

**Long Term Plan
of Educational, Scientific, Research,
Development, Innovation, Artistic, and
Other Creative Activities of the Faculty of
Chemical Technology, University of
Pardubice for 2016–2020**



**Pardubice,
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Preamble

The Long Term Plan of Educational, Scientific, Research, Development, Innovation, Artistic, and Other Creative Activities of the Faculty of Chemical Technology, University of Pardubice for 2016–2020 follows the Long Term Plan for 2011–2015 and its yearly updates.

The Faculty of Chemical Technology (referred to as the “Faculty”), the oldest Faculty of the University of Pardubice, is a stable institution with a sixty-five-year tradition and high repute in the Czech Republic and abroad. The Faculty of Chemical Technology builds on the activity of the University of Chemistry in Pardubice established by governmental decree No. 81 of 27 June 1950 and in 1953 renamed by governmental decree to the University of Chemical Technology in Pardubice. The Long Term Plan of the Faculty is an open document that formulates the strategic steps to strengthen its position among other faculties that focus on educational, scientific, and research activity in the area of chemistry, both in the Czech Republic and abroad.

The Faculty of Chemical Technology is a significant centre of teaching chemistry and technical chemistry, material engineering, chemical technology, as well as biological and biological-chemical disciplines, management, and control processes.

In 2020 the Faculty of Chemical Technology will:

- Offer high-quality university education at all levels available to the general population of students from the Czech Republic and abroad,
- Reflect the technological development of society in combination with practice,
- Be a recognized partner for educational institutions and research organizations, including the application sphere,
- Deepen the scientific and research activity in basic research in cooperation with the application sphere.

The Faculty of Chemical Technology of the University of Pardubice **has the following 14** departments:

- Department of Analytical Chemistry (KACh),
- Department of Inorganic Technology (KAnT),
- Department of Biological and Biochemical Sciences (KBBV),
- Department of Economy and Management of Chemical and Food Industry (KEMCh),
- Department of Physical Chemistry (KFCh),
- Department of General and Inorganic Chemistry (KOAnCh),
- Department of Graphic Arts and Photophysics (KPF),
- Institute of Applied Physics and Mathematics (ÚAFM),
- Institute of Energetic Materials (ÚEnM),
- Institute of Environmental and Chemical Engineering (ÚEnviChI),
- Institute of Chemistry and Technology of Macromolecular Materials (ÚChTML),
- Institute of Organic Chemistry and Technology (ÚOChT),
- Centre of Materials and Nanotechnologies (CEMNAT),
- Joint Laboratory of Solid State Chemistry of the Institute of Macromolecular Chemistry of the Czech Academy of Sciences and the University of Pardubice (SLChPL).

1. Educational activity, students

1.1 Structure of study

In 2014, the Faculty of Chemical Technology had 9 bachelor's degree programmes, 6 follow-up master's degree programmes, and 8 doctoral degree programmes. In total, the Faculty offered 43 fields of study. Accredited study programmes for the academic year 2014/2015 are shown in Table 1.

As of 31 October 2014, the Faculty of Chemical Technology had 1,840 Czech students and 106 foreign students. The long-term development of the number of students at the Faculty of Chemical Technology is shown in Figure 1. The increase in the number of students between 2006 and 2009 is related to the introduction of bachelor's degree programmes and a new classification system that includes bachelor's degrees and follow-up master's degrees. The gradual decrease in the total number of students at the Faculty of Chemical Technology from 2011 is related to, inter alia, the improvement of the quality assurance system.

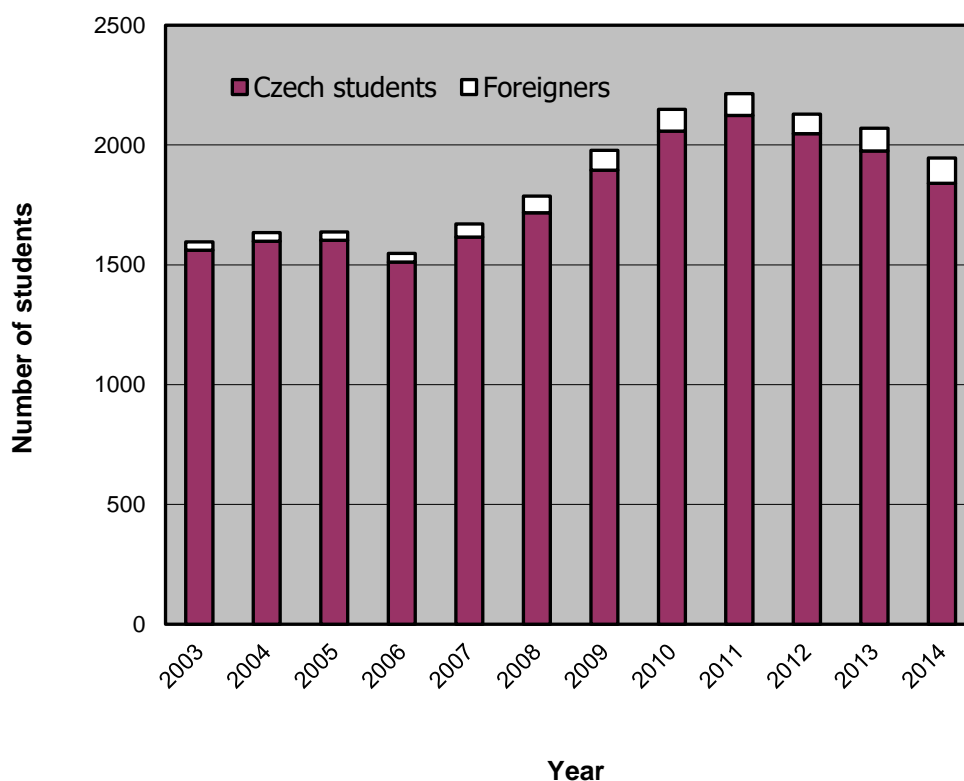


Figure 1 Development of the number of students at the Faculty of Chemical Technology in 2003–2014 (as of 31 October of the respective year).

Table 1 Overview of study programmes and fields of study at the Faculty of Chemical Technology in the academic year 2014/2015.

Study programme		Field of study	Standard length of study (years)			CBBE Code
			Bc.	F-Mgr.	Ph.D.	
B3912	Special Chemical and Biological Programmes	Clinical Biology and Chemistry	3			3901R017
		Laboratory Assistant	3			5345R020
B3441	Graphic Arts and Printing Technology	Graphic Arts and Printing Technology	3			3441R001
B2807	Chemical and Process Engineering	Environmental Protection	3			1604R007
		Economy and Management of Chemical and Food Industry	3			2807R015
B2802	Chemistry and Technical Chemistry	Chemistry and Technical Chemistry	3			2802R011
B2901	Chemistry and Technology of Foodstuffs	Evaluation and Analysis of Foodstuffs	3			2901R003
B1605	Ecology and Environmental Protection	Management of Environmental Protection	3			1604R014
B2829	Inorganic and Polymeric Materials	Inorganic Materials	3			2808R023
		Polymeric Materials and Composites	3			2808R024
B2830	Pharmacochemistry and Medicinal Materials	Pharmacochemistry and Medicinal Materials	3			2801R021
B2831	Surface Protection of Building and Construction Materials	Surface Protection of Building and Construction Materials	3			2808R025
N3441	Graphic Arts and Printing Technology	Graphic Arts and Printing Technology		2		3441T001
N3912	Special Chemical and Biological Programmes	Analysis of Biological Materials		2		3901T001
		Bioanalyst		2		1406T011
N2901	Chemistry and Technology of Foodstuffs	Evaluation and Analysis of Foodstuffs		2		2901T003
N2807	Chemical and Process Engineering	Economy and Management of Chemical and Food Industry		2		2807T015
		Chemical Engineering		2		2807T004
		Environmental Protection		2		1604T007
N2808	Chemistry and Technology of Materials	Inorganic Technology		2		2801T001
		Chemistry and Technology of Paper and Pulp		2		2808T015
		Material Engineering		2		3911T011
		Organic Coatings and Paints		2		2808T022
		Technology of Organic Specialities		2		2801T007
		Technology Polymer Manufacturing and Processing		2		2801T009
		Theory and Technology of Explosives		2		2801T010
		Fibres and Textile Chemistry		2		2806T003
N1407	Chemistry	Analytical Chemistry		2		1403T001
		Inorganic and Bioinorganic Chemistry		2		1401T001
		Organic Chemistry		2		2802T003
		Technical Physical Chemistry		2		2802T010
P1418	Inorganic Chemistry	Inorganic Chemistry			4	1401V002
P1421	Organic Chemistry	Organic Chemistry			4	1402V001
P1419	Analytical Chemistry	Analytical Chemistry			4	1403V001
P1420	Physical Chemistry	Physical Chemistry			4	1404V001
P2832	Chemistry and Chemical Technology	Inorganic Technology			4	2801V001
		Organic Technology			4	2801V003
P2833		Technology of Macromolecular Compounds			4	2808V006

	Chemistry and Technology of Materials	Surface Engineering			4	2808V027
		Chemistry and Technology of Inorganic Materials			4	2808V003
P2837	Chemical and Process Engineering	Chemical Engineering			4	2807V004
		Environmental Engineering			4	3904V005
P2807	Chemical and Process Engineering	Management and Economy of Enterprises			3	2807V009

The long-term strategy of the Faculty of Chemical Technology, University of Pardubice is as follows:

- Improve the system of quality assurance, especially in the first year and in admission of students in doctoral degree programmes. The improvement of the system of quality assurance in the first year is achieved by increasing the number of credits required to continue in the study after the first and second semester,
- Gradual phase-out of the part-time form of study (decrease in the number of students in the part-time form of study).

Overall, the long-term strategy of the Faculty of Chemical Technology resulted in a decrease in the number of students from 2,215 in 2011 to 1,946 in 2014 (Figure 1). This is clearly evident in the overview of students including the full-time and part-time form of study in bachelor's degree programmes, follow-up master's degree programmes, and doctoral degree programmes (Table 2).

Table 2 provides a detailed overview of students at the Faculty of Chemical Technology in the past five years (as of 31 October of the respective year). The letter c indicates international students.

In the academic year 2014/2015, the Faculty of Chemical Technology had 1,323 students in bachelor's degree programmes, 390 students in follow-up master's degree programmes, and 233 students in doctoral degree programmes (Figure 2). The structure of study at the Faculty of Chemical Technology is clearly shown by the number of students in the study programmes (Table 3). A positive fact is that the number of students in doctoral degree programmes has in the long term exceeded 10% of the total number of students at the Faculty of Chemical Technology (Table 4).

Table 2 Number of students by type of study

Form and type of study	2010/11	2011/12	2012/13	2013/14	2014/15
Czech students	2,058	2124	2,047	1975	1840
Foreign students	91c	91c	82c	95c	106c
Students total	2,149	2,215	2,129	2,070	1,946
Full-time study					
Bachelor's degree programmes	1,266+36c	1,337+32	1,285+33c	1,276+52c	1,226+62c
Follow-up master's degree programmes	353+18c	368+15c	406+13c	418+13c	381+9c
Full-time total	1,619+54c	1,723+47c	1,691+46c	1,694+65c	1,607+71c
Part-time study					
Bachelor's degree programmes	211+12c	177+12c	148+4c	69+3c	34+1c
Follow-up master's degree programmes	5	6	6	5	-

Part-time total	216+12c	183+12c	154+4c	74+3c	34+1c
Doctoral degree programmes	223+25c	218+32c	202+32c	207+27c	199+34c

Table 3 Number of full-time students by study programmes

Study Programme	2012/2013		2013/2014		2014/2015	
	Bc.	F-Mgr.	Bc.	F-Mgr.	Bc.	F-Mgr.
Chemistry and Technical Chemistry	126+0c	-	139+2c	-	136+4c	-
Chemistry and Technology of Foodstuffs	95+1c	40+0c	87+1c	47+0c	100+3c	47+0c
Graphic Arts and Printing Technology	87+14c	13+7c	85+18c	21+8c	87+14c	21+8c
Special Chemical and Biological Programmes	487+8c	95+0c	520+20c	70+3c	518+22c	70+3c
Chemical and Process Engineering	160+3c	-	184+4c	-	141+3c	-
Ecology and Environmental Protection	223+5c	-	49+2c	-	9+0c	-
Pharmacochemistry and Medicinal Materials	106+1c	-	171+5c	-	190+16c	-
Surface Protection of Building and Construction Materials	39+0c	-	23+0c	-	24+0c	-
Inorganic and Polymeric Materials	14+0c	-	18+0c	-	21+0c	-
Chemical and Process Engineering - N2807	-	106+1c	-	144+1c	-	144+1c
Chemistry and Technology of Materials - N2808	-	77+5c	-	98+1c	-	98+1c
Chemistry - N1407	-	55+2c	-	68+0c	-	68+0c
Total	1,691+46c		1,694+65c		1,607+71c	

Table 4 Development of the number of students in doctoral degree programmes at FChT

Year	2010/11	2011/12	2012/13	2013/14	2014/15
Number of students	248	250	234	234	233
Proportion of the overall number of students (%)	11.5	11.3	11.0	11.3	11.9

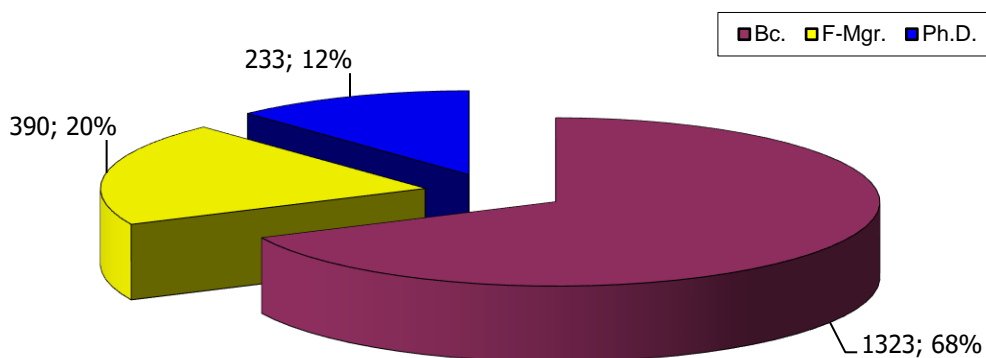


Figure 2 Proportion of students in the bachelor's, master's, and doctoral degree programmes in the academic year 2014/2015.

1.2 Interest in studying at the Faculty of Chemical Technology and admission procedure

The admission procedure at the Faculty of Chemical Technology is organized by the Faculty and does not include a private entity. Following the discussions in previous years, during 2013 and 2014 measures were adopted to improve the quality of incoming students and limit their future academic failure, especially of students who enrol repeatedly. This approach has proven effective and will continue in the coming years.

In the academic year 2014/2015, the Faculty had a total of 1,269 applicants. In the two admission rounds, 986 applicants were accepted, of whom 555 enrolled (Table 5). In the academic year 2014/2015, a total of 193 applicants were accepted in follow-up master's degree programmes, of whom 164 enrolled (Table 6). As far as doctoral degree programmes are concerned, 49 applicants were accepted and 43 enrolled in both the full-time and part-time form of study (Table 7). Figure 3 shows the development of the number of newly enrolled students in the first year of bachelor's and follow-up master's degree programmes between 2006 and 2015

Table 5 Number of students in the full-time form of study in the academic year 2014/2015 – bachelor's degree programmes.

Study Programme	Number of applicants	Accepted	Accepted on appeal	Accepted	Total accepted	Enrolled
		First round		Second round		
Chemistry and Technical Chemistry	136	77	-	12	89	59
Chemistry and Technology of Foodstuffs	151	77	-	39	116	48
Special Chemical and Biological Programmes	487	386	-	-	386	197
Graphic Arts and Printing Technology	83	49	-	19	68	54
Chemical and Process Engineering	139	69	-	36	105	68
Pharmacochemistry and Medicinal Materials	231	117	-	76	193	110
Surface Protection of Building and Construction Materials	22	10	-	5	15	10
Inorganic and Polymeric Materials	20	7	-	7	14	9
Total	1,269	792	-	194	986	555

Table 6 Numbers of students in the full-time form of study in the academic year 2014/2015 – follow-up master's degree programmes.

Study Programme	Number of applicants	Accepted without admission exam	Accepted with admission exam	Accepted on appeal	Total accepted	Enrolled
Special Chemical and Biological Programmes	62	7	33	-	40	24
Graphic Arts and Printing Technology	16	-	12	-	12	12
Chemistry	37	10	18	-	28	24
Chemical and Process Engineering	63	-	41	1	42	41
Chemistry and Technology of Materials	57	25	20	-	45	40
Chemistry and Technology of Foodstuffs	53	-	25	1	26	23
Total	288	42	149	2	193	164

Table 7 Existing and newly enrolled students in doctoral degree programmes (full-time form of study; the letter p shall mean part-time form of study).

Study Programme	Number of applicants	Accepted with admission exam	Total accepted	Enrolled
Inorganic Chemistry	5	5	5	4
Analytical Chemistry	13+1p	12+1k	13+1k	11+1p
Physical Chemistry	6+1p	4+1p	6+1p	3+1p
Organic Chemistry	5	4	4	4
Chemical and Process Engineering	11+1p	9+1p	9+1p	9
Chemistry and Chemical Technology	3	3	3	3
Chemistry and Technology of Materials	11+1p	8+1p	9+1p	9+1p
Total	54	45	49	43

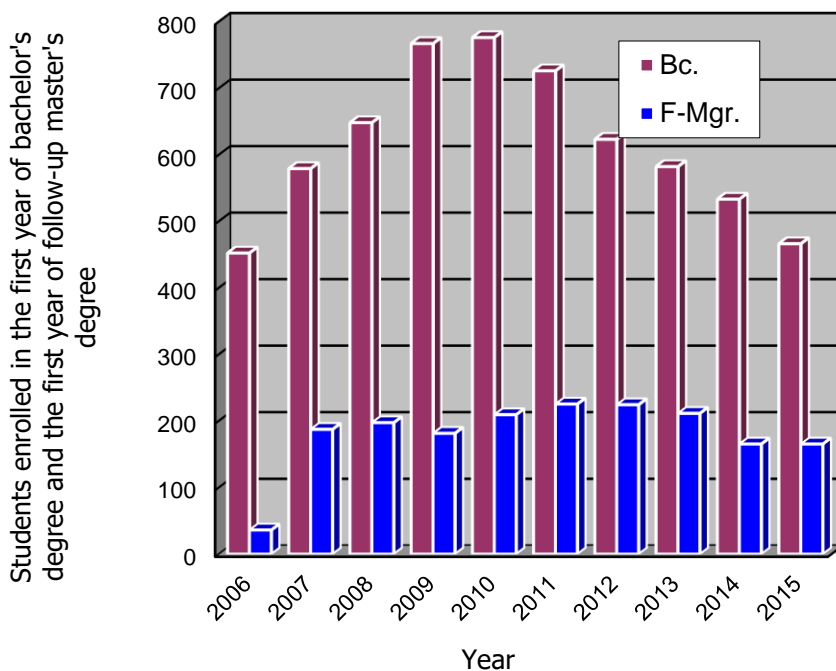


Figure 3 Development of the number of newly enrolled students in the first year of bachelor's and follow-up master's degree programmes between 2006 and 2015 (as of 31 October of the respective year).

1.3 Graduates

The principles of the credit system correspond with the international ECTS system. The use of the credit system for the evaluation of academic achievement at the Faculty is defined by the "Study and Examination Code of the University of Pardubice".

Table 8 shows the number of graduates by type of study between 2009 and 2014. The fluctuations in the number of graduates roughly correspond with the number of students accepted for study in the respective year. In the long term however, the Faculty of Chemical Technology has provided a stable environment for study.

The Faculty of Chemical Technology has always focused on active involvement of doctoral degree students in scientific and research activity of the Faculty's departments and institutes. Postgraduate students are included in research teams and actively contribute to the scientific and research results of the Faculty. Over the past 5 years (2011-2014), a total of 132 postgraduate students successfully defended their dissertation. Table 9 shows an overview of successfully defended dissertations by study programmes.

In the long term, the Faculty of Chemical Technology has monitored the employability of its graduates on the labour market. The data for this analysis are primarily acquired from public databases, some data are also provided by the application sphere where the graduates of the Faculty of Chemical Technology are employed, and feedback is also provided by the graduates themselves, especially through the Alumni Club, which is supported by the Faculty. The results of this analysis are used especially for decision making concerning the structure of accepted applicants, re-accreditation of existing study programmes, and designing of new fields of study.

The Faculty of Chemical Technology provides a number of activities, the purpose of which is to increase the employability of its graduates on the labour market. This particularly involves

students' placements in the chemical industry, organization of the Job opportunity fair, and various activities (discussion fora, expert lectures, involvement of professionals in teaching) organized with chemical industry representatives.

Table 8 Number of graduates by type of study in previous years

Type of study	2009	2010	2011	2012	2013	2014
Bc.	166	191	243	250	260	223
Mgr.	36	35	34	47	36	30
Ing.	139	104	103	106	114	149
Ph.D.	28	41	17	21	29	29
Total	369	371	397	424	439	431

The numbers in the table correspond with the V 12-01 Statement for the period from 1 January to 31 December of the respective year

Table 9 Graduates from doctoral degree programmes in the period from 1 November to 31 October of the following year

Study Programme	Number of graduates				
	2009/10	2010/11	2011/12	2012/13	2013/14
Inorganic Chemistry	3	-	3	3	3
Organic Chemistry	-	2	2	1	3
Analytical Chemistry	10	6	4	7	3
Physical Chemistry	4	2	-	3	3
Chemistry and Chemical Technology	5	3	6	5	4
Chemical and Process Engineering	4	4	4	-	5
Chemistry and Technology of Materials	11	5	4	7	3
Total	37	22	23	26	24

1.4 Study support

The long-term strategy of the Faculty of Chemical Technology is to support talented students. In compliance with this strategy, achievement scholarships are awarded to outstanding students. Figure 4 shows an overview of achievement scholarship by type of study. The Faculty of Chemical Technology also supports students' involvement in research and scientific activities beyond the scope of their study (Students' scientific and professional activities – SSPA).

The Faculty of Chemical Technology also supports a wide range of student competitions organized for secondary and elementary school students (including for example Search for the best young chemist of CR, Students' professional activities (SPA), Science and technology festival for children and youth in the Pardubice Region AMAVET, Chemical Olympiad, European Union Science Olympiad, etc.) The best students are then awarded scholarship for the first year of study at the Faculty.

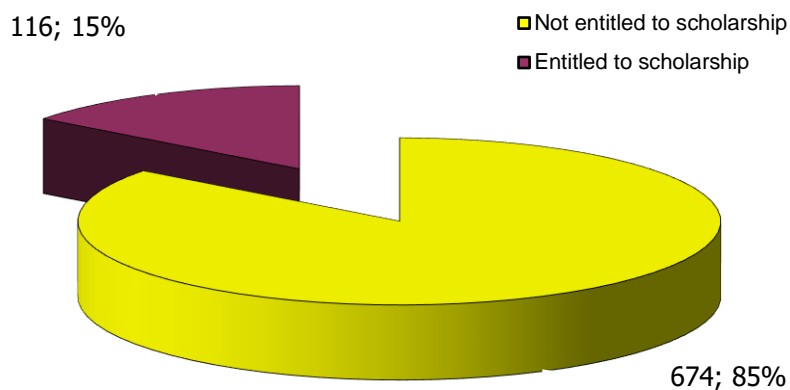


Figure 4a Proportion of students entitled to achievement scholarship in the bachelor's degree (year 2 and 3).

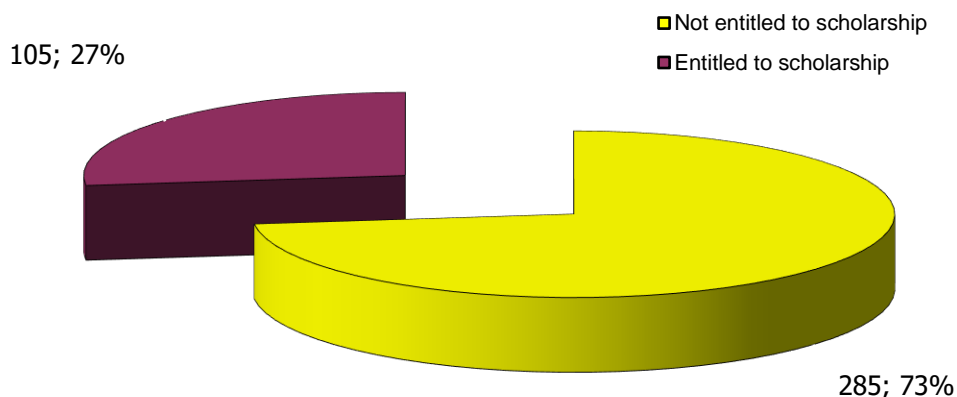


Figure 4b Proportion of students entitled to achievement scholarship in the follow-up master's degree (year 1 and 2).

2. Research and Development

The scientific, research, and creative activities of the Faculty of Chemical Technology, University of Pardubice focus particularly on high-quality basic and applied research. The scientific and research activities are performed by working groups at the Faculty's departments and institutes, which are actively involved in projects supported by the Czech Science Foundation, Technology Agency of the Czech Republic, or departmental support providers. Table 10 shows an overview of funding received for scientific and research activities of the Faculty between 2008 and 2014.

An important aspect in the development of scientific and research activities of the Faculty are the resources acquired as a result of collaboration with industrial entities and as a result of international cooperation. This is also supported by extensive publication activity including papers in impacted scientific periodicals (Figure 5), monographs, patents, etc. Figure 5 shows the steep increase in publication activity by the employees of the Faculty of Chemical Technology in recent years, which also results from the long-term strategy of the Faculty

focused on employee motivation and new scientific positions. In the assessment of S&R in 2013, the value of the results of the Faculty of Chemical Technology calculated by RDIC methodology was 49,667.8 points.

Table 10 Overview of funding received for S&R between 2008 and 2014

Year	2008	2009	2010	2011	2012	2013	2014
Institutional support for the development of a research organization (thousand CZK)	-	-	33,292	71,466	117,196	117,983	120,396
Research intents (thousand CZK)	62,118	68,754	41,546	17,856	-	-	-
Research centres (thousand CZK)	9,950	9,529	10,163	6,093	-	-	-
Foreign grants (thousand CZK)	4,632	4,341	5,054	8,185	8,285	20,865	6,534
Domestic grants (thousand CZK)	29,166	38,847	46,310	63,368	70,450	75,496	74,568
Student grant competition (thousand CZK)	-	-	19,783	17,813	19,222	20,217	20,891
Additional activity (thousand CZK)	*4,593	*3,465	*2,836	*2,887	*3,484	*3,580	*5,372

* The amount of additional activity is related to a number of activities in the framework of the main activity.

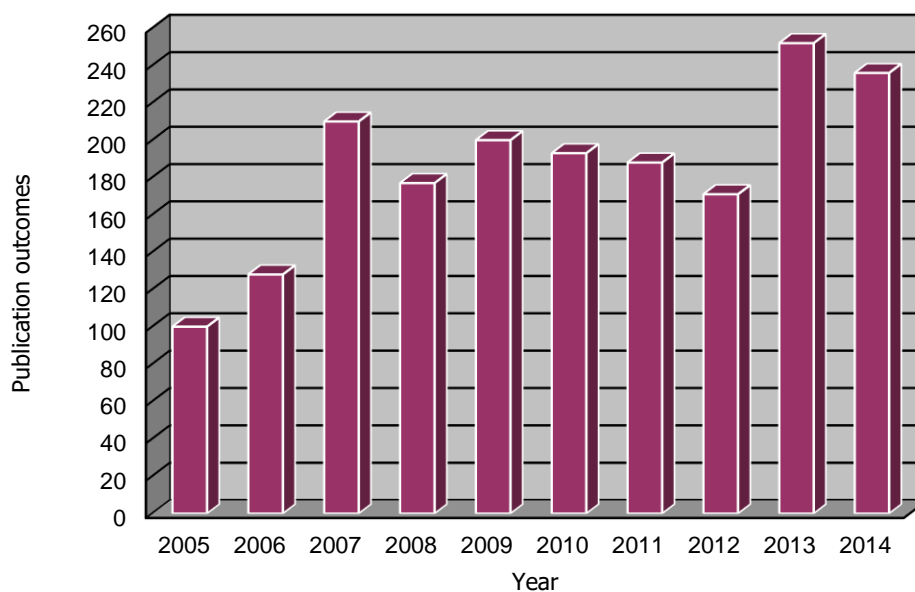


Figure 5 Summary of publication outcomes $J_{imp.}$ between 2005 and 2014

Currently, the assessment of science and research is performed on the basis of the approved S&R assessment methodology. In terms of RII points, the Faculty of Chemical Technology, University of Pardubice has in the long term been dominant among other faculties of the University of Pardubice (71% share of RII points in S&R assessment, A2013). In the area of research and development, the Faculty of Chemical Technology, University of Pardubice is a stable institute. The scientific, research, and creative activities of the Faculty are the key pillars of funding.

Table 11 shows the trend in the achievement of RII points by the Faculty of Chemical Technology, University of Pardubice. A positive fact is that the trend increases, but this is partially related to the changes in the assessment methodology over the years. Table 12 shows a comparison between the results of the Faculty and other research organizations in the CR. Especially relevant is the comparison with faculties with a similar scientific focus, particularly

with UCT faculties in Prague. A very positive aspect is the involvement of all departments/institutes in scientific and research activities of the Faculty (Figure 6). The structure of RII points suggests that the vast majority of RII points are based on Pillar 1, including especially the results published in impacted journals (Figure 7).

Table 11 Achievement of RII points for S&R activities between 2010 and 2013

Year	Assessment methodology	Number of points
2010	A2010 methodology	37,471.7
2011	A2011 methodology	43,106.0
2012	A2012 methodology	47,051.3
2013	A2013 methodology	49,667.8

Table 12 RII points scored according to methodology applicable in 2013

Order	Research organizations	Number of points
1.	Faculty of Mathematics and Physics, CU, Prague	163,121.9
2.	Faculty of Science, CU, Prague	133,004.0
3.	Institute of Physics of the Czech Academy of Sciences, Prague	118,847.8
4.	Faculty of Science, MU, Brno	104,983.5
5.	Faculty of Science, PU, Olomouc	101,947.3
6.	Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences, Prague	87,611.8
7.	Faculty of Electrical Engineering, CTU, Prague	82,780.5
8.	First Faculty of Medicine, CU, Prague	65,150.8
9.	Faculty of Civil Engineering, CTU, Prague	60,357.8
10.	J. Heyrovský Institute of Physical Chemistry of the Czech Academy of Sciences, Prague	55,360.1
11.	Faculty of Mechanical Engineering, BUT, Brno	53,931.2
12.	Faculty of Electrical Engineering and Communication, BUT, Brno	52,826.4
13.	Faculty of Arts, CU, Prague	51,568.8
14.	Faculty of Chemical Technology, University of Pardubice	49,667.8
15.	Faculty of Nuclear Sciences and Physical Engineering, CTU, Prague	47,871.4
16.	Institute of Macromolecular Chemistry of the Czech Academy of Sciences, Prague	45,704.3
17.	Faculty of Mechanical Engineering, CTU, Prague	45,281.9
18.	Biology Centre of the Czech Academy of Sciences	45,112.9
19.	Institute of Microbiology of the Czech Academy of Sciences	40,643.1
20.	Faculty of Medicine and Dentistry, PU, Olomouc	37,398.8
21.	Faculty of Chemical Technology, UCT, Prague	35,988.3

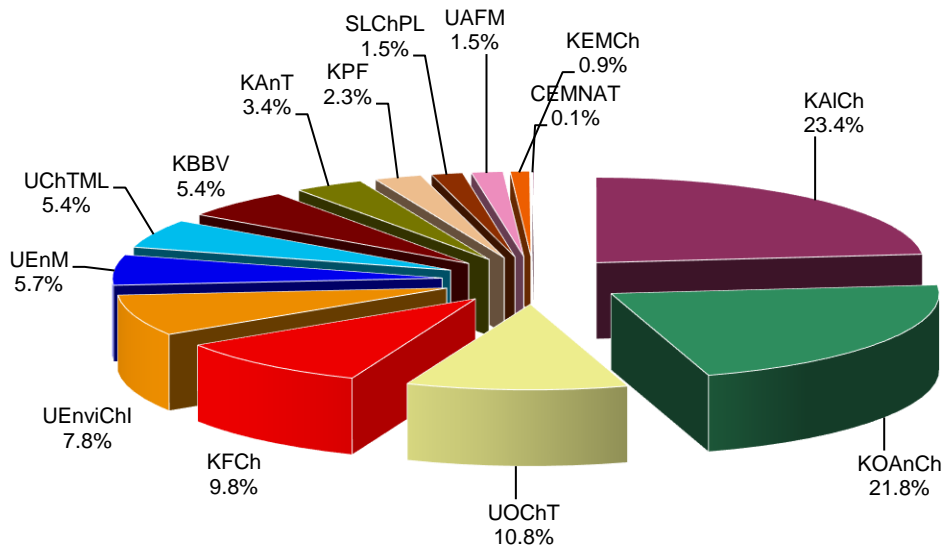


Figure 6 Share of the Faculty departments in the results of science and research according to the evaluation of research organizations in 2013 (evaluation for 2008–2012)

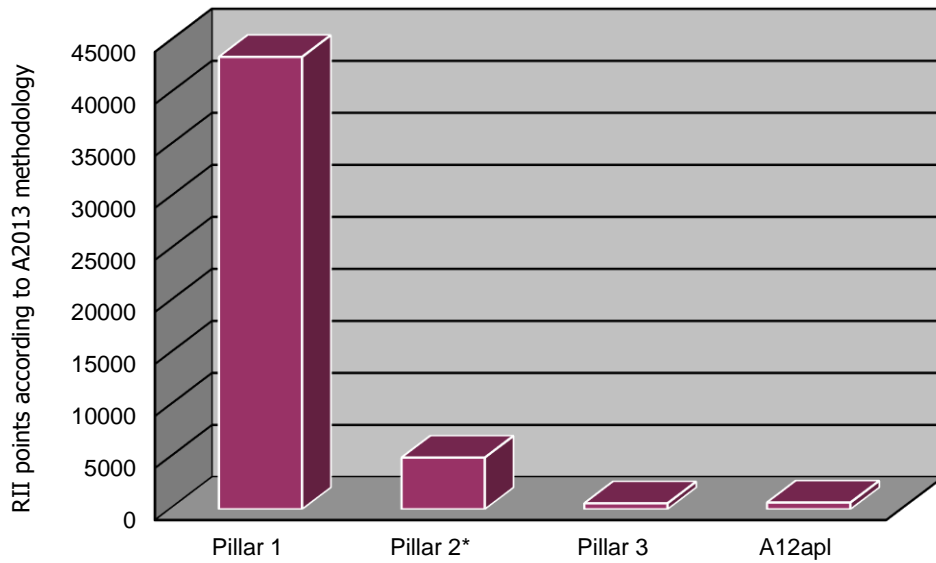


Figure 7 Structure RII points scored according to A2013 Pillars (*In 2013, Pillar 2 is initiated as 1/9 of the sum of Pillar 1, Pillar 3 and points for the results of applied research from previous evaluations)

3. Operational programmes, cooperation with industry and international cooperation

3.1 Operational programmes

The Faculty of Chemical Technology, University of Pardubice has in the long term been involved in projects under various operational programmes, especially OPEC and OPRDI. A number of projects, especially OPRDI, are primarily conducted by the University of Pardubice. One of the priorities of the Faculty in this area is long-term monitoring and support of its employees in their participation in European projects.

3.2 Cooperation with the application sphere

The core priorities of the Faculty of Chemical Technology include long-term cooperation with the application sphere. In the area of science and research, the cooperation is based on contract research, additional activities, and a wide range of projects implemented by means of joint research teams. Undoubtedly, this form of collaboration in addressing the current problems in industrial and application practice also contributes to the scientific and research development of the Faculty and its students, and must be paid due attention.

In the area of education, cooperation with the application sphere is undertaken as follows:

- Placements of students of all forms of study in industrial enterprises and research institutions,
- Excursions of students in production enterprises, research institutions, and specialized departments,
- Student internships (mandatory internships defined by the study plan),
- Membership of experts from industry and research in the Scientific Board of the Faculty,
- Membership of experts from industry and research in Doctoral Subject Area Boards,
- Appointment of experts from practice in SFE Boards and Dissertation Committees,
- Lectures given by prominent experts from practice; this applies especially to courses in which students learn about real technological procedures and processes,
- Single lectures given by experts from practice for students of all levels of study,
- Production of qualification theses in cooperation with chemical, petrochemical, food processing, and pharmaceutical enterprises.

In the previous period, the activities of the following joint institutes successfully continued:

- Joint laboratory of solid state chemistry of the Institute of Macromolecular Chemistry of the Czech Academy of Sciences and the University of Pardubice (SLChPL),
- Joint laboratory of NMR spectroscopy of Výzkumný ústav organických syntéz, a.s., Pardubice-Rybitví and the University of Pardubice (SLNMR),
- Joint laboratory of membrane processes MEGA, a.s., Stráž pod Ralskem and University of Pardubice (SLMP),
- Joint laboratory of polymer analysis and assessment SYNPO, a.s., Pardubice and University of Pardubice, Faculty of Chemical Technology (SLAP),
- Joint institution of applied medicine of Pardubice Hospital and the Faculty of Chemical Technology (SPAM).

Further continuation of active work of these joint institutes, particularly SLChPL and SLNMR remains vital for the development of research and scientific work of the Faculty departments. The institutes are systematically involved in the scientific and research activities of the Faculty and in the process of education. They are equipped with adequate instrumentation, which is gradually renewed and upgraded.

3.3 International cooperation

On a continuous basis, the Faculty of Chemical Technology develops international cooperation, especially in the European research area. In this context, the Faculty supports joint projects with similar institutions abroad, mutual recognition of study and diplomas, and exchange of academic staff and students. An important activity in the field of international cooperation of the Faculty in the area of education and science is involvement of employees and students in the ERASMUS+ and CEEPUS programmes. In 2014, all agreements were reviewed for the new period 2014–2020; the total number of contracts in 2014 was 49. In the framework of ERASMUS+, a total of 11 teacher mobilities and 27 student mobilities took place (lasting for a total of 84.5 months). The development of active agreements in 2005–2014 is shown in Figure 8.

The priority areas also include extension and improvement of the offer of study programmes (Table 13) and courses taught in English, increase in the number of mobilities, foreign language courses, development of cooperation with foreign partners, and extension of the services for international students and international staff.

Table 13 Doctoral study programmes accredited in the English language

Name of study programme	Standard length of study
Analytical Chemistry	4
Chemical and Process Engineering	4
Chemistry and Technology of Materials	4
Inorganic Chemistry	4
Chemistry and Chemical Technology	4
Organic Chemistry	4
Physical Chemistry	4

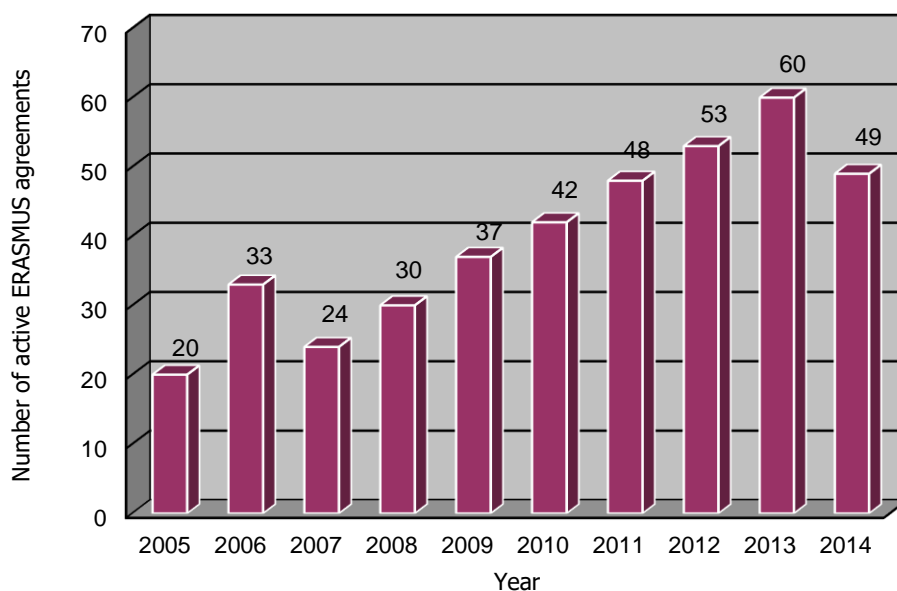


Figure 8 Overview of the number of active bilateral ERASMUS agreements concluded by the Faculty of Chemical Technology between 2005 and 2014

4. Human resources

Continuous development and improvement of HR qualification structure is one of the priorities of the Faculty of Chemical Technology. The basic tool to achieve this objective is the long-term application of a motivation system for academic staff, but also the establishment of scientific-research positions. Table 14 shows the long-term stabilization of the total adjusted number of academic employees and a gradual increase in the number of scientific employees, which is the result of the Faculty's support provided to high-quality research groups in the form of a number of long-term scientific positions. Some of the scientific employees were employed exclusively for the purposes of project implementation. The qualification structure as of 31 December of the respective year is shown in Table 15. The table shows the long-term stable structure of academic employees, especially of associate professors and professors.

In the academic year 2014/2015, the Faculty organized the habilitation procedure and professor appointment procedure in a total of 8 specializations:

- Analytical chemistry,
- Inorganic chemistry,
- Organic chemistry,
- Physical chemistry,
- Chemical engineering,
- Chemistry and technology of inorganic materials,
- Technology of macromolecular substances,
- Technology of organic substances.

Table 14 Number of FChT employees; average adjusted number in 2010–2014.

Year	Educational staff	Scientific staff	Other staff				Grand total
			Technical experts, laboratory technicians	Administration TES	Workers	Total	
2014	161.0	43.3	45.6	32.5	6.2	84.3	288.6
2013	163.6	38.0	45.8	35.7	6.2	87.7	289.3
2012	158.7	32.8	43.1	33.5	6.2	82.8	274.3
2011	157.4	27.7	43.2	29.1	6.2	78.5	263.6
2010	157.3	27.6	43.2	29.7	6.2	79.1	264.0

* Excluding staff involved in whole-university projects (33.8 educational and scientific staff)

Table 15 Qualification structure of educational staff as of 31 December of the respective year

Working position	2010		2011		2012		2013		2014	
	P	A	P	R	P	R	P	R	P	R
Professors	33	31.0	34	31.4	36	31.6	37	33.7	35	30.1
Associate professors	37	34.1	36	33.4	36	33.4	41	35.0	43	38.8
Assistant professors	83	76.4	88	82.4	90	81.8	91	82.7	91	81.4
Assistants	18	16.6	17	14.4	17	11.9	17	12.2	15	10.7
Lecturers	0	0	0	0	0	0	0	0	0	0
Total	171	158.0	175	161.6	179	158.7	186	163.6	184	161.0

Note: P – physical number, R – average adjusted number

5. Economic activity

The funding allocated to the Faculty of Chemical Technology is based on the cost and income budget. The budget is drawn up in compliance with Section 18 of Act No. 111/1998 Coll. on higher education institutions and on amendment to some acts for each calendar year. The basic budgeting principles are specified in the “Rules of economic management of the University of Pardubice”.

Each budget is proposed as balanced. The funding in the budget can be used only to support activities according to Article 3 of the Statute of the University of Pardubice. Non-investment and investment funding is budgeted separately.

Non-investment income of the Faculty of Chemical Technology includes three main pillars: A+K funds, DRO funds, and non-investment funds from grants and projects (Figure 9). Figure 10 shows the structure of non-investment income of the Faculty in the past four years. The amount of the Faculty’s income was affected primarily by the completion of research projects and the transition of the system of funding of research and development to DRO funding, and the high amount of funding from European operational projects. Figure 11 shows the income and provision of investment funding in 2011–2014. The figure shows the increase in investment funding, which results from the implementation of European projects and higher investment cost from DRO funding. The Faculty has been successful in maintaining the necessary reserves in the form of funds, the purpose of which is to co-finance European project, ensure project sustainability, and to cover risks and exceptional costs.

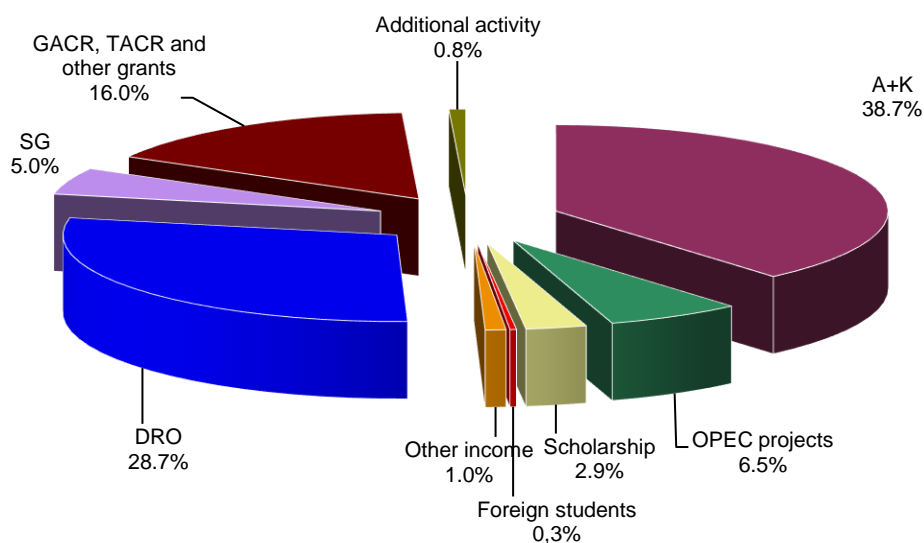


Figure 9 Structure of non-investment income of the Faculty Chemical Technology in 2014

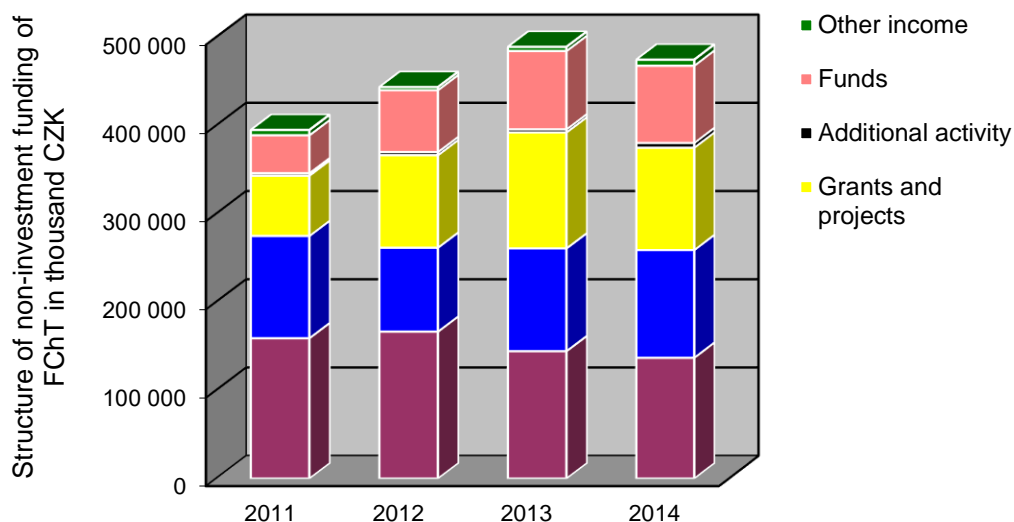


Figure 10 Development of the structure of non-investment funding of FChT in 2011–2014 (thousand CZK)

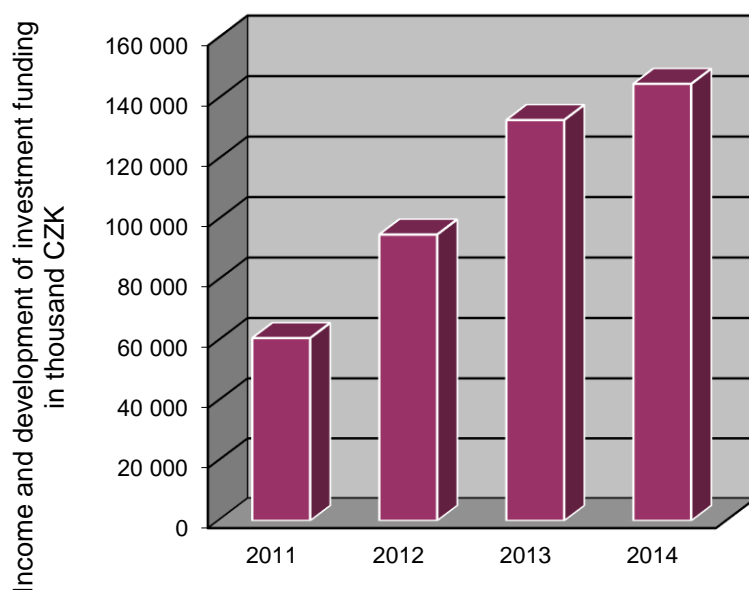


Figure 11 Development of income and investment funding in 2011–2014 (thousand CZK)

The costs of the Faculty of Chemical Technology are divided into investment and non-investment costs. The non-investment costs include primarily whole-faculty costs, other costs, additional activity, labour costs, operational costs of the departments and institutes, and special-purpose events and projects. The types of non-investment costs include labour costs, operating costs, energy, contributions for co-investigators, depreciation, whole-university costs, health checks, dietary allowances, and fund transfers. Figure 12 shows the structure of costs of the Faculty of Chemical Technology by types of costs in 2011–2014. The cost structure

is positively influenced mainly by special-purpose funding from various projects, which allows long-term saving, for example in the form of personnel costs and long-term investment property costs.

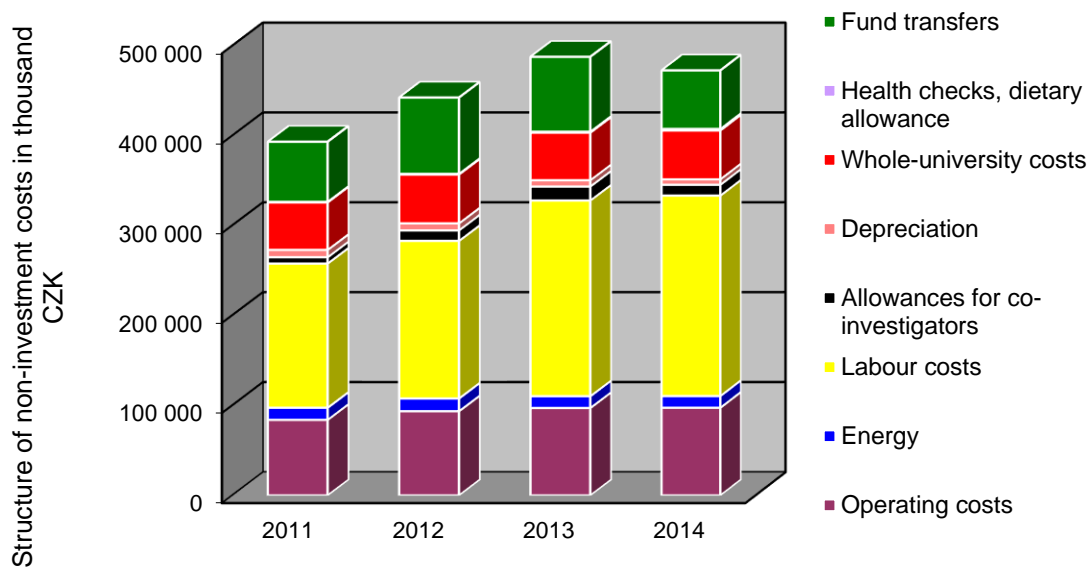


Figure 12 Development of non-investment costs of FChT in 2011–2014 (thousand CZK).

6. Strengths of FChT

In the period to come, the Faculty of Chemical Technology will continue to focus on the following strengths:

- Prominent scientific figures recognized outside the CR and Europe,
- Addressing socially preferred issues,
- Respect for the departments and institutes of the Faculty in the scientific community,
- Diversification of the scientific focus of the Faculty departments and institutes,
- High-quality scientific-research and educational infrastructure,
- Good academic atmosphere at the Faculty,
- Potential for cooperation between the departments/institutes of the Faculty,
- Promotion of interdisciplinary cooperation,
- Good economic situation of the Faculty and all its departments and institutes,
- High-quality staff in all departments and institutes including the Dean's Office,
- Potential to overcome threats in all areas.

7. Key areas and priority objectives

The Long Term Plan of Educational, Scientific, Research, Development, Innovation, Artistic, and Other Creative Activities of the Faculty of Chemical Technology, University of Pardubice for 2016–2020 is the fundamental strategic developmental document for this period and complies with Section 21 of Act No. 111/1998 Coll. on higher education institutions and on amendment to some acts (the Higher Education Act) as last amended. The source document is the Long Term Plan of Educational, Scientific, Research, Development, Innovation, Artistic, and Other Creative Activities of the University of Pardubice for 2016–2020.

The Long Term Plan of the Faculty of Chemical Technology, University of Pardubice for 2016–2020 reflects the results achieved in fulfilling the Long Term Plan of FChT for 2011–2015, and in conjunction with the mother institution University of Pardubice specifies the following key areas of the Faculty development:

- **Ensuring the quality of education** – increasing the quality of the learning content at all levels;
- **Diversity and availability of education** – a diversified approach to education, respecting the needs, interests, and capabilities of a broad range of students,
- **Internationalization** – increasing the number of foreign students at the Faculty, foreign academics and scientists, increasing the number of student placements abroad,
- **Relevance** – compliance of university education with practical requirements and societal trends,
- **High-quality and relevant research, development and innovations** – deepening scientific and research activities in the field of basic research and their transfer into the application sphere,
- **Strategic management and development of support processes** – increasing the quality of strategic management with a focus on the evaluation of the results and their use for fine-tuning of the tools required to achieve the strategic objectives;
- **Effective financing** – the mission and vision of the Faculty can only be achieved in a modern and functional environment with adequate material and technical infrastructure and quality services. Emphasis is on cost-effective expenditure and at the same time high quality of the resulting benefit.

A yearly update of the Long Term Plan will be provided to specify the development tasks for each year together with the structure of their funding.

The purpose of the attached set of indicators is to monitor the achievement of the key aspects of the priority objectives of the Long Term Plan of the Faculty of Chemical Technology, University of Pardubice. The determined values should be achieved by 2020.

Priority 1: Ensuring the quality of education

Objective: To gradually increase the quality of the content of university education in the context of bachelor's, master's and doctoral degrees, to increase the number of talented students at the Faculty of Chemical Technology, University of Pardubice, and to promote their active involvement in scientific activity. To systematically link education to research, development, innovations and applications.

Strategies

- Selection of top quality applicants for all levels of study,
- Improving the quality of educational activity at all departments/institutes of the Faculty of Chemical Technology, University of Pardubice; care of talented students in bachelor's and master's degree programmes,
- Emphasis on doctoral degree programmes as an educational priority of the Faculty,
- Development of systematic work with students in doctoral degree programmes in order to increase their involvement in research projects,
- Innovation of the educational content in relation to new theoretical knowledge and current needs of the labour market; supporting cooperation with the application sphere,
- Ensuring compliance of the educational content structure with the required graduate profile in the context of the descriptors of relevant areas of education,
- Monitoring students' feedback concerning the study and academic staff,
- Supporting cooperation between the Faculty departments and institutes.

Activities to achieve the objective

- Focus on the promotion of study at the Faculty of Chemical Technology, University of Pardubice among secondary and elementary schools; development of systematic cooperation with secondary schools in the area of education,
- Development of activities to support talented students; scientific competitions for potential applicants; granting merit scholarships to students who succeed in competitions,
- Development of communication and information platform for the Faculty's partners, graduates, employers, and other institutions,
- Recruitment of graduates from the Faculty of Chemical Technology, University of Pardubice, but also talented graduates from other universities in the Czech Republic and abroad for follow-up master's and doctoral degree programmes,
- Support of professional development of academic staff in area of education,
- Support and development of mobilities of academic staff and students of the Faculty in the context of educational programmes,
- Supporting participation of talented students from bachelor's and master's degree programmes in scientific competitions and other events in order to develop their professional focus and skills,
- Description of study programmes and fields of study in cooperation with the application sphere, providing high-quality information about study programmes through various media,
- Systematic promotion of interdisciplinarity and internationalization of doctoral degree programmes,
- Targeted support of doctoral degree students of all fields of study in their involvement in grants and projects implemented by their departments,
- Development and maintenance of post-doc employment positions for excellent doctoral graduates (own graduates, graduates from other universities, graduates from abroad),
- Systematic actions involving students and employees in order to fight plagiarism,

- Development of international student exchange with an emphasis on high-quality scientific cooperation; promotion of involvement of doctoral degree students in projects carried out in cooperation with foreign partners,
- Strengthening systematic cooperation with practice,
- Providing adequate conditions for and preparation of projects for placement of students of bachelor's and follow-up master's programmes in industrial enterprises and research institutions,
- Strengthening of cooperation with partner secondary schools and development of cooperation with other secondary schools; educational activities for innovative secondary school teachers,
- Monitoring and evaluation of the attractiveness of individual study programmes,
- Monitoring and evaluation of the reasons for early termination of study in bachelor's degree programmes,
- Analysis of job opportunities for students in all levels of study,
- Extension and improvement of evaluation of the process of education by students, graduates and management of the Faculty; evaluation of study programmes in cooperation with professionals from practice, graduates, and the application sphere,
- Analysis of jobs acquired by graduates from all levels of study on the labour market or in further study in order to obtain long-term and systematic feedback for further evaluation of educational processes,
- Analysis of doctoral degree programmes with an emphasis on their quality and relevance for scientific and creative activity, including adoption of any necessary measures,
- Regular evaluation of the study by graduates and application of its results.

Priority 2: Diversity and availability of education

Objective: To play the role of an open educational centre. To positively influence the public attitude to education, research, and exploration, and to involve young people in these activities as a prerequisite for economic development of the country.

Strategies

- Promotion of educational, scientific and research activities of the Faculty,
- Improving the specialization of study programmes and maintaining unique fields of study,
- Development of new study programmes based on the broad range of existing fields of study and the strengths of individual departments and institutes,
- Extending and improving the offer of lifelong learning programmes,
- Development of cooperation with elementary and secondary schools and their authorities,
- Development of adequate conditions for study and motivation of talented students,
- Introducing measures to decrease study failure and measures supporting completion of regular study periods in all types of study,
- Provision of information and counselling services concerning the study and professional career,
- Ensuring the necessary conditions for students from socially disadvantaged groups.

Activities to achieve the objective

- Popularization of educational, scientific and research activities of the Faculty, communication of the latest findings in relevant scientific disciplines; implementation of activities that systematically support the interest and motivation of talented applicants, especially in technical and natural science disciplines,

- Use of active media relations, promotional and marketing tools to inform about educational opportunities and diversified range of study programmes provided by the Faculty, by which access is granted to various population groups,
- Increasing professional competences of beginning academic staff by means of foreign internships or internships in industrial enterprises in the Czech Republic,
- Development of a faculty system of awarding outstanding university teachers,
- Broadening the offer of lifelong learning courses, counselling services, and information and promotion activities of the Faculty for the general and professional community and for all those who are interested,
- Extended cooperation with scientific institutions and industrial enterprises in providing selected bachelor's and master's degree programmes,
- Targeted search for talented students and development of their talent through various forms of educational programmes, individual approaches, competitions, and scholarship funds,
- Exchange of information with lower educational levels and their authorities, organizing events for them or together with them,
- Increasing the number of students from socially disadvantaged groups.

Priority 3: Internationalization

Objective: To deepen the process of internationalization of the Faculty. To increase the number of international students in accredited study programmes and the number of study placements of students of the Faculty of Chemical Technology, University of Pardubice abroad. To improve the quality of the study by increasing its usefulness and effectiveness in the context of the desired graduate profile. To develop targeted scientific and research cooperation with foreign entities in order to increase and deepen research performed by academic staff, young researchers, and students.

Strategies

- Searching for new foreign strategic partners and systematic development of cooperation with these partners, both in terms of education and science and research,
- Strengthening of cooperation with foreign universities and other research institutions in the area of education, science and research,
- Increasing the number of foreign students in accredited study programmes and students arriving at the Faculty,
- Selection of foreign partner institutions and study programmes that allow recognition of credits and completed courses, both in terms of quality and factual similarity,
- Supporting and development joint study programmes – joint/double degrees with foreign universities,
- Expanding the opportunities for foreign research internships for academic staff, young researchers, and students in doctoral degree programmes,
- Using the potential of foreign academic staff and students during their long-term and short-term visits at the Faculty,
- Involvement of academic staff and students in doctoral and master's degree programmes in international research projects,
- Employment of foreign researchers at the Faculty,
- Increasing the language competences of academic and non-academic staff and students of the Faculty,
- Improving the quality of courses taught in English and providing an offer of courses taught in English for Czech students, increasing the number and improving the quality of study materials used in courses taught in English,

- Promotion of “mobility windows” in selected semesters and specific study programmes so that the course of mobility becomes organic part of the standard study plan,
- Introduction of new fields of study taught in English.

Activities to achieve the objective

- Focus on international promotion of study and scientific-research activity of the Faculty, innovating and extending the forms and tools of this promotion,
- Selection of international territories for further partnerships,
- Concluding new framework agreements on cooperation with international departments with an emphasis on their contribution and implementation,
- Deepening international contacts, integration of incoming students into scientific and academic activity,
- Establishment and deepening of strategic educational partnerships with prestigious foreign departments,
- Analysis of possibilities for the preparation of joint and double degree study programmes; financial and organizational support of the preparation and implementation of joint and double degree programmes,
- Reflecting the process of internationalization in the accreditation of study programmes,
- Supporting mobilities in the framework of the Erasmus+ programme, research projects and other forms; focus on the quality aspects of this activity by establishing efficient evaluation mechanisms for mapping the contribution of mobility programmes,
- Analysis and broadening the offer of study programmes in foreign languages; extending the educational offer for foreign students.

Priority 4: Relevance

Objective: To reflect on the current social development, latest scientific knowledge, and the needs of society. To cooperate with partners on the regional, national, and international level, with graduates, employers, scientific and academic institutions, public administration, non-profit sector, and the public. To expand applied research and link it with innovation activities that support economic competitiveness and socio-economic development. To increase the degree of active cooperation with the application sphere. To provide job opportunities for graduates and encourage employers from the application sphere to recruit graduates from the Faculty of Chemical Technology, University of Pardubice.

Strategies

- Deepening cooperation between the public, academic, and application sphere, maintaining long-term knowledge-based competitive advantage,
- Emphasis on the relevance of educational activity in accordance with the needs of the labour market,
- Focus on graduates’ language skills and other transferable competences,
- Improving the conditions for the development of lifelong learning at the Faculty,
- Providing infrastructure, spatial and material conditions, particularly for specialized courses,
- Development of conceptual work with external entities, employers, graduates, and adoption of measures to decrease the proportion of unemployed graduates.

Activities to achieve the objective

- Strengthening the positive image of the Faculty in the eyes of the public,
- Improving communication both within the Faculty and externally,

- Strengthening of the relevance of all study programmes to increase graduates' job opportunities on the labour market,
- Providing information and counselling services to students, and organization of activities to prepare graduates for the labour market (internships, scientific competitions, involvement of students in solving application tasks, and other educational activities),
- Designing and implementation of specialized educational activities, teaching techniques, courses or modules to increase graduates' chances on the labour market,
- Submission of applications for accreditation and extending the accreditation of fields of study reflecting the quality and relevance of university study on the labour market with an emphasis on the current and perspective directions of economic development; specialization of fields of study to reflect the knowledge, skills and competences expected from graduates,
- Development of conceptual work with graduates; development of the system of communication with graduates, monitoring of their career; use of information technology, new media, alumni clubs, and social networks for communication,
- Consultations with employers, local stakeholders and other external partners in the process of preparation of study programmes/fields of study to reflect their requirements and needs concerning graduates' qualification; ensuring systematic and contract cooperation with employers and external partners,
- Provision and exchange of information on good practice examples, educational innovations, creative and other activities of the Faculty between the Faculty and other entities in the application sphere,
- Systematic and contract cooperation with employers and external partners, providing information and counselling services to students, and organization of activities to prepare graduates for the labour market,
- Ensuring the conditions for improving students' language skills,
- Development of general career growth principles,
- Evaluation of the needs of all groups of employees and students of the Faculty.

Priority 5: High-quality and relevant research, development and innovations

Objective: To extend and deepen scientific and research activity of the Faculty of Chemical Technology, University of Pardubice in the area of basic research. In the long run, to bring internationally relevant results of research and development and their effective transfer to the application sphere.

Strategies

- Providing motivation to increase the productivity of academic and scientific staff and to increase the quality of research results,
- Building new and strengthening existing excellent teams in the field of basic and applied research,
- Systematic development of a broad range of fields of study at the Faculty; initiation and development of multidisciplinary and international cooperation, use of the unique range of disciplines provided by the Faculty,
- Identification of disciplines that emphasise national and international priorities; initiation and development of multidisciplinary cooperation with domestic and foreign partners in order to achieve internationally competitive research results,
- Identification of strategic partners in the Czech Republic, Europe and other parts of the world, and strengthening of cooperation with these partners,

- Cooperation with entities in the application sphere, particularly in implementing projects aimed at application research and contract research; increasing the allocation for research, development, and innovation from private sources,
- Successful implementation of projects supported by resort, national, and especially international funds with an emphasis on motivating academic and research staff to submit relevant project applications,
- Involvement of the Faculty in large international research infrastructures (European Roadmap for Research Infrastructures),
- Increasing the share of funding obtained from the EU framework programme for research and innovations Horizon 2020 (2014-2020) and other international sources,
- Increasing the degree of involvement of young employees in research and supporting their career growth,
- Providing the conditions for involvement of doctoral degree students and talented master's degree students in scientific work,
- Raising students' awareness about the needs of industrial enterprises; increasing students' creativity,
- Raising awareness of the general and professional community, partners, and application entities about scientific, research, developmental and creative activities, latest advancements, and the results of the Faculty departments,
- Supporting short-term and long-term scientific-research internships, involving particularly young researchers.

Activities to achieve the objective

- Analysis of the concept and outcomes of scientific work at various departments and in the fields that the Faculty focuses on,
- Definition of main scientific trends and disciplines in which the Faculty achieves high-quality results; determination of specialized fields of scientific and creative work at the Faculty,
- Development of general career growth principles; increasing the degree of involvement of young employees in research and supporting their career growth,
- Supporting short-term and long-term scientific research internships of the Faculty employees and students at foreign universities and institutes,
- Supporting multidisciplinary cooperation at the Faculty level through systematic approach of investment instruments and devices,
- Gradual increase in the number of high-quality scientific outcomes and their citations,
- Development of incentives to increase the number of projects implemented by academic staff and researchers,
- Preparation of projects from the EU framework programme for research and innovations Horizon 2020 (2014-2020) and other international sources,
- Preparation of projects under the Operational Programme Research, Development and Education (OPRDE),
- Preparation of projects supported by grant agencies and ministries of the CR,
- Project support and administration of project applications,
- Giving bonus for excellence in science and research by introducing extra reward for exceptional results,
- Involvement of talented students in scientific and research activities of the Faculty by means of SSPA; supporting their scientific and research activities by means of extraordinary scholarships; supporting students' practical training,
- Providing the conditions for involvement of doctoral degree students and talented master's degree students in scientific work,
- Organizing seminars, where academic staff and students can learn about research activities of partner departments and potential employers,

- Development of existing infrastructure, improvement of base facilities, reconstruction and modernization of the Faculty premises and equipment, purchase of new instrumentation and technologies,
- Long-term and intensive communication of the results of creative activity to various target groups and partners in the area of practical application of the results of science and research in practice,
- Popularization of science, disciplines and fields provided by the Faculty including relevant results, and cooperation with external entities through organizing scientific as well as popular educative events, participation in presentations and exhibitions, and involvement in joint projects,
- Targeted support of academic staff and researchers to increase their activity in submitting projects supported by grant agencies and ministries and to increase the share of allocation for research, development, innovations from both public and private sources,
- Active use of human resources, application of systematic motivational rules of staff remuneration.

Priority 6: Strategic management and development of support processes

Objective: To constantly increase the quality of strategic management with a focus on the evaluation of the results in relation to the determined objectives and their application to fine-tune specific tools to achieve the strategic goals.

Strategies

- Improved processing, analysis, and evaluation of data concerning the results of educational activity, research, development, and innovations,
- Implementation of the communication strategy of the Faculty using innovative and modern tools and forms of promotion and communication,
- Coordination and administrative support of activities relating to the preparation and implementation of projects,
- Development of professional and language competences of the Faculty employees,
- Application of the internal control system as feedback on the management process.

Activities to achieve the objective

- Improving the internal evaluation system,
- Regular collection and evaluation of data, analyses to improve the relevant processes, infrastructure and services,
- Continuous provision of updated and relevant information to all students and employees to facilitate their activities using information systems and modern communication tools,
- Updating the internal regulations of the Faculty to ensure the effectiveness of relevant processes and activities.

Priority 7: Effective financing

Objective: To obtain sufficient financial resources for the activities and development of the Faculty, to ensure effective expenditure to allow a systematic and continuous development of the Faculty in all areas.

Strategies

- Effort to obtain a higher amount of institutional financing by improving the quality indicators,
- Identification of other sources of financing of the Faculty,
- Performing analyses of financial sustainability of investment projects and developmental activities already in the preparation stage.

Activities to achieve the objective

- Activities aimed at increasing the funding from the EU framework programme for research and innovations Horizon 2020 (2014-2020) and operational programmes, and through cooperation with industrial entities by means of projects and contract research, additional activities, and other national or international sources,
- Thorough evaluation of the demands for financial sustainability already in the project preparation stage with an emphasis on projects with a low risk of sanctions arising from infringement of sustainability criteria.

8. Achievement indicators of the Long Term Plan of the Faculty of Chemical Technology, University of Pardubice

The purpose of the attached set of indicators is to monitor the achievement of the key aspects of the priority objectives of the Long Term Plan of the Faculty. The determined values should be achieved by 2020.

Priority 1: Ensuring the quality of education

- The number of organized promotional events (or participation in them) for secondary and elementary schools in order to motivate talented students for study at the Faculty of Chemical Technology, University of Pardubice will increase by 20%,
- Application of a single university quality assurance system,
- All study programmes/fields of study will be fully and publicly described using the learning outcomes that should be achieved by all graduates,
- All study programmes/fields of study will be subject to thorough content innovation in the context of new theoretical knowledge, development of social practice, and the needs of the labour market,
- Teaching at all departments/institutes will reflect modern educational trends,
- The participation of doctoral degree students in research projects will increase by 10%,
- The number of scholarships offered to students ranked in top positions in competitions for secondary and elementary school students will increase by 10%,
- The number of secondary schools in partnership with the Faculty of Chemical Technology, University of Pardubice will increase by 10%,
- Active cooperation with the application sphere will increase by 15%.

Priority 2: Diversity and availability of education

- Provision of additional motivational factors for talented students (including scholarship funds, individualized approach, etc.),
- Identification of problematic courses where failure leads to early dropout,
- Development of measures to reduce academic failure (for example by introducing seminars to acquire the missing knowledge): minimum number of measures 5,
- Increase in the number of bachelor's degree graduates who successfully complete their study before the end of the standard study period increased by one year,
- Use of counselling services provided by the Faculty of Chemical Technology, University of Pardubice concerning graduates' employability on the labour market,
- Annual awards for students with the best qualification thesis at all levels of education.

Priority 3: Internationalization

- Increasing students' language skills – increase in the number of C1 and B2 English language courses,
- Increasing the number of bachelor's and master's degree graduates who in the course of their study participated in a foreign stay or placement exceeding 14 days,
- Increasing the number of foreign students arriving at the Faculty of Chemical Technology, University of Pardubice for a short study stay of at least 14 days,
- Increasing the number of doctoral degree graduates who in the course of their study participated in a foreign mobility of at least one month,
- Increase in the number of fields of study accredited in the English language by at least 3 fields,
- Increase in the number of courses taught in the English language by at least 6 courses,

- Increase in the number of study programmes accredited as joint/double/multiple degree by 1 programme,
- Increase in the number of foreign academic staff by at least 10%,
- Increase in the number of foreign scientific staff by at least 15%,
- Analysis of the functionality of concluded international agreements.

Priority 4: Relevance

- Analysis of unemployment among the graduates of the Faculty of Chemical Technology, University of Pardubice,
- Analysis of the structure of the plans of all study programmes/field of study in terms of practical teaching aspects,
- Review of agreements with entities from the application sphere,
- The number of industry professionals involved in teaching specialized courses will increase by 15%,
- The number of laboratories for practical education will increase by 5%,
- The number of student placements in the application sphere will increase by 10%,
- The number of lifelong learning courses will increase by 15%,
- The number of participants in lifelong learning courses will increase by 10%.

Priority 5: High-quality and relevant research, development and innovations

- Increase in the number of papers in impacted WOS journals by 10%,
- Increase in the number of WOS citations,
- The number of newly created post-doc positions will increase by at least 15%,
- The number of cooperating international scientific departments will increase by at least 15%,
- Increasing the income from contract research,
- Implementation of excellent research with significant societal benefits,
- Development of an excellent international team for material science as part of CEMNAT, upgrade of infrastructure, purchase of new instrumentation and technology,
- Reconstruction and modernization of the prefabricated pavilion in Doubravice,
- Increase in the number of scientific conferences organized and co-organized by the Faculty by 10%.

Priority 6: Strategic management and development of support processes

- Participation in OPRDE projects (Operational Programme of Research, Development and Education) or other operational programmes (OP Entrepreneurship and Innovation for Competitiveness, OP Employment, etc.),
- Review of all internal regulations of the Faculty of Chemical Technology, University of Pardubice,
- HR audit,
- The number of language courses for the employees of the Faculty will increase by at least 10%.

Priority 7: Effective financing

- In 2016–2020 the Faculty of Chemical Technology, University of Pardubice will try to obtain at least the same funding from the EU framework programme for research and innovations Horizon 2020 (2014–2020), operational programmes, and other foreign resources as in 2011–2015,

- Increase in funding allocated to science, development, and innovation in the budget of the Faculty of Chemical Technology, University of Pardubice – year-on-year for 2016-2020,
- Annual analysis and evaluation of electricity, gas, and heat consumption,
- Establishment of a project approval system including financial risk assessment,
- Continuous education in the area of public procurement – employee training organized by PPO staff.

Abbreviations

A+K	Allocation to educational and scientific-research activity
AMAVET	Association for youth, science and technology
AV CR	Czech Academy of Sciences
Bc.	Bachelor's degree
BUT	Brno University of Technology
CBBE	Classification of basic branches of education
CEMNAT	Centre of Materials and Nanotechnologies
CR	Czech Republic
CTU	Czech Technical University
CU	Charles University
DRO	Funding for the development of the research organization
ECTS	International credit system "European Credit Transfer and Accumulation System"
EU	European Union
F-Mgr.	Follow-up master's degree
FChT	Faculty of Chemical Technology
KAICH	Department of Analytical Chemistry
KAnT	Department of Inorganic Technology
KBBV	Department of Biological and Biochemical Sciences
KEMCh	Department of Economy and Management of Chemical and Food Industry
KFCh	Department of Physical Chemistry
KOAnCh	Department of General and Inorganic Chemistry
KPF	Department of Graphic Arts and Photophysics
LL	Lifelong learning
MU	Masaryk University
OP	Operational programme
OPEC	Operational Programme Education for Competitiveness
OPRDE	Operational Programme Research, Development and Education
OPRDI	Operational Programme Research and Development for Innovations
Ph.D.	Doctoral degree
PPO	Public Procurement Office, UPa
PU	Palacký University
RII	Result information index
RDIC	Research, Development and Innovation Council
S&R	Science and research
SB	Scientific Board
SFE	State final examination
SLChPL	Joint laboratory of solid state chemistry of the Institute of Macromolecular Chemistry of the Czech Academy of Sciences and the University of Pardubice
SPA	Students' professional activities
SSPA	Students' scientific and professional activities
TES	Technical-economic staff
UCT	University of Chemical Technology, Prague
UPa	University of Pardubice
ÚAFM	Institute of Applied Physics and Mathematics
ÚEnM	Institute of Energetic Materials
ÚEnviChI	Institute of Environmental and Chemical Engineering
ÚChTML	Institute of Chemistry and Technology of Macromolecular Materials
ÚOChT	Institute of Organic Chemistry and Technology
WOS	Web of Science (academic service providing access to a database of result and citations)

The Long Term Plan of the Faculty of Chemical Technology, University of Pardubice for 2016–2020 was:

1. Discussed and approved at the meeting of the Faculty management on 23 November 2015,
2. Discussed at the meeting of the Scientific Board of the Faculty of Chemical Technology on 2 December 2015,
3. Discussed and approved by the Academic Senate of the Faculty of Chemical Technology on