SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Transportation Sciences

FORD: 2 - Engineering and technology

SOCIAL CONTRIBUTION OF THE EVALUATED UNIT

3.1 Introductory information about the unit under evaluation

The evaluated unit will describe its mission and vision and provide a general self-reflection of the societal contribution of R&D&I, along with its long-term goals in the fields it develops. The distribution of research activities by type of research will also be commented on.[1] The evaluated unit will describe its organisational structure and size (staffing, number of students, number of study programmes implemented, etc.) based on the data provided in annex tables 3.1.1 to 3.1.6.

Maximum 1000 words.

This is a non-rated indicator that serves as an introduction to the evaluated unit, providing context for data in indicators 3.2-3.7.

Self-assessment:

The evaluated unit is committed to advancing research and education in transportation sciences, with a strong emphasis on industry collaboration and the practical application of research findings. Its mission is to bridge applied research and experimental development in transportation engineering, logistics, and mobility, preparing qualified professionals to tackle modern challenges in the field. The unit focuses on making meaningful contributions to industry-driven innovation and sustainable mobility solutions. A core aspect of its research strategy is close cooperation with industrial partners, ensuring that its work remains relevant and addresses real-world needs. Through projects in transportation planning, optimization, and aviation, the unit collaborates with key organizations to bring research findings directly into practice. These partnerships help develop innovative solutions that enhance the efficiency, safety, and sustainability of transportation systems.

Beyond national collaborations, the unit actively participates in European research projects on mobility and intelligent transport systems. By engaging in initiatives such as Horizon Europe and EIT Urban Mobility, it works alongside international universities and research institutions, fostering scientific cooperation, knowledge exchange, and the development of next-generation mobility solutions. Its long-term goals include strengthening interdisciplinary collaboration, expanding international research involvement, and securing funding for projects with a high practical impact. A key priority is the development of further doctoral education and the attraction of talented researchers to advance knowledge in transport automation, digitalization, and smart mobility solutions. Research activities are primarily focused on applied research and experimental development. Applied research addresses practical transportation challenges, such as AI-driven transport management, multimodal optimization, and safety improvements. Experimental

[1] Basic, applied, contract, artistic research (see Definition of Terms in Methodology HEI2025+).

development involves pilot projects, technology validation, and industry-supported initiatives, ensuring that innovative solutions can transition smoothly from research to real-world applications. Although fundamental research is not a primary focus, it is pursued selectively when necessary to support applied and experimental projects.

Collaboration with industrial partners plays a crucial role in ensuring that research findings are directly applicable. The unit works with stakeholders in various transportation sectors, including railway automation, public transport, aviation, road infrastructure, smart transport systems, the automotive industry, and technology-driven mobility solutions. Notable partnerships include collaborations with AŽD Praha, SUDOP Praha, PUDIS, and Dopravní podnik hl. m. Prahy (Prague Public Transport Company) on railway automation, smart signaling systems, and urban transit optimization. In aviation, it works with Řízení letového provozu ČR (Czech Air Navigation Services, ANS ČR) and Letiště Praha (Prague Airport) on air traffic management, operational efficiency, and aviation safety. Research with Ředitelství silnic a dálnic ČR (Czech Road and Motorway Directorate), ELTODO dopravní systémy, and OLTIS Group focuses on road infrastructure improvements and intelligent transport systems. In the automotive sector, partnerships with Škoda Auto and Škoda Transportation support developments in vehicle automation, electrification, and safety technologies. Additional collaboration with TÜV SÜD Czech and Telematix Software contributes to progress in transport safety certification and intelligent mobility software solutions. While these examples highlight the unit's strong industry engagement, research, development, and innovation activities extend beyond these collaborations.

In alignment with these research efforts, the unit is structured to ensure efficient management of pedagogical, scientific, and administrative activities. As part of the Faculty of Transportation Sciences at CTU in Prague, its organizational framework supports both academic and industrial collaboration. The faculty operates under a hierarchical structure led by the Dean, who represents the faculty in external relations and holds overall responsibility for its academic and research endeavors. The Dean is supported by a team of Vice-Deans, each overseeing specific operational domains. Financial and administrative affairs are managed by the Faculty Secretary, who oversees budgeting, resource allocation, and internal administration.

Strategic decision-making is further supported by several advisory bodies. The Scientific Council serves as the highest authority determining the direction and content of the faculty's educational, scientific, research, and development activities. It is chaired by the Dean. The Dean's Collegium, composed of Dean, Vice-Deans, heads of departments, Faculty Secretary, and representatives of the Academic Senate, serves as a key consultative forum for faculty governance. The Industrial Council, comprising over 20 prominent figures from the transportation sector, provides guidance on aligning educational programs with industry needs and fostering partnerships with key stakeholders. Additionally, the Professorial Board plays a vital role in shaping academic and research directions, reinforcing the faculty's commitment to excellence in transportation sciences.

At the operational level, the faculty is organized into departments and an institute, each responsible for specific domains of transportation research and education. The departments are led by department heads appointed through a competitive selection process, ensuring effective leadership in both academic and applied research initiatives. These departments cover a wide range of specializations, including applied mathematics, transportation engineering, applied informatics, language and social sciences, vehicle engineering, smart cities and regions, mechanics and materials, transport telematics, and aviation. The Institute of Forensic Expertise in Transport further extends the faculty's capabilities by providing expert analysis and assessments in transportation-related legal and technical matters.

From the perspective of the education provided, FTS offers a comprehensive portfolio of study programs at the bachelor's, master's, and doctoral levels. At the bachelor's level, programs such as

Technology and Transportation Systems, Aircraft Maintenance Technology, and Professional Pilot combine theoretical foundations with practical training, equipping graduates with skills applicable across various transportation sectors. The Aircraft Maintenance Technology program prepares students for obtaining an Aircraft Maintenance License (AML), while the Professional Pilot program includes EASA-recognized ATPL(A) flight training.

Master's degree programs build upon undergraduate studies and offer advanced expertise in transportation systems and technologies. Programs such as Transportation Systems and Technology, Intelligent Transportation Systems, Logistics and Transport Process Management, and Air Transport Operations and Management are designed to develop specialists in modern transport infrastructure, mobility planning, and aviation management. Additionally, the faculty offers dual-degree Master's programs in collaboration with international universities, including Linköping University in Sweden (Intelligent Transport Systems) and the University of Texas at El Paso (Smart Cities).

Doctoral studies at the faculty focus on scientific research under the guidance of experienced supervisors, contributing to advancements in transportation systems, logistics, air transport management, intelligent transport systems and SmartCities. Doctoral candidates are regarded full-time researchers and may receive industry scholarships to support their research projects.

Table 3.1.1 - Staffing per FTE[2]

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	9.1 / 1.3	8.1 / 1.3	7.9 / 1.3	7.5 / 1.3	7.2 / 1.3	39.6 / 6.5
Associate Professor	30.9 / 6.4	30.4 / 6.4	31.8 / 6.4	34.2 / 6.4	33.5 / 6.4	160.8 / 32.0
Assistant Professor	69.0 / 19.9	66.8 / 18.7	62.1 / 18.4	59.9 / 18.9	58.6 / 19.2	316.3 / 95.0
Assistant	8.2 / 3.8	10.2 / 4.1	10.3 / 4.6	10.3 / 4.6	11.2 / 5.5	50.2 / 22.4
R&D Personnel[3]	54.3 / 28.3	84.4 / 39.2	87.0 / 39.5	89.7 / 40.5	83.6 / 36.3	398.9 / 183.6
Researchers in other categories[4]	10.9 / 2.4	13.9 / 3.8	14.3 / 3.8	15.3 / 3.8	13.1 / 3.3	67.5 / 16.9
Technical and economic staff[5]	32.7 / 26.5	53.2 / 29.5	61.0 / 36.9	52.0 / 35.1	53.6 / 34.9	252.4 / 162.8
Scientific, research and development staff involved in teaching activities	126.8 / 33.8	124.4 / 33.1	119.9 / 32.8	119.2 / 32.8	116.4 / 32.6	606.6 / 165.2

[2] The average number of hours worked is calculated as the ratio of the total number of hours actually worked during the reference period, from 1 January to 31 December, by all staff (including agreement on work activity, excluding agreement on work performance) to the total annual working time pool per full-time employee. The full- time status of the worker in the evaluated unit is always reported. If an employee holds more than one type of full-time job within the evaluated unit, the total sum of the two shall be reported.

[3] The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

[4] The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

[5] Who participates in the management and support of R&D&I in the institution.

Early career researchers[6]	47.3 / 11.2	43.6 / 8.8	39.5 / 8.5	33.6 / 7.5	25.8 / 5.0	189.7 / 41.0
Total[7]	215.0 / 88.4	267.0 / 102.8	274.3 / 110.7	268.8 / 110.4	260.7 / 106.7	1285.7 / 519.0

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

3.1.2 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2019 (numbers of physical employees and personnel)[8]

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	3	1	1	0	2	0	10	1
Associate Professor	0	0	4	0	20	4	1	0	6	3	10	1
Assistant Professor	3	1	45	10	33	8	9	5	5	3	4	1
Assistant	5	2	2	1	6	1	1	1	0	0	0	0
R&D Personnel[9]	20	6	14	5	28	16	9	6	4	3	0	0
Researchers in other categories[10]	8	4	4	1	4	0	0	0	2	0	3	0
Technical and economic staff[11]	1	1	0	0	1	0	0	0	0	0	1	0
Scientific, research and development staff involved in teaching activities	17	5	53	12	64	14	12	6	13	6	24	3
Early career researcher[12]	16	7	55	12	0	0	0	0	0	0	0	0
Total[13]	37	14	69	17	95	30	21	12	19	9	28	3

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D Personnel, Researchers in other categories and Technical and economic staff are mutually exclusive, i.e. one staff member is reported in only one category. The categories of scientific, research and development staff involved in teaching activities and early career researchers are reported collectively for all the above-mentioned categories.

[6] See Definition of Terms in Methodology HEI2025+.
[7] Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.
[8] The total number of employees/workers as of 31st December of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.
[9] The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).
[10] The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).
[11] Who participates in the management and support of R&D&I in the institution.
[12] See Definition of Terms in Methodology HEI2025+.
[13] Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I Personnel, Researchers in other categories and technical and economic staff.

3.1.3 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2023 (numbers of physical employees and personnel)[14]

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	2	0	2	1	1	0	7	1
Associate Professor	0	0	3	0	19	3	6	1	4	2	11	2
Assistant Professor	0	0	20	3	34	9	17	7	5	4	4	1
Assistant	0	0	5	3	8	1	2	2	0	0	0	0
R&D Personnel[15]	31	10	35	13	26	10	10	7	8	3	2	1
Researchers in other categories[16]	3	1	8	4	5	1	1	0	2	0	3	0
Technical and economic staff[17]	0	0	0	0	0	0	0	0	0	0	0	0
Scientific, research and development staff involved in teaching activities	3	1	37	9	65	13	27	11	11	6	22	4
Early career researcher[18]	3	1	36	10	0	0	0	0	0	0	0	0
Total[19]	34	11	71	23	94	24	38	18	20	9	27	5

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

Table 3.1.4 – Students

Type of study	2019		2020		2021		2022		2023		Total	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Undergraduate	839	175	796	162	697	125	618	109	605	119	3555	690
Master's[20]	283	102	297	82	300	86	295	72	250	52	1425	394

[14] The total number of employees/workers as at 31.12. of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

[15] The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

[16] The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

[17] Who participates in the management and support of R&D&I in the institution.

[18] See Definition of Terms in Methodology HEI2025+.

[19] Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.

[20] All master's degree students are listed, regardless of the length of their programme of study.

Doctoral	120	36	124	38	134	36	121	33	106	25	605	168
Lifelong Learning Courses	260	196	272	164	264	180	386	268	490	339	1672	1147
Total	1502	509	1489	446	1395	427	1420	482	1451	535	7257	2399

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total[21] / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	2/1	0/0	3/1	0/0	6/2	0/0	7/1	0/0	7/1	0/0	25/6	0/0
Master's	2/1	0/0	8/3	0/0	8/2	0/0	10/2	0/0	10/2	0/0	38/10	0/0
Doctoral	5/0	0/0	12/4	0/0	13/1	0/0	15/2	0/0	14/2	0/0	59/9	0/0
Lifelong Learning courses	8/1	0/0	12/2	0/0	10/2	0/0	17/2	0/0	17/2	1/0	64/9	1/0
Total	2/1	0/0	3/1	0/0	6/2	0/0	7/1	0/0	7/1	0/0	25/6	0/0

Note: For each SP type, enter the number of SPs in Czech language in the first cell and insert the number of SPs in English language after the slash in the same cell (e.g. 15/3), enter the number of professional SPs in Czech language in the second cell and insert the number of professional SPs in English language after the slash. Follow a similar procedure in the last column of the table (Total).

3.1.6 – R&D&I capacities

R&D&I field	FORD	FORD share [%]	Predominant type of research	Total share of industry group [%]
1. Natural Sciences	1.1 Mathematics	3.96	Balanced basic and applied research	19.52
	1.2 Computer and information sciences	9.63	Applied Research	
	1.3 Physical sciences	0.00	-	
	1.4 Chemical sciences	0.00	-	
	1.5 Earth and related environmental sciences	1.84	Applied Research	
	1.6 Biological sciences	0.19	Applied Research	
	1.7 Other natural sciences	3.90	Applied Research	
2. Engineering and Technology	2.1 Civil engineering	36.01	Applied Research	69.80
	2.2 Electrical engineering. Electronic engineering. Information engineering	3.23	Applied Research	
	2.3 Mechanical engineering	8.65	Applied Research	
	2.4 Chemical engineering	0.00	-	
	2.5 Materials engineering	6.35	Applied Research	
	2.6 Medical engineering	0.01	Applied Research	
	2.7 Environmental engineering	2.27	Applied Research	
	2.8 Environmental biotechnology	0.00	-	

[21] The total number of study programmes for which admissions have been announced in a given academic year.

	2.9 Industrial biotechnology	0.00	-	
	2.10 Nanotechnology	0.00	-	
	2.11 Other engineering and technologies	13.28	Applied Research	
3. Medical and Health Sciences	3.1 Basic medicine	0.05	Applied Research	0.55
	3.2 Clinical medicine	0.01	Applied Research	
	3.3 Health sciences	0.49	Applied Research	
4. Agricultural and veterinary sciences	4.1 Agriculture. Forestry. and Fisheries	0.34	Applied Research	0.34
	4.2 Animal and Dairy science	0.00	-	
	4.3 Veterinary science	0.00	-	
	4.4 Other agricultural sciences	0.00	-	
5. Social Sciences	5.1 Psychology and cognitive sciences	2.08	Applied Research	8.27
	5.2 Economics and Business	3.96	Applied Research	
	5.3 Education	0.13	Applied Research	
	5.4 Sociology	0.13	Applied Research	
	5.5 Law	0.85	Applied Research	
	5.6 Political science	0.00	-	
	5.7 Social and economic geography	1.12	Applied Research	
	5.8 Media and communications	0.00	-	
	5.9 Other social sciences	0.00	-	
6. Humanities and the Arts	6.1 History and Archaeology	0.66	Basic Research	1.52
	6.2 Languages and Literature	0.09	Applied Research	
	6.3 Philosophy. Ethics and Religion	0.66	Applied Research	
	6.4 Arts (arts. history of arts. performing arts. music)	0.00	-	
	6.5 Other Humanities and the Arts	0.11	Applied Research	
	Total	100 %	-	100 %

RECOGNITION BY THE RESEARCH COMMUNITY

3.2 Recognition by the research community

The evaluated unit will briefly comment on its position in the research community. It shall consider individual and other prestigious R&D&I awards, participation of its academic staff in the editorial boards of international scientific journals, elected membership in professional societies, major invited lectures given by the evaluated unit's academic staff abroad or by foreign scientists and other relevant guests at the evaluated unit. Additionally, it will address the involvement of staff in the evaluation of national or European project/programme calls over the period of 2019–2023 based on the data provided in annex tables 3.2.1 to 3.2.5 (max. 10 most relevant items). If necessary, the evaluated unit shall list any additional services to the scientific community that it considers relevant.

Maximum 1000 words.

Self-assessment:

Between 2019 and 2023, the evaluated unit has actively contributed to the international research community through its involvement in high-quality research, participation in professional organizations, editorial activities, invited lectures, and engagement in national and European

research evaluations. Faculty members have been recognized with several awards for their contributions to research and development, reflecting the relevance and impact of their work in transportation science, mobility solutions, and related fields. Examples of these include the Josef Hlávka Award, which acknowledges excellence in research among young scientists, and the Smart Cities Personality Award, which highlights contributions to innovative urban mobility solutions. Further recognitions, such as the Czech Road Society Award for the Best Dissertation and institutional distinctions like the Dean's Award of the Faculty of Transportation Sciences, underscore the achievements of faculty members in both research and education.

The unit's academic staff has contributed to the international research community through participation in editorial boards of high-impact journals. Faculty members have been engaged in the International Journal of Transportation Science and Technology, Neural Network World, and the Journal of Competitiveness, among others. Their roles in these journals involve evaluating submissions, shaping research agendas, and supporting the dissemination of findings in areas such as intelligent transportation systems, applied artificial intelligence, and infrastructure resilience. This engagement reflects the unit’s commitment to maintaining high academic standards and fostering collaboration within the broader scientific community.

The evaluated unit has also remained active in professional societies, holding elected positions in organizations such as the European Platform of Transport Sciences and the Czech Association of Scientific and Technical Societies. Through these roles, faculty members have contributed to shaping research policies, promoting interdisciplinary collaboration, and influencing the strategic direction of research in transportation and mobility. These memberships provide opportunities to engage with international experts, exchange knowledge, and contribute to discussions on the future of transportation technologies.

An important aspect of the international engagement of the unit has been the delivery of invited lectures at leading institutions and scientific conferences. Faculty members have presented research on topics such as automated mobility, space-based navigation systems, and human factors in aviation at institutions including The University of Texas at Austin, Taiwan Tech (NTUST), and the University of Zagreb Faculty of Transport and Traffic Sciences. Additionally, invited lectures at the European Space Agency (ESA SWESNET) have focused on the impact of space weather on aviation navigation, while contributions at EUROCONTROL have addressed vestibular illusions and their effects on flight safety. These invited presentations demonstrate the role of faculty in the sharing of knowledge and contributing to global discussions on transportation challenges and technological advancements.

Beyond delivering lectures, the unit has also hosted international researchers, strengthening academic exchange. Notable guests have included researchers specializing in aerodynamics, deep learning in transport applications, and airline management approaches, who have provided valuable insights through guest lectures and collaborative research efforts. These exchanges have enriched the academic environment of the unit and fostered new research directions.

The faculty has also played an active role in evaluating research proposals and funding applications at the national and European levels. Members have participated as reviewers for Horizon 2020 and Horizon Europe projects, providing expert assessments of proposals in areas such as sustainable urban mobility, railway digitalization using drones, and intelligent traffic management systems. Additionally, the unit has contributed to evaluations conducted by the Czech Science Foundation (GAČR) and the European Research Council (ERC). Faculty members have been involved in the Monitoring Committee of the Operational Programme Transport under the Ministry of Transport of

the Czech Republic, and in the Evaluation Panel for Research, Development, and Innovation (VVI) Results (EP4) under the 17+ methodology. These contributions highlight the faculty's engagement in shaping research, funding decisions and supporting scientific progress at a broader level.

In addition to research activities, the unit has been involved in organizing and contributing to international academic events. A key example is the Smart Cities Symposium Prague (SCSP), which has provided a platform for researchers, industry experts, and policymakers to discuss developments in urban mobility and smart infrastructure. The faculty has also contributed to the European Transport Congress, further reinforcing its role in European research networks. Through collaborations with institutions such as The University of Texas at El Paso, Technical University of Berlin, and Technical University of Dresden, the unit has expanded its international research partnerships and facilitated student and faculty exchange programs.

Overall, the evaluated unit has demonstrated a strong commitment to high-quality research, international collaboration, and academic leadership. Through its engagement in prestigious awards, editorial activities, professional society memberships, invited lectures, research evaluations, and academic event organization, the faculty continues to contribute meaningfully to the global research landscape. While there is always room for further development, the unit remains dedicated to advancing scientific knowledge, fostering interdisciplinary collaboration, and supporting innovation in transportation science and mobility solutions.

Table 3.2.1 - Prestigious R&D&I awards granted during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of the award	Awarding institution
Adam Orlický, Ing., PhD.	Josef Hlávka Award	Josef, Marie, and Zdeňka Hlávka Foundation
Přemysl Toman, Ing.	Stanislav Hanzl Award	CTU Stanislav Hanzl Endowment Fund
Jiří Brož, Ing., MSc., Ph.D.	Stanislav Hanzl Award	CTU Stanislav Hanzl Endowment Fund
Jiří Brož, Ing., MSc., Ph.D.	Prof. Ing. Mirko Novák, DrSc. Award	Czech Technical University
Jiří Brož, Ing., MSc., Ph.D.	Czech Road Society Award for the Best Dissertation	Czech Road Society
Emil Pelikán, prof. Ing., CSc.	Dean's Award of the Faculty of Transportation Sciences	CTU Faculty of Transportation Sciences
Miroslav Svítek, prof., Dr., Ing., dr. h. c.	Smart Cities Personality	Ministry of Regional Development of the Czech Republic
Miroslav Svítek, prof., Dr., Ing., dr. h. c.	K. D. Gangloff Medal	Czech Association of Scientific and Technical Societies
Miroslav Svítek, prof., Dr., Ing., dr. h. c. Tomáš Horák, doc., Ing., Ph.D. Ondřej Přibyl, prof., Ing. Ph.D.	International Academic Collaboration Award	The University of Texas at El Paso, USA
Ondřej Jiroušek, prof. Ing., Ph.D.	Medal from Institute of Theoretical and Applied Mechanics for scientific development of the Institute	Institute of Theoretical and Applied Mechanics of the Czech Academy of Sciences

Note: Provide up to 10 examples.

Table 3.2.2 Participation of academic staff of the evaluated unit in editorial boards of international scientific journals during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
Martina Bečvářová, prof., RNDr., Ph.D.	Antiquitates Mathematicae ISSN: 1898-5203 (print), 2353-8813 (online)
Martina Bečvářová, prof., RNDr., Ph.D.	Quarterly Journal of the History of Science and Technology ISSN: 0023-589X (print), 2657-4020 (online)
Jan Přikryl, Dr.	Neural Network World ISSN: 1210-0552 (print), 2336-4335 (online)
Petr Bouchner, doc., Ing., Ph.D.	Neural Network World ISSN: 1210-0552 (print), 2336-4335 (online)
Petr Bouchner, doc. Ing., Ph.D.	Advances in Transportation Studies ISSN: 1824-5463
Tomáš Horák, doc., Ing., Ph.D.	International Journal of Transportation Science and Technology ISSN: 2046-0449
Miroslav Svítek, prof., Dr., Ing., dr. h. c.	Journal of Competitiveness, ISSN: 1804-171X (Print), 1804-1728 (online)
Jakub Kraus, doc. Ing., Ph.D.	Scientific Journal of Safety and Logistics ISSN 2995-7443
Jakub Kraus, doc. Ing., Ph.D.	Journal of Airline Operations and Aviation Management ISSN: 2949-7698
Ondřej Jiroušek, prof., Ing., Ph.D.	Frontiers in Built Environment: Transportation and Transit System ISSN: 2297-3362

Note: Please provide up to 10 examples of academic staff participation in editorial boards of international scientific journals (e.g. editor, editorial board member, etc.).

Table 3.2.3 The most important invited lectures delivered by the academic staff of the evaluated unit at foreign institutions during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Invited lecture title	Name of host institution, or name of conference or event	Year
Ondřej Přibyl, prof., Ing., Ph.D.	Automated vehicles in an urban environment	The University of Texas at Austin	2019
Ondřej Přibyl, prof, Ing. Ph.D.	Cooperative environment – CCAM in cities	Taiwan Tech (NTUST)	2023
Vladimír Socha, doc. Ing., Ph.D. Lenka Hanáková, Ing., Ph.D.	Vestibular in-flight illusions	EUROCONTROL	2023
Jakub Hospodka, doc. Ing., Ph.D.	Impact of Space Weather on Aviation Navigation	ESA SWESNET Space Weather Service Network Development and Pre-Operation	2022
Ondřej Jiroušek, prof., Ing., Ph.D.	Dynamical Compressive Properties of SLS-printed Auxetic Lattices – SHPB experiments and FE Modelling	Advanced Computational Engineering and Experimenting (ACEX2020)	2020
Ondřej Jiroušek, prof., Ing., Ph.D.	Impact resistance of structural panel with polymeric auxetic core against rigid penetration	Advanced Computational Engineering and Experimenting (ACEX2022)	2022
Andrej Lališ, doc. Ing., Ph.D.	Safety Management for Air Navigation Service Provider	Azeraeronavigatsiya (AZANS)	2019

Miroslav Svítek, prof., Dr., Ing., dr. h. c.	Smart Cities and Public Health	Cornell University, USA	2020
Miroslav Svítek, prof., Dr., Ing., dr. h. c.	Fundamentals of Smart Cities (teaching of a master's course)	The University of Texas at El Paso	2019, 2020, 2022, 2023
Roman Štěrba, doc., Dr., Ing., MBA	Integrated public transport system serving communities outside of urban areas in Mid-Bohemia	European Parliament	2020

Note: Provide up to 10 examples.

Table 3.2.4 - The most important lectures by foreign scientists and other guests relevant to R&D&I at the evaluated unit during the evaluation period

Name, surname and title(s) of the lecturer	Lecturer's employer at the time of the lecture	Invited lecture title	Year
Milada C. Smastuen, prof., MSc.	Oslo Metropolitan University	Design and analysis of Questionaires	2019
Luis Velazquez-Araque, PhD	University of Guayaquil	Aerodynamics of vehicles	2023
Sara El hamdani, Dr.	USMBA - Université Sidi Mohamed Ben Abdellah	HMI and Simulation	2021
Peter Veit, prof.	TU Graz	Predictive Maintance Workshop Smart Via Vindobona	2023
Robert O. Walton, prof., Ph.D., FRAeS	Embry-Riddle Aeronautical University	Airline management approaches	2023
Robert O. Walton, prof., Ph.D., FRAeS	Embry-Riddle Aeronautical University	Ranking of Airlines	2022
Martin Wittmer, Prof. Dr.-Ing.	HTW Dresden – University of Applied Sciences, Faculty Mechanical Engineering	Moderne Möglichkeiten von PKW und LKW-Bremsprüfungen	2023
K. C. Park, prof.	University Colorado Boulder	Method of localized Lagrange multipliers and its recent applications	2019
Fuh-Gwo Yuan, prof.	North Carolina State University	Use of deep learning in complex materials design for engineering applications	2023
Univ. prof. Zoltán Major	Johannes Keppler University Linz	Dynamic testing of laminate composites	2023

Note: Provide up to 10 examples.

Table 3.2.5 - Involvement in the evaluation of national/European research project/programme calls relevant to the R&D&I area at the unit during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of the research project/programme call	Name of the contracting authority/guarantor of the project/programme call	year
Stanislav Novotný, doc., Ing., Ph.D.	Member of the Monitoring Committee of the Operational Programme Transport	Ministry of Transport of the Czech Republic	2021–2023

Petr Bouchner, doc., Ing., Ph.D.	Committee for Scientific Activities of the Coordination Council of the Minister of Transport for Space Activities	Ministry of Transport of the Czech Republic	2019–2023
Petr Bouchner, doc., Ing., Ph.D.	Evaluation Panel for Research, Development, and Innovation (VVI) Results, EP4, according to the 17+ methodology	Government Council for Research, Development, and Innovation	2019–2023
Tomáš, Tichý, doc. Ing. Ph.D., MBA	ETA, SIGMA, EPSILON, TRANSPORT 2020, TREND, IMPACT, OPSEC	Technology Agency of the Czech Republic	2019–2023
Miroslav Svítek, prof., Dr., Ing., dr. h. c.	Member of the Evaluation Panel, Connecting and Coordinating European Research and Technology Development with Japan	European Interest Group	2023
Miroslav Svítek, prof., Dr., Ing., dr. h. c.	Railway digitalisation using drones	European commission, EUSPA, H2020-SPACE-EGNSS-2020	2021–2024
Jakub Kraus, doc. Ing., Ph.D.	TREND, Transport 2020+, Transport 2030	Technology Agency of the Czech Republic	2019–2023
Jakub Hospodka, doc. Ing., Ph.D.	TREND, Transport 2020+, Transport 2030, Environment for Life, SIGMA	Technology Agency of the Czech Republic	2019–2023
Denisa Mocková, doc. Ing., Ph.D.	ETA, SIGMA, Transport 2020+, EPSILON	Technology Agency of the Czech Republic	2020–2023
Ondřej Jiroušek, prof., Ing., Ph.D.	Horizon 2020 – Future and Emerging Technologies (FET)	European commission	2021

Note: Provide up to 10 examples.

RESEARCH PROJECTS

3.3 Research projects

The evaluated unit shall list at most 10 (considered most significant by the evaluated unit) research projects/activities (regardless of whether they are supported by public funds or based on contract research[22]) that it has implemented or participated in during the period of 2019–2023[23]. This should be done from the full list in annex tables (Table 3.3.1-3.3.2)[24], regarding particularly the results achieved or the application potential of the projects. The unit should also describe how the research projects contributed to the mission and purpose of the evaluated unit. If the evaluated unit has been a participant in listed project, it shall indicate which other entities were involved and describe its contribution to the project. The interdisciplinary aspects of the projects will also be commented on, along with any collaboration with other units of the evaluated HEI.

Maximum 300 words per project.

Self-assessment:

New Mobility Data and Solutions Toolkit (nuMIDAS)
https://cordis.europa.eu/project/id/101007153

The nuMIDAS project addresses the rapid evolution of urban mobility ecosystems, where emerging services, new actors, and advanced technologies are reshaping transportation. The project responds

[22] For the definition of contract research for the purposes of evaluation in the HE segments, see Article 2.2.1 of the Community Framework for State Aid for Research, Development and Innovation 2014/C 198/01.
[23] Regardless of whether the projects are completed or still ongoing, provided that at least part of the project was implemented during the evaluation period.
[24] The evaluated unit shall only fill tables that are relevant to it.

to the growing adoption of shared mobility, the Mobility-as-a-Service (MaaS) paradigm integrating planning, booking, and payment into a unified system, and the increasing role of connected and autonomous vehicles. Simultaneously, the expansion of these mobility solutions is accompanied by the generation, collection, and storage of vast amounts of data. Effective analysis of these data is crucial for evaluating the functionality of various transportation solutions, understanding human mobility needs, and assessing socio-economic impacts and associated risks.

A key challenge remains the successful integration of these emerging mobility technologies into municipal decision-making processes. The nuMIDAS project, funded under the Horizon 2020 programme, aims to bridge this gap by developing a modular toolkit designed to support transportation decision-making. The project consortium includes partners from Belgium, Italy, the Netherlands, Greece, and Spain, along with researchers from the Faculty of Transportation Sciences at the Czech Technical University in Prague, specifically from the Department of Applied Mathematics and the Department of Logistics and Transport Management.

The primary outcome of nuMIDAS is a flexible and expandable software toolkit tailored for use by policymakers, urban planners, and mobility stakeholders. Initially developed for four pilot cities—Milan, Leuven, Barcelona, and Thessaloniki—the toolkit is designed to adapt to other urban environments and be scalable through the addition of further modules to address new mobility challenges. The project thus contributes to the enhanced data-driven governance of mobility systems, enabling cities to make informed decisions that foster sustainable, efficient, and resilient transportation networks.

Universal Driving Simulator for Public Transit Drivers
https://starfos.tacr.cz/en/projekty/UH0841

The Universal Driving Simulator for Public Transit Drivers project aimed to develop an advanced interactive metro simulator to modernize the training and qualification process for train operators at Dopravní podnik hlavního města Prahy, a.s. (DPP). The primary objective of the developed system was to optimize training, enhance its quality, and reduce costs while preparing operators for both standard and emergency situations.

The excellence of the project lies in its customized design tailored specifically to the needs of DPP while maintaining a technological standard on par with the best global solutions in the field. The resulting simulator represents a fully integrated training system, featuring:

- A full-scale replica of the 81-71M metro train cabin mounted on a motion platform to provide realistic physical feedback.
- A climate-controlled enclosed cockpit to create an immersive environment.
- An instructor workstation, allowing trainers to communicate with operators via radio and monitor their performance.
- A comprehensive software suite capable of simulating train operations and track conditions, specifically modeled online V.A of the Prague metro.

The project was conceived and executed entirely at the Faculty of Transportation Sciences. External collaboration was maintained with DPP to ensure that the simulator met real-world operational requirements.

The project significantly expanded the knowledge and technical capabilities of the research team, particularly in the domains of rail vehicle dynamics, railway infrastructure, and simulation

technologies. The development of the simulator required an inherently interdisciplinary approach, integrating expertise in transport systems, software development, hardware design, and simulation engineering. The final solution successfully replicates the functionalities of real-world metro operations at a level suitable for professional operator training, ensuring an effective and cost-efficient training framework for public transit drivers.

Engineering Applications of Microworld Physics
https://starfos.tacr.cz/en/projekty/EF16_019%2F0000766

The Engineering Applications of Microworld Physics project advanced imaging techniques in material research, particularly in the study of metal foams and auxetic structures. A key technological achievement was the development of a unique experimental setup at DynLab (Faculty of Transportation Sciences, CTU), which integrates a dynamic loading device (Hopkinson bar) with a flash X-ray source for high-speed imaging of impact events. This system enables precise observation of dynamic material behavior under extreme conditions, enhancing research in impact mechanics and material characterization.

The project resulted in 11 articles published in impact-factor journals, the successful completion of three Ph.D. dissertations, and the habilitation of one researcher. It also provided support for multiple master's theses, with several graduates continuing into doctoral studies. The project's high research standards and technological innovation attracted a foreign postdoctoral researcher and facilitated long-term collaboration with Prof. Fuh-Gwo Yuan (North Carolina State University, NCSU). This collaboration led to a bilateral projectsubmitted and contributed to securing follow-up funding, including a GA ČR JuniorStar grant.

The Faculty of Transportation Sciences played a key role in the development of experimental methods and led the design and implementation of the high-speed imaging system. The project strengthened the faculty's expertise in experimental mechanics, enriched PhD education, and reinforced international collaborations.

The interdisciplinary nature of the project integrated experimental mechanics, material science, and imaging technologies, leading to breakthroughs in impact mechanics. Collaboration extended beyond CTU, involving institutions such as IEAP, FBME, CIIRC, FEE UWB, NRPI, and ITAM AS CR. The project positioned the Faculty of Transportation Sciences as a leader in advanced experimental mechanics, fostering future research innovations and technological applications.

Progressive numerical and experimental modelling of innovative sandwich panels with cellular core
https://starfos.tacr.cz/en/projekty/GA19-23675S

The Progressive Numerical and Experimental Modelling of Innovative Sandwich Panels with Cellular Core project advanced the development and validation of energy-absorbing structural panels incorporating polymeric cellular cores with nanocrystalline metal coatings. A significant outcome was the optimization of sandwich structures with auxetic cores, supported by an extensive experimental campaign that included the analysis of strain-rate-sensitive fillings. The research provided valuable insights into the deformation behavior of these structures under impact conditions, improving their potential applications in high-performance energy-absorbing systems.

The project yielded seven publications in impact-factor journals, nine presentations at international conferences, and contributed to the successful defense of three Ph.D. dissertations and several master's theses. As a basic research project funded by the Czech Science Foundation (GAČR), it

combined dynamic material testing, numerical modeling of impact events, and experimental-numerical studies. The integration of Hopkinson bar experiments, impact simulations, and computed tomography-derived numerical models resulted in a comprehensive understanding of the mechanical response of sandwich composites.

The Faculty of Transportation Sciences (FTS), CTU, played a central role in the project as the sole recipient and led all research activities, including experimental methodologies, numerical simulations, and structural optimization. The project strengthened the faculty's expertise in heterogeneous materials, particularly auxetic structures, metal foams, and sandwich composites. It also contributed to laboratory development, international collaborations, and expanding knowledge of impact-resistant materials.

The research successfully bridged dynamic material testing, computational mechanics, and material science, reinforcing the interdisciplinary nature of impact-resistant structure research. The project fostered strong international collaborations, particularly with Helmut-Schmidt University Hamburg and the University of Maribor, solidifying European partnerships in the field of heterogeneous materials and structural mechanics.

High velocity impact dynamics with fast and flash X-ray radiography

https://starfos.tacr.cz/en/projekty/GM22-18033M

The project made significant advancements in experimental research on high-velocity impact dynamics, particularly through the use of flash X-ray imaging. A key achievement was the construction and commissioning of a unique experimental setup at DynLab (Faculty of Transportation Sciences, CTU), enabling real-time X-ray imaging of high-speed dynamic events. This setup has been instrumental in studying ballistic protection materials, aerospace composites, and metamaterials under extreme loading conditions. The research findings were disseminated through five publications in high-impact journals and ten presentations at international conferences.

Beyond technological advancements, the project had a major academic impact, fostering a team of young researchers and contributing to the successful completion of one Ph.D. dissertation, with three additional dissertations expected to be defended in 2025. The principal investigator also completed and submitted their habilitation thesis, further solidifying the project's role in academic development.

The excellence of the project was recognized through its selection for the prestigious JuniorStar grant from GAČR, awarded to only 16 projects in the Czech Republic that year, underscoring the outstanding potential of early-career researchers. The funding enabled the development of state-of-the-art experimental techniques to study materials filled with dilatant fluids, where the integration of X-ray imaging with dynamic testing provided critical insights into deformation behaviors. These findings are crucial for improving numerical models and optimizing impact-resistant material design.

The project significantly strengthened the Faculty of Transportation Sciences' leadership in experimental mechanics and high-speed imaging techniques. It also fostered international research collaboration, particularly with the groups of Prof. Sousa (University of Aveiro, Portugal) and Dr. Máca (TU Dresden, Germany), reinforcing global partnerships and expanding research networking opportunities.

Research of the GNSS signal interference in the domain of air transport
https://starfos.tacr.cz/en/projekty/CK01000183

The project delivered two fundamental advancements in the detection of GNSS interference across any operational range. The first is a Methodology for Detecting Unlawful GNSS Signal Interference Using ADS-B Data, while the second is a Model for Multi-Source Fusion of GNSS Interference Information.

The detection methodology introduces a novel approach that allows the identification of GNSS interference even in cases where aircraft continue to broadcast their GNSS-derived positions via ADS-B. By analyzing quality parameters within ADS-B messages, the system can detect anomalies indicative of signal interference, thereby providing an innovative layer of resilience against GNSS spoofing and jamming threats.

The multi-source fusion model serves as a key component for scaling the detection system, as it enables the integration of any available GNSS interference data into a unified assessment framework. By merging multiple sources of information, the system ensures enhanced reliability and coverage, making it adaptable for large-scale deployment.

Both developments are currently in the implementation phase. The methodology has been integrated into a GNSS interference visualization tool, available for operational use, while the fusion model is deployed on a CTU server, progressively integrating various interference detectors.

The project is considered highly innovative, as it pioneers a breakthrough approach to detecting GNSS interference from ADS-B messages, even when aircraft continue transmitting position data. The fusion tool significantly enhances detection robustness, enabling widespread deployment across vast geographical areas, thus ensuring better protection for GNSS-reliant users.

The project aligns with the scientific excellence strategy in GNSS applications for transportation. The Faculty of Transportation Sciences was the lead institution, overseeing the research, development, and implementation of the project's core technologies. This project was carried out in cooperation with the GNSS Centre of Excellence.

The Development of Innovative Method for Detection of Crimes Within Road Transportation System Using Electronic Accident Data
https://starfos.tacr.cz/en/projekty/VI20172020108

The project aimed to enhance forensic investigations of road accidents by developing a certified methodology for analyzing electronic accident data. This methodology enables more effective identification of criminal activities related to traffic incidents, improving investigative accuracy and efficiency.

A key innovation was the integration of forensic methods with advanced data analytics, significantly enhancing fraud detection and the identification of unauthorized interventions in vehicle onboard systems. The project fostered interdisciplinary collaboration between transportation engineering, computer science, and forensic science, ensuring a comprehensive and applicable solution.

The research was conducted in collaboration with Faculty of Transportation Sciences, Police Academy of the Czech Republic, Pardubice University and Institute of Forensic Engineering, University of Žilina (Slovakia). These institutions worked closely with law enforcement agencies and government bodies, ensuring the practical application of the project outcomes. The results contribute to road safety by enabling more accurate detection of fraudulent activities related to traffic accidents, strengthening legal enforcement and forensic analysis capabilities.

Digitalization of integrated aviation safety oversight
https://starfos.tacr.cz/en/projekty/CK01000073

The project focused on advancing operational safety processes within aviation oversight authorities through the development of two key components: a Methodology for Applying the STAMP Model in Aviation Oversight and a Prototype Tool Supporting the Implementation of the STAMP Safety Model. The methodology introduces new insights that enable a systemic approach to aviation safety while allowing for detailed assessments of individual organizations.

The project is recognized for its excellence in exploring the application of the STAMP (Systems-Theoretic Accident Model and Processes) model in aviation oversight, where both a high-level systemic perspective and a detailed organizational view are essential. The results hold significant potential for further enhancing aviation operational safety.

The project aligns with scientific excellence in aviation safety and facilitated collaboration with Sapienza University of Rome and academic engagement with MIT.

The research was primarily conducted by Faculty of Transpotation Sciences as the lead institution, with Faculty of Electrical Engineering also contributing to the project's outcomes.

Urban Smart Parking
https://www.eiturbanmobility.eu/projects/urbansmartpark/

The UrbanSmartPark project addressed the growing demand for urban mobility and parking solutions in response to technological advancements in transportation. With the rise of shared vehicles, robotic taxis, and electric cars, traditional parking models—where users pay solely for the duration of their stay—are becoming less efficient, creating opportunities for innovative solutions.

The project focused on two primary objectives. The first was the design of new parking services and business models for on-street parking, actively involving customers. This phase included extensive market research and customer studies to ensure the successful implementation of these services. The second objective was the development and pilot testing of automated vehicles for autonomous parking in urban areas. This innovation opens new possibilities for related services, such as repositioning shared and electric vehicles, package delivery, and maintenance during parking. Automating these processes will reduce operational costs and enhance urban mobility efficiency.

The strength of the project lies in the expertise and collaboration of its partner organizations. Research institutions such as NFF and Fraunhofer contributed knowledge in intelligent parking systems and data management, cities provided real-world testing environments, and industrial partners like Škoda and Siemens played a key role in technological innovation and practical implementation.

Urban Mobile Charging
https://www.eiturbanmobility.eu/projects/urban-mobile-charging-umc/

The availability of charging infrastructure is and will remain a critical challenge for both cities and electric vehicle users. By 2030, Europe is expected to have 33 million electric vehicle owners requiring efficient charging solutions. The UMC project aimed to develop commercially viable and innovative charging options tailored to urban environments.

The project introduced the "NIMBEE" service concept, providing on-demand, mobile renewable charging in three cities. This solution ensures that drivers have access to charging whenever needed while minimizing the use of public space and urban infrastructure. The service was implemented through a “charging-as-a-service” model, supported by a mobile application that simplifies the charging process for users. A battery-powered charging unit is delivered directly to the vehicle, and its recharging is optimized based on real-time electricity pricing in the distribution network.

The project successfully addressed key challenges for the large-scale adoption of this service, focusing on seamless urban deployment, improved infrastructure planning, and the use of advanced intelligence to optimize charging efficiency and logistics management.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider[25]	Project name	Support (in thousands CZK/EUR)[26]				
		2019	2020	2021	2022	2023
GA ČR	High velocity impact dynamics with fast and flash X-ray radiography (2022–2026) https://starfos.tacr.cz/en/projekty/GM22-18033M	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	5267 kCZK / 210694 €	3051 kCZK / 122020 €
GA ČR	Progressive numerical and experimental modelling of innovative sandwich panels with cellular core (2019–2021) https://starfos.tacr.cz/en/projekty/GA19-23675S	1912 kCZK / 76480 €	1965 kCZK / 78600 €	1915 kCZK / 76600 €	0 kCZK / 0 €	0 kCZK / 0 €
Capital City of Prague	GLOMODO - Global traffic model of the City of Prague (2018–2020) https://starfos.tacr.cz/en/projekty/UH0370	917 kCZK / 36664 €	500 kCZK / 19988 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Capital City of Prague	Universal driving simulator for public transit drivers (2019–2022) https://starfos.tacr.cz/en/projekty/UH0841	3759 kCZK / 150366 €	5820 kCZK / 232785 €	5368 kCZK / 214709 €	4880 kCZK / 195203 €	0 kCZK / 0 €
GA ČR	The underestimated role of Pilsen Premonstratensians in mathematics and nature sciences (2021–2024) https://starfos.tacr.cz/en/projekty/GA21-08835S	0 kCZK / 0 €	0 kCZK / 0 €	1010 kCZK / 40407 €	1069 kCZK / 42767 €	1051 kCZK / 42052 €
EEA and Norway Grants	Academic Development through bilateral peer-learning activities on mission-oriented innovation for Climate Neutral and Smart Cities (2021–2023) https://eeagrants.org/archive/2014-2021/projects/CZ-EDUCATION-0064	0 kCZK / 0 €	0 kCZK / 0 €	68 kCZK / 2739 €	1028 kCZK / 41100 €	1420 kCZK / 56817 €
Erasmus+	RESICITIES - Building resilience through education for Sustainable, Collaborative and Smart Cities (2020–2023) https://app.cristin.no/projects/show.jsf?id=2526861 https://www.resicities.eu/	0 kCZK / 0 €	0 kCZK / 0 €	2029 kCZK / 81154 €	1261 kCZK / 50450 €	3274 kCZK / 130969 €
Min. of Edu., Youth and Sports	Ontology engineering utilization in reliability and quality knowledge management systems in the aviation (2019–2022)	1080 kCZK / 43200 €	1828 kCZK / 73120 €	1828 kCZK / 73120 €	0 kCZK / 0 €	0 kCZK / 0 €

[25] If the provider is from abroad, please indicate the provider's country of origin in brackets. For the determination of the country of origin of the provider, the place of residence of the provider is decisive.
[26] Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

	https://starfos.tacr.cz/en/projekty/LTACH19032					
Min. of Edu., Youth and Sports	SimulUK - Simulační prostředí v Ústeckém kraji (2023-2028)	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	546 kCZK / 21856 €
Min. of Edu., Youth and Sports	Establishment and development of experimental facilities of CTU in Prague FTS (2017–2023) https://starfos.tacr.cz/en/projekty/EF16_017%2F0002589	1636 kCZK / 65445 €	5913 kCZK / 236537 €	4356 kCZK / 174247 €	2901 kCZK / 116029 €	1129 kCZK / 45169 €
Min. of Edu., Youth and Sports	The establishment of doctoral study program Smart Cities and development of research-focused study program at CTU FTS (2017–2023) https://starfos.tacr.cz/en/projekty/EF16_018%2F0002565	849 kCZK / 33976 €	90 kCZK / 3611 €	55 kCZK / 2204 €	40 kCZK / 1600 €	200 kCZK / 7984 €
Min. of Inter.	Aviation resilience against spoofed GNSS and ADS-B signals (2023–2025) https://starfos.tacr.cz/en/projekty/VK01030071	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	2127 kCZK / 85086 €
Min. of Inter.	System For Evaluating Security Aspects of Mass Social Events in Relation to Selected Security Incidents (2022–2023) https://starfos.tacr.cz/en/projekty/VB01000041	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1579 kCZK / 63148 €	1600 kCZK / 63996 €
Min. of Inter.	The Development of Innovative Method for Detection of Crimes Within Road Transportation System Using Electronic Accident Data (2017–2020) https://starfos.tacr.cz/en/projekty/VI20172020108	2817 kCZK / 112679 €	479 kCZK / 19145 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Min. of Reg. Dev. / ESF	Improving the Quality of Technical Education to Meet Labor Market Needs in the Ústí Region (2019-2022) https://www.risy.cz/cs/vyhledavace/projekty-eu?code=CZ.02.2.69%2F0.0%2F0.0%2F18_058%2F0010196&villageId=3020&nuts=43	498 kCZK / 19907 €	565 kCZK / 22615 €	635 kCZK / 25389 €	1071 kCZK / 42836 €	0 kCZK / 0 €
Min. of Reg. Dev. / ESF	Infrastructure and laboratory equipment of FD ČVUT (2017-2023) https://www.risy.cz/cs/vyhledavace/projekty-eu?code=CZ.02.2.67%2F0.0%2F0.0%2F16_016%2F0002482	6882 kCZK / 275283 €	12072 kCZK / 482867 €	5004 kCZK / 200150 €	2474 kCZK / 98979 €	7599 kCZK / 303966 €
TA ČR	Advanced cyber security methods in tunnel systems as a part of critical transport infrastructure (2023–2025) https://starfos.tacr.cz/en/projekty/CK04000082	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	4178 kCZK / 167112 €
TA ČR	Design of U-space implementation for the Czech Republic (2020–2023) https://starfos.tacr.cz/en/projekty/CK01000185	0 kCZK / 0 €	3458 kCZK / 138330 €	4918 kCZK / 196724 €	3542 kCZK / 141697 €	1753 kCZK / 70116 €
TA ČR	Development of a train expert system responsible for autonomous train behaviour (2020–2022) https://starfos.tacr.cz/en/projekty/CK01000111	0 kCZK / 0 €	3817 kCZK / 152663 €	4228 kCZK / 169133 €	4869 kCZK / 194745 €	0 kCZK / 0 €
TA ČR	Digital Twin for Transportation - Evropská street (2021–2024) https://starfos.tacr.cz/en/projekty/CK02000118	0 kCZK / 0 €	0 kCZK / 0 €	3136 kCZK / 125424 €	5708 kCZK / 228327 €	6729 kCZK / 269147 €
TA ČR	Digitalization of AFIS and Radio aerodrome service provision (2022–2023) https://starfos.tacr.cz/en/projekty/CK03000054	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	4224 kCZK / 168960 €	4320 kCZK / 172793 €

TA ČR	Digitalization of integrated aviation safety oversight (2020–2023) https://starfos.tacr.cz/en/projekty/CK01000073	0 kCZK / 0 €	1450 kCZK / 58002 €	1 803 kCZK / 72103 €	1 731 kCZK / 69221 €	286 kCZK / 11457 €
TA ČR	Efficient Operational Concept for Rapid Services (2020–2023) https://starfos.tacr.cz/en/projekty/CK01000004	0 kCZK / 0 €	716 kCZK / 28640 €	1234 kCZK / 49360 €	1074 kCZK / 42960 €	806 kCZK / 32220 €
TA ČR	Evaluating the behaviour of automated vehicles in terms of compliance with ethical and legal principles in mixed traffic (2023–2025) https://starfos.tacr.cz/en/projekty/CK04000150	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	3321 kCZK / 132842 €
TA ČR	Improving effectiveness of aircraft maintenance planning and execution (2020–2023) https://starfos.tacr.cz/en/projekty/CK01000204	0 kCZK / 0 €	2052 kCZK / 82084 €	2613 kCZK / 104536 €	2516 kCZK / 100620 €	417 kCZK / 16670 €
TA ČR	Increasing the resilience and safety of railway infrastructure and minimizing impacts on other transport infrastructure sectors (2020–2023) https://starfos.tacr.cz/en/projekty/CK01000015	0 kCZK / 0 €	2125 kCZK / 85018 €	3720 kCZK / 148814 €	3924 kCZK / 156951 €	1779 kCZK / 71150 €
TA ČR	Innovative way of HEMS navigation using GNSS, Point in Space procedures and Low Level Routes in the Czech Republic (2020–2023) https://starfos.tacr.cz/en/projekty/CK01000031	0 kCZK / 0 €	1274 kCZK / 50971 €	1497 kCZK / 59886 €	1497 kCZK / 59886 €	247 kCZK / 9864 €
TA ČR	Integration of vestibular illusion simulators into ab-initio training (2021–2024) https://starfos.tacr.cz/en/projekty/CK02000321	0 kCZK / 0 €	0 kCZK / 0 €	1634 kCZK / 65364 €	2372 kCZK / 94881 €	2166 kCZK / 86652 €
TA ČR	Methodology of systematic introduction and operation of railway vehicle simulators for train drivers in the Czech Republic (2020–2022) https://starfos.tacr.cz/en/projekty/CK01000132	0 kCZK / 0 €	1188 kCZK / 47533 €	2761 kCZK / 110428 €	2365 kCZK / 94612 €	0 kCZK / 0 €
TA ČR	Predictive diagnostics of ITS technological equipment using AI approaches (2023–2025) https://starfos.tacr.cz/en/projekty/CK04000109	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	4690 kCZK / 187595 €
TA ČR	Protection of non-personal data and databases in autonomous systems (2021–2022) https://starfos.tacr.cz/en/projekty/CK02000188	0 kCZK / 0 €	0 kCZK / 0 €	4187 kCZK / 167482 €	4643 kCZK / 185718 €	0 kCZK / 0 €
TA ČR	Research of the GNSS signal interference in the domain of air transport (2020–2023) https://starfos.tacr.cz/en/projekty/CK01000183	0 kCZK / 0 €	1950 kCZK / 77985 €	3017 kCZK / 120698 €	2711 kCZK / 108459 €	447 kCZK / 17877 €
TA ČR	Research on the operational aspects of the intelligent end of the train (2023–2024) https://starfos.tacr.cz/en/projekty/CK04000156	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	4211 kCZK / 168426 €
TA ČR	Research on the operational aspects of the intelligent end of the train (2023–2024) https://starfos.tacr.cz/en/projekty/CK04000156	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	4061 kCZK / 162440 €
TA ČR	System for support of complex network time coordination of connections in public transport (2023–2025) https://starfos.tacr.cz/en/projekty/CK04000098	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1021 kCZK / 40835 €

TA ČR	System for Supporting Network Time Coordination of Connections at Interchange Nodes (2020–2022) https://starfos.tacr.cz/en/projekty/CK01000043	0 kCZK / 0 €	584 kCZK / 23351 €	765 kCZK / 30582 €	720 kCZK / 28790 €	0 kCZK / 0 €
TA ČR	Prediction of traffic excesses using neural networks (2018–2019) https://starfos.tacr.cz/en/projekty/TJ01000183	1898 kCZK / 75907 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Proposal of standard scenarios for the safe operation of unmanned systems (2019–2021) https://starfos.tacr.cz/en/projekty/TJ02000048	313 kCZK / 12538 €	522 kCZK / 20861 €	230 kCZK / 9208 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Psychophysiological condition of pilots and its influence on carrying out the final phase of landing on an airport (2019–2021) https://starfos.tacr.cz/en/projekty/TJ02000334	1032 kCZK / 41263 €	1583 kCZK / 63322 €	667 kCZK / 26669 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Research of Intelligent Components for Safety Data Collection and Processing Systems (2017–2019) https://starfos.tacr.cz/en/projekty/TJ01000377	1716 kCZK / 68621 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Research of Quantitative Methods for Safety Studies Risk Analysis and Evaluation (2017–2019) https://starfos.tacr.cz/en/projekty/TJ01000252	830 kCZK / 33211 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Synergy in Railway Public Transport Line Planning – Improvement of Efficiency of Spatial Public Railway Transport Service (2017–2019) https://starfos.tacr.cz/en/projekty/TJ01000162	858 kCZK / 34339 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Human Dimension of Sustainable Urban and Regional Mobility Plans. (2019–2020) https://starfos.tacr.cz/en/projekty/TL02000400	2453 kCZK / 98100 €	2534 kCZK / 101340 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Law protection of traffic-data databases in autonomous driving systems (2021–2023) https://starfos.tacr.cz/en/projekty/TL05000681	0 kCZK / 0 €	0 kCZK / 0 €	1499 kCZK / 59947 €	2827 kCZK / 113078 €	1668 kCZK / 66705 €
TA ČR	Privacy and personal data proteciton in autonomous driving systems (2020–2022) https://starfos.tacr.cz/en/projekty/TL03000691	0 kCZK / 0 €	1085 kCZK / 43400 €	1880 kCZK / 75200 €	1075 kCZK / 43000 €	0 kCZK / 0 €
TA ČR	Value of Air Transport in Czech Republic (2018–2021) https://starfos.tacr.cz/en/projekty/TL01000421	933 kCZK / 37331 €	889 kCZK / 35560 €	220 kCZK / 8782 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Clean mobility and its prospect in trucking (2019–2022) https://starfos.tacr.cz/en/projekty/TK02010106	843 kCZK / 33701 €	1794 kCZK / 71760 €	2028 kCZK / 81121 €	1137 kCZK / 45461 €	0 kCZK / 0 €
TA ČR	Dynamic charging (2023–2025) https://starfos.tacr.cz/en/projekty/TK05010044	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1978 kCZK / 79118 €
TA ČR	Analysis of possible adaptation of Czech legislation necessary for entry of vehicles of SAE 3 level and higher into operation (2021–2022) https://starfos.tacr.cz/en/projekty/TIRAMD108	0 kCZK / 0 €	0 kCZK / 0 €	177 kCZK / 7098 €	1575 kCZK / 63011 €	0 kCZK / 0 €

TA ČR	Data usability from BIM models for the development of National Infrastructure for Spatial Information (2022–2024) https://starfos.tacr.cz/en/projekty/TITSMV112	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	287 kCZK / 11499 €	2816 kCZK / 112649 €
TA ČR	Unification and standardization of ARFF training in the Czech Republic, including verification of the qualification level (2019–2023) https://starfos.tacr.cz/en/projekty/TIRAMD905	334 kCZK / 13363 €	563 kCZK / 22537 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Total		31559 kCZK / 126237 €	56816 kCZK / 2272626 €	64482 kCZK / 2579277 €	70367 kCZK / 2814681 €	68890 kCZK / 2755582 €
In the role of another participant						
Provider[27]	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
EEA and Norway Grants	Building bilateral research network towards resilient, smart and sustainable cities and regions (2020–2022) https://bf.sfzp.cz/building-bilateral-research-network-towards-resilient-smart-and-sustainable-cities-and-regions/	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	146 kCZK / 5824 €	179 kCZK / 7167 €
GA ČR	The impact of WWI on the formation and transformation of the scientific life of the mathematical community (2018–2021) https://starfos.tacr.cz/en/projekty/GA18-00449S	1480 kCZK / 59200 €	1362 kCZK / 54480 €	53 kCZK / 2124 €	0 kCZK / 0 €	0 kCZK / 0 €
Erasmus+	STAFFER - Skill Training Alliance For the Future European Rail Systém (2021–2024) https://www.railstaffer.eu/about-staffer/	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	493 kCZK / 19707 €	710 kCZK / 28402 €
European Commission	Automated solutions for sustainable and circular construction and demolition waste management (2022-2026) https://cordis.europa.eu/project/id/101058580	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	170 kCZK / 6800 €	429 kCZK / 17172 €
European Commission	LOD-RoadTran18: Improvement of NAPs through the exploitation of traffic LOD DATEX II (2019–2022) https://cef.uv.es/lodroadtran18/index.php/en/	118 kCZK / 4720 €	428 kCZK / 17120 €	322 kCZK / 12880 €	607 kCZK / 24280 €	25 kCZK / 1000 €
European Commission	C-ROADS Czech Republic (2016–2021) https://www.its-knihovna.cz/en/knihovna/projekty/archiv-projektu/c-roads/about-project	3 618 kCZK / 144720 €	4 138 kCZK / 165520 €	502 kCZK / 20080 €	-1210 Kč / -48400 €	0 kCZK / 0 €
European Commission	Programme Support Action (PSA) for the maintenance, adaptation and further development of a European ITS Framework Architecture for Intelligent Transport Services (ITS). (2017-2021) https://frame-next.eu/	611 kCZK / 24442 €	787 kCZK / 31481 €	1 802 kCZK / 72063 €	0 kCZK / 0 €	0 kCZK / 0 €
European Commission	Managing Automated Vehicles Enhances Network (2016–2019) https://cordis.europa.eu/project/id/690727	1282 kCZK / 51285 €	35 kCZK / 1403 €	53 kCZK / 2123 €	151 kCZK / 6035 €	0 kCZK / 0 €
European Commission	New Mobility Data and Solutions Toolkit (2021–2023) https://cordis.europa.eu/project/id/101007153	0 kCZK / 0 €	0 kCZK / 0 €	1 692 kCZK / 67667 €	1 667 kCZK / 66674 €	575 kCZK / 22991 €

[27] Ibid.

European Commission	Smart freight TranspOrt and logistics Research Methodologies (2021–2023) https://cordis.europa.eu/project/id/101006700	0 kCZK / 0 €	0 kCZK / 0 €	1486 kCZK / 59432 €	1993 kCZK / 79711 €	1257 kCZK / 50262 €
European Commission	Understand the Dimensions of Organised Crime and Terrorist Networks for Developing Effective and Efficient Security Solutions for First-line-practitioners and Professionals (2016–2019) https://cordis.europa.eu/project/id/700688	2102 kCZK / 84081 €	156 kCZK / 6257 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
European Commission	The Integrator-centric approach for realising innovative energy efficient buildings in connected sustainable green neighbourhoods (2022-2026) https://cordis.europa.eu/project/id/101037075	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	715 kCZK / 28612 €	2648 kCZK / 105936 €
European Commission	Co-creating people-centric sustainable neighbourhoods through urban regeneration (2023–2027) https://cordis.europa.eu/project/id/101123546	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	216 kCZK / 8659 €
European Commission	The European Living Lab on Designing Sustainable Urban Mobility Towards Climate Neutral Cities (2023–2026) https://cordis.europa.eu/project/id/101103772	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	861 kCZK / 34434 €
European Commission	Judicial Strategy Against all Forms of Violent Extremism in Prison (2018-2020) https://www.developmentaid.org/organizations/awards/view/123713/judicial-strategy-against-all-forms-of-violent-extremism-in-prison	240 kCZK / 9581 €	687 kCZK / 27483 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
European Commission	Strategic Assessment for LAW and Police Cooperation (2018-2021) https://satlawproject.eu/	386 kCZK / 15456 €	382 kCZK / 15280 €	359 kCZK / 14351 €	0 kCZK / 0 €	0 kCZK / 0 €
European Commission	Judicial And Police Cooperation Preventing Radicalization Towards Terrorism (2019-2021) https://jpcoopsproject.eu/	522 kCZK / 20892 €	549 kCZK / 21958 €	396 kCZK / 15833 €	247 kCZK / 9883 €	0 kCZK / 0 €
EIT – Urban Mobility	MaaS components assessment and system planning for cooperative value creation (2020–2020) https://www.eiturbanmobility.eu/projects/maas-components-assessment-and-system-planning-for-cooperative-value-creation/	0 kCZK / 0 €	2 975 kCZK / 119012 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
EIT – Urban Mobility	PowerManagement: A smart and efficient electrical vehicle charging platform (2022-2023) https://www.eiturbanmobility.eu/projects/powermanagement/	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	599 kCZK / 23975 €	620 kCZK / 24780 €
EIT – Urban Mobility	eUltimate (2021-2022) https://www.eiturbanmobility.eu/projects/eultimate/	0 kCZK / 0 €	0 kCZK / 0 €	1658 kCZK / 66320 €	768 kCZK / 30720 €	0 kCZK / 0 €
EIT – Urban Mobility	Urban Mobile Charging (2022-2023) https://www.eiturbanmobility.eu/projects/urban-mobile-charging-umc/	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1719 kCZK / 68742 €	1086 kCZK / 43426 €
EIT – Urban Mobility	Urban Smart Parking (2020-2021) https://www.eiturbanmobility.eu/projects/urbansmartpark/	0 kCZK / 0 €	868 kCZK / 34737 €	868 kCZK / 34737 €	0 kCZK / 0 €	0 kCZK / 0 €
ERDF	HydroRACE4schools – Races of Saxon and Czech Schools "Exploring the World of Electromobility with Hydrogen" (2017–2021)	1325 kCZK / 52998 €	486 kCZK / 19452 €	3 kCZK / 132 €	480 kCZK / 19192 €	0 kCZK / 0 €

	https://hydro-race.eu/tiki-index.php?page=HomePage_DE&no_bl=y					
ERDF	The Use of Modern Visualization and Simulation Techniques in Transportation Systems (2016–2019) https://www.sn-cz2020.eu/de/projekte/gefoerderte_projekte/Simulations-uns_Visualisierungswerkzeuge.html	2739 kCZK / 109575 €	2028 kCZK / 81132 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Min. of Edu., Youth and Sports	Development of infrastructure facilities for PhD programmes at CTU (2023-2027) https://starfos.tacr.cz/en/projekty/EH22_012%2F0006347#project-main	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	670 kCZK / 26794 €
Min. of Edu., Youth and Sports	Engineering applications of microworld physics (2018–2022) https://starfos.tacr.cz/en/projekty/EF16_019%2F0000766	9173 kCZK / 366937 €	1588 kCZK / 63535 €	2567 kCZK / 102693 €	2695 kCZK / 107795 €	0 kCZK / 0 €
Min. of Edu., Youth and Sports	Mobility CTU - STA (2020-2023) https://starfos.tacr.cz/en/projekty/EF18_053%2F0016980	0 kCZK / 0 €	0 kCZK / 0 €	250 kCZK / 9980 €	1539 kCZK / 61576 €	623 kCZK / 24910 €
Min. of Edu., Youth and Sports	Smart City - Smart Region - Smart Community (2018-2023) https://starfos.tacr.cz/en/projekty/EF17_048%2F0007435	2477 kCZK / 99067 €	1887 kCZK / 75491 €	2145 kCZK / 85795 €	2 551 kCZK / 102047 €	0 kCZK / 0 €
Min. of Ind. and Trade	Verification of the prototype production of the protective deformation block (2021–2023) https://starfos.tacr.cz/en/projekty/EG21_374%2F0026841	0 kCZK / 0 €	0 kCZK / 0 €	335 kCZK / 13414 €	1358 kCZK / 54333 €	747 kCZK / 29866 €
Min. of Ind. and Trade	The Experimental Development for Production in The Company SPEL, a.s. (2015-2020) https://starfos.tacr.cz/en/projekty/EG15_019%2F0004329	6826 kCZK / 273040 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Min. of Ind. and Trade	Implementation of Industry 4.0 principles during production and repairs of constructional layers of surface transportation (2017–2019) https://starfos.tacr.cz/en/projekty/FV20356	720 kCZK / 28788 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Min. of Ind. and Trade	Operational methods of monitoring, prediction of service life of bridges and guarantee of safety bridges (2017-2020) https://starfos.tacr.cz/en/projekty/FV20585	499 kCZK / 19967 €	509 kCZK / 20367 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Min. of Inter.	STRENGTH 2023: Strengthening the resilience of critical land transport infrastructure entities (2023–2025) https://starfos.tacr.cz/en/projekty/VK01030014	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	617 kCZK / 24685 €
Min. of Inter.	ISOLATOR - Detection of defects in insulators of energy transmission systems (2019–2022) https://starfos.tacr.cz/en/projekty/VI20192022170	729 kCZK / 29157 €	2822 kCZK / 112895 €	2886 kCZK / 115448 €	2951 kCZK / 118048 €	0 kCZK / 0 €
Min. of Inter.	Electronic speed limitation of vehicles in emergency and crisis situations triggered by security forces (2021–2026) https://starfos.tacr.cz/en/projekty/VJ01010066	0 kCZK / 0 €	0 kCZK / 0 €	3104 kCZK / 124160 €	4504 kCZK / 180160 €	3503 kCZK / 140108 €
Min. of Inter.	Strategic infrastructure protective system detecting illegal acts intentionally affecting GNSS signals (2017-2021) https://starfos.tacr.cz/en/projekty/VI20172019090	844 kCZK / 33775 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €

Min. of Reg. Dev. / ESF	Institutional support of the Czech Technical University in Prague (2017-2023) https://www.risy.cz/cs/vyhledavace/projekty-eu?code=CZ.02.2.69%2F0.0%2F0.0%2F16_015%2F0002382	2 790 kCZK / 111596 €	1 160 kCZK / 46418 €	411 kCZK / 16434 €	478 kCZK / 19130 €	1009 kCZK / 40356 €
Min. of Reg. Dev. / ESF	International Mobility of Researchers at CTU (2018-2022) https://www.risy.cz/cs/vyhledavace/projekty-eu?code=CZ.02.2.69%2F0.0%2F0.0%2F16_027%2F0008465	674 kCZK / 26944 €	89 kCZK / 3577 €	712 kCZK / 28463 €	137 kCZK / 5486 €	0 kCZK / 0 €
Min. of Reg. Dev. / ESF	Project CTU ESF II. (2019-023) https://www.risy.cz/cs/vyhledavace/projekty-eu?name=Projekt+%C4%8CVUT+ESF+II.	0 kCZK / 0 €	1 007 kCZK / 40263 €	1309 kCZK / 52341 €	1 657 kCZK / 66279 €	33 kCZK / 1312 €
TA ČR	National Hydrogen Mobility Center (2023–2028) https://starfos.tacr.cz/en/projekty/TN02000007	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1986 kCZK / 79431 €
TA ČR	5G application in V2X sensor networks (2023–2025) https://starfos.tacr.cz/en/projekty/FW08010039	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1055 kCZK / 42187 €
TA ČR	Automated management center for minibuses as autonomous MoD (2023–2025) https://starfos.tacr.cz/en/projekty/FW06010535	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	2948 kCZK / 117900 €
TA ČR	Cyber risk management system in industrial networks (2021–2023) https://starfos.tacr.cz/en/projekty/FW03010458	0 kCZK / 0 €	0 kCZK / 0 €	1123 kCZK / 44924 €	1238 kCZK / 49536 €	1443 kCZK / 57703 €
TA ČR	IoT device for electronic conspicuity of manned aviation in U-space (2022–2024) https://starfos.tacr.cz/en/projekty/FW04020025	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	589 kCZK / 23553 €	589 kCZK / 23553 €
TA ČR	New generation of software tools to support System-Theoretic Process Analysis (STPA) method (2023–2025) https://starfos.tacr.cz/en/projekty/FW09020092	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	95 kCZK / 3815 €
TA ČR	Cyber SECURity for coopERatIve connecteD automatEd mobility using V2X (2023–2025) https://starfos.tacr.cz/en/projekty/TM04000040	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	2 000 kCZK / 80000 €
TA ČR	Multidimensional detection and automated response using artificial intelligence (2022–2024) https://starfos.tacr.cz/en/projekty/TM03000055	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1597 kCZK / 63874 €	1726 kCZK / 69050 €
TA ČR	National Centre of Competence in Cybersecurity 2019–2022) https://starfos.tacr.cz/en/projekty/TN01000077	0 kCZK / 0 €	1098 kCZK / 43909 €	512 kCZK / 20478 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	A system to support commercial operation of unmanned aerial vehicles in shared airspace of the Czech Republic (2020–2022) https://starfos.tacr.cz/en/projekty/CK01000210	0 kCZK / 0 €	1070 kCZK / 42781 €	1221 kCZK / 48854 €	1 449 kCZK / 57963 €	0 kCZK / 0 €
TA ČR	Aviation protection against low-energy lasers (2022–2025) https://starfos.tacr.cz/en/projekty/CK03000036	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	578 kCZK / 23136 €	425 kCZK / 16983 €
TA ČR	Data quality tools for ensuring system reliability of transport information centres (2023–2024)	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1200 kCZK / 48000 €

	https://starfos.tacr.cz/en/projekty/CK04000189					
TA ČR	Dynamic digital street model for the usage of autonomous mobility in Pilsen (2022–2024) https://starfos.tacr.cz/en/projekty/CK03000179	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1543 kCZK / 61724 €	1723 kCZK / 68900 €
TA ČR	Dynamic Opto-Acoustic Method for Noise Emission Evaluating of the Railway Track (2022–2024) https://starfos.tacr.cz/en/projekty/CK03000099	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1 673 kCZK / 66904 €	1 997 kCZK / 79889 €
TA ČR	Increasing of tunnel safety using continuous accurate vehicle location (2023–2025) https://starfos.tacr.cz/en/projekty/CK04000088	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	980 kCZK / 39200 €
TA ČR	InovaFOND (2016-2019) https://starfos.tacr.cz/en/projekty/TG02010033	660 kCZK / 26400 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Intelligent system for analysis and prediction of public transport (2020–2022) https://starfos.tacr.cz/en/projekty/CK01000165	0 kCZK / 0 €	699 kCZK / 27976 €	947 kCZK / 37872 €	1004 kCZK / 40148 €	139 kCZK / 5550 €
TA ČR	Modern tools and methods to increase security of air transport at international airports in Czech Republic (2021–2024) https://starfos.tacr.cz/en/projekty/CK02000005	0 kCZK / 0 €	0 kCZK / 0 €	883 kCZK / 35325 €	1055 kCZK / 42210 €	1055 kCZK / 42210 €
TA ČR	Research of alternative methods of position determination and its integrity with GNSS for drivers using C-ITS (2020–2022) https://starfos.tacr.cz/en/projekty/CK01000163	0 kCZK / 0 €	1000 kCZK / 40000 €	1238 kCZK / 49500 €	1723 kCZK / 68900 €	128 kCZK / 5100 €
TA ČR	Research of information modelling in public space with a focus on infrastructure (2022–2024) https://starfos.tacr.cz/en/projekty/CK03000089	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1 278 kCZK / 51106 €	1 347 kCZK / 53869 €
TA ČR	Traffic controll system of new generation (SENDER) (2023–2025) https://starfos.tacr.cz/en/projekty/CK04000027	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1 188 kCZK / 47500 €
TA ČR	Application of nonparametric methods (DEA, FDH) to analyze and to compare the efficiency of municipalities (2018–2021) https://starfos.tacr.cz/en/projekty/TL01000463	212 kCZK / 8486 €	212 kCZK / 8486 €	9 kCZK / 362 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Standards for the performance of expert activities in assessing the course and causes of traffic accidents (2021–2023) https://starfos.tacr.cz/en/projekty/TL05000028	0 kCZK / 0 €	0 kCZK / 0 €	320 kCZK / 12790 €	808 kCZK / 32318 €	607 kCZK / 24262 €
TA ČR	Integrated Quality Measurement System (InQMS) (2018–2019) https://starfos.tacr.cz/en/projekty/TH03010503	158 kCZK / 6336 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Preparation of transport infrastructure action elements (2017–2019) https://starfos.tacr.cz/en/projekty/TH02010886	709 kCZK / 28352 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Using of new authentication and security procedures for ITS (2017–2020) https://starfos.tacr.cz/en/projekty/TH03010297	258 kCZK / 10327 €	82 kCZK / 3298 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €

TA ČR	Advanced RGB LED display panels for transport applications (2017–2020) https://starfos.tacr.cz/en/projekty/TH02010771	350 kCZK / 14000 €	80 kCZK / 3200 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	Reliability Diagnostics of Technological Equipment (2019–2021) https://starfos.tacr.cz/en/projekty/TH04010481	200 kCZK / 7992 €	335 kCZK / 13392 €	340 kCZK / 13608 €	0 kCZK / 0 €	0 kCZK / 0 €
TA ČR	National Competence Center - Cybernetics and Artificial Intelligence (2018-2022) https://starfos.tacr.cz/en/projekty/TN01000024	1766 kCZK / 70648 €	1766 kCZK / 70648 €	767 kCZK / 30677 €	330 kCZK / 13192 €	0 kCZK / 0 €
TA ČR	GNSS signal interference detector for integrated safety means in road transport (2021-2024) https://starfos.tacr.cz/en/projekty/CK02000127	0 kCZK / 0 €	0 kCZK / 0 €	307 kCZK / 12272 €	514 kCZK / 20551 €	275 kCZK / 11004 €
TA ČR	Josef Bozek National Center of Competence for Surface Vehicles (2018-2022) https://starfos.tacr.cz/en/projekty/TN01000026	1964 kCZK / 78546 €	1842 kCZK / 73672 €	1606 kCZK / 64236 €	688 kCZK / 27529 €	1411 kCZK / 56431 €
TA ČR	Research and development of a high load bearing deformation block and its production process in order to increase the traffic safety (2019-2021) https://starfos.tacr.cz/en/projekty/TH04010066	770 kCZK / 30782 €	770 kCZK / 30782 €	770 kCZK / 30782 €	0 kCZK / 0 €	0 kCZK / 0 €
Total		46202 kCZK / 1848090 €	32900 kCZK / 1316002 €	32953 kCZK / 1318149 €	42481 kCZK / 1699254 €	40119 kCZK / 1604797 €

Table 3.3.2 - Contract research activities

Client[28]	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Administration of the Krkonoše National Park	Proposal of measures to improve transport in KRNAP	0 kCZK / 0 €	931 kCZK / 37240 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Administration of the Krkonoše National Park	Pilot testing of selected technologies for improving transport in KRNAP	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	279 kCZK / 11160 €	kCZK / 0 €
AERO Vodochody	Development of software for collecting and evaluating operational data	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1237 kCZK / 49480 €
AMBIS	Development of the WebDear web application	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	295 kCZK / 11800 €	0 kCZK / 0 €
AŽD	Analytical work related to modifying the laboratory for measuring eurobales with an interface to LEU	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	124 kCZK / 4960 €
AŽD	Testing and certification of products	320 kCZK / 12800 €	1628 kCZK / 65120 €	1681 kCZK / 67240 €	1509 kCZK / 60360 €	2056 kCZK / 82240 €
BUSINESS SYSTEMS, a.s.	Simulation of crisis management solutions, penetration tests, and stress tests	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	2196 kCZK / 87840 €

[28] If the client is from abroad, indicate in brackets the country of origin of the client.

CALLIDITAS S.R.O.	Technical solution for traffic safety	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	242 kCZK / 9680 €	0 kCZK / 0 €
CDV	Catalog of testing areas for autonomous vehicles	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1210 kCZK / 48400 €	0 kCZK / 0 €
Central Bohemian Region	Expert opinion on the proposed repair of reported defects in a transportation structure	0 kCZK / 0 €	176 kCZK / 7040 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Central Bohemian Region	Study of the potential of route "012 Pečky – Kouřim"	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	539 kCZK / 21560 €	0 kCZK / 0 €
Central Bohemian Region	Transport study of a dedicated bus lane – Zdiby	0 kCZK / 0 €	282 kCZK / 11280 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
City of České Budějovice	Development of a public transport strategy	0 kCZK / 0 €	2016 kCZK / 80640 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
City of Dobříš	Transport assessment	0 kCZK / 0 €	229 kCZK / 9160 €	143 kCZK / 5720 €	0 kCZK / 0 €	0 kCZK / 0 €
City of Frýdek-Místek	Transport assessment	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	261 kCZK / 10440 €	304 kCZK / 12160 €
City of Horoměřice	Parking analysis	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	167 kCZK / 6680 €
City of Hradec Králové	Development of a public transport strategy	0 kCZK / 0 €	0 kCZK / 0 €	342 kCZK / 13680 €	0 kCZK / 0 €	0 kCZK / 0 €
City of Hradec Králové	Technical supervision – telematics solutions	0 kCZK / 0 €	0 kCZK / 0 €	1349 kCZK / 53960 €	0 kCZK / 0 €	0 kCZK / 0 €
City of Jihlava	Strategy for the development of transport telematics in Jihlava	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	kCZK / 0 €	478 kCZK / 19120 €
City of Kutná Hora	Transport assessment	1825 kCZK / 73000 €	153 kCZK / 6120 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
City of Liberec	Safety inspection of public roads on a selected section of Švermova Street in Liberec	183 kCZK / 7320 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	178 kCZK / 7120 €
City of Milovice	Transport assessment	0 kCZK / 0 €	0 kCZK / 0 €	433 kCZK / 17320 €	516 kCZK / 20640 €	0 kCZK / 0 €
City of Most	SWOT analysis – comparing the use of buses with alternative propulsion within public transport in Most and Litvínov	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	411 kCZK / 16440 €
City of Most	Consulting services	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	497 kCZK / 19880 €
City of NYMBURK	Safety inspection of public roads	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	176 kCZK / 7040 €	0 kCZK / 0 €
City of NYMBURK	Transport engineering assessment "Residential Zone Nymburk – Nové Zelko"	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	178 kCZK / 7120 €
City of Prague	Transport assessment	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	488 kCZK / 19520 €
City of Prague	Transport assessment – cycling transport	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	163 kCZK / 6520 €	163 kCZK / 6520 €

City of Prague	Feasibility study – Barrandov Bridge	0 kCZK / 0 €	2074 kCZK / 82960 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
City of Prague	Preparation of an evaluation report on the modification of the transport solution for MÚK Pelc – Tyrolka for construction project No. 0079 MO Špejchar – Pelc/Tyrolka	0 kCZK / 0 €	0 kCZK / 0 €	175 kCZK / 7000 €	0 kCZK / 0 €	0 kCZK / 0 €
City of ŘÍČANY	Intersection assessment	0 kCZK / 0 €	0 kCZK / 0 €	kCZK / 0 €	212 kCZK / 8480 €	0 kCZK / 0 €
City of SLANY	General accessibility of the city of Slaný	0 kCZK / 0 €	0 kCZK / 0 €	279 kCZK / 11160 €	0 kCZK / 0 €	0 kCZK / 0 €
City of SLANY	Development strategy for cycling transport in the city of Slaný	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	174 kCZK / 6960 €
City of TABOR	Assessment of road traffic safety on two selected routes in relation to servicing the southern part of Tábor	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	118 kCZK / 4720 €	0 kCZK / 0 €
City of Uherské Hradiště	Transport assessment and transport model	728 kCZK / 29120 €	0 kCZK / 0 €	852 kCZK / 34080 €	557 kCZK / 22280 €	679 kCZK / 27160 €
City of Vysoké Mýto	Safety assessment	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	242 kCZK / 9680 €
CTP INVEST, SPOL. S	Expert study evaluating the potential of a location for the construction of a logistics center – automotive	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	242 kCZK / 9680 €	0 kCZK / 0 €
ČD, a.s	Preparation of studies and expert reports	159 kCZK / 6360 €	0 kCZK / 0 €	481 kCZK / 19240 €	520 kCZK / 20800 €	0 kCZK / 0 €
Čepro	Optimization of railway transportation	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	543 kCZK / 21720 €
České Švýcarsko National Park	Analysis of transport sustainability issues in České Švýcarsko National Park	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	387 kCZK / 15480 €
Different contracting authorities	Transport surveys	4881 kCZK / 195240 €	5677 kCZK / 227080 €	7880 kCZK / 315200 €	5676 kCZK / 227040 €	9726 kCZK / 389040 €
Different contracting authorities	Expert evaluations	253 kCZK / 10120 €	179 kCZK / 7160 €	431 kCZK / 17240 €	510 kCZK / 20400 €	647 kCZK / 25880 €
Dobřichovice	Development of a transport strategy	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	467 kCZK / 18680 €	0 kCZK / 0 €
DOPRAVNI PODNIK HL.	Safety assessment of operating the metro without a train protection system and with a single-person train crew	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	182 kCZK / 7280 €
EFEX, S.R.O.	Fusion of positional data in indoor localization	272 kCZK / 10880 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	kCZK / 0 €
EUROPEAN DIGITAL IND	Assessment of the impact of the LMS system on the safety devices of the Prague metro – track circuits and train protection systems	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	138 kCZK / 5520 €
INSTITUT PLANOVANI	Transport survey and simulation – Černý Most	0 kCZK / 0 €	0 kCZK / 0 €	123 kCZK / 4920 €	0 kCZK / 0 €	0 kCZK / 0 €
IOT.WATER A.S.	Design and implementation of energy consumption measurement for a battery metering device utilizing the NBIOT transmission network	0 kCZK / 0 €	0 kCZK / 0 €	147 kCZK / 5880 €	0 kCZK / 0 €	0 kCZK / 0 €
ITS Group	Study and proposal of a solution for implementing smart technologies at railway stations and stops	0 kCZK / 0 €	0 kCZK / 0 €	446 kCZK / 17840 €	0 kCZK / 0 €	0 kCZK / 0 €

JIHOMORAVSKY KRAJ	Study of a new railway electric unit for the South Moravian Region	0 kCZK / 0 €	0 kCZK / 0 €	148 kCZK / 5920 €	0 kCZK / 0 €	0 kCZK / 0 €
KAUFLAND CESKA REPUB	Measurement of traffic flow on Pivovarská Street in Domažlice	127 kCZK / 5080 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
KPMG CZ	Feasibility study for the "U-SMART ZONE" project	786 kCZK / 31440 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
KRAJ VYSOCINA	Development and implementation of an educational course "Autonomous Vehicles" for students and teachers of technical secondary schools in the Vysočina Region	224 kCZK / 8960 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
KRAJSKA SPRAVA SILNI	Safety inspection of road infrastructure at road corridor III/27814 in the village of Dlouhý Most in the Liberec Region	0 kCZK / 0 €	182 kCZK / 7280 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
KZC, S.R.O.	Development of a mobile and web application	0 kCZK / 0 €	0 kCZK / 0 €	576 kCZK / 23040 €	0 kCZK / 0 €	0 kCZK / 0 €
LEUBE Beton	Crash tests – certification	0 kCZK / 0 €	0 kCZK / 0 €	346 kCZK / 13840 €	0 kCZK / 0 €	0 kCZK / 0 €
Ministry of the interior of Slovakia	Analysis of possible economic impacts and safety risks of separating aircraft from the Air Unit of MV SR into the Transport Wing "Kuchyňa" of MO SR	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	191 kCZK / 7640 €	0 kCZK / 0 €
ODIS	Establishment of standards for vehicles and services in trains for tendering regional railway transport in the Moravian-Silesian Region	305 kCZK / 12200 €	0 kCZK / 0 €	250 kCZK / 10000 €	0 kCZK / 0 €	0 kCZK / 0 €
ODIS	Cooperation agreement for ensuring regional railway transport in the Moravian-Silesian Region within the Ostravsko operating fleet	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	185 kCZK / 7400 €	0 kCZK / 0 €
PRAGOLET S.R.O.	Modifications to simulation software based on test results with virtual and augmented reality	0 kCZK / 0 €	227 kCZK / 9080 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Prague 6 City District	Analysis of road traffic safety at locations selected by the elementary school in Prague 6	0 kCZK / 0 €	467 kCZK / 18680 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
PRODEAL, S.R.O.	Expert support for MUCBox – Early Stage and Pre-production Stage	0 kCZK / 0 €	480 kCZK / 19200 €	584 kCZK / 23360 €	0 kCZK / 0 €	0 kCZK / 0 €
REASUNTA TECHNOLOGY	Living Lab project "Chytrá Evropská"	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	145 kCZK / 5800 €
Regional administration and maintenance of roads	Road safety inspections and audits	2115 kCZK / 84600 €	0 kCZK / 0 €	638 kCZK / 25520 €	861 kCZK / 34440 €	672 kCZK / 26880 €
Regional administration and maintenance of roads	Transport assessment – trolleybuses	0 kCZK / 0 €	0 kCZK / 0 €	215 kCZK / 8600 €	kCZK / 0 €	kCZK / 0 €
Road and Motorway Directorate of the Czech Republic	Safety inspections and audits	3464 kCZK / 138560 €	7468 kCZK / 298720 €	11002 kCZK / 440080 €	8165 kCZK / 326600 €	9458 kCZK / 378320 €
Road and Motorway Directorate of the Czech Republic	Assessment of the occupancy of parking areas on motorways	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	724 kCZK / 28960 €
Road and Motorway Directorate of the Czech Republic	Research on driver behavior	283 kCZK / 11320 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Road and Motorway Directorate of the Czech Republic	Preparation of telematics projects	0 kCZK / 0 €	0 kCZK / 0 €	235 kCZK / 9400 €	0 kCZK / 0 €	0 kCZK / 0 €
Road and Motorway Directorate of the Czech Republic	Mapping of services and data in the field of FCD	403 kCZK / 16120 €	398 kCZK / 15920 €	1359 kCZK / 54360 €	0 kCZK / 0 €	0 kCZK / 0 €

Road and Motorway Directorate of the Czech Republic	Project management for URSA	612 kCZK / 24480 €	152 kCZK / 6080 €	502 kCZK / 20080 €	0 kCZK / 0 €	0 kCZK / 0 €
Road and Motorway Directorate of the Czech Republic	Revision of regulations for tunnels	0 kCZK / 0 €	159 kCZK / 6360 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Road and Motorway Directorate of the Czech Republic	Sampling of telematics devices and systems	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1258 kCZK / 50320 €
Road and Motorway Directorate of the Czech Republic	Analysis of solutions for transitioning vehicles to alternative powertrains	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	300 kCZK / 12000 €	0 kCZK / 0 €
ROPID	Transport study	258 kCZK / 10320 €	0 kCZK / 0 €	204 kCZK / 8160 €	0 kCZK / 0 €	0 kCZK / 0 €
SATRA, SPOL. S R.O.	Development of a knowledge model for tunnel technology	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	130 kCZK / 5200 €	0 kCZK / 0 €
SILMOS s.r.o.	Management activities in technical committees	131 kCZK / 5240 €	153 kCZK / 6120 €	153 kCZK / 6120 €	170 kCZK / 6800 €	182 kCZK / 7280 €
SMARTPLAN S.R.O.	Study of the "in-motion weighing" system in the Republic of Moldova	0 kCZK / 0 €	0 kCZK / 0 €	270 kCZK / 10800 €	0 kCZK / 0 €	0 kCZK / 0 €
SOFO ADVISORY S.R.O.	Aviation VR simulator for AUPRT training – concept validation	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	363 kCZK / 14520 €	0 kCZK / 0 €
Správa železnic (Railway administration)	Preparation of a study – Smart Railway Stations	0 kCZK / 0 €	458 kCZK / 18320 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Správa železnic (Railway administration)	Study of safety issues	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	2381 kCZK / 95240 €	0 kCZK / 0 €
STARMON S.R.O.	Study "Utilization of Passenger Counting Technologies for Railway Infrastructure Management"	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	167 kCZK / 6680 €	0 kCZK / 0 €
STRIX Chomutov a.s.	Crash tests – certification	359 kCZK / 14360 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
STUDIO ACHT, SPOL. S	Evaluation of the transport solution for Benešovská Street – Děčín	0 kCZK / 0 €	0 kCZK / 0 €	547 kCZK / 21880 €	0 kCZK / 0 €	0 kCZK / 0 €
SWAN A.S.	Provision of AirTracker technology	0 kCZK / 0 €	0 kCZK / 0 €	374 kCZK / 14960 €	0 kCZK / 0 €	0 kCZK / 0 €
ŠKODA Auto	Development of innovative systems for interactive HMI simulations	485 kCZK / 19400 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
ŠKODA Auto	Transport research	1941 kCZK / 77640 €	469 kCZK / 18760 €	2095 kCZK / 83800 €	4728 kCZK / 189120 €	6463 kCZK / 258520 €
ŠKODA DIGITAL S.R.O.	Safety assessment of the TDD and VCU software on the 20Ev vehicle	423 kCZK / 16920 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
ŠKODA Transportation	Product testing and modifications	2983 kCZK / 119320 €	1346 kCZK / 53840 €	385 kCZK / 15400 €	813 kCZK / 32520 €	0 kCZK / 0 €
Technical Road Administration (of Prague)	Transport study	0 kCZK / 0 €	547 kCZK / 21880 €	699 kCZK / 27960 €	0 kCZK / 0 €	0 kCZK / 0 €
TECHNOLOGICKA PLATFO Líšeň	Safety map for the modernization of road transport regarding traffic safety	0 kCZK / 0 €	0 kCZK / 0 €	207 kCZK / 8280 €	0 kCZK / 0 €	0 kCZK / 0 €

The Government Office of the Czech Republic	Smart Cities study	204 kCZK / 8160 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
The Morava River Basin	Logistical study for material transportation – Vlára, Vodní dílo Vlachovice	0 kCZK / 0 €	0 kCZK / 0 €	346 kCZK / 13840 €	0 kCZK / 0 €	0 kCZK / 0 €
TOUCH AS GMBH	Two Safety Risk Management training courses	899 kCZK / 35960 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
US PLAN S.R.O.	Assessment of transport capacity in the area of the planned new construction on S. K. Neumann Street in Jihlava	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	129 kCZK / 5160 €	0 kCZK / 0 €
Ústí nad Labem Region	Expert study "Development of the Industry 4.0 Ecosystem in the Ústí Region"	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	303 kCZK / 12120 €	0 kCZK / 0 €
Ústí nad Labem Region	Development of a public transport strategy	0 kCZK / 0 €	218 kCZK / 8720 €	0 kCZK / 0 €	144 kCZK / 5760 €	0 kCZK / 0 €
Valeo	Annotation laboratory	0 kCZK / 0 €	17815 kCZK / 712600 €	15722 kCZK / 628880 €	14002 kCZK / 560080 €	18273 kCZK / 730920 €
Vršanská uhelná, a.s.	Side slopes VRŠ – software modification	0 kCZK / 0 €	kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	514 kCZK / 20560 €
Vršanská uhelná, a.s.	Safety assessment	0 kCZK / 0 €	182 kCZK / 7280 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Yunex	Unified traffic management system (MAS)	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	1029 kCZK / 41160 €
Yunex	Study of MAS – documentation	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €	387 kCZK / 15480 €
Total		24623 kCZK / 984920 €	44066 kCZK / 1762640 €	51619 kCZK / 2064760 €	46524 kCZK / 1860960 €	60300 kCZK / 2412000 €

Note: List and describe contract research activities with a revenue in a given calendar year, regardless of the amount of financial revenue.

3.4 Research results with existing or prospective impact on society

The evaluated unit shall briefly comment on a maximum of 10 (considered most significant by the evaluated unit) research results already applied or realistically heading towards application during the period of 2019–2023, based on the overview annex table 3.4.1 (it is recommended to indicate results with a link to projects listed in indicator 3.3). The evaluated unit must demonstrate in its description that the research results have led or will soon lead to positive impacts[29], on society (e.g. description of how the results are used by various users, the range of persons/institutions for which the result is relevant, measurable economic impacts, etc.). The evaluated entity shall indicate in its commentary whether the gender dimension is considered in these results and discuss the impacts of the results regarding sustainability.

Maximum range 300 words/result.

Self-assessment:

Most of the applied results achieved by the faculty are outputs of projects involving an application guarantor. This means that, in a narrower sense, the realization of these results is contingent upon their applicability to at least one partner. In cases where the partner is a company, the results are typically utilized within the company itself, often in the form of software or technical solutions. However, in many instances, the application guarantor is a government institution, such as the

[29] See Terms definition.

Ministry of Transport or the Civil Aviation Authority, where the results are directly employed by these bodies—whether for issuing recommendations, shaping legal regulations, or similar purposes. In this way, methodologies and similar evidence-based outputs, derived from research activities, are most implemented. Below, we present ten examples of applied results or results with potential for application.

The full list of results is available as an online annex; see *A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3* (at the end of the document).

Device for expanding and overturning vehicles
Utility Model

The device was developed in collaboration with four universities to enhance the reliability of crash tests. During eccentric frontal, side, or other specific types of traffic accidents, vehicle rollovers may occur, posing a significant risk to occupants. Therefore, it is essential to consider this phenomenon in vehicle passive safety testing.

The device enables the test vehicle to accelerate to the required speed using a towing vehicle. The towing mechanism is then disconnected, and the vehicle's direction is altered, leading to rollover when combined with an appropriately designed road surface profile or obstacle. Compared to existing solutions, this system is technically simpler and allows testing beyond specialized test tracks, including on public roads and parking areas. Installation requires only minimal modifications to the road surface for the placement of the ejector plate.

The primary purpose of the device is to simulate accident scenarios such as collisions or rollovers and to verify passive safety features. It is primarily intended for scientific research and offers opportunities for collaboration with other research institutions. The device was developed within the project VI20172020108 – Development of an Innovative Method for Detecting Traffic Crimes Using Electronic Accident Data (2017–2020, MV0/VI) (see link).

The system has been used by the University of Žilina as part of the European project ENABLE-S3 (Grant ID: 692455) and in crash tests conducted in cooperation with the Institute of Forensic Engineering at Brno University of Technology, focusing on assessing vehicle deformation behavior and dynamic crash parameters.

Localization infrastructure for tunnels on road networks
Certified Methodology

The certified methodology for vehicle localization infrastructure in road tunnels provides a structured approach for selecting, designing, planning, and implementing BLE (Bluetooth Low Energy) and C-ITS (Cooperative Intelligent Transport Systems) technologies. Its purpose is to ensure precise vehicle localization in enclosed spaces by defining where and how localization technology should be integrated into road infrastructure. The methodology serves tunnel administrators, infrastructure designers, and commercial entities, offering technical guidance on the deployment of localization systems to ensure accuracy and reliability in challenging environments such as tunnels.

The methodology has direct legislative and regulatory implications. It has been identified as a reference document for potential updates to technical conditions TP 98 and TP 154, issued by the Ministry of Transport of the Czech Republic (MD ČR), and may also contribute to the revision of ČSN 73 7507, the national standard for tunnel design on road infrastructure.

The methodology has already been applied in practice in several key areas:

- Deployment of Beacons in all tunnels in Prague (2021–2023), demonstrating commercial viability and practical cooperation between academia and industry, not only in research but also in commercial implementation.
- Integration into the new TP 154 (Operations, Maintenance, and Management of Road Tunnels), which was approved by the Ministry of Transport in March 2024.
- Incorporation into the updated TP 98 (Technological Equipment for Road Tunnels), currently undergoing approval at the Ministry of Transport.
- Anticipated use in the revision of ČSN 73 7507, which is currently in the preparatory phase.

This result was achieved through the project *Research of Alternative Methods of Position Determination and Its Integrity with GNSS for Drivers Using C-ITS*, which was carried out by the Faculty of Transportation Sciences in collaboration with two commercial partners (see: link). The methodology received official certification from the Ministry of Transport in May 2023, reinforcing its regulatory relevance and practical applicability.

Methodology for evaluating the operational and economic benefits of air transport for the Czech Republic

Certified Methodology

The Methodology provides a structured approach to evaluating the economic performance and strategic value of the aviation sector. Developed as part of the project "Value of Air Transport in the Czech Republic" (see project details), the methodology is currently utilized by the Ministry of Transport, which served as the application guarantor of the project. Each year, a report based on this methodology is compiled for the Ministry of Transport, ensuring a standardized assessment of air transport's contribution to the national economy.

The methodology is based on scientific research and internationally recognized evaluation frameworks, including those of ICAO, IATA, FAA, and ATAG. It establishes a systematic process for generating comprehensive reports that quantify the direct and indirect economic impacts of air transport, including airports, airlines, and the aerospace industry, across key areas such as employment, tourism, and business activity.

By defining primary and secondary effects alongside production groups and analytical clusters, the methodology allows for quantification of air transport's economic impact using standard economic indicators. These indicators are derived from data provided by the Czech Statistical Office (ČSÚ) and CzechTourism, ensuring accuracy and consistency. Furthermore, the methodology includes a framework for evaluating airport connectivity within the Czech Republic.

A key feature is its compatibility with ICAO's proposed Satellite Account for Aviation, ensuring alignment with future international economic assessment standards. It also estimates the gross value added by aviation to the Czech economy and analyzes its relationship with tourism.

By applying this methodology annually, the Czech Republic achieves cost savings of approximately 200,000 CZK, demonstrating its practical benefits for policy-making and strategic planning in the aviation sector.

Aircraft Maintenance Planner & Aircraft Maintenance Dashboard

Software

The Aircraft Maintenance Plannerand the Aircraft Maintenance Dashboard are two complementary outputs developed within the research project conducted by the Faculty of Transportation Sciences

and Czech Airlines Technics in collaboration with the Faculty of Electrical Engineering at CTU. These results were created as part of the Technology Agency of the Czech Republic's 1.VS DOPRAVA 2020+ grant (see link), with the goal of improving efficiency in aircraft maintenance planning and execution. The systems are currently in use at Czech Airlines Technics, supporting operational processes and decision-making.

The Aircraft Maintenance Planner is a knowledge-based system that streamlines maintenance scheduling by integrating manual expertise with automated data imports from internal systems. It processes CSV files over SFTP, ensuring data integrity through validation, version monitoring, and structured user management. The backend is built on Java (Spring Boot, REST API) with Docker orchestration, while Ontotext GraphDB stores structured maintenance data.

The Aircraft Maintenance Dashboard, complementing the Planner, provides real-time monitoring and visualization of maintenance progress. It is designed for line technicians and management, offering an interactive interface for daily operations and an analytics dashboard for supervisory decision-making. The system operates as a secure web client-server application, utilizing Java (Spring, JOPA), Ontotext GraphDB, and OAuth 2.0 authentication, and is deployed on Apache Tomcat v.9.

By integrating advanced knowledge management and predictive analysis, these systems enhance planning accuracy, reduce inefficiencies, and support data-driven decision-making. Their deployment at Czech Airlines Technics demonstrates their practical application in improving maintenance effectiveness and operational oversight within aviation maintenance operations.

CTU Lions EVO 3.0 Electric

Functional Sample

The CTU Lions EVO 3.0 Electric is a fully functional electric racing motorcycle developed by the CTU Lions team at the Czech Technical University in Prague (CTU) under the Faculty of Transportation Sciences (technical specifications can be found in the supporting documents accompanying this report). Designed to compete in the MotoStudent international competition, the motorcycle adheres to the Moto3 category standards within MotoGP and incorporates several innovative technical solutions.

The development process spanned two years and followed industry-standard engineering methodologies, including CAD modeling, structural analysis, and simulation-based optimization. The motorcycle features a newly developed battery storage system, a liquid-cooled controller and motor, and a customized frame tailored for competitive racing. Testing included comprehensive functional and stress tests, culminating in its participation in the MotoGP circuit at Motorland Aragón, Spain, under the supervision of the Fédération Internationale de Motocyclisme (FIM).

The project was developed with the input of professional racer Radek Lamich, ensuring real-world performance adjustments in chassis geometry, suspension tuning, and race ergonomics. The motorcycle's design incorporates unique innovations, including an adjustable front fork angle, a high-performance lithium-polymer battery pack, and a custom frame design optimizing stability and aerodynamics.

Its successful performance in the MotoStudent competition demonstrated its competitiveness among 47 international teams from 17 countries, securing 7th place overall and 8th place in innovation and economic analysis.

The technology developed has attracted industry interest, with Jawa Moto spol. s.r.o. expressing interest in adopting certain design elements for future electric motorcycle production. Additionally, Force Energy s.r.o. has recognized the potential of the battery storage system. The selected

components from the project are now serving as the foundation for a hydrogen-powered motorcycle development under the TAČR DELTA 2 program (see link).

The CTU Lions EVO 3.0 Electric represents a significant advancement in electric racing technology, demonstrating both academic and commercial viability.

FTA/FMEA tool
Software

The developed software tool enhances safety and reliability analysis in the aviation industry by automating key processes in Fault-Tree Analysis (FTA) and Failure Modes and Effects Analysis (FMEA). The tool integrates a Java-based backend with a React-based frontend, enabling efficient execution, visualization, and conversion of safety analyses. Its automation capabilities distinguish it from existing solutions, improving data consistency, completeness, and compatibility with established software infrastructures. By streamlining complex safety assessments, the tool provides a more practical and error-resistant approach to reliability evaluation in aircraft systems.

Developed in cooperation with China Aero-Polytechnology Establishment (CAPE) and released in 2022, the tool has gained industry recognition for its innovative approach. At the final stages of development, Aero Vodochody Aerospace (AVA), a Czech military aircraft manufacturer, acknowledged its potential and expressed interest in its adoption. This interest materialized into a contractual research agreement between AVA and CTU in Prague in 2023 (see: contract link). The agreement outlines the first steps toward implementation at AVA by 2024.

Currently, the tool plays a role in enhancing the safety and reliability of L-39 and L-39 NG aircraft, providing an advanced analytical framework for evaluating potential system failures. Its integration into AVA's workflow represents a shift towards more automated, accurate, and structured safety evaluations. The software's application demonstrates its ability to reduce human error, optimize analysis processes, and support regulatory compliance in aircraft certification and maintenance.

This software was developed as part of the project "Ontology Engineering Utilization in Reliability and Quality Knowledge Management Systems in Aviation" (see: link) in collaboration with the Faculty of Electrical Engineering at CTU in Prague.

Methodology for detecting illegal GNSS signal interference using the ADS-B system
Certified Methodology

The developed methodology provides a systematic approach to detect GNSS interference using ADS-B data, addressing operational challenges related to the increasing occurrence of jamming and spoofing. This methodology was developed as part of project VK01030071 (see: link). The methodology has been evaluated by key aviation and cybersecurity entities in Czech Republic, which have recognized its potential for practical application. Letters of Intent confirm that Air Navigation Services of the Czech Republic, the Czech Ministry of Transport, the Air Accidents Investigation Institute, and the National Cyber and Information Security Agency consider the methodology as a viable tool for monitoring and mitigating GNSS interference in airspace operations (see the supporting documents accompanying this report).

For Air Navigation Services of Czech Republic, the methodology offers an additional means of monitoring GNSS signal integrity in real time, supporting decision-making within air traffic management (ATM) systems. By detecting anomalies in ADS-B quality parameters such as NACp and NIC, it can contribute to the early identification of degraded navigation accuracy.

The Ministry of Transport of the Czech Republic has identified the methodology as relevant in the assessment of GNSS interference risks and its impact on aviation safety. As European regulations

require ADS-B compliance, the ability to evaluate potential GNSS disruptions supports regulatory oversight and policy development.

The Air Accidents Investigation Institute has acknowledged the methodology's potential for analyzing incidents where GNSS interference may have played a role. Its ability to detect position degradation from ADS-B data enhances post-incident analysis and supports flight safety recommendations.

Additionally, NÚKIB has recognized the methodology's applicability in detecting unauthorized GNSS interference. The ability to identify interference patterns contributes to broader cybersecurity efforts related to aviation infrastructure.

By leveraging existing ADS-B data, the methodology provides a cost-effective solution for multiple stakeholders, enhancing resilience against GNSS signal disruptions without requiring additional infrastructure investment.

Synergy in railway line planning. Optimization of public rail transport service areas
Certified Methodology

The developed methodology for public railway service contractors aims to identify potential synergies between different hierarchical levels of service to facilitate the planning of an efficient network based on the principles of an integral timetable (ITJŘ). The methodology considers the proportionality of service to expected transport demand and vehicle deployment efficiency. It provides a structured approach to achieving operational coordination among different service levels, ensuring better use of available infrastructure and resources.

This methodology was developed primarily for the Ministry of Transport's Public Transport Department as the contracting authority for long-distance train services, with secondary application to regional rail service contractors. It is a key output of the research project TJ01000162, funded by TA CR, which focused on enhancing railway network efficiency through improved service planning. The methodology has been practically applied by three regional transport coordinators: the Ústí Region, Jikord s.r.o., and the Zlín Region's public transport coordinator. These applications have demonstrated its effectiveness in improving train service synchronization, reducing travel times, and optimizing rolling stock usage.

A key feature of the methodology is its emphasis on vertical (long-distance and regional coordination) and horizontal (cross-regional coordination) synergies. It enables service providers to optimize train frequencies by integrating services into consistent intervals (half-hourly or hourly), balancing accessibility and efficiency. Additionally, the methodology supports strategic decision-making for new railway stops to enhance service coverage without compromising overall efficiency.

The methodology provides a universally applicable tool for transport planners, offering a data-driven approach to balancing service availability and resource constraints. It has also supported subsequent research, including the project CK01000004 on high-speed rail operations. This comprehensive framework represents a novel, internationally applicable solution for railway service planning, which contributes to improved network integration and enhanced public transport effectiveness.

Methodology for using the theory of STAMP safety model by the Civil Aviation Authorities
Certified Methodology

The certified methodology for aviation safety oversight and audit development was created as part of the "Digitalization of Integrated Aviation Safety Oversight" project (see project details). It

introduces innovative procedures for collecting, processing, and analyzing safety data at the regulatory level and provides a systematic framework for generating audit questions based on the System-Theoretic Accident Model and Processes (STAMP). This approach represents a paradigm shift in aviation safety, moving from traditional accident causality models that focus on human error and technical failures to a holistic perspective on complex socio-technical systems.

The methodology enhances the capabilities of aviation authorities by improving their ability to identify and proactively manage safety risks based on actual safety performance rather than compliance alone. It supports digitalization and modernization efforts in aviation safety oversight, increasing efficiency, integration, and the ability to address safety issues before they escalate. Given the growing complexity of aviation operations, traditional certification and oversight processes are increasingly insufficient in detecting emerging risks. By identifying a broader range of safety concerns earlier, this methodology enables more targeted and effective preventive measures.

The methodology has been validated in real-world regulatory processes by the Czech Civil Aviation Authority and has been distributed to multiple aviation authorities in the Czech Republic and abroad. It has been recognized as a potential long-term solution for improving aviation safety oversight over the next 5–10 years, with gradual implementation under consideration. Additionally, Brazil's National Civil Aviation Agency (ANAC) has identified it as a valuable tool for evaluating internal safety oversight processes within the framework of Brazil's national aviation safety program.

Beyond its regulatory impact, the methodology also advances scientific knowledge by integrating state-of-the-art safety research into practical applications, paving the way for future innovations in aviation safety oversight.

Train expert system for autonomous operation
Utility Model

The Train Expert System for Autonomous Train Operation is an advanced decision-making system designed to replace key elements of the decision-making process of a train driver by evaluating defined inputs. This system was developed as part of the project "Development of a Train Expert System for Autonomous Train Behaviour" (see project details) and was registered as a utility model (PUV 2022-40156, registration number 36609) in 2022.

The system processes information from various onboard sensors (such as obstacle detection, fire detection, and system status monitoring) and evaluates them against railway operational rules. It then issues commands to train subsystems, ensuring that all safety and operational conditions for autonomous train movement are met. The decision-making algorithms also consider human factors, including the psychosomatic characteristics of train operators, enhancing the reliability and safety of autonomous operations.

The development of the system involved system analysis, data collection, input-output specification, interface definition, system architecture design, software implementation, and mathematical analysis using advanced simulation tools. The core functionality of the system ensures safe train movement, including automated checks for departure, travel, and stopping conditions using a network of sensors and interfaces integrated into modern railway vehicles.

This system has been identified as a perspective solution for implementation, and its practical application has been confirmed by AŽD Praha s.r.o., the project's application guarantor. The company is set to launch official autonomous passenger train operations that use this system on April 5, 2025. This milestone marks a significant step forward in railway automation, demonstrating

the system's practical applicability and commercial potential for the future of autonomous rail transport.

Table 3.4.1 - Overview of research results in the period under evaluation

Type of result[30]	Year of application	Name
ASW - Software	2022	FTA/FMEA tool
ASW - Software	2023	Aircraft maintenance planner & Aircraft maintenance dashboard
FVZ - Functional Sample	2023	CTU Lions EVO 3.0 Electric
UPM - Certified Methodology	2019	Synergy in railway line planning. Optimization of public rail transport service areas.
UPM - Certified Methodology	2023	Localization infrastructure for tunnels on road networks
UPM - Certified Methodology	2023	Methodology for using the theory of STAMP safety model by the Civil Aviation Authorities
UPM - Certified Methodology	2023	Methodology for detecting illegal GNSS signal interference using the ADS-B system
UPM - Certified Methodology	2021	Methodology for evaluating the operational and economic benefits of air transport for the Czech Republic
UZV - Utility Model	2022	Train expert system for autonomous operation
UZV - Utility Model	2020	Device for expanding and overturning vehicles

Note 1: Please list and describe the results already applied in practice or heading towards application in practice with existing or prospective impact on the society (e.g. domestic or foreign patents, sold licenses, spin-offs, prototypes, varieties and breeds, methodologies, significant analyses, surveys, expert outputs for policymaking or other forms of non-publication outputs, etc.). Indirect results of research, development and creative activities with documented societal impact, e.g. expert activities, services to the public/government/scientific community, may also be reported.

TRANSFER OF RESULTS INTO PRACTICE

3.5 Transfer of results into practice

The evaluated unit shall briefly describe its system for transferring results into practice. It shall also indicate up to five of the most typical users of its results, whether in the university environment or in the non-university application/corporate sphere, detailing how it collaborates with them and how it seeks out new users (using a maximum of five specific examples).

It will also indicate whether and how it commercialises R&D&I results (e.g. selling licences, setting up start-up or spin-off companies, etc.)[31], providing brief description of the commercialisation methods used. The effectiveness of the transfer of results and the commercialisation of R&D&I results will be described using a selection of results (max. five) listed in annex table (Table 3.4.1).[32]

Additionally, the evaluated unit shall briefly comment on the funds received during the period of 2019–2023 from non-public, non-grant sources (e.g. licences sold, spin-off revenues, donations, etc.). A full summary shall be provided in annex table (Table 3.5.1).

Maximum 500 words plus 200 words for each provided example of finding a new user of results and commercialization.

[30] Specify the specific type of result. Add rows as needed.
[31] In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.
[32] If the commercialisation of R&D&I results is carried out in this way.

Self-assessment:
The Faculty's primary strategy to transfer research into practice is based on close cooperation with industry partners and public administration institutions, where the results of applied research are directly utilized or implemented. Typically, the applied outcomes are generated through projects financed by public grants or governmental funding. Due to this funding structure, further commercialization of these results is often challenging, since outcomes developed through publicly funded projects are generally intended for immediate practical application by specific partners rather than for subsequent commercial exploitation.

Specifically, our applied research can be categorized as follows:

- Directly Applied Solutions: Results are predominantly tailored to meet specific requirements of collaborating industry or institutional partners, often with implementation costs covered by public or grant funding. Consequently, these results are directly integrated into partners' processes or services without additional commercial transactions. This structure naturally limits further commercialization opportunities.
- Solutions with Societal Impact: A significant portion of outputs involves methodologies, guidelines, and strategic recommendations for cities, regions, and state-level organizations, addressing complex transport, mobility, and infrastructure challenges. Examples include developing solutions for transport service planning in cities and regions, strategies to optimize transport networks, and frameworks supporting policy formation and legislative processes.

In the area of contract research, the solutions provided by the faculty are custom-developed (tailor-made) and often protected by contractual agreements or NDAs. Although these outputs have intrinsic value for the collaborating partner, they are not typically suitable for further commercial dissemination due to their specificity and legal restrictions.

Nevertheless, we recognize the potential to enhance commercialization activities in the future through mechanisms such as licensing agreements, joint ventures, or spin-off initiatives, provided that appropriate adjustments are made to existing project funding structures and intellectual property strategies. The university has adopted a Commercialization and Fundraising Strategy, which the faculty leadership is actively working to establish at the faculty level,for example, by creating a dedicated Faculty Industry Advisory Board, where current industry challenges and opportunities for cooperation are regularly discussed. This represents an ongoing process through which the faculty is aiming to broaden its activities, particularly in relation to the commercialization of its own research outcomes.

Therefore, for the period 2019–2023, the faculty's funding from non-public, non-grant sources was primarily generated from contractual collaborations rather than direct commercialization or licensing revenue.

Table 3.5.1 - Summary of non-public revenues received during the period under evaluation

Type of revenue	Revenue (in thousands CZK/EUR)				
	2019	2020	2021	2022	2023
Donations	0 kCZK / 0 €	250 kCZK / 10000 €	370 kCZK / 14800 €	300 kCZK / 12000 €	250 kCZK / 10000 €

Sold License (Software) - SNOG Admin CLI/REST	0 kCZK / 0 €	50 kCZK / 2000 €	0 kCZK / 0 €	0 kCZK / 0 €	0 kCZK / 0 €
Total	0 kCZK / 0 €	300 kCZK / 12000 €	370 kCZK / 14800 €	300 kCZK / 12000 €	250 kCZK / 10000 €

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

POPULARIZATION OF VAVAI

3.6 The most important activities in the field of popularization of R&D&I and communication with the public

The evaluated unit shall briefly describe its main activities related to the popularisation of R&D&I and communication with the public (e.g. popularisation lectures, citizen science initiatives, etc.) during the period of 2019–2023 and provide up to 10 examples that it considers the most significant.

Maximum 500 words plus 200 words for each example given.

Self-assessment:

Between 2019 and 2023, the Faculty of Transportation Sciences actively engaged in the popularisation of research, development, and innovation through a combination of public events, online communication, and collaboration with media and industry partners.

One of the faculty's key initiatives is its participation in public science festivals, particularly the *Night of Scientists* and *ScienceFest.* During these events, the faculty presents its research to the public through interactive exhibits, live demonstrations, and popular science lectures. These festivals attract a broad audience, including students, families, and professionals, offering hands-on experiences in areas such as intelligent transportation systems, aviation engineering, and traffic safety innovations. In addition, the faculty organises and participates in open days and educational fairs, including the *Gaudeamus* fairs in Prague, Brno, and Bratislava, where prospective students and the general public can engage with faculty researchers. Besides receiving information about study programs, visitors can learn about ongoing scientific projects and research efforts.

A significant focus of the faculty's communication strategy in recent years has been the continuous use of social media and digital platforms. The faculty has strengthened its public outreach by expanding its communication team, which ensures regular dissemination of research updates, project results, and success stories through Facebook, Instagram, LinkedIn, and faculty web portals. These platforms not only inform but also facilitate interaction, allowing the public to engage with scientists and ask questions about ongoing research. Targeted online campaigns have increased public awareness of the practical applications of transportation research and innovation. By 2023, the Faculty of Transportation Sciences strengthened its presence on social media to enhance awareness among students, the professional community, and industry partners. Key activities included increasing interaction with followers, expanding visual content, and joining the new social network Threads.

The most significant year-over-year growth was recorded on Instagram, where the number of followers increased by 25% (from 1,181 to 1,482), and the average monthly reach tripled to 98,251 (+200%). On X (formerly Twitter), the faculty enhanced interactions with industry partners, leading to a 36% increase in followers. On Threads, the faculty quickly gained 241 followers after the platform became available in Europe. Facebook maintained stable viewership. Faculty had to leave TikTok for regulatory reasons, but its strategy on other platforms ensured overall growth in audience reach and increased engagement.

Beyond social media, the faculty regularly produces promotional and educational materials, including electronic newsletters, video content, and printed brochures, which are distributed at conferences, fairs, and public exhibitions. Annual reports also serve as a structured means of summarising key scientific achievements and research outputs for both academic and non-academic audiences. In this context, the visual and informational aspects of these reports were significantly improved.

In addition to these outreach activities, the faculty plays an active role in the international academic community by organising major scientific conferences, including the Smart Cities Symposium Prague and New Trends in Civil Aviation. These conferences provide a platform for leading experts, researchers, and industry representatives to discuss advancements in smart city solutions, sustainable mobility, and emerging trends in civil aviation.

Furthermore, the faculty collaborates with industry and government institutions to publicise R&D&I outcomes. Many of these partners integrate faculty research into their public communication efforts, particularly in areas such as smart city initiatives, transportation safety, and sustainable mobility.

To illustrate the impact and diversity of these activities, the faculty presents the following ten exemplary events:

Night of Scientists (2019–2023)

The Night of Scientists is a nationwide science popularization event that annually opens the doors of research institutions to the general public. As one of the most significant and widely publicized outreach events in the Czech Republic, it attracts a diverse audience and serves as a key platform for presenting scientific achievements in an engaging and accessible manner.

The Faculty of Transportation Sciences actively participates in this event each year by organizing interactive exhibitions and hands-on demonstrations designed to effectively communicate scientific and research findings to a broad audience. Faculty research teams engage directly with the public and present their work in an educational and approachable format.

A standard part of the faculty's contributions includes car, train and flight simulators, transportation safety tests, the faculty's Traffic Control Hall, interactive workshops, demonstrations of the latest technological solutions in the context of UAV applications, and many others. These activities not only showcase cutting-edge research but also provide visitors with a unique opportunity to experience scientific principles firsthand.

Due to pandemic restrictions, the event was conducted primarily online in 2020 and 2021. The faculty adapted by producing educational videos and virtual laboratory tours, enabling the public to explore ongoing research in transportation engineering and smart mobility remotely.

VědaFest (ScienceFest) (2019–2023)

VědaFest is one of the largest outdoor science popularization events in the Czech Republic, held annually at Vítězné náměstí in Prague. The Faculty of Transportation Sciences at CTU has been a regular participant, contributing an interactive exhibition where visitors can engage with transportation simulators, test their traffic knowledge, and explore modern transport technologies. The faculty's involvement reflects its commitment to making research accessible to the public, with a strong focus on inspiring younger generations to explore transportation engineering.

Over the years, the faculty has expanded its presentations at the event. In 2019, it focused on interactive education through mobile laboratories and traffic knowledge testing. In 2020, due to

pandemic restrictions, the event moved online, and the faculty provided digital interactive content. In 2021, under the theme *"Digital World,"* it prepared an online video and hosted a physical booth featuring an interactive vehicle simulator. In 2022, the exhibition introduced intelligent transport solutions and showcased research in smart mobility. In 2023, the faculty presented *"Transport Yourself to the Transport Faculty,"* offering a hands-on experience with a vehicle simulator, traffic tests, and insights into the CTU Lions student racing team.

Through VědaFest, the faculty continues to promote transportation research and innovation, strengthening its connection with the public.

Gaudeamus (2019–2023)

Gaudeamus is one of the most significant European fairs for post-secondary and lifelong education, where students seek comprehensive information about their future studies. The Faculty of Transportation Sciences at CTU actively participates, contributing to the university's outreach through interactive exhibits, presentations, and direct communication with prospective students. The faculty's presence, coordinated within the broader CTU exhibition, plays a key role in promoting its study programs and research activities while inspiring interest in transportation engineering.

Since 2019, the faculty has continuously refined its approach to student engagement. It maintained a dedicated booth at the Prague fair and, in 2021, adapted to an online format due to pandemic restrictions, delivering live-streamed lectures. At Gaudeamus Brno 2021, the faculty's Air Traffic Control Simulator gained significant attention, contributing to CTU's first-place award for best exhibition.

In 2022 and 2023, the faculty expanded its presence at both Prague and Brno events, offering interactive communication, faculty-led presentations, and showcasing the CTU Lions student racing team. With attendance exceeding 28,000 students and 550 educators in 2023, Gaudeamus remains a key platform for attracting prospective students and strengthening the faculty's visibility in transportation research and education.

Open Day at the Faculty of Transportation Sciences (2019–2023)

The Open Day at the Faculty of Transportation Sciences serves as a key platform for promoting both academic programs and R&D&I. Through interactive demonstrations, guided tours, and expert-led presentations, prospective students and public gain insights into cutting-edge transportation research and its real-world applications.

Since 2019, Open Days have evolved to enhance outreach efforts. In response to the COVID-19 pandemic, the faculty adapted the event to an online format in 2020 and 2021, featuring live-streamed lectures, virtual lab tours, and interactive Q&A sessions with researchers and students. This digital transition broadened accessibility and reinforced the faculty's commitment to knowledge dissemination in transportation sciences.

Recent in-person Open Days in 2022 and 2023 have placed greater emphasis on R&D&I by integrating faculty research outputs into the visitor experience. Attendees explored cutting-edge laboratories such as Smart Cities, MobiLab, or Air Traffic Control Simulation, engaging directly with researchers and innovative projects. Hands-on demonstrations of vehicle and flight simulators further highlighted the faculty's role in technological advancements. With over 400 visitors per event, Open Day remains a vital instrument for inspiring future students and strengthening the faculty's visibility in transportation research and innovation.

Runway Park – Prague airport (2020)

Runway Park was a unique two-month project organized by Václav Havel Airport Prague, in which the Faculty of Transportation Sciences, CTU, played a key role in presenting not only aviation but also broader aspects of transportation and technology to the general public. The faculty's interactive exhibition, located on the former Runway 22, provided visitors with the opportunity to experience a flight simulator, learn primarily about the research and activities of the Department of Air Transport, but also engage with presentations showcasing other faculty initiatives, such as electric motorcycles developed by the student team CTU Lions.

Held during the summer months, the event offered the public a rare opportunity to explore aviation research and flight simulation in a real-world airport setting. The faculty's contributions also included demonstrations of ongoing research projects in flight safety, air traffic management, and airport operations.

This initiative significantly contributed to the popularization of aviation research, particularly among young people with an interest in aeronautics, while also fostering collaboration between the faculty and key stakeholders in the aviation industry.

Smart Cities Symposium Prague and New Trends in Civil Aviation Conferences (2019–2023)

The Smart Cities Symposium Prague is a well-established annual symposium focused on smart cities and sustainable mobility, organized by the faculty. Over the past decade, it has fostered a strong interdisciplinary network of professionals and researchers working on various aspects of urban resilience, intelligent transportation, and sustainable development.

Similarly, the New Trends in Civil Aviation Conference is a recognized international forum dedicated to fostering collaboration between researchers, practitioners, and industry experts in both civil and military aviation. Organized biennially, its primary mission is to facilitate interactions among various communities of interest, providing a platform for discussions on emerging challenges, technological advancements, methodologies, applications, case studies, and best practices in the aviation sector.

Both conferences are IEEE-indexed, with proceedings included in citation databases such as Scopus and Web of Science. While primarily oriented towards the presentation and exchange of domain-specific knowledge, these events also attract industrial partners and students, serving as platforms for communicating scientific research results to a broader audience, including the public.

World Road Congress (2023)

In 2023, the Faculty of Transportation Sciences at CTU took part in the World Road Congress, one of the most significant global events in the field of transportation engineering.

The faculty was represented within the Czech and Slovak Pavilion, where it showcased research in intelligent transportation systems, transport planning, and road infrastructure safety. A dedicated section of the event was aimed at high school and university students, offering them the opportunity to engage in interactive presentations and simulations.

The congress provided a valuable platform for international knowledge exchange and allowed the faculty to strengthen its ties with industry professionals and experts in the field.

CTU Lions Racing Team (2019–2023)

The CTU Lions Racing Team is a student-led motorsport team from the Faculty of Transportation Sciences at the Czech Technical University in Prague (CTU). Specializing in the development and construction of electric racing motorcycles, the team competes in the prestigious MotoStudent competition, an international event that challenges students to design, build, and race innovative electric motorcycles. Through this experience, students integrate theoretical knowledge with hands-on engineering practice, gaining expertise in electromobility, vehicle design, and modern transportation technologies.

CTU Lions actively participates in science popularization events to showcase their achievements and inspire new generations of students. The team regularly presents its innovations at major public exhibitions offering interactive demonstrations and engaging discussions about the future of electric mobility. Additionally, the team contributes to open days at the Faculty of Transportation Sciences, racing exhibitions, and the Night of Scientists, making cutting-edge technology accessible to the public.

By competing in Spain's MotorLand Aragón alongside 50+ university teams worldwide, CTU Lions not only represent CTU internationally but also foster collaboration and knowledge exchange in the rapidly evolving field of electric motorsports. Their efforts enhance the faculty's reputation, encourage innovation, and attract students to careers in sustainable transportation engineering.

Negrelli Viaduct Day (2019)

Negrelli Viaduct Day took place on September 28, 2019, as part of the popularization activities of the Faculty of Transportation Sciences at CTU. The event was organized in collaboration with the Ministry of Transport of the Czech Republic and was structured as an open day at the historic Negrelli Viaduct in Prague.

The faculty showcased its study programs and research, with a special focus on its involvement in the C-Roads project, which is dedicated to the implementation of Intelligent Transport Systems (ITS) and cooperative technologies in real-world traffic. This innovative platform enables the testing of vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication, significantly contributing to safer and more efficient transportation systems.

The event attracted around 7,000 visitors, including students, transportation professionals, and the general public. The Faculty of Transportation Sciences, in collaboration with the Ministry of Transport, provided interactive demonstrations and information materials, highlighting modern transportation technologies and their real-world applications. The event successfully raised awareness about smart mobility solutions and the role of academic research in shaping the future of transportation.

Guest Speaker Series – "Křeslo pro hosta" (2022–2023)

In 2022, the CTU Faculty of Transportation Sciences launched the "Křeslo pro hosta" (Guest Speaker Series), a discussion-driven event designed to explore key transportation trends, innovations, and ongoing research projects. The primary objective of the series is to provide students and the academic community with direct engagement opportunities with leading professionals, policymakers, and researchers in the transportation sector. Through open discussions and expert insight, the event fosters knowledge exchange on the latest developments in mobility, transport infrastructure, and smart transportation solutions.

The inaugural event took place on November 10, 2022, with Professor Ing. Petr Moos, CSc., a prominent transportation expert, founder of the Faculty of Transportation Sciences, and former

Minister of Transport. The discussion focused on the history of the faculty, the evolution of transportation in the Czech Republic, and emerging challenges in transport engineering.

In 2023, the series continued with a significant session on October 19, featuring Mgr. Martin Kupka, the Minister of Transport of the Czech Republic. The event, held at the CIIRC and CTU Rectorate, attracted more than 180 participants, including students, academics, and industry professionals. Discussions centered on the future of transportation policy, strategic infrastructure projects, and potential collaborations between academia and the public sector.

IMPLEMENTATION OF RECOMMENDATIONS

3.7 Implementation of the recommendations in Module 3

The evaluated unit will briefly describe how it has implemented the recommendations for Module 3 from the previous evaluation period, if applicable.

Maximum 1000 words.

Self-assessment:

Based on the current self-evaluation report of the Faculty of Transportation Sciences (FTS), we respond to the comments from the previous evaluation period as follows:

Regarding the general characteristics and societal benefits of our research, evaluators recognized our faculty's research focus as compelling and up to date. However, they highlighted relatively lower financial support compared to other faculties at CTU. To address this issue, FTS has actively undertaken steps to improve the situation, particularly through increased participation in significant European projects such as Horizon Europe and EIT Urban Mobility. These initiatives contribute to financial stabilization and ensure long-term research sustainability.

In the area of applied research, evaluators emphasized the need for inter-faculty collaboration. FTS responded to this recommendation by initiating projects such as "Digital Twin for Transportation" and "Advanced Cyber Security Methods in Tunnel Systems," involving cooperation with other CTU faculties (e.g., FEE, FME). We intend to further expand interfaculty collaboration to strengthen our interdisciplinary approach.

Regarding the comments on the number of smaller projects, FTS emphasizes that these projects allow flexible responses to the immediate needs of industry partners and public administration. Nonetheless, we recognize the necessity to optimize administrative processes associated with managing smaller-budget projects and aim to enhance their efficiency.

Concerning revenues from contract research, evaluators noted a relatively low share of income from non-public sources. FTS acknowledges this issue and refers to Section 3.5, which provides a detailed discussion on this topic. Given the faculty's primary focus on applied research and collaboration with industry and public institutions.

Evaluators raised concerns regarding the classification of certain applied results under contract research. FTS clarifies that all listed applied results demonstrate clear practical significance and directly contribute to addressing societal challenges in transportation.

In terms of cooperation with the non-academic sector, we acknowledge evaluators' suggestions regarding the need for stronger strategic initiatives. FTS has already implemented concrete

measures in this area, significantly enhancing our representation and influence through participation of our staff in key national and international organizations and expert groups. Examples include significant positions held by our employees in the Czech Association of Scientific and Technical Societies and the executive board of FEANI (Assoc. Prof. Daniel Hanus), Strategic Forum for Unmanned Systems and Inter-Ministerial Commission for UAS (Assoc. Prof. Jakub Kraus), Chairmanship of the Board of Directors at Správa železnic (Assoc. Prof. Pavel Hrubeš), membership in CEACM and Czech Society for Mechanics (Assoc. Prof. Radek Kolman), presidency of Czech Smart City Cluster and membership in the Prague City Council's Smart Cities Development Commission (Prof. Miroslav Svítek), presidency of the Czech Association for Autonomous and Cooperative Mobility (CzeCCAM) (Prof. Ondřej Přibyl), leadership of the International Union of Railways – Statistic Platform (Assoc. Prof. Roman Štěrba), representation in the Inter-Ministerial Navigation Commission (Dr. Stanislav Pleninger), and chairmanship of the Scientific Council of the National Technological Platform for Railway Infrastructure Interoperability (Prof. Ondřej Jiroušek). These activities clearly illustrate FTS's capability to directly influence strategic decision-making in transportation.

Regarding international recognition, the faculty recognizes the need to increase both the number and significance of international awards. Faculty staff have consistently published in reputable journals and regularly attended international conferences. Nevertheless, we have recently introduced measures actively encouraging staff to present their research outcomes through participation in prestigious international competitions and awards, and we regularly inform our staff about opportunities for nominations.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Invited Lectures.zip (Supporting documentation for examples of invited lectures)	3.2	https://intranet.fd.cvut.cz/evaluace-2025 Login: evaluace Password: Dopravka--Evaluace25
Projects and Contracts.zip (A more detailed overview of projects (including links) and a separate listing of contracts are provided in a tabular format extracted from the internal economic system of FTS.)	3.3	
Results.zip (Supporting materials for the 10 significant application results mentioned, along with an overview of all outputs recorded in the information system for result documentation at ČVUT for the years 2019–2023)	3.4	