

## SELF-EVALUATION REPORT MODULE 3

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**EVALUATED UNIT: Faculty of Architecture, Czech Technical University**

**FORD: 6 Humanities and the Arts**

## MODUL 3 SOCIAL RELEVANCE

### SOCIAL RELEVANCE / SOCIAL BENEFIT OF THE EVALUATED UNIT<sup>1</sup>

#### **3.1 General self-assessment of the social benefit of R&D&I in the fields of research at the evaluated unit, and of the evaluated unit as a whole**

The evaluated unit gives a concise, general but informative account of the benefit of R&D&I in the fields in the 2014–2018 reporting period.

#### **Self-evaluation:**

The Faculty of Architecture of the Czech Technical University in Prague (CTU FA) subscribes to one of the oldest uninterrupted European lines of higher education and research in the field of Architecture and Urban Planning. The Faculty has produced a number of nationally and internationally important civil engineers and architects who have influenced the social environment with their work in towns and in municipalities and cultural landscapes, in their home country and abroad, for tens and hundreds of years. The Faculty of Architecture is aware of its social responsibility in the education of young architects and urban planners. The concept of science and research at this faculty brings together the fields of arts and humanities (FOS 6 – Humanities and the Arts – FORD 6.4 / Arts, Art History, Architectural Design), Social Sciences (FOS 5 – Social Sciences – FORD 5.7 / Urban Studies, Transport Planning, Environmental Sciences), Natural Sciences (Environmental Sciences, Ecology), and Technical Sciences (FOS 2 – Engineering and Technology – FORD 2.1 / Civil Engineering, Municipal Engineering, Architectural Engineering). The research at the Faculty of Architecture is interdisciplinary, and is quite often not limited by the borders between these scientific areas.

At the Faculty of Architecture, approximately 25 separate grant-funded research projects in the foreign category (type A) were successfully dealt with in the reference period from 2014-2018, together with state-funded projects (type B) and projects funded by ministries (type C). At the Faculty, researchers from other EU countries (e.g. France, Holland, Germany, Portugal) and PhD students from outside the EU also study in doctoral study programs. Foreign visiting professors of European or world importance are regularly included in teaching with significant social relevance (e.g. Prof. Pierre von Meiss – EPFL, Lausanne, Switzerland, ENAC, Paris, France, 12 months; Prof. Vasa J. Perović, University of Ljubljana, Slovenia, 12 months; Prof. Till Rehwaldt, TU Berlin, Germany, 12 months; prof. Mirko Baum, RWTH Aachen, Germany, 6 months). Traditional thematic lecture cycles of outstanding foreign architects and professors from the world's major schools of architecture also take place at the faculty. The social impact in these scientific areas, especially in FORD 6 – Humanities and the Arts, is documented by a number of nominations for the highest national awards for architectural production, e.g. the Czech Architecture Award and the Grand Prix of Architects, and the Mies van der Rohe Award, one of the highest international awards for contemporary architecture. The Faculty of Architecture is also represented in respected international institutions (e.g. EAEE, AESOP, TICCIH, ICOMOS, DOCOMOMO, UNECE, GAP, UIA, EHTTA), whose activities have a significant impact on construction and the environment.

#### **HTML links to additional documentation:**

<https://www.miesarch.com/work/3898>

<https://www.miesarch.com/work/4226>

<https://www.miesarch.com/work/3206>

<https://docomomocz.tumblr.com/tagged/members>

<https://www.uia-architectes.org/webApi/en/news/architecture-urbanism-prague.html>

<sup>1</sup> In accordance with Section 22(1) of Act No 111/1998 on universities, amending certain acts (the Universities Act), as amended.

<http://www.eaae.be/school/praha-technical-university-cvut/>  
<http://bevkerovic.com/?id>  
<https://cargocollective.com/bevkerovic>  
<https://www.rehwaldt.de/index.php?lang=en>  
<https://people.epfl.ch/peter.vonmeiss?lang=en>

## APPLIED RESEARCH PROJECTS

### 3.2 Applied research projects<sup>2</sup>

The evaluated unit presents a maximum of the five most significant (from the perspective of evaluated unit) applied research projects in the 2014–2018 reporting period from the complete list in the appendix (tables 3.2.1 and 3.2.2), particularly with regard to the results achieved or a project's potential for application.

#### Self-evaluation:

The various departments of the Faculty of Architecture are focused on specific areas of research in Humanities and the Arts, Social Sciences, Natural Sciences, and Engineering and Technology. The faculty-wide areas of priority that have had a major impact in the field of Social Relevance include:

- 1) Architecture and Sustainable Environment. Examples of applied research:
  - Methodology of architectural design in the context of sustainable architecture (GACR)
  - Housing Estate, What Next? (Czech-German Fund for the Future)
- 2) Urbanism and Sustainable Environment. Examples of applied research:
  - A New Face for Cities - how cities are shaped by sustainable development principles and developers' strategies (GACR)
  - Sustainable and Affordable Housing in Strategic Settlement Plans (TACR)
- 3) Architecture and the Life of People with Special Health Needs. Example of applied research:
  - Principles for Creating an Environment for People with Parkinson's Disease (GACR)

#### HTML links to additional documentation:

<http://www.sidlistejakdal.cz/en/>

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<sup>2</sup> Under Section 2(1)(b) of Act No 130/2002, applied research is theoretical and experimental work aimed at gaining new knowledge and skills for the developing of new or substantially improved products, processes or services; applied research includes *industrial research or experimental development, or a combination of both*. Under Article 2 of Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, industrial research means planned research or critical investigation aimed at the acquisition of new knowledge and skills for developing new products, processes or services, or for bringing about a significant improvement in existing products, processes or services. It comprises the creation of component parts of complex systems, and may include the construction of prototypes in a laboratory environment or in an environment with simulated interfaces to existing systems as well as of pilot lines, when necessary for the industrial research and notably for generic technology validation; experimental development means acquiring, combining, shaping and using existing scientific, technological, business and other relevant knowledge and skills with the aim of developing new or improved products, processes or services. This may also include, for example, activities aiming at the conceptual definition, planning and documentation of new products, processes or services.

### 3.3 Contract research<sup>3</sup>

The evaluated unit briefly comments on revenues from contract research for the 2014–2018 reporting period from the complete list in the appendix (tables 3.3.1 and 3.3.2).

#### Self-evaluation:

Contractual research at the Faculty of Architecture is directed first to the areas with the highest social relevance. These are self-governing territorial units (state, regions, towns and municipalities) and national nature parks and reserves. More important than the financial return on this research is the major impact on the future positive development of these large territories.

Due to the focus mainly on architectural and urban creation of a societal impact, contractual research from non-public sources is oriented towards research tasks on a smaller scale, such as Parametric modelling in construction projects of Skoda Auto, and PET - MAT, cooperation with Mattoni /KMV, a.s.

#### HTML links to additional documentation:

<https://petmat.cz/>

### 3.4 Revenues from non-public sources (besides grants or contract research) from research work

The evaluated unit briefly comments on revenues for the 2014–2018 reporting period for R&D&I from non-public sources, besides grants or contract research (e.g. licences sold, spin-off revenues, gifts, etc.). It presents a complete list in the appendix (table 3.4.1).

#### Self-evaluation:

The opportunities for the Faculty of Architecture to obtain revenues from non-public sources for its research services are very limited. The private sector pays architects for their designing work, but currently in the Czech Republic it expects the benefits of research and education to be paid for from the public purse.

#### HTML links to additional documentation:

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<sup>3</sup> For a definition of contract research for the purposes of evaluation in the universities sector, see Article 2.2.1 of the Community framework for State aid for research and development and innovation (2014/C 198/01).

## APPLIED RESEARCH RESULTS

### 3.5 Applied research results with an existing or prospective economic impact on society

The evaluated unit briefly comments on a maximum of the five most significant (from the perspective of the evaluated unit) applied research results that have already been applied in practice, or that will realistically be applied, in the 2014–2018 reporting period from the overview in the appendix (table 3.5.1).

#### Self-evaluation:

The kinds of research carried out at the Faculty of Architecture generally do not lead to results that are applied in practice. The impact of the work done at the Faculty is not specifically economic. Research on architecture has considerable impact on society, and very often improves the quality of people's lives, but it is paid for almost exclusively from the public purse.

#### HTML links to additional documentation:

### 3.6 Significant applied research results with an impact other than an economic one on society

The evaluated unit gives a concise account of a maximum of the five most significant (from the perspective of the evaluated unit) applied research results with an impact other than an economic one on society in the 2014–2018 reporting period (typically results from disciplines in the humanities and social sciences) from the overview in the appendix (table 3.6.1).

#### Self-evaluation:

Applied research in urban planning bringing new methods of recognition, assessment and application of cultural, historical and technical values in the strategic decisions of municipalities in planning the future development of towns and countryside. The great and deep impact on society and nature is reflected in the following projects:

- 1) "Innovation of the methodology and methods of land-use plans..."  
The main objective was to elaborate a general methodology for the quality assessment of land use plans.
- 2) "Origin and Attributes of the Historical Values of Historical Towns..."  
The main objective was to create tools and methods for identifying the heritage values of historical towns.

#### HTML links to additional documentation:

<https://starfos.tacr.cz/cs/project/DG16P02R025>

## COOPERATION WITH THE NON-ACADEMIC ENVIRONMENT AND TECHNOLOGY TRANSFER

### 3.7 The evaluated unit's most significant interactions with the non-academic application/corporate sphere

The evaluated unit gives a concise account of the most typical users of its outputs. It explains whether and how it identifies them and how it works with them. It provides examples of a maximum of ten of the most significant interactions with the non-academic environment in the 2014–2018 reporting period.

#### Self-evaluation:

In FORD 6, architectural research is based most of all on the “Research-by-design” method at the Faculty of Architecture CTU in Prague. This research is oriented to bring benefits both to clients (non-academic/corporate sphere) and to architectural students who learn to design, manufacture and negotiate their ideas in real conditions. The first contacts are usually initiated thanks to a professors’ previous architectural services to municipalities and to the corporate sphere. Typical outputs are as follows:

- 1) Cooperation with KRNAP (the administration of the Krkonoše National Park). “Design-build” projects of footbridges and shelters. Objects were designed and realized by teachers and students in 2017 - 2019.
- 2) Cooperation with Mattoni (KMV - Karlovy Vary mineral water producer). Research in alternative usage of PET in architecture. A result of this collaboration is a patented design for a PET bottle that can be used as a building brick after its contents have been consumed. The collaboration also supports fundamental material research on the use of recycled PET in combination with 3D printing.
- 3) Cooperation with ČESKÝ AEROHOLDING. Urbanistic development and economic evaluation of the proposal for the development of the Prague Vaclav Havel Airport area.

#### HTML links to additional documentation:

<https://www.fa.cvut.cz/en/gallery/life-of-fa/9329-shelters-for-krnep>

<http://utulnautulna.cekuj.net/>

<https://www.stavbaweb.cz/utulny-do-krkonos-20212/clanek.html>

<https://petmat.cz/team/>

### 3.8 System and support of technology transfer and intellectual property protection (can be extended to the whole university, emphasising the specific features of the evaluated unit)

The evaluated unit gives a concise account of its system of technology transfer. It conducts an evaluation of the quality of its applied research and the effectiveness of technology transfer using the data presented in the appendix (table 3.5.1). This commentary will highlight the number of filed and granted patents (Czech and international) and licences sold.

**Self-evaluation:**

The Technology Transfer system and the Intellectual Property protection system of the Czech Technical University have a centralized base within the rectorate of the university.

Technology transfer in architecture mainly takes the form of graduates from the faculty working as entrepreneurs. Many graduates of the Faculty head a partnership or collaborate in a partnership, and adopting a professional attitude and promoting the use of new ideas, new materials, etc., which they were exposed to in their studies.

**HTML links to additional documentation:**

**3.9 Strategy for setting up and support of spin-off firms or other forms of commercialization of R&D&I results** (can be extended to the whole university, emphasising the specific features of the evaluated unit)

The evaluated unit gives a concise account of the practical use of its intellectual property in the form of setting up spin-off firms or other forms of commercialising R&D&I results (both with or without the participation of the university) established by the evaluated unit (university), another entity controlled by the evaluated unit (university), or an employee of the evaluated unit, presenting the model for their functioning and coordination, and control of intellectual property management of the evaluated unit (university).

**Self-evaluation:**

CTU has a Technology Transfer Office, the InQBay incubator, and a strategy for commercialization of IP.

The traditional profession of an architect has a well-established framework and is generally quite entrepreneurial. However, neither architects nor their clients are used to paying a university for expert opinions or for research, except in the case of major projects. Commercialization of R&D&I results, sale of intellectual rights, etc., were concepts difficult for academic architects to take advantage of in the Czech Republic in the 2014 – 2018 period.

**HTML links to additional documentation:**

<https://www.inqbay.cvut.cz/>

**RECOGNITION BY THE SCIENTIFIC COMMUNITY**

**3.10 The most significant individual awards for R&D&I**

The evaluated unit presents a maximum of ten examples of the most significant R&D&I awards received (in the Czech Republic and in other countries) in the 2014–2018 reporting period.

**Self-evaluation:**

- 1) prof. Ing. arch. Ladislav Lábus, Hon. FAIA – State Award for Architecture (Ministry of Culture of the Czech Republic, 2014)
- 2) prof. Ing. arch. Matúš Dulla, DrSc. – Martin Kusý Award for Science (Slovak Academy of Sciences, 2018)
- 3) prof. Ing. arch. akad. arch. Václav Girsá – Jože Plečnik Award in Heritage Preservation (Architecture Week, 2019)

**HTML links to additional documentation:**

<https://www.cka.cz/cs/pro-media/tiskove-zpravy-cka/cenu-ministerstva-kultury-za-architekturu-ziskal-ladislav-labus-nominovala-jej-cka>

<https://www.fa.cvut.cz/en/faculty/people/250-ladislav-labus>

<https://www.fa.cvut.cz/en/faculty/people/311-matus-dulla>

<https://www.architectureweek.cz/tiskova-zprava/>

<https://www.fa.cvut.cz/en/faculty/people/325-vaclav-girsa>

### 3.11 Recognition by the international R&D&I community

The evaluated unit provides the following information / examples demonstrating recognition by the international scientific community in the 2014–2018 reporting period, with a commentary:

It presents a maximum of ten examples of its academic staff's participation on the editorial boards of international scientific journals (e.g. editor, member of the editorial board) in the appendix (table 3.11.1),

It presents a maximum of ten examples of the most significant invited lectures by the evaluated unit's academic staff abroad in the appendix (table 3.11.2),

It presents a maximum of ten examples of the most significant lectures by foreign scientists and other guests relevant to the R&D&I field in the appendix (table 3.11.3),

It presents a maximum of ten examples of the most significant elected memberships of professional societies (table 3.11.4).

#### Self-evaluation:

Teachers of CTU FA are members (Achten, Ticha) or the chairman (Dulla) of editorial boards of scientific Czech, Slovak or international journals.

Invited lectures were held at prestigious world universities, e.g.:

- 1) ETH Zurich (Guzik),
- 2) Paris 1 Panthéon Sorbonne (Pospíšil),
- 3) Bristol (Tesař),
- 4) Lisbon (Achten).

Other lectures were held in European Research Institutes, e.g.:

- 5) MMA - Hungarian Academy of Arts (Stempel),
- 6) EAAE Porto (Hlaváček).

Number of outstanding European architects with a large impact on human society held their lectures at CTU FA, e.g.:

- 1) Jacob Van Rijs (Rotterdam, the Netherlands),
- 2) Rainer Mahlamakki (Helsinki, Finland),
- 3) Kees Christiaansen (Zurich, Switzerland),
- 4) Matthew Carmona (Bartlett, London, Great Britain),
- 5) Thomas Bock (Munich, Germany), etc.

Teachers of CTU FA are members of a number of internationally significant professional societies, e.g.:

- 1) AIA / The American Institute of Architects (Labus, Šlapeta),
- 2) RIBA / Royal Institute of British Architects (Šlapeta – honorary membership),
- 3) ICOMOS / International Council on Monuments and Sites (Girsa, Šlapeta),
- 4) DOCOMOMO International / International Committee for Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement (Vorlík),
- 5) AESOP / Association of European Schools of Planning (Maier, Vorel),
- 6) EAAE / European Association for Architectural Education (Hlaváček – council member),
- 7) European Union for Contemporary Architecture / Mies van der Rohe Award (Tichá – expert),
- 8) UIA / International Union of Architects / UNESCO (Navrátil),
- 9) ECTP / European Council of Town Planners (Řezáč – council member),
- 10) eCAADe / European Association for Education and research in Computer Aided Architectural Design in Europe (Achten – council member), etc.

**HTML links to additional documentation:**

<https://www.fa.cvut.cz/cs/vyzkum-a-spoluprace/publikace/7797-kees-christiaanse-prednaska-20-11-2017>

<https://www.archiweb.cz/n/prednasky/november-talks-kees-christiaanse>

<https://www.archiweb.cz/en/n/home/matthew-carmona-urban-design-adds-value--1>

<http://www.eaae.be/councilmember/dalibor-hlavacek/>

[http://www.aesop-planning.eu/members/institutions/en\\_GB/czech-technical-university-in-prague/faculty-of-architecture](http://www.aesop-planning.eu/members/institutions/en_GB/czech-technical-university-in-prague/faculty-of-architecture)

<http://www.icomos.cz/index.php/en/8-cnk/38-vaclav-girsa-zivotopis>

<http://ecaade.org/organisation/council/>

## POPULARISATION OF R&D&I

### 3.12 The most significant activities in the popularisation of R&D&I and communication with the public

The evaluated unit gives a concise account of its main activities in the area of popularisation of R&D&I and communication with the public in the 2014–2018 reporting period and presents a maximum of ten examples that it considers the most significant.

#### Self-evaluation:

- 1) Junior Tech University 2015  
Junior Tech University is a CTU program that focuses on talented and motivated students, through individual placements that allow them to get to know the academic environment before they finally choose where they will study. In 2015, one student of the German School in Prague completed an internship at the Czech Technical University in Prague. The Vice-Dean for External Relations ensured coordination with the Rectorate of CTU.
- 2) Gaudeamus Fair 2016  
Gaudeamus is a traditional event with a long history in the Czech Republic presenting a comprehensive range of post-secondary education and lifelong learning in the Czech Republic, Slovakia and the world. The fairs are held twice a year, in January in Prague and in November in Brno. The Faculty of Architecture presents itself at the exhibition stand at the CTU exhibition and with a lecture. Gaudeamus Prague, 26. – 27. 1. 2016, PVA Expo Praha Letňany, attendance in 2016: 9 719 visitors. Gaudeamus Brno, 1. – 4. 11. 2016, in pavilions G1 and G2 at the Brno Exhibition Center, attendance in 2016: 27 882 visitors.
- 3) Inventory of Urban Planning 2014, 2015, 2016, 2017, 2018  
At the end of November each year, the Faculty of Architecture regularly hosts a large conference called The Inventory of Urban Design (organized by the Institute of Urban Design) with the participation of nearly 300 experts. Every year it presents current topics of architecture and urbanism. The conference is organized annually by the Institute of Urban Design, FA CTU. The program board is chaired by prof. Jan Jehlík.
- 4) Since 2017, the International Conference on Architecture for Children (organized by the Institute of Building Design) has been connecting architects with educators and others who are involved in educating children in the perception of architecture and the environment.

- 5) International Conference School of Architecture 2017  
This biannual conference focuses on current issues related to teaching architecture. The aim of the conference is to present a variety of approaches to architectural education and thus provide a forum for open discussion on this topic. In addition to contributions devoted directly to teaching at universities of architecture, the topic is the education of children and students at lower education levels, and education for the wider public. The conference is organized by the Institute of Design II under the guidance of doc. Dalibor Hlaváček.
- 6) International Conference on Architecture and Ecology 2016 and 2018  
The aim of the conference is to compare theoretical and practical approaches from different fields. The conference provides answers to what architecture looks like for generations today, how engineers, sociologists and anthropologists work with sustainability in architecture, and whether sustainability aspects are a topical issue in teaching, science and research. The Biennial Conference is organized by the Institute of Design II, under the guidance of doc. Dalibor Hlaváček.
- 7) MĚ100 (2016, 2017, 2018)  
International conference for doctoral students from the Czech Republic and abroad, which is intended for all who are interested in the economic context of urban planning. At the conference students present their doctoral theses, research results, or a progress report on the projects. The partner of the conference is IREBS from the University of Regensburg, a German think-tank in the field of planning and real estate. The conference is open to the public and takes place in CAMP IPR Prague.  
[www.me100.eu](http://www.me100.eu)
- 8) Urban Design Award (2014, 2015, 2016, 2017, 2018), an international student competition in the field of urban planning and urban design for full-time students. The competition was founded under the title Competition for the Best Urban Project in 1996, and is supported by universities from the Czech Republic, Slovakia and Poland. The award-winning projects are exhibited at the Architecture week festival or at the ForArch fair.

**HTML links to additional documentation:**

<http://www.aiamiddleeast.org/aia-events/2017/10/5/aia-international-conference-prague-2020>

<http://me100.eu/indexen.html>

<https://www.fa.cvut.cz/en/events/news/12684-results-of-the-international-student-competition-urban-design-award-for-the-year-2018-2019>

<https://gaudeamus.cz/>

## APPENDICES (TABLES)

### 3.2 Applied research projects

#### 3.2.1 Projects supported by a provider from the Czech Republic

As the beneficiary						
Provider	Project title	Revenue (EUR thousand)				
		2014	2015	2016	2017	2018
GACR	Principles of creating an environment for people with Parkinson's disease			33,44	32,04	40,08
GACR	Methodology of architectural design in the context of sustainable architecture			30,12	25,24	30,28
GACR	Czech architecture in the period of transformation (1945-1948, 1989-1992)			20,4	18,96	24,96
GACR	Evaluation simulation models of the spatial formation of cities	39,36				
GACR	A new face for cities - how cities are shaped by sustainable development principles and developers' strategies		26,24	28,2		
Prague Municipality	Innovation of the methodology of zoning plans, their material and formal aspects, the relationship between the city development strategy and the way of preparing the plans, with special regard to the formulation of the city image	332,2	147,76			
Min Cult CR	Assessment of the safety and durability of industrial heritage buildings	15,2	15,2			
Min Cult CR	Industrial topography of the Czech Republic - new use of industrial heritage as a part of national and cultural identity.	117,2				
Min Cult CR	Architecture of the 1980s in the Czech Republic. Individuality, identity and parallel reflections on the background of normalization.					95,84
Min Cult CR	Origin and attributes of the historical values of historical towns of the Czech Republic			66,36	84	74,72
Min Cult CR	Industrial architecture. An industrial heritage monument as a technical-architectural work and as a place identity.			138,08	142,92	136,52
TACR	Public Infrastructure Availability Standards			31,36		

TACR	Models of social housing, their spatial and technical parameters			35,76	29,92	
TACR	Sustainable and affordable housing in strategic settlement plans					20,2
Českoněmecký fond budoucnosti	Housing estate, what's next?	2				
Intl Visegrad Fund	Housing estate in V4, what next?		6,36	8,24	2,92	1,84
Total		505,96	195,56	423,32	351,56	424,44
As another participant						
Provider	Project title					
Total						

### 3.2.2 Projects supported by a provider from another country

As the beneficiary						
Provider	Project title	Support (EUR thousand)				
		2014	2015	2016	2017	2018
Total						
As another participant						
Provider	Project title	Support (EUR thousand)				
		2014	2015	2016	2017	2018
Total						

### 3.3 Contract research

#### 3.3.1 Research work contracted by a client from the Czech Republic

Client	Research title	Revenues (EUR thousand)				
		2014	2015	2016	2017	2018
City of Štětí	Innovation of the methodology of land use planning, its material and formal aspects, the relationship of the city development strategy and the way of drawing up the plans, with special regard to the formulation of the image of the city of Štětí 478049	17,362	21,594	16,385	11,112	



	Methodology for establishing the urban data base. Simulation	5,493	4,727			
	ÚP Klatovy expert advice	4,887				
	Praha 3 - Professional research	11,738				
	Analytical plan Prague 9	17,433				
	PET - MAT, cooperation with KMV, a.s.	27,240	64,142	33,752	10,921	
	Projection audio-visual system for the Czech pavilion at EXPO 2015	5,479				
	Analysis of typological and constructional technical standards for the needs of the Social Housing Act	13,398				
	AESOP conference	142,287	48,727	23,273		
	Analysis of typological and construction-technical standards for the needs of the Social Housing Act		4,308			
	Senior Housing Projects for the State Housing Development Fund		48,182			
	Analysis of typological buildings – MPSV 2		14,326			
	Model senior tenement housing projects and their model parameters			6,859		
	Extended construction-historical survey of the Mountain Hotel and television transmitter			4,952		
	Dental chair design			5,199		
	Expert analysis of the Nové Chabry project				3,876	
	The Budějovická Project				5,397	11,227
	Cooperation in project development and implementation in the area of the Krkonoše National Park until 2018				7,367	21,882
	Agreement on Mutual Cooperation and Support for Research and Innovation - SKMV				7,541	13,907
	Making a wooden footbridge for the Prague City Hall				6,984	4,527
	Architecture for children - 2nd year					5,655
	Parametric modeling in Skoda Auto construction projects					50,696

Total	117,262	206,009	90,424	53,198	107,894
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Note: List and describe contract research work with the revenue for the calendar year in question.

### 3.3.2 Research work contracted by a foreign client

Client	Research title	Revenues (EUR thousand)				
		2014	2015	2016	2017	2018
Total						

Note: List and describe contract research work with the revenue for the calendar year in question.

### 3.4 Revenues from non-public sources (besides grants or contract research)

#### 3.4.1 Overview of revenues from non-public sources raised for the 2014–2018 reporting period

Revenue type	Revenues (EUR thousand)				
	2014	2015	2016	2017	2018
Total					

Note: List funds for R&D&I from non-public sources, besides grants or contract research (e.g. licences sold, spin-off revenues, gifts, etc.) in each calendar year.

### 3.5 Applied research results with an economic impact on society

#### 3.5.1 Overview of applied research results in the 2014–2018 reporting period

List and describe the results that have already been applied in practice, or that will realistically be applied, with an existing or prospective economic impact on society. Under “patents” and “licences sold”, list all the results; under other results list a *maximum* of five items. Unless otherwise specified below, the definition of a result must correspond to the definitions under the Methodology for Evaluating Research Organisations and Research, Development and Innovation Purpose-Tied Aid Programmes, Appendix No 4: Definitions of Types of Results.

Results	Year	Title
European patent		
American patent		
Czech licenced patent		
Other foreign patents		
Licences sold		
Significant analyses / surveys / studies		
Spin-off with a stake held by the evaluated unit		

Spin-off with no stake held by the evaluated unit		
Prototypes		
Varieties and breeds		
Other		

Note: "Licence" refers to a licence for a result of R&D&I in the broadest sense of the word (licences for patents, utility models, industrial designs; copyright licences for software and other works, and any other licences).

For the purposes of this methodology, a "spin-off" is a juridical person established to commercialise knowledge, usually with the inclusion/transfer of the rights to this knowledge to such juridical person. List all instances of legal persons.

### 3.6 Significant applied research results with an impact other than an economic one on society

#### 3.6.1 Overview of applied research results for the 2014–2018 reporting period with an impact other than an economic one on society

Result type	Name	Anticipated impact
<b><u>Methodology in urban planning</u></b>	<p>"Innovation of the methodology and methods of land-use plans, their material and formal pages, the relationship of the city development strategy and the way of drawing up the plans with special regard to the formulation of the city image phenomenon"</p> <p>Provider: City of Prague; Contract No. DOT / 45/04/000007/ 2013</p>	<p>The main objective was to elaborate a general methodology for the quality assignment of land use plans, their material and formal aspects and to define the relationship between the city development strategy and the plan development methodology, with special regard to the specification of the city's critical values. It was a combination of a descriptive research plan and an experimental research plan. The first type was used to collect, describe and classify data (exploration), the second type to identify and explain causal relationships between research-ordered phenomena (explanations). Given the breadth and complexity of the problem, the method was not based on the traditional deductive-inductive approach, but rather on the abductive approach.</p>
<b><u>Methodology in urban planning of historical and heritage preserved towns and cities</u></b>	<p>"Origin and Attributes of Historical Values of Historical Towns of the Czech Republic"</p> <p>Project of the program NAKI of the Ministry of Culture of the Czech Republic to support applied research and experimental development of national and cultural identity for the years 2016 to 2020 (NAKI II)</p> <p>Provider: Ministry of Culture of the Czech Republic</p>	<p>The main objective was to create tools and a methodology for identifying the basic elements of the complex identity of Czech towns for the identification and protection of their heritage values, especially their public spaces and documents of the creative medieval location. In general, these are methods of identifying the urban pattern of cities, i.e. urban value, not in terms of the sum of the details (objects), but as the recognition of the basic gene from which subsequent values grow, even today's values. Stage I (2016-03-01 / 2017-12-31): Identification of geometric relationships and reconstruction of the triangulation of historical settlements; II. Stage (2016-09-01 / 2019-09-01): Comprehensive identification, description and methods for</p>

		correlating material and intangible characteristics of historical towns in relation to their sustainability; III. stage (2017-07-01 / 2020-06-30): Maps of attributes of the complex identity of the historical city; IV. stage (2019-05-01 / 2020-12-31): "The hidden order and the inner essence of the uniqueness of the historical towns of the Czech Republic" - a traveling exhibition including the publication of a critical catalogue with a set of processed maps. The results of stages I to III.

Note: List and describe a maximum of five results (in line with the Definitions of Types of Results) that have already been applied in practice, or that will realistically be applied. These are typically results from disciplines in the humanities and social sciences, for which you should briefly describe their anticipated impact.

### 3.11 Recognition in the international R&D&I community

3.11.1 Participation of the evaluated unit's academic staff on the editorial boards of international scientific journals in the 2014–2018 reporting period

Name, surname and title(s) of the evaluated unit's member of staff	Title, publisher, city(-ies) and country(-ies) of origin of the scientific journal
prof. Ing. arch. Matúš Dulla, DrSc.	Architecture & Urbanism, Slovak Republic (WoS / Scopus) - Chairman of the Editorial Board
doc. PhDr. Jana Tichá, Ph.D.	Piranesi Magazine, Ljubljana, Slovenia - Member of the Editorial Board
prof. Dr. ir. Henri Achten.	Editorial board member International Journal of Architectural Computing (ISSN 1478-0771)

Note: List a maximum of ten examples of academic staff's participation on the editorial boards of international scientific journals (e.g. editor, member of the editorial board, etc.).

### 3.11.2 The most significant invited lectures by the evaluated unit's academic staff at institutions in other countries during the 2014–2018 reporting period

Name, surname and title(s) of the evaluated unit's member of staff	Invited lecture title	Name of the host institution, conference or other event
doc. Dr. Ing. Martin Pospíšil, Ph.D.	Reflections of British and French Approaches in Structural Calculations in the Czech Milieu of the 19th Century (16. 4. 2015)	Centre for the History of Science and Technology, University of Paris 1 Panthéon Sorbonne, Paris, France
Mgr. Hubert K. Guzik, Ph.D.	Czech Collective Housing and Crisis (22. 4. 2015)	Swiss-Czech Inspirations, Dept. of Architecture, ETH Zurich, Switzerland
Ing. arch. Vít Řezáč	Planning vs. Monument Care in the Czech Republic (25. 8. 2015)	Housing and Infrastructure Committee of the Parliament of the Republic of Indonesia
Ing. arch. Jan Tesař, Ph.D.	Contemporary Czech Houses (22. 10. 2015)	Department of Architecture and the Built Environment, Faculty of Environment and Technology, University of the West of England, Bristol, England
prof. Dr. ir. Henri Achten	Research Outline (6.11.2015)	Faculty of Architecture, University of Lisbon, 3rd CiAUD Research Seminar
prof. Ing. arch. Petr Vorlík, Ph.D.	Jestěd TV Tower and Mountain Hotel. Possibilities and limits of the rehabilitation of post-war architecture (27. 5. 2016)	Politecnico Milano – Dipartimento Architettura e Studi Urbani
prof. Ing. arch. Karel Maier, CSc.	Charles IV, Czech King, Holy Roman Emperor and Urban Planner: Making the historic urban environment work for us today (7.6.2016)	Czech Centre London, Great Britain
prof. Ing. arch. Petr Vorlík, Ph.D.	Czech Industrial Heritage – Topography between research and conversion (24. 3. 2017)	OTH Regensburg
doc. Dr. Ing. Martin Pospíšil, Ph.D.	Standards in Load-bearing Structures (Historical development) (22. 5. 2018)	Centre for the History of Science and Technology, University of Paris 1 Panthéon Sorbonne, Paris, France
doc. Ing. arch. Dalibor Hlaváček, Ph.D.	Hands On – Getting Dirty in Architectural Education (30. 8. 2018)	Lecture at the General Meeting of the European Association for Architectural Education (EAAE) in Porto, Portugal

Note: List a maximum of ten examples.

### 3.11.3 The most significant lectures by foreign scientists and other guests relevant to the R&D&I field at the evaluated unit during the 2014–2018 reporting period

Name, surname and title(s) of the lecturer	Lecturer's employer at the time of the lecture	Invited lecture title
Jacob Van Rijs	MVRDV Rotterdam	Urbanistic Connotations
Ian Bogle	Foster + Partners; Bogle Architects	Superlaser Center ELI
Rainer Mahlamakki	L & M Helsinki	Fully Integrated BIM Design
Kees Christiaanse	KCAP Zurich	Sustainable Urban Development and a Better Quality of Life in the Urban Centers of Germany
Akkelies van Nes	TU Delft	Space Syntax Methodology
Matthew Carmona	Bartlett School of Planning, University College London, UK	Urban design adds value
Haris Piplas	ETH Zurich, Urban-Think Tank	Urban Stories - Tools for reading contemporary cities
Sara Eloy	Department of Architecture and Urbanism (ISTA), ISTAR-IUL, Lisbon, Portugal	Space Perception
Thomas Bock	TU Munich, Germany	Robotics in Architecture
Peter Mehlbye	ESPON (European Observation Network for Territorial Development and Cohesion / European Commission), Director, Denmark	Insurgent Planners and the Spectral Return
Erik Swyngedouw	University of Manchester, United Kingdom	Planners in the Post-Democratic City

Note: Relevant solely for the R&D&I field. List a maximum of ten examples.

### 3.11.4 The most significant elected membership in foreign of professional societies relevant to the R&D&I field at the evaluated unit during the 2014–2018 reporting period

Name, surname and title(s) of the evaluated unit's member of staff	Name of professional society	Type of membership
prof. Ing. arch. Petr Vorlík, Ph.D.	DOCOMOMO International / International Committee for Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement	National representative, contact person
prof. Ing. arch. Karel Maier, CSc.	AESOP / Association of European Schools of Planning	National representative, contact person
prof. dr. ir. Henri Achten	eCAADe / European Association for Education and research in Computer-Aided Architectural Design in Europe	Council member – treasurer
prof. Ing. arch. akad. arch. Václav Gírsa	ICOMOS / International Council on Monuments and Sites	President of the Czech National Committee
doc. Ing. arch. Dalibor Hlaváček, Ph.D.	EAAE / European Association for Architectural Education	Council member

doc. PhDr. Jana Tichá, Ph.D.	European Union for Contemporary Architecture / Mies van der Rohe Award, Foundation Fundació Mies van der Rohe, Barcelona, Spain	Expert of the European Union Award for Contemporary Architecture
prof. Ing. arch. Vladimír Šlapeta, DrSc., Hon. FAIA	ICOMOS (International Council on Monuments and Sites),	Member of the International Scientific Committee
prof. Ing. arch. Vladimír Šlapeta, DrSc., Hon. FAIA	RIBA / Royal Institute of British Architects	Honorary fellowship
prof. Ing. arch. Arnošt Navrátil, CSc.	UIA / International Union of Architects / UNESCO	Member of the Work programme group Sports and Leisure
Ing. arch. Vít Řezáč	ECTP (European Council of Town Planners)	Council member

Note: List a maximum of ten examples.

### SUMMARY LIST OF ADDITIONAL DOCUMENTATION IN MODULE M3

Document Title	Criterion	Location (HTML link)
SOCIAL RELEVANCE / SOCIAL BENEFIT OF THE EVALUATED UNIT	3.1 General self- assessment of the social benefit of R&D&I in the fields of research at the evaluated unit, and of the evaluated unit as a whole	<a href="https://www.miesarch.com/work/3898">https://www.miesarch.com/work/3898</a> <a href="https://www.miesarch.com/work/4226">https://www.miesarch.com/work/4226</a> <a href="https://www.miesarch.com/work/3206">https://www.miesarch.com/work/3206</a> <a href="https://docomomocz.tumblr.com/tagged/members">https://docomomocz.tumblr.com/tagged/members</a> <a href="https://www.uia-architectes.org/webApi/en/news/architecture-urbanism-prague.html">https://www.uia-architectes.org/webApi/en/news/architecture-urbanism-prague.html</a> <a href="http://www.eaae.be/school/praha-technical-university-cvut/">http://www.eaae.be/school/praha-technical-university-cvut/</a> <a href="http://bevkperovic.com/?id">http://bevkperovic.com/?id</a> <a href="https://cargocollective.com/bevkperovic">https://cargocollective.com/bevkperovic</a> <a href="https://www.rehwaldt.de/index.php?lang=en">https://www.rehwaldt.de/index.php?lang=en</a> <a href="https://people.epfl.ch/peter.vonmeiss?lang=en">https://people.epfl.ch/peter.vonmeiss?lang=en</a>
APPLIED RESEARCH PROJECTS	3.2 Applied research projects	<a href="http://www.sidlistejakdal.cz/en/">http://www.sidlistejakdal.cz/en/</a>
	3.3 Contract research	<a href="https://petmat.cz/">https://petmat.cz/</a>
COOPERATION WITH THE NON-ACADEMIC ENVIRONMENT AND TECHNOLOGY TRANSFER	3.7 The evaluated unit's most significant interactions with the non-academic application/corporate sphere	<a href="https://www.fa.cvut.cz/en/gallery/life-of-fa/9329-shelters-for-krnap">https://www.fa.cvut.cz/en/gallery/life-of-fa/9329-shelters-for-krnap</a> <a href="http://utulnautulna.cekuj.net/">http://utulnautulna.cekuj.net/</a> <a href="https://www.stavbaweb.cz/utulny-do-krkonos-20212/clanek.html">https://www.stavbaweb.cz/utulny-do-krkonos-20212/clanek.html</a> <a href="https://petmat.cz/team/">https://petmat.cz/team/</a>
	3.9 Strategy for setting up and support of spin-off firms or other forms of commercialization of R&D&I results (can be extended to the whole university, emphasizing the specific features of the evaluated unit)	<a href="https://www.inqbay.cvut.cz/">https://www.inqbay.cvut.cz/</a>



RECOGNITION BY THE SCIENTIFIC COMMUNITY	3.10 The most significant individual awards for R&D&I	<p><a href="https://www.cka.cz/cs/pro-media/tiskove-zpravy-cka/cenu-ministerstva-kultury-za-architekturu-ziskal-ladislav-labus-nominovala-jej-cka">https://www.cka.cz/cs/pro-media/tiskove-zpravy-cka/cenu-ministerstva-kultury-za-architekturu-ziskal-ladislav-labus-nominovala-jej-cka</a></p> <p><a href="https://www.fa.cvut.cz/en/faculty/people/250-ladislav-labus">https://www.fa.cvut.cz/en/faculty/people/250-ladislav-labus</a></p> <p><a href="https://www.fa.cvut.cz/en/faculty/people/311-matus-dulla">https://www.fa.cvut.cz/en/faculty/people/311-matus-dulla</a></p> <p><a href="https://www.architectureweek.cz/tiskova-zprava/">https://www.architectureweek.cz/tiskova-zprava/</a></p> <p><a href="https://www.fa.cvut.cz/en/faculty/people/325-vaclav-girsa">https://www.fa.cvut.cz/en/faculty/people/325-vaclav-girsa</a></p>
	3.11 Recognition by the international R&D&I community	<p><a href="https://www.fa.cvut.cz/cs/vyzkum-a-spoluprace/publikace/7797-kees-christiaanse-prednaska-20-11-2017">https://www.fa.cvut.cz/cs/vyzkum-a-spoluprace/publikace/7797-kees-christiaanse-prednaska-20-11-2017</a></p> <p><a href="https://www.archiweb.cz/n/prednasky/november-talks-kees-christiaanse">https://www.archiweb.cz/n/prednasky/november-talks-kees-christiaanse</a></p> <p><a href="https://www.archiweb.cz/en/n/home/matthew-carmona-urban-design-adds-value--1">https://www.archiweb.cz/en/n/home/matthew-carmona-urban-design-adds-value--1</a></p> <p><a href="http://www.eaae.be/councilmember/dalibor-hlavacek/">http://www.eaae.be/councilmember/dalibor-hlavacek/</a></p> <p><a href="http://www.aesop-planning.eu/members/institutions/en_GB/czech-technical-university-in-prague/faculty-of-architecture">http://www.aesop-planning.eu/members/institutions/en_GB/czech-technical-university-in-prague/faculty-of-architecture</a></p> <p><a href="http://www.icomos.cz/index.php/en/8-cn/38-vaclav-girsa-zivotopis">http://www.icomos.cz/index.php/en/8-cn/38-vaclav-girsa-zivotopis</a></p> <p><a href="http://ecaade.org/organisation/council/">http://ecaade.org/organisation/council/</a></p>
POPULARISATION OF R&D&I	3.12 The most significant activities in the popularisation of R&D&I and communication with the public	<p>HTML links to additional documentation:</p> <p><a href="http://www.aiamiddleeast.org/aia-events/2017/10/5/aia-international-conference-prague-2020">http://www.aiamiddleeast.org/aia-events/2017/10/5/aia-international-conference-prague-2020</a></p> <p><a href="http://me100.eu/indexen.html">http://me100.eu/indexen.html</a></p> <p><a href="https://www.fa.cvut.cz/en/events/news/12684-results-of-the-international-student-competition-urban-design-award-for-the-year-2018-2019">https://www.fa.cvut.cz/en/events/news/12684-results-of-the-international-student-competition-urban-design-award-for-the-year-2018-2019</a></p>