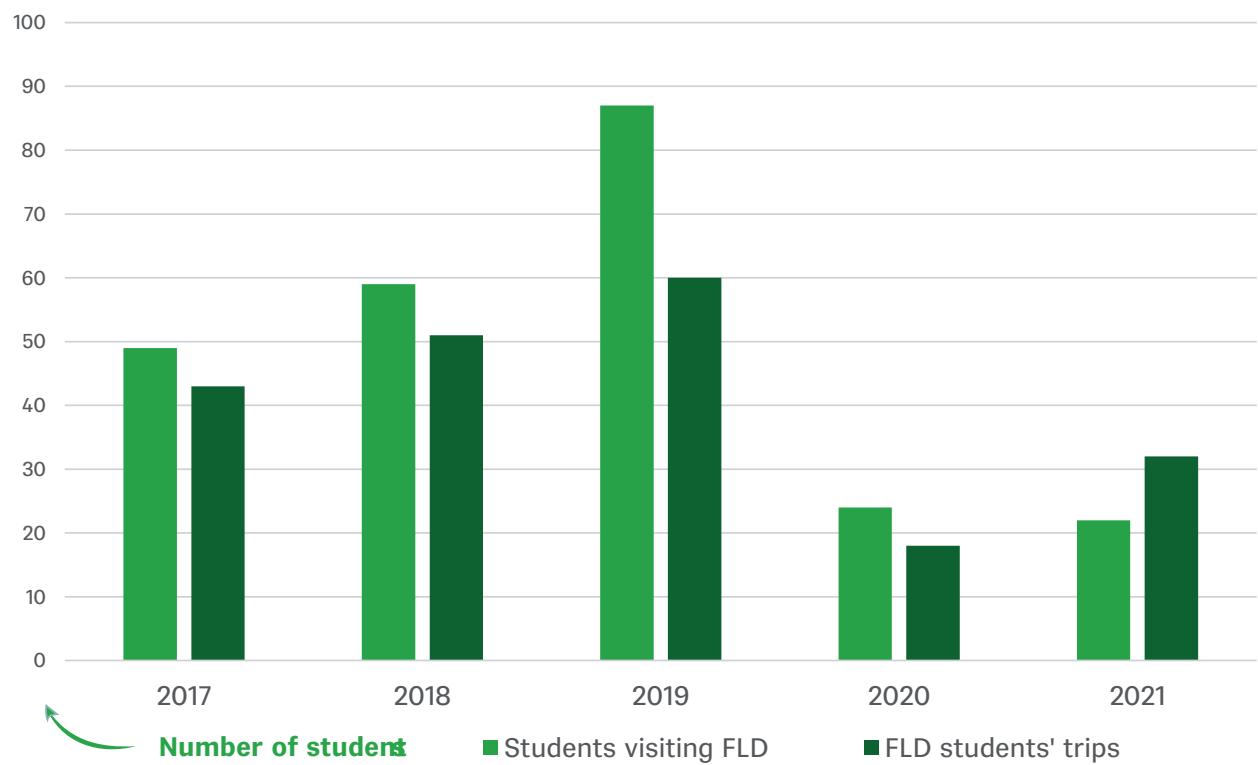
Unfortunately, activities related to internationalization were significantly affected by the global Covid-19 pandemic also in 2021. Due to uncertain travel conditions, it was very difficult to plan international activities inside and outside FLD. Therefore, the vast majority of the planned events moved to the online environment and were implemented online or in a hybrid form.

In 2021, a total of 146 students from foreign countries studied at FLD within the Czech and English bachelor's and master's degree programmes. However, the impact of the pandemic was noticeable in the number of applications to study in the English study programmes 'Forestry' and 'Forestry, Water and Landscape Management', which was lower than in previous years.

Student and staff mobility were also significantly reduced. Students and teachers had a choice of 76 universities from 24 countries, but interest was low this year. There was a significant decline in student mobility in particular (in the last two years), even though financial resources were allocated in sufficient numbers (especially the Erasmus+ programme and the institutional support of the Ministry of Education, Youth and Sports). As part of FLD student trips, 11 Erasmus+ study stays, 10 Erasmus+ internships, and 11 internships for PhD students took place. Among visiting students, there were 12 students completing an Erasmus+ study stay and 7 Erasmus+ internships, as well as 3 students on another form of internship.



Development of the number of arrivals and departures of students within international mobility



The organization of summer schools for FLD students and foreign students can also be included in the area of student mobility. In June, the CZU Summer School (Wood Week and Forest Week) took place, which was attended by 16 students from partner institutions. We also managed to organize a summer school for students of Czech study programmes in Slovakia in September. There were 30 participants and the topic was semi-natural forest management in the Carpathians. FLD staff mobility was also low this year.

There was a total of 8 trips of the academic staff within the Erasmus+ programme. In total, employees spent 133 days at partner institutions.

Similarly, the previous obvious increase in the number of foreign experts coming to FLD has significantly dropped. In 2021, we recorded 18 visits of experts to FLD, including 2 virtual mobilities.

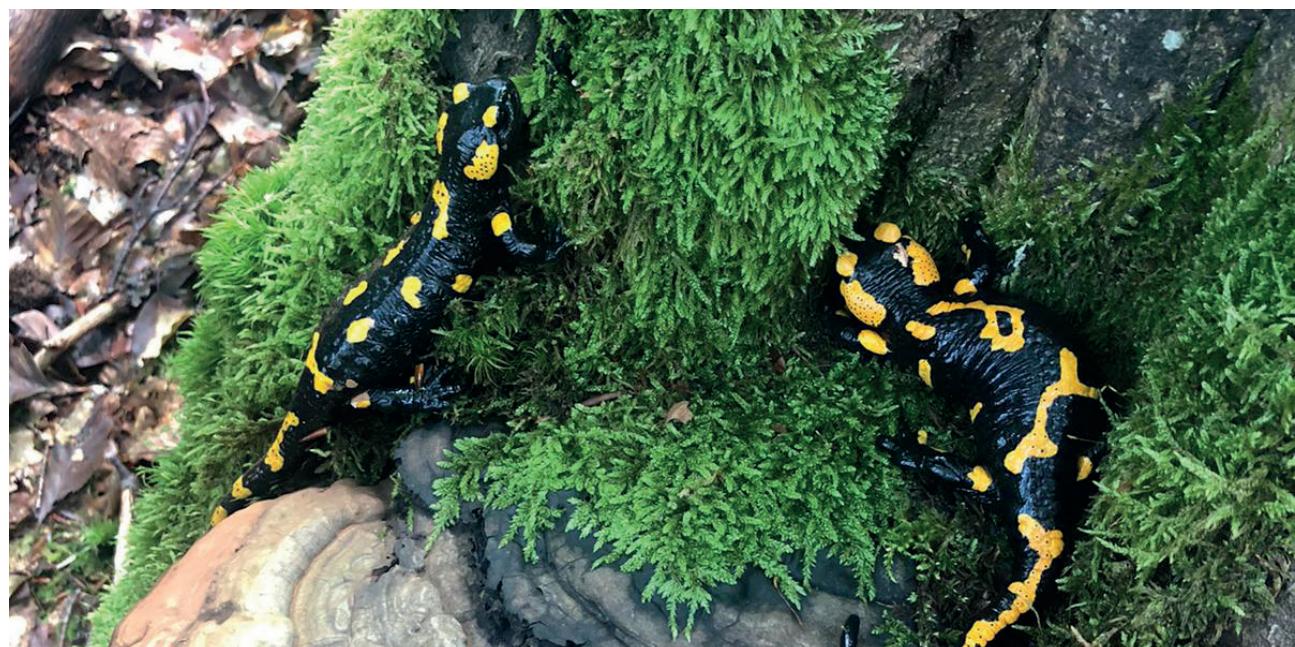
Especially at the end of 2021, FLD employees began to travel more on business trips abroad (especially within the implemented projects). A total of 208 trips took place

this year.

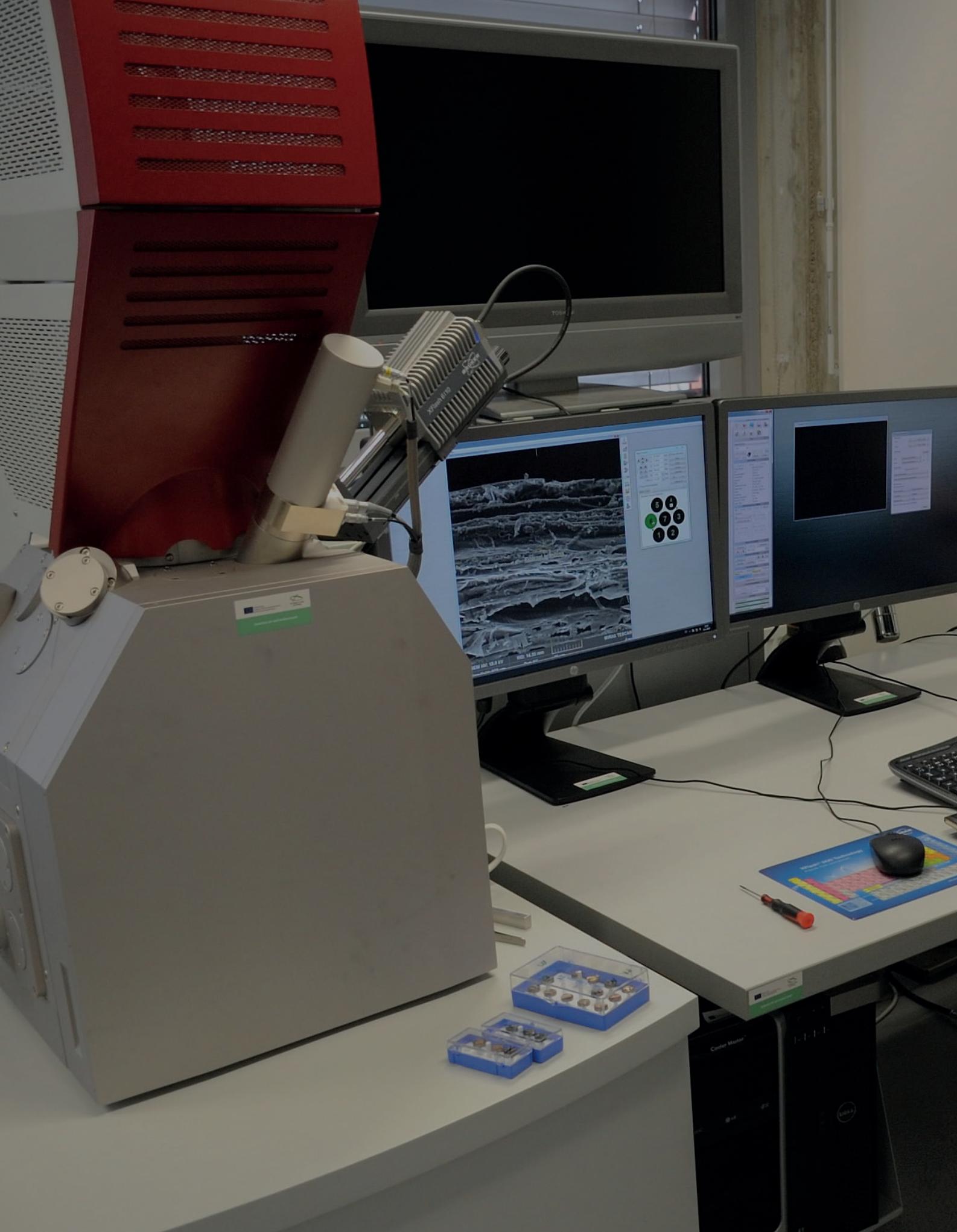
As mentioned above, most conferences were organized online. This was also the case at the EFI Annual Conference, which was co-organized by our Faculty in October 2021. This event took place online; however, for 2025 it is planned to organize it in Prague again, in person.

Proof that FLD tried to support the

development of international relations in science and research and pedagogy, despite all the restrictions, was the organization of an online meeting of partners from the forestry and woodworking sectors, at which FLD Vice-deans presented more opportunities for cooperation to more than 30 representatives of partner institutions.









Faculty development

7 Faculty development

2021 was a record year for FLD in terms of the total number of submitted project applications, whether in national (40) or international (12) programmes. At the same time, it was also the year in which a second project from the H2020 programme was approved and we submitted the first project in the Horizon Europe programme as a coordinator (this was subsequently supported at the beginning of 2022). Further on, preparation and implementation continued of projects financed from European Operational Programmes or national resources, which still represent the dominant FLD project resources.

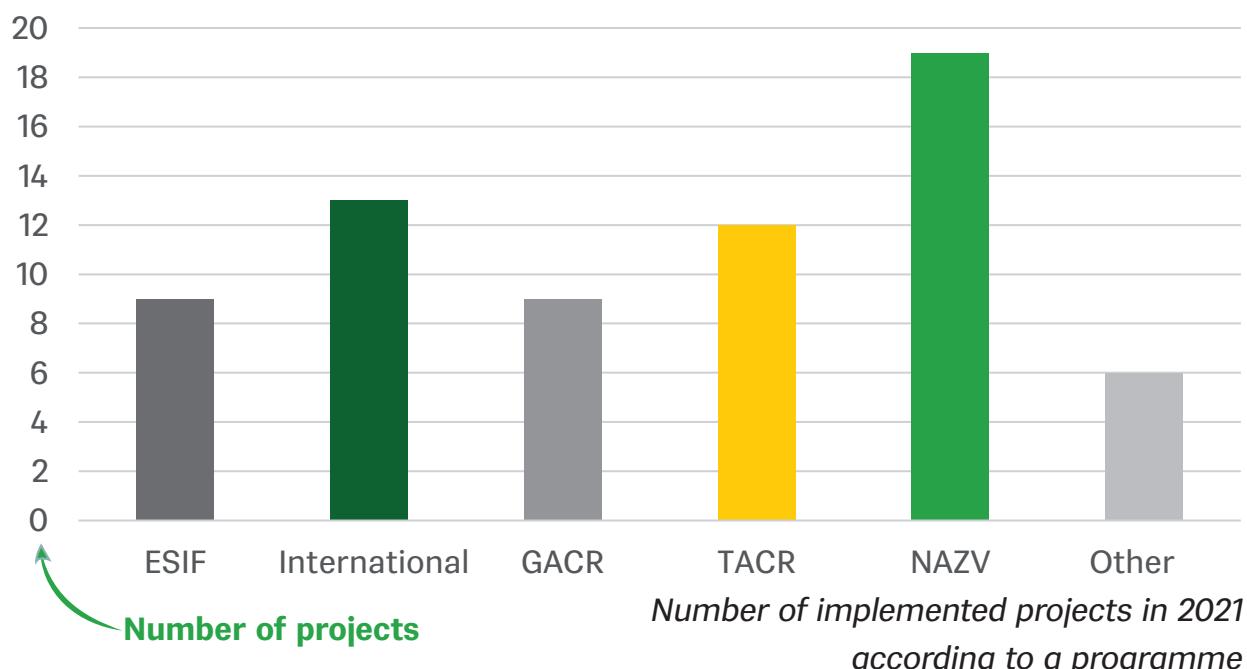


Implemented projects

In 2021, FLD implemented a total of 68 research and educational projects with an annual budget of over CZK 165 million,

of which the largest financial share was accounted for by projects from the European Structural and Investment Funds (ESIF), amounting to almost CZK 94 million; NAZV projects had

annual budgets of approximately CZK 34 million. Less than CZK 10 million was spent on building infrastructure and purchasing investments from project budgets; the remaining funds were used mainly for researcher salaries and for the purchase of consumables and services. In terms of the number of implemented projects, the largest number were projects financed from the National Agency for Agricultural Research (NAZV), totalling 19, followed by 13 international projects, TACR projects, and 9 projects from operational programmes as well as 9 from the GACR programme.



Budgets for implemented projects:

Programme	GACR	TACR	NAZV	INTERNATIONAL
Annual budget in CZK	13 290 343	15 876 956	34 295 623	5 500 950
Programme	ESIF	OTHER	TOTAL	
Annual budget in CZK	93 727 603	2 843 208	165 534 683	

Intellectual property protection

During the year, the Faculty also focused on another area, which is the protection of intellectual property. Within the EXTEMIT-K and EVA4.0 projects, two patent applications were filed before the end of the year with the Czech Industrial Property Office and, at the same time, with the Patent Cooperation Treaty (PCT) under the World Intellectual Property Organization (WIPO) based in Switzerland. Dr. Jirošová's team is seeking patent protection for a new product for bark beetle repellent, while the team of doc. Pánek focused on a system for wood surface treatment.

Projects from international competitions

2021 was also very successful in the field of international projects, especially in the number of successful project applications. Although last year was negatively affected

by the start of the new programming period, and only a few calls relevant for FLD closed before the end of the year, we still managed to submit a total of 12 applications, mainly to Horizon Europe and LIFE programmes. As of the annual report deadline, we know that at least four project applications have been supported. One is a co-research proposal from the Horizon 2020 programme called SUPERB, which is coordinated at FLD by prof. Marušák and prof. Svoboda; there are also three proposals that competed in the first calls of Horizon Europe Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and the Environment). In two cases, the Faculty will be a co-investigator (CLIMB-FOREST projects – Prof. Svoboda, CEE2ACT – Doc. Hájek). In one project, FLD will be the direct coordinator of the entire consortium (REFOREST project – Prof. Lukáč).

Several international projects also started during 2021. Specifically, these were

projects from Horizon 2020 RESONATE (doc. Jankovský) and SUPERB, aimed at increasing the resilience of European forests to climate change, specifically to create a favourable environment for large-scale reforestation in Europe. Furthermore, the 4Map4Health projects from the CHISTERA programme (doc. Surový) aimed at collecting and processing the most modern data in forestry, and the LIFE PROGNOSSES project (Prof. Svoboda) from the LIFE programme dealing with the mapping of primary forests and ancient forests in Europe. Before the end of the year, the implementation of the 3DForEcoTech project from the COST programme started,

which is also coordinated by FLD, namely Dr. Mokroš. The 3DForEcoTech project aims to create a strong network of scientists, stakeholders, and sensor manufacturers to synchronize knowledge, develop general protocols and algorithms for surveying forest ecosystems and forest functioning, and make these new technologies available to a wide audience.

The end of the year was also marked by the preparation of project applications, which were submitted at the beginning of 2022. These were mainly seven applications to the Horizon Europe programme, and three applications to the Interreg CENTRAL EUROPE programme.





8

**FLD financial
and personnel management**



8 FLD financial and personnel management

Financial management

In 2021, FLD received a total of CZK 170,119,202 from contributions and subsidies to the budget, as part of a student subsidy, institutional support for the institution's long-term conceptual development, and specific research.

The Faculty as a whole adhered to the planned budget.

The Faculty managed a surplus in its main activity – in the contribution to operating activities to the amount of **CZK 24,406,639.83**. As of 31 December 2021, this amount was transferred to the operational resources fund.

	Scholarship fund	Remuneration fund	Investment property development fund	SSP investment property development fund	Operational resources fund	Operational resources fund after tax	Foreign donations
Stav k 1. 1. 2021	184 831	120 726	2 713 198	378 682	70 085 677	1 722 042	2 650 432
Tvorba fondu	3 833 275	1 100 000	18 415 260	0	22 906 640	5 178 554	0
Čerpání fondu	3 973 085	791 594	15 056 323	0	22 399 403	873 282	0
Stav k 31. 12. 2021	45 021	429 132	6 072 135	378 682	70 592 914	6 027 314	2 650 432

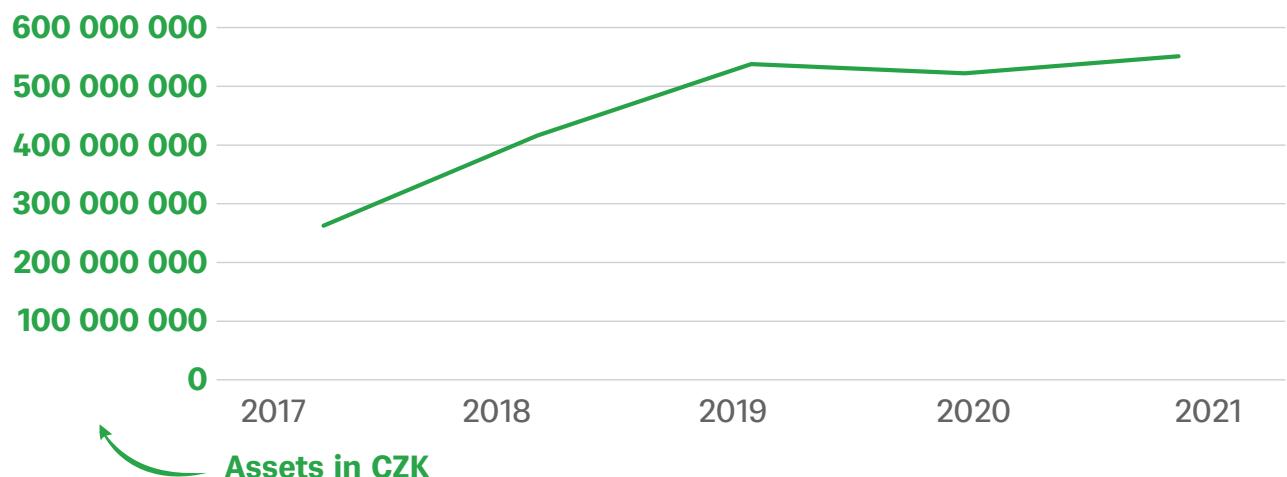
Amount in CZK

Total financial reserve of the Faculty

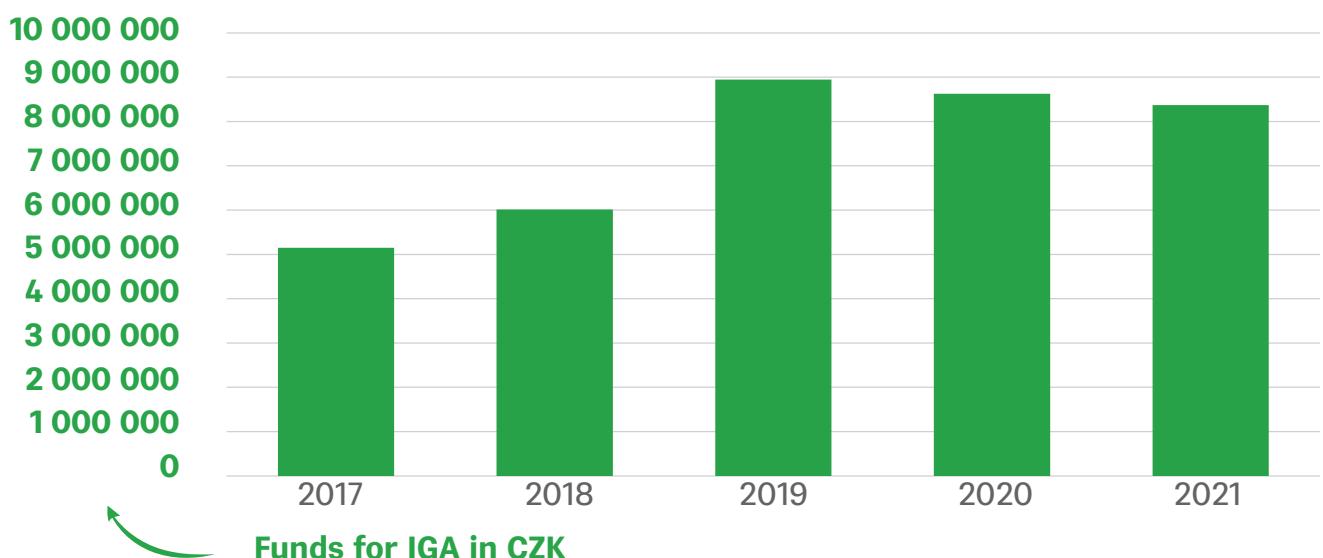
for investment development created from the main activity, as of 31 December 2021, was **CZK 85,721,477** (Investment property development fund, Operational resources fund, Operational resources fund after tax, balances of foreign donations).

In 2021, the funds of the Investment Institutional Support in the amount of **CZK 9,738,989** were also used for the acquisition of tangible fixed assets and technical improvement of tangible assets.

Development of FLD assets 2017–2021



Development of funds allocated for IGA in 2017–2021



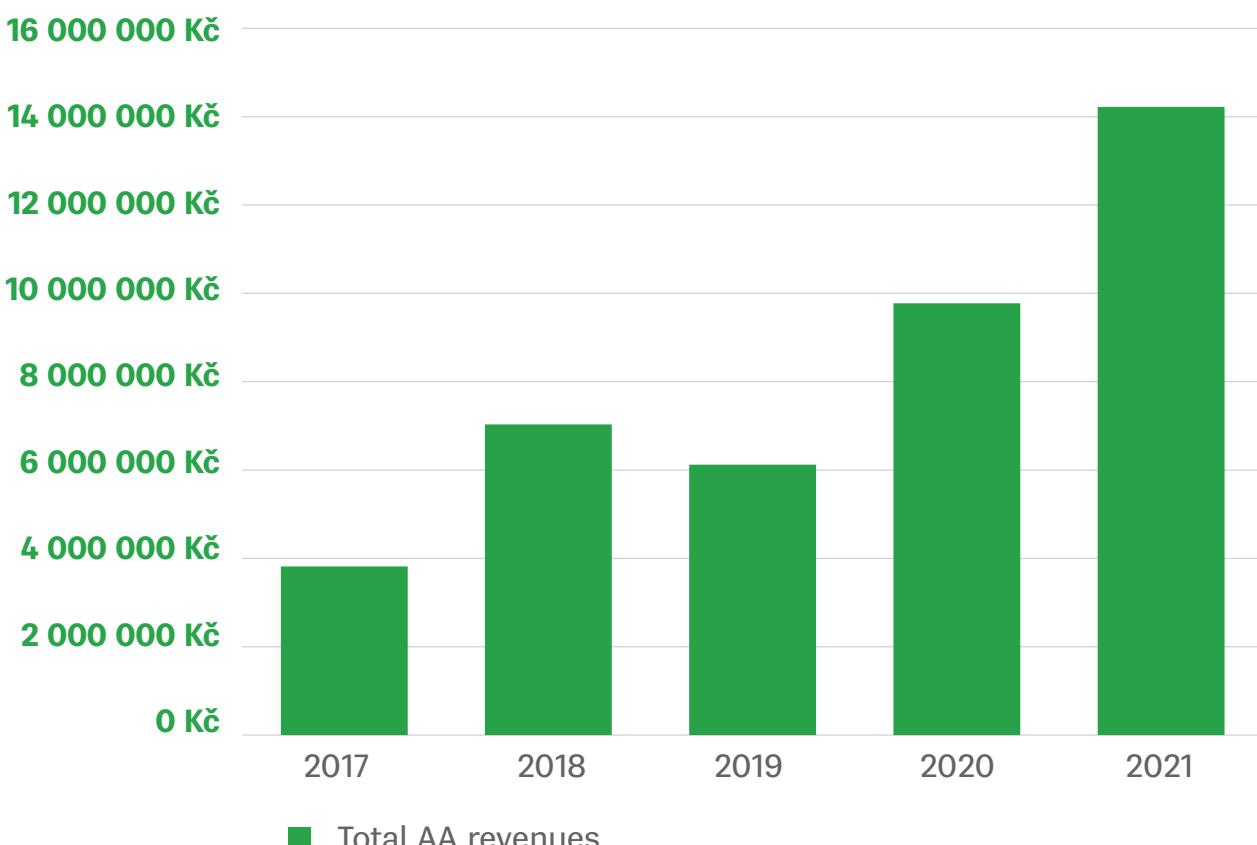
Development of subsidy for specific research and IGA 2017–2021 in CZK

Specific research	2017	2018	2019	2020	2021
Subsidy	5 810 511	6 832 525	10 091 150	9 456 568	9 454 770
IGA	5 148 113	6 014 250	8 943 950	8 625 926	8 367 472

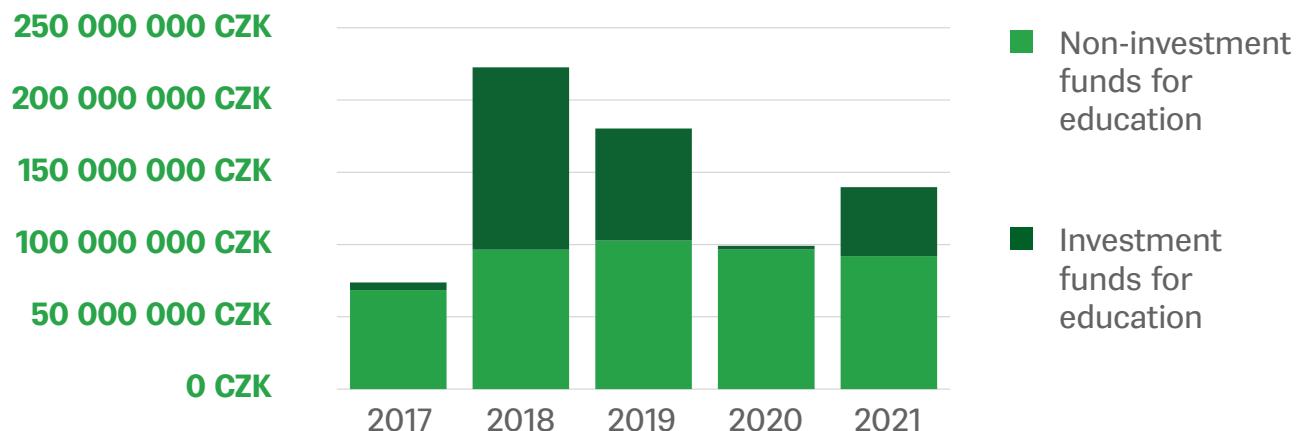
Development of revenues from contract research and ancillary activities (AA) 2017–2021 in CZK

	2017	2018	2019	2020	2021
Total AA revenues	3 818 276,94	7 032 050,50	6 120 884,16	9 776 760,47	14 220 209,82
Profit after tax	643 562,94	652 412,72	575 979,22	1 433 424,46	1 604 227,24

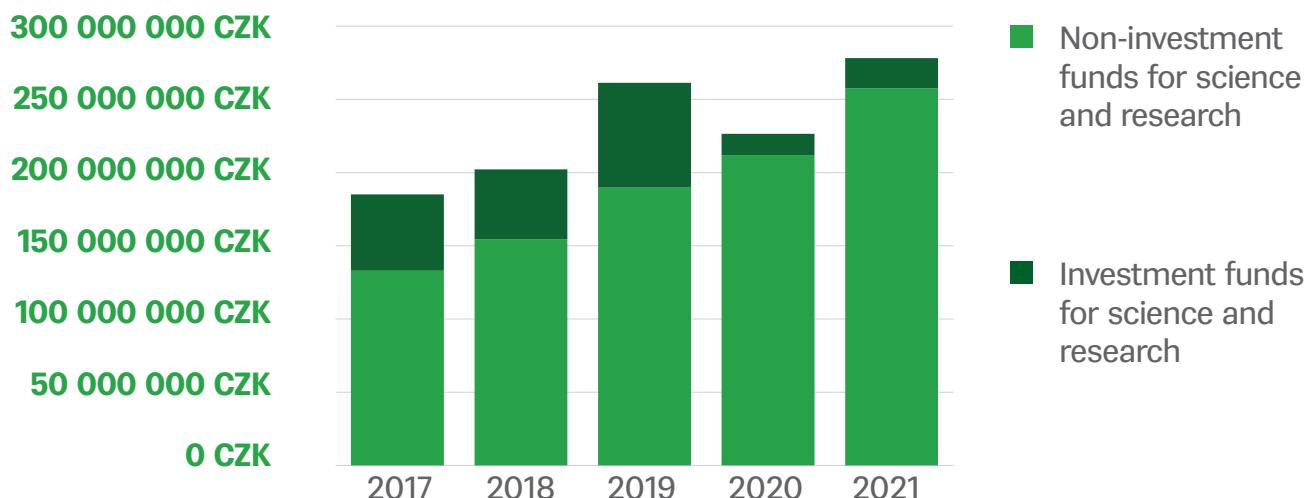
Total AA revenues 2017–2021



Total funds spent on educational activities 2017–2021



Total funds spent on scientific and research activities 2017–2021



Other resources of financing FLD activities

were funds obtained within the projects of GACR, TACR, NAZV, OP VVV, within contract research, and our own activities.

In 2021, FLD managed non-investment funds totalling **CZK 349,542,207.08** and made investments of **CZK 68,287,261,770**.

FLD staff structure

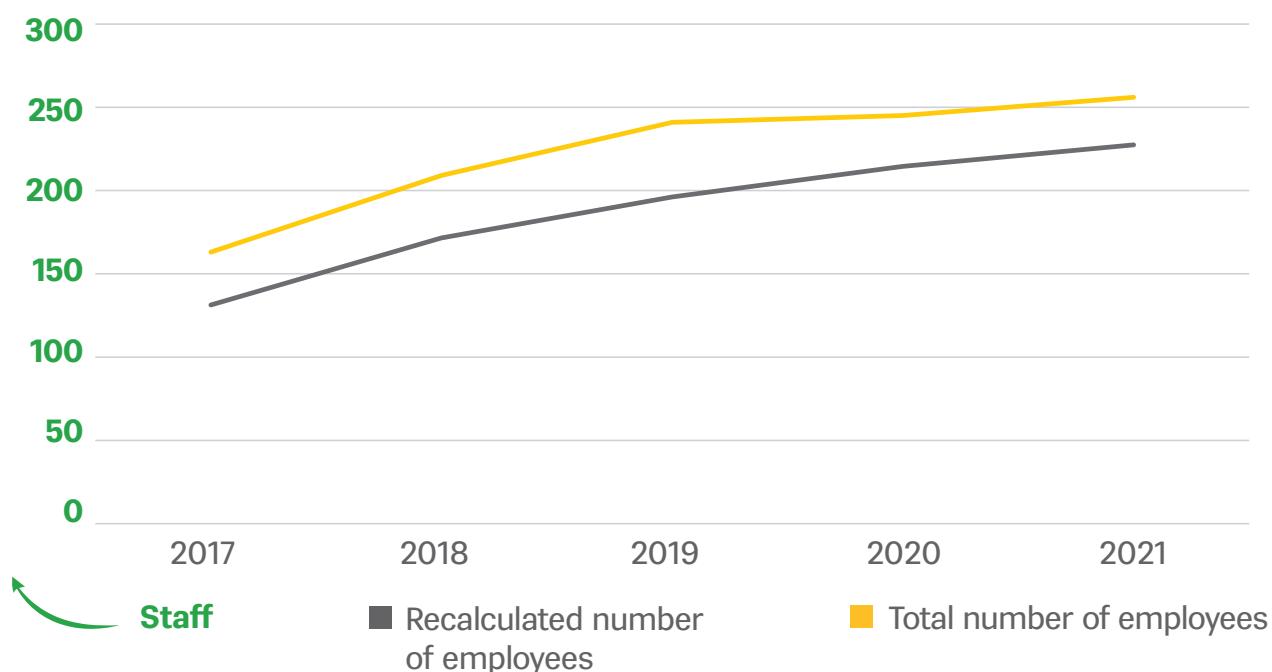
Changes in academic positions,

in particular, the declines in the number of recalculated hours of professors and associate professors, are due to their participation in operational programmes, while the increase in the number of researchers is due to the recruitment of new and existing employees to positions in operational programmes.

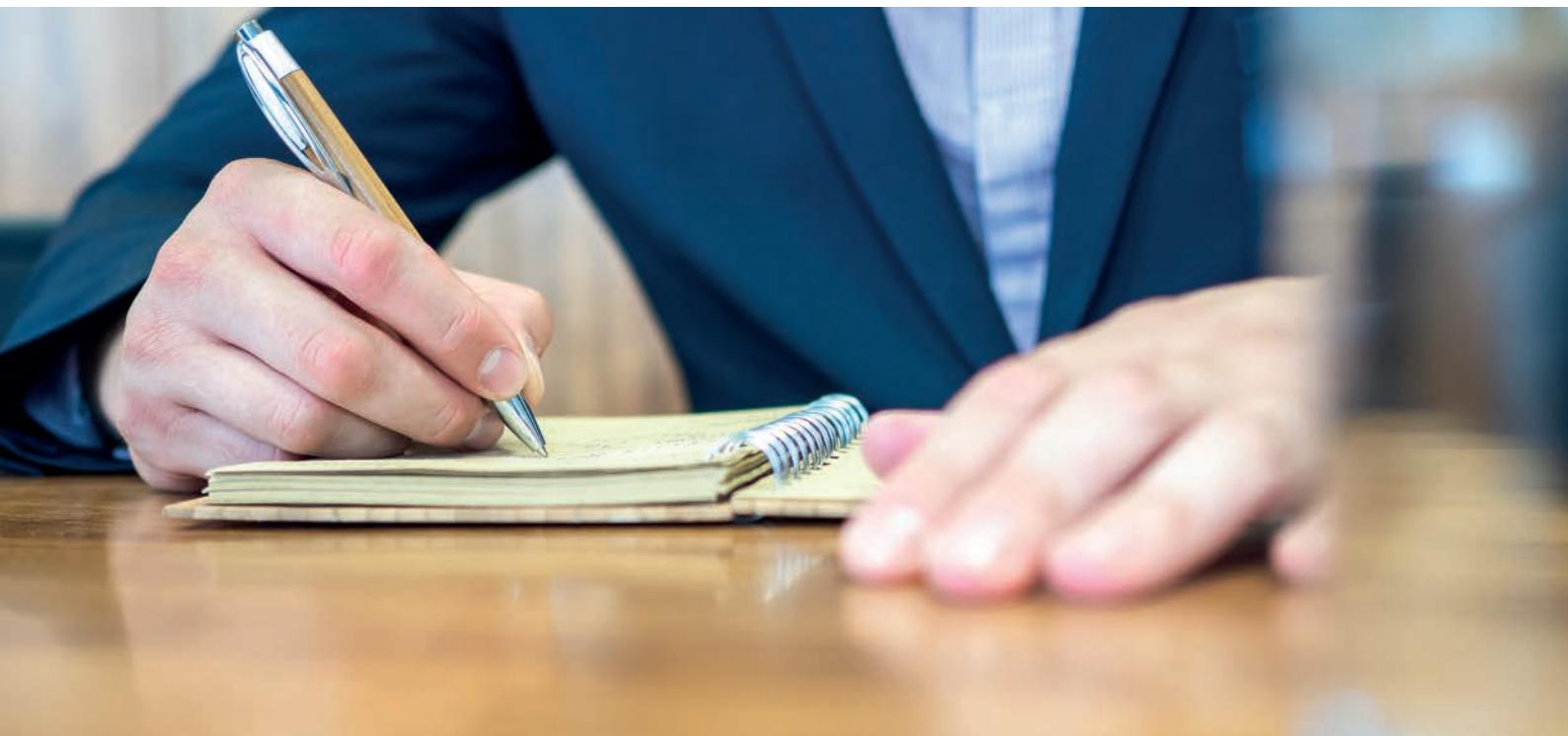
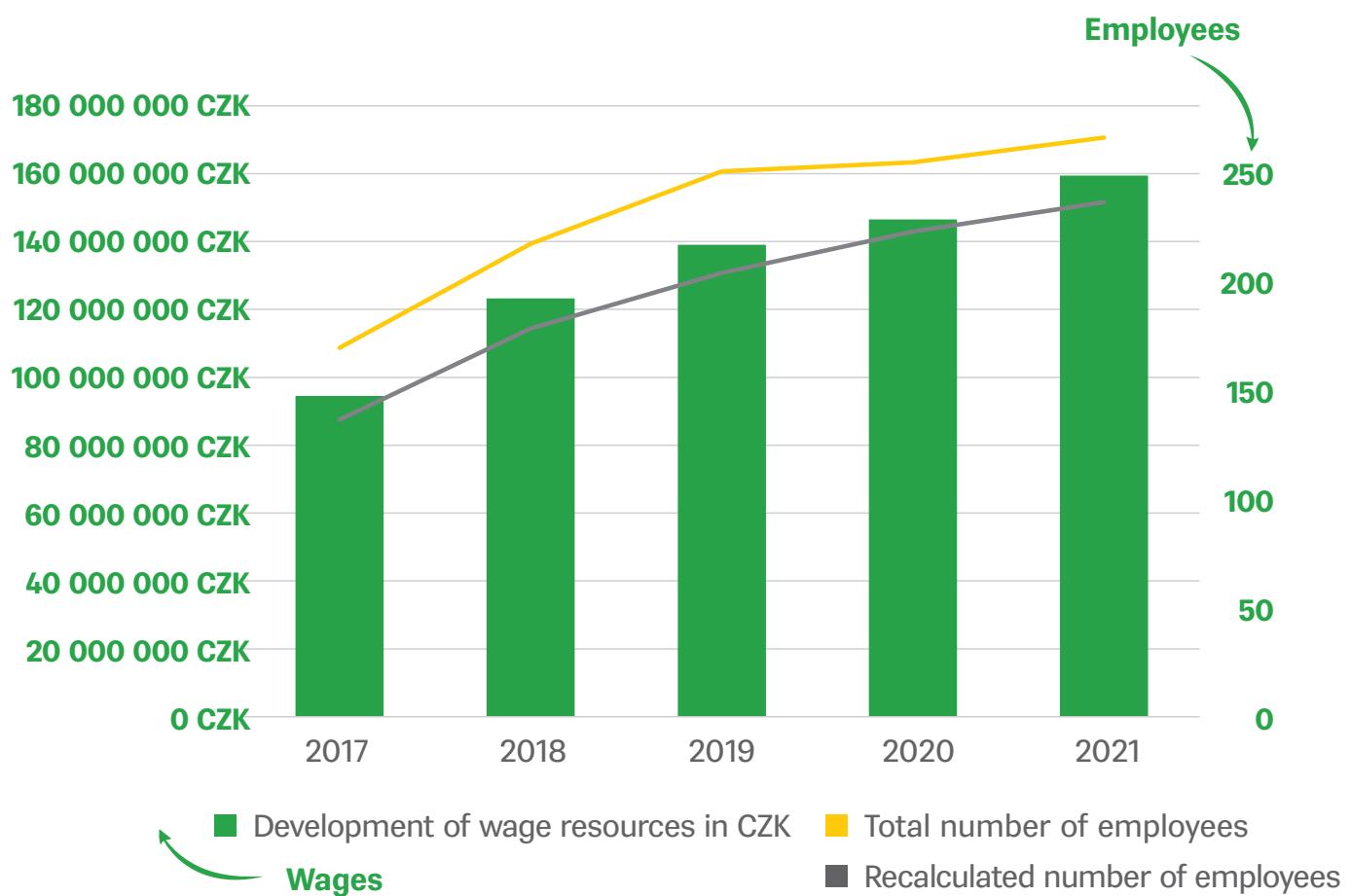
The Faculty qualification structure expressed by the ratio of professors to associate professors and to assistant professors in 2021 was 15% : 30% : 55%. The objective set in previous years, namely to achieve a 45% proportion of professors and associate professors in the total number of academic staff, is constantly being met.

The recalculated proportion of the hours of academic staff with foreign citizenship is 26% of the total number of academic staff's hours.

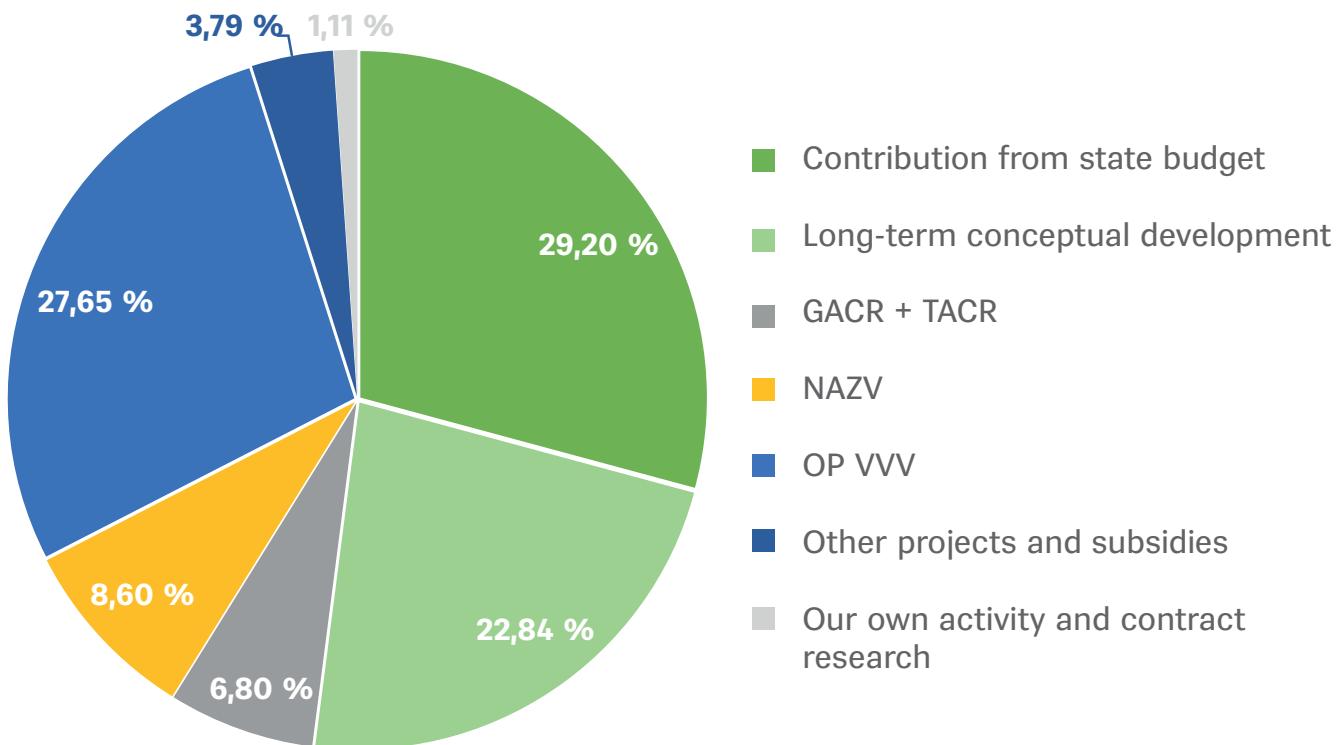
Development of the number of FLD employees 2017–2021



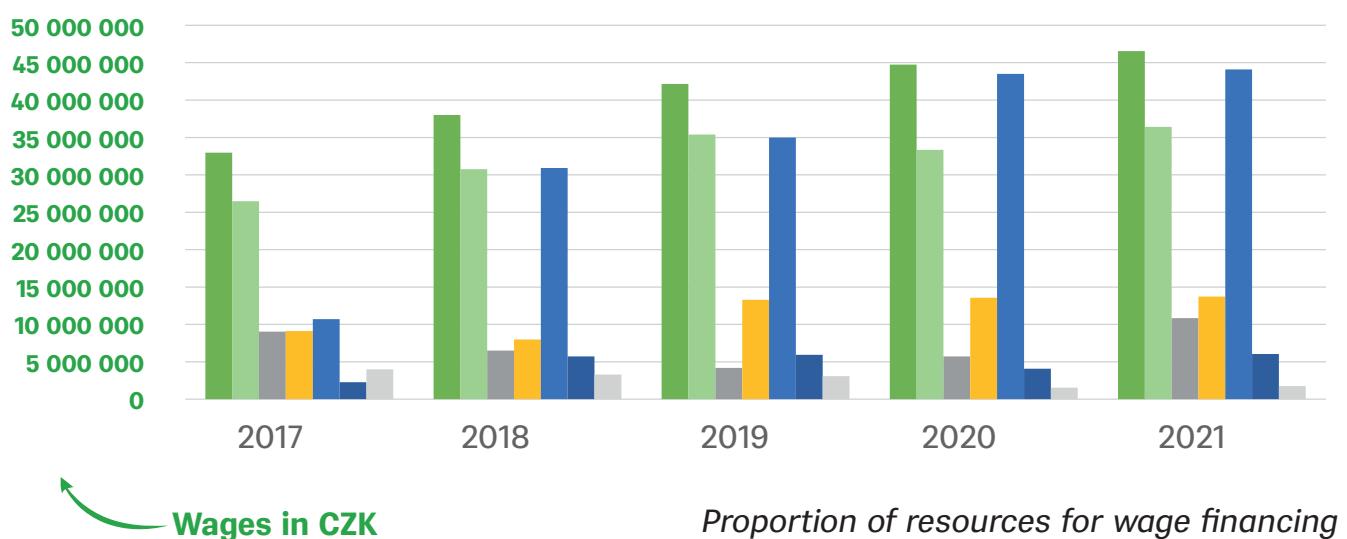
Development of funds for wages and employees 2017–2021



Wage financing structure in 2021



Development of the structure of resources for wage financing 2017–2021







Fakulta lesnická
a drevárska

9

Marketing activities



9 Marketing activities

Marketing Department as part of Faculty strategy

One of the Faculty's priorities is its promotion to the general and professional public. Therefore, every year we organize and co-organize a large number of events where we promote our studies, science, research, and other activities. In 2021, due to the spread of Covid-19, some events had to be moved exclusively to the online environment; others took place in a hybrid form, but even so, we managed to organize many. We also participated in the organization and co-organization of international scientific meetings and conferences, such as the annual conference of the European Forestry Institute (EFI).

We worked intensively with secondary school students and young people in general. Through the international competition Young People in European Forests (YPEF), the Faculty has the opportunity to meet biology enthusiasts from elementary and secondary schools. As every year, the Faculty organized local rounds, a regional round, and a national round of this competition. There was also the regular summer workshop for secondary school students, Open Days, Night of Scientists, and we participated in the Gaudeamus and Congroo Fair online fairs and other events.



However, activities for employees are also important for the Faculty, so at the beginning of September, FLD Family Day took place, where employees could bring their families and enjoy good food and drink, a band, face



CZU Fakulta lesnická a dřevařská

NEWSLETTER PRO PRAXI

Úvodní slovo

V minulém roce vyšel přílohou listopadového čísla časopisu Lesnická práce nás první Newsletter určený pro praxi a odbornou veřejnost, kde byly představeny vybrané výsledky řešených projektů, které postupně nacházely uplatnění v lesnicko-dřevařském sektoru. Na Fakultě lesnické a dřevařské ČZU v Praze (FLD) jsme na začátku roku připravili Strategický zámler FLD na období 2021+. Aplikovaný výzkum, komunikaci s praxí, předvádění výstupy do praxe a zvýšení jejich přínosu pro společnost vymírá jako klíčové aktivity pro příští roky. Proto jsem pro Vás v jejich rámci připravil další vydání Newsletteru pro praxi, kde opět představujeme několik vybraných aplikačních výstupů FLD. Výstupy FLD představené v tomto Newsletteru, ale i další naleznete na www.fld.czu.cz/aplikovanevystupy. Věřme, že představené výstupy budou pro Vaši odbornou praxi přínosem. Jejich aplikaci nám pomůže propagovat vědci s praxí. Radí přivítáme Vaše návrhy na možnou spolupráci, případně podněty na prohloubení již probíhající spolupráce. Kontaktujte přímo odborníky, kteří se konkrétně problematikou zabývají, případně zaměstnanci Oddělení vědy a výzkumu Fakulty lesnické a dřevařské ČZU v Praze.

1 Webový portál a mobilní aplikace TreeZ – Za zdravou lesy! Aplikace pro monitoring a determinaci škodlivých organismů na dřevinách Vítězslava Pešková, Ota Nekládal, Michael Samek, Hana Vaníčková, Jiří Synek

2 Patent, užitný vzor, průmyslový vzor Využití entomopatogenní houby Beauveria bassiana pomocí nosiče jako obrana proti kílkorohu borovému Michal Lalík, Juraj Galko, Andrej Kunca, Jaroslav Holuša

3 Certifikovaná metodika Zvyšování adaptability borového hospodářství v podmínkách České republiky Lukáš Bilek, Aleš Zeidler, Karel Puklák, Vlastimil Borůvka a kolektiv

4 Provozní příručka a certifikovaná metodika Elektronický příjem dříví harvesteru a kontroly měření objemu výroby Jiří Dvořák, Pavel Nator

5 Instrukční video Africký mor prasat – nová metoda odberu krve z dřevokaře Miloš Ježek, Václav Silovský, Justine Güldenpfennig

Tyto, ale i další vybrané výstupy určené pro praxi nabízíme k dispozici. Dostupné jsou na www.fld.czu.cz/aplikovanevystupy

painting, a children's raffle, a magician, and much more. An FLD Christmas concert took place in December, and each employee received a small Christmas present.



New information publications

The Faculty continued to publish an internal Newsletter and a Newsletter for Practice. Through the internal Newsletter, the Faculty raises the awareness of employees and PhD students about what is happening at the Faculty, gives the latest news, and presents what will happen. It also includes a section Who you don't know at our Faculty and an interview with an interesting personality from the Faculty. The sections Interesting facts from departments and Did you know that are also popular. The FLD newsletter was published three times in 2021.

The Newsletter for Practice was published once in 2021. It was available to the professional public not only on the Faculty website, but also as a supplement to the May issue of the Lesnická práce magazine, so that the applied outputs of the FLD could be more easily applied in forestry practice.

Social Responsibility

Together for a good cause, this is the motto that the Faculty follows in its activities within the social responsibility. The support of the DUHA company, working with people with mental disabilities, is already established; we buy a painting from them every year, which is then used on our New Year's cards. Due to the unfavourable situation with the spread of Covid-19, which caused the closure of zoos for visitors, we decided to support Prague Zoo and adopt a European elk for a year. In cooperation with the Institute of Anatomy of the Second Faculty of Medicine, Charles University, the "Tree of Life" place of reverence was opened on the premises of Motol University Hospital. A lime tree was chosen as the tree of life, as it is this tree that symbolically connects the world of the living and the dead in cemeteries. The Tree of Life will carry small wooden leaves on the branches with the first names of do-

nors so that they will never be forgotten by future generations. The place of reverence thus reminds us that even after death a generous deed can be done, and once again help by donating the body for scientific and educational purposes. Relatives of donors will be able to come to this place and students will also pay tribute to those who helped them study the human body. The Faculty also organized a fundraiser to help affected communities in the South Moravian Region after the tornado. Within the collection, FLD contributed CZK 50,000 and the staff, students, and friends of the Faculty contributed almost CZK 150,000. The total amount was handed over to school facilities in the villages of Hrušky and Moravská Nová Ves. In addition to this financial assistance, in cooperation with the School Forest Enterprise in Kostelec nad Černými lesy, FLD delivered two medium-sized timber lorries from a sawmill in Jevany to the damaged municipalities.



Audio-visual materials

In 2021, we continued to create audio-visual outputs promoting study opportunities, instrumentation, modern Faculty facilities, scientific outputs, and implemented events. Due to the growing number of videos created in English, an official English YouTube channel (Faculty of Forestry and Wood Sciences CZU Prague) was established to the official Czech YouTube channel of our faculty (FLDvPraze), to which 11 videos were added in 2021. 16 new videos have been published on the Czech YouTube channel. In 2021, a university Podcast full of life (Podcast plný života) was created, in which our Faculty regularly published contributions on various professional topics.



The Faculty in the media

Communicating information to the general and professional public through the media is also one of the priorities of our Faculty staff. There were many topics attractive for media: bark beetle outbreak, drought, African swine fever, our international projects. Some of our appearances in foreign media have also been a success, such as the unique and unobserved rescue behaviour of wild boar. In total, the Faculty was mentioned in the Czech media 162 times. These were television reports, radio programmes, and articles in newspapers and on the Internet.

EVENTS CALENDAR 2021

**January/
February
2021**



Gaudeamus Prague

Post-secondary education and lifelong learning fair

Open days

Event for applicants and the public

Congroo Fair

Post-secondary education fair

Dean's meeting with students

Event for students

Visits to secondary forestry schools

Lectures about studies

Open Day

Event for applicants and the public

NERM student conference

International event

University Fair – Most

Event for students

The end of procrastination

Lecture for students and staff

YPEF Regional Round

Competition for primary and secondary school students

Graduation ceremony

Event for graduates

FLD Summer School "From plant to plank"

Event for students from abroad

Summer workshop

Event for secondary school students

"Země Živitelka"

Trade fair

**March/
May
2021**



**June/
August
2021**





**September/
October**
2021

EFI Annual Conference

International event

Job fair

Event for students and graduates

FLD family day

Event for employees and PhD students

Natura Viva

International trade fair

VědaFest

Science fair

Forestry day

Event for the professional public

Summer school in Slovakia

Event for students

YPEF National Round

Competition for primary and secondary school students

Wood science day

Event for the professional public

IUFRO conference

International event

Dean's meeting with teachers

Event for academic staff

For Arch

Trade fair

Night of Scientists

Event for the public

Ask us

Event for first-year students

RESONATE meeting

International event

CZU FilmFest

Film Festival

**November/
December
2021**



Open Day
Event for applicants from abroad

Open Day
Event for applicants and the public

FLD Dean's hunt
Social hunting event

Christmas concert
Event for students, staff and Faculty partners

Growth and fixed mindset
Lecture for students and staff

Forest pedagogy programmes
Event for schools and kindergartens







Faculty of Forestry
and Wood Sciences

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Prague, April 2022