Romanian Agency for Quality Assurance in Higher Education ARACIS

External Evaluator's Report

TECHNICAL UNIVERSITY OF CLUJ-NAPOCA (TUCN) Cluj-Napoca 7-9.06.2023.

A) Introduction

The tradition of the Technical University of Cluj-Napoca (TUCN) spans back over a hundred years when the Higher Industrial School and the School of Public Works Conductors were founded in Cluj, the capital of Transylvania. After WWII,

as a part of the national education reform, the Institute of Mechanics has been established, and several years later transformed into the Polytechnic Institute of Cluj.

In 1992 the Institute was renamed the Technical University of Cluj-Napoca. In 2012, the Technical University of Cluj-Napoca merged with the North University of Baia-Mare, which became the North University Center of Baia-Mare¹.

In 2003, the Technical University of Cluj-Napoca became a member of the European University Association (EUA), and since 2007, the University Agency of Francophonie (AUF). In 2007, ARACIS granted the TUCN the rating of "High Confidence Degree".

The TUCN structure consists of nine Faculties located in Cluj-Napoca and an additional three in Baja Mare, delivering 88 undergraduate (Bachelor level), 87 graduate (Master level), and 14 Ph.D. level study programs² for more than 18,000 students.

The TUCN is recognized as one of the "Advanced Research & Education Universities on the national scene³. The regional impact is additionally emphasized thanks to four university extensions (Alba Iulia, Bistrita, Satu Mare, and Zalău).

Since 2020, TUCN actively participates in the building of networks of European universities

¹ Internal Evaluation Report, TUCN, 2023

² Rector's presentation

³ Internal Evaluation Report, TUCN, 2023

through the consortium "European University of Technology - EUt+"4.

B) <u>General Statements</u>

The Internal Evaluation Report is very well prepared and provides thorough information regarding the institution. It consists of three key chapters: "Presentation of TUCN", "Areas, criteria, standards, and performance indicators", and "SWOT Analysis", supported by additional 141 Annexes⁵ that have been provided as supportive evidence to the report.

The IER shows a trend of a slight decrease in new students' admissions during the last five years, especially within the self—financing category. The decrease is a visible trend across all of the TUCN faculties (the exception is only the Faculty of Humanities in Baja Mare), which reflects the overall demographic trend. On the other hand, the Faculty-to-Student ratio is improving, currently reaching slightly under 1:20 (from over 1:22 five years ago).

The TUCN web Site <u>https://www.utcluj.ro/</u> provides extensive information about the University, including general data and access to open-source documents, academic offers, admission criteria, international collaboration, start-up opportunities, etc. The English and French web page versions are available as well, with slightly reduced content.

University Strategic Plan⁶ defines institutional Mission and Vision, as well as values and key Strategic Goals. However, the whole Strategy structure looks static, providing insufficient emphasis on the expected impact of its successful execution.

The Operational Plan scaffolds down the strategic aspirations translating them into tangible initiatives and projects, that are well described. However, the follow-up and assessment of the level of the execution is left to the initiative owners which results in some cases with statements that may not be justifiable⁷.

The TUCN hosts have organized a tour to provide oversight of several state-of-art facilities across Cluj-Napoca. In addition, a number of meetings have been conducted during the

⁴ https://www.univ-tech.eu/key-facts-and-figures-1

⁵ https://didatec-

my.sharepoint.com/personal/paula_raica_campus_utcluj_ro/_layouts/15/onedrive.aspx?ga=1&id=%2Fpers onal%2Fpaula%5Fraica%5Fcampus%5Futcluj%5Fro%2FDocuments%2FInstitutional%20evaluation%20U TCN%202023%2FA%2E%20Internal%20evaluation%20report

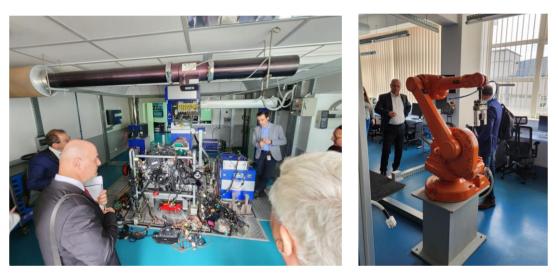
⁶ https://didatec-

my.sharepoint.com/personal/paula_raica_campus_utcluj_ro/_layouts/15/onedrive.aspx?ga=1&id=%2Fpers onal%2Fpaula%5Fraica%5Fcampus%5Futcluj%5Fro%2FDocuments%2FInstitutional%20evaluation%20U TCN%202023%2FA%2E%20Internal%20evaluation%20report%2FA%2E%20Capacitatea%20institutional a%2FA%2E1%20Structurile%20institutionale%2C%20administrative%20si%20manageriale%2FAnexa%2 0A%2E1%2E1%2E6%20%2D%20Strategia%20UTCN%2Epdf&parent=%2Fpersonal%2Fpaula%5Fraica %5Fcampus%5Futcluj%5Fro%2FDocuments%2FInstitutional%20evaluation%20UTCN%202023%2FA%2 E%20Internal%20evaluation%20report%2FA%2E%20Capacitatea%20institutionala%2FA%2E1%20Struct urile%20institutionale%2C%20administrative%20si%20manageriale

⁷ Interview with the Internal Evaluation Report authors team

evaluation visit, including these with the University management, students, alumni, employers, faculty, and Ethics & QA committees.





Figures 1,2,3: TUCN Labs – Road Vehicles and Robotics

Generally, the extent and cover of information acquired from various sources were comprehensive and coherent. However, it would be appreciated if the approach to self-study preparation was a bit more analytic and self-critical, helping both, evaluators and the institution itself to understand potential weaknesses and threats and act upon them.

Comments/Recommendations:

B.1. It is recommended to implement a more self-critic approach by challenging institutional outcomes and implementing additional quantitative (with a focus on data trends) and respective qualitative analyses (root cause).

B.2. It is recommended to analyze the efficiency of the current organizational structure (Academic operations)

C. Teaching Staff

The faculty numbers as presented below in Figure 1 show the stabile approach in filling available faculty positions at the range around 60% of the approved vacancies. Finding a similar range at some other Romanian universities may indicate that the current standard for faculty sourcing is quite generous. In parallel, TUCN has managed to improve the faculty-to-student ratio during the same period, which shows its dedication to optimizing resource usage.

The common teaching load presented during the meetings with management depends on faculty rank and the extent of research activity. Faculty who do not produce sufficient research deliverables are requested to take additional teaching load. The common load for a lecturer position is 24 hours per academic year (12 hours per semester).



Figure 4: Filled & vacant faculty positions

The organizational structure of nine Faculties (in Cluj-Napoca), all in the engineering field, triggers certain questions regarding the optimization of resources. Moreover, additional analysis shows discrepancies between student-to-faculty ratios among schools in a span from 1:9 - 1:23.

		NUMBER OF STUDENTS		
	Faculty	2022/23	No. of Faculty	Faculty/Student ratio
1	Architecture & Urbanism	586	33	17.76
2	Automation & Computer Science	3357	144	23.31
	Automotive, Mechanics and			
3	Mechanical Eng.	1647	73	22.56
4	Civil Engineering	2231	114	19.57
5	Electronics, Telecommunication and IT	1678	82	20.46
6	Materials & Environmental Eng.	448	51	8.78

7	Building Services Eng.	506	28	18.07
8	Electrical Eng.	1340	79	16.96
9	Industrial, Robotics & Production Eng.	2319	127	18.26

Table 1: Faculty-to-Student ratio

According to statements of the management representatives, some faculties face challenges in staff recruitment due to the competitiveness of the labor market and well-paid alternative opportunities (e.g. Computer Sciences).

During the meeting with the faculty members, most of the attendees agree that the university provides sufficient financial and material resources for their teaching and research needs. However, the balance in evaluating teaching and research outcomes for academic promotion purposes has been challenged, emphasizing the extensive time needed for preparing and delivering quality teaching or producing some of the teaching-required research deliverables against the indicators valued in faculty evaluation.

The inquiry regarding the differences in the faculty-to-student ratio between faculties has revealed the different philosophies at various schools, in addition to factual difficulties to attract teaching staff in professional fields that may be better paid by industry (e.g. Automation & Computer Sciences).

During the meetings with students and alumni, it has been identified that the extent of dedication of the faculty members may vary, however, being kept maintained above the expected quality threshold.

Comments/Recommendations:

C.1. Explore the alternative tools to attract faculty in competitive disciplines that may include campaigns, special scarcity allowances, or tailored contracts to enable dual employment (in the company and at the university).

D. Education programs

The complex TUCN institutional structure has initiated a variety of academic offers, consisting of almost 190 study programs at the Bachelor, Master, and Doctoral levels. According to information received during the interviews with the Internal Evaluation authors team, the academic offer shows a growth driven by industry demand. However, no information has been provided if any of the programs have been recently closed. The drop in enrollments at some of the schools (e.g. Materials Sciences) has not been systematically addressed.

TUCN did not provide evidence regarding the reasons for the quite high student dropout rate. Verbally, it has been justified by the high academic expectations of the study programs. However, having in mind the highly selective admission criteria (51% passing rate)⁸, there

⁸ Internal Evaluation Report, TUCN, 2023

may be some reasons beyond the academic rigor worth to be addressed.

Due to the evaluation process regulations, the Institutional evaluation team did not have a detailed oversight of the program structure. However, based on the verbal input from the Program evaluation experts at the exit meeting, it is likely that the study programs⁹ are well structured and up to date with the current industry expectations. Moreover, Industry representatives have confirmed, during the meeting with the evaluation team, that they have a high level of trust in the competence of the TUCN fresh graduates.

Student representatives have raised concerns regarding some faculty members who are not updating their body of knowledge in accordance with technological developments¹⁰.

Comments/Recommendations:

D.1. Assess the effectiveness of the current program offer and consider closing or revision programs with significantly reduced enrollment, or, as an alternative, enhance the marketing of these programs to improve admission rates

D2. Explore potential ways to revise study programs (structure and/or delivery) to tackle the issue of high student dropout rates.

D.3. (for ARACIS) Explore ways to raise the culture of the outcome-based approach in higher education, with emphasis on cascading learning outcomes from program to course level and vice-versa, and aligning outcomes, teaching approach, and assessment methods.

E. Students

For the last five years, the student enrollment trend at TUCN shows a light decrease (Figures 5 & 6), especially within the self—financing category¹¹.

⁹ Referring to set of programs that have been evaluated during the same visit.

¹⁰ Meeting with representatives of students

¹¹ Internal Evaluation Report, TUCN, 2023

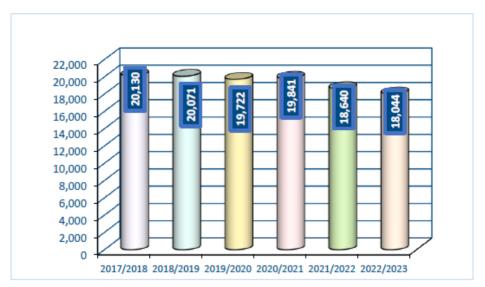


Figure 5: Student enrollment trend (Bachelor & Master, total)



Figure 6: The evolution of the total number of students (Bachelor programs) - budget and tuition fee-based

Students that have attended a meeting with the evaluation team have confirmed TUCN's dedication to providing quality services. Regardless of minor complaints (e.g. applying for dorm), most of the students have confirmed that the faculty treat them with respect, providing support at all levels, and connecting them with industry in seeking additional training or job opportunities. However, some concerns have been raised regarding faculty members who are not updating the body of knowledge in accordance with technological developments.

With all respect to academic rigor, the high drop-out rate¹² reaching between 30-40% during the first year of studies shall be treated as a concern.

The career counseling center has been established more than 15 years ago. The central unit

¹² Interview with the Internal Evaluation Report authors team

consists of six permanent staff (4 in Cluj, 2 in Baja Mare). In addition, each faculty has a dedicated, trained career counselor selected from the teaching staff. The Center closely collaborates with the student organizations, and regularly organizes events such are Career days, Freshman weeks, various Webinars, etc. Direct contact activities (on-site) including seminars on career advising are organized either one-to-one or in groups (up to over 100 participants).

Two psychologists support students in counseling but are at the same time trained as career counselors. According to their statements¹³, the number of students asking for psychological help has significantly dropped since the end of the pandemic.

A number of services for students are offered online (e.g. e-Campus). In addition, students frequently use digital channels including social networks (e.g. WhatsApp groups) to get or share information or communicate.

Students are eligible to receive financial support (student aid) from the university such are merit-based or social status-based scholarships. However, the extent of expenditures on student aid did not dominantly increase for years (Figure 7).

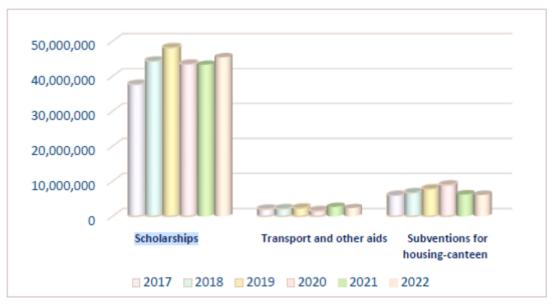


Figure 7: Expenditures for Student Aid

Comments/Recommendations:

E.1. Analyze key reasons for the high drop-out rate, and introduce additional instruments to support the students at academic risk.

E.2. Revise the approach in publicizing temporary rank lists for dormitory acceptance by

¹³ Interview with the Career Counselling team

adding a clear, visual disclaimer notifying candidates regarding the ranking regulations, and warning them to consider alternative accommodation on time if they have doubts regarding final ranking.

E.3. Introduce mechanisms to ensure that the body of knowledge at TUCN programs will be continuously updated to align with the developments in the industry.

F. Research & Scholarship

During the last five years, the TUCN research production is maintained stable and high. The SCOPUS-ranked production is steadily growing (Figure 8):

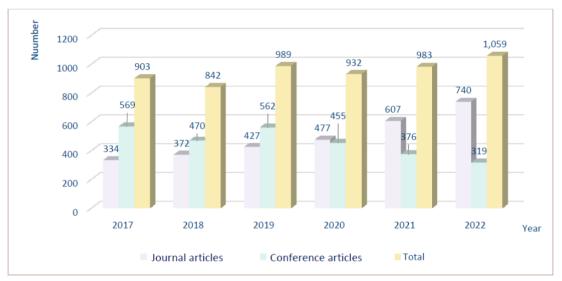


Figure 8: Number of SCOPUS articles at TUCN¹⁴

Revenues from research activities acquired in the last five years vary between 27-37M RON as per Table 2 below:

, ,	2017		2018		2019		2020		2021		2022		
Source of funding	No.	Value	No.	Value	No.	Value	No.	No.	Value	No.	Value	No.	Value
		[RON]		[RON]		[RON]		[RON]		[RON]		[RON]	
National competitions	113	15,681,184	101	14,636,227	57	13,897,289	71	12,569,799	69	12,315,222	76	11,611,327	
International competitions	15	4,613,127	22	4,238,805	30	5,938,022	41	7,606,561	38	6,525,034	32	8,006,519	
Contracts with foreign firms	23	1,926,695	26	1,892,104	27	1,919,411	13	621,479	14	344,607	11	2,119,953	
Contracts with Romanian companies	68	2,388,679	130	4,129,701	213	4,760,211	164	2,418,973	154	2,842,231	184	3,971,603	
Structural Research Funds	6	2,722,423	9	6,993,575	4	10,405,923	9	7,673,792	15	11,719,447	17	5,593,286	
TOTAL RESEARCH	225	27,332,108	288	31,890,412	331	36,920,856	298	30,890,604	290	33,746,541	320	31,302,688	

Table 2: Revenues from research activities¹⁵

¹⁴ Internal Evaluation Report, TUCN, 2023

¹⁵ Internal Evaluation Report, TUCN, 2023

In addition to this, the TUCN stimulates its research-active staff by providing internal research grants and other types of financial support from its own revenues (Table 3):

Financing from own		2017	017 2018		2019		2020		2021		2022	
revenues	No.	Value [RON]	No.	Value [RON]	No.	Value [RON]	No.	Value [RON]	No.	Value [RON]	No.	Value [RON]
Internal competitions and support grants	81	505,771	155	734,758	96	882,351	196	899,722	228	961,848	435	1,792,707
Monthly research scholarships	281	421,456	359	353,556	273	290,756	249	296,725	363	455,527	303	385,991
Dissemination					-	-	-	-	114	892,971	320	3,427,414
TOTAL RESEARCH	362	927,227	514	1,088,314	369	1,173,107	445	1,196,447	705	2,310,346	1,058	5,606,112

Table 3: Internal research support¹⁶

The process of awarding internal research support is well-regulated and transparent¹⁷, and the breakdown of the grants is available at the TUCN website

(<u>https://research.utcluj.ro/index.php/granturi-suport-de-cercetare-stiintifica.html</u>). The support measures include:

- supporting the research publications in journals and at conferences;
- supporting the innovation activity by allocating a share of the dedicated funds for scholarships, travel, procurement, equipment maintenance, etc.
- providing financial support and advice for the patenting as a result of the research;

• granting research scholarships to students from the bachelor's and master's studies, as well as to the Ph.D. students.

Comments/Recommendations:

F.1. TUCN research & scholarship stimulation strategy is highly commended.

G. Community support and employability

Cluj-Napoca is a university city, where 1/5 of the population consists of students. In such an environment, all universities including TUCN have to play a vital role in community life. This is additionally supported by maintaining two university centers and four extensions spreading across northern Transilvania.

Within the University org-chart¹⁸, the dedicated Vice-Rector's office manages relations with the Socio-Economic environment. Each Faculty supports Pro-Rectors' office activities within

¹⁶ Internal Evaluation Report, TUCN, 2023

https://research.utcluj.ro/tl_files/research/Granturi%20suport%20de%20cercetare/HCA_135_15.12.2020-granturi_suport_site.pdf

¹⁸ <u>https://www.utcluj.ro/media/decisions/2023/02/27/Organigrama_UTCN.pdf</u>

its remit by engaging with industry partners in exploring opportunities for collaborative or sponsorship contracts with industry partners. Activities are well-planned and resulted in more than 400 contracts out of which more than 100 have been signed in 2022¹⁹.

During the meetings with University leadership, faculty representatives, and employers, participants have presented some of the best practices including partnering with Bosch in the autonomous driving program, with Emerson in automation, etc. A lot of positive feedback has been shared proving the efficiency of the approach.

In addition, University regularly organizes various events and activities such are visits of industry representatives to the university, student visits to industrial facilities, engaging industry and social partners in student projects, etc²⁰.

As a result of all mentioned, the graduate employment rate at the TUCN (within 12 months after graduating with Bachelor studies) is around 68% in the field of studies (or around 84% overall)²¹. However, TUCN did not provide evidence regarding the analysis mechanism and the response rate.

Comments/Recommendations:

G.1. Enhance and strengthen the industry partners' network to ensure sufficient capacity for internships and future employment of graduates.

G.2. Ensure objective employment-rate analysis by reaching and motivating a large sample of graduates.

H. Facilities and Financial Resources

TUCN possesses the necessary facilities for its operations. More than 50 university buildings are distributed across Cluj-Napoca, and several surrounding cities, in addition to 18 buildings in Baja Mare²². The available teaching-learning space of 49,569 sqm makes 2,75 sqm available per student's head (excluding Ph.D. students) which may not be up to commendable standards for the technical studies. Some new investments are underway (2 newly purchased buildings are in the final preparation stage), and these may improve the teaching-learning conditions in the near future.

Since the last institutional evaluation, TUCN has significantly enhanced its' revenues, both from budget and own sources. Total revenues raised from 259M Ron in 2017 to 412 M RON

¹⁹ Internal Evaluation Report, TUCN, 2023

²⁰ Internal Evaluation Report, TUCN, 2023

²¹ Internal Evaluation Report, TUCN, 2023

²² Internal Evaluation Report, TUCN, 2023

in 2022²³. That has positively reflected on faculty salaries and other expenditures, especially capital investments (Table 4):

BUDGET CHAPTERS	2017	2018	2019	2020	2021	2022
Personnel costs	154,587,133	178,155,111	210,548,032	209,091,430	214,676,734	215,703,363
Goods and services	31,812,790	30,975,942	46,167,642	37,482,599	45,853,838	56,555,937
Structural funds projects	10,019,191	14,744,814	15,347,126	20,172,980	31,354,767	33,472,828
Scholarships	37,681,485	44,318,460	48,134,255	43,418,754	43,270,185	45,373,902
Transportation and other student aid	2,018,940	2,134,989	2,301,816	1,545,374	2,647,268	2,317,741
Capital expenditure	50,319,708	20,967,955	17,171,720	12,978,591	20,031,730	42,351,191

Table 4: Internal research support

The performance-based budget funding, which is research-based, has been enhanced as well, and utilized to stimulate research activities at the university. Faculty who do not reach the expected research production standard of achievements are requested to take extra teaching hours (that are not extra paid). For the others, overtime is paid fairly, at the flat hourly rate²⁴.

Financial planning is commonly finalized in February. The financial system at the university is centrally facilitated and monitored. Faculties receive initial funds released for investment proportionally with the number of students. Faculties are being warned when their expenditures begin to overpass the dedicated amount²⁵.

TUCN is successfully engaged in participating in the EU funds (Structural & H2020), and the extent of funding has tripled since 2017, reaching almost 30M RON in 2022. However, due to complex approval procedures, especially in capital expenditures, procurement goes slow. The specialized unit within the Pro-Rectors office (Relations with Socio-Economic Environment) manages all EU-financed projects.

Comments/Recommendations:

H.1. Add efforts to enhance the extent of the teaching-learning spaces within new capital investments.

H.2. Explore opportunities to enhance the capacities of the EU structural projects office by providing project-management-related professional development courses.

I. <u>Quality Management</u>

²³ Internal Evaluation Report, TUCN, 2023

²⁴ Meetings with University leadership

²⁵ Meetings with University leadership

The Quality management system at TUCN is governed by QA Committee, and facilitated by the QA Office. The position of the office within the organizational chart²⁶ is to report to Rector and two Pro-Rectors, thus it is not fully clear who takes responsibility for the actions taken (or not taken).

The tools used within the QA system are unlikely extensive enough to ensure objective analysis and motivate continuous quality improvement. The only qualitative analysis by a survey that is continuously conducted in the Faculty evaluation by students²⁷. The survey results are accessible to faculty members to guide self-improvement, as well as their direct supervisors. The survey analysis summary is publicized on the University website. TUCN does not conduct exit or alumni surveys to assess the graduates' perception regarding the gained knowledge. Moreover, there are no surveys assessing the satisfaction with services.

The only quantitative analysis regarding academic achievement shows a certain number of students (above 10% at the Bachelor's and above 40% at the master level – See Table 5 below) that are not finalizing their graduation project regardless of passing all exams.

Year of graduation	Graduates with a bachelor's degree	Graduates with a master's degree			
2018	94.60%	73.86%			
2019	94.99%	74.68%			
2020	91.15%	70.18%			
2021	88.11%	64.83%			
2022	86.93%	58.72%			

Table 5: Percentage of graduates who have passed the graduation exam²⁸

The decreasing trend has been explained²⁹ as a result of growing job opportunities, demotivating students to finalize their degrees as already being employed.

While the performance of the administrative staff is assessed indirectly by measuring the effectiveness of units/functions, the faculty staff performance is measured against strict quantifiable criteria in areas of teaching, research, and service. The performance results are used in planning activities (e.g. additional teaching load for not-research-intensive faculty) or as a measure in promotion processes.

Comments/Recommendations:

I.1. Specify the position of the quality assurance unit to report to the Rector, and enhance the scope to all aspects of quality.

²⁶ <u>https://www.utcluj.ro/media/decisions/2023/02/27/Organigrama_UTCN.pdf</u>

²⁷ As per meeting with student representatives, the trust in efficiency of the student' evaluation of courses and faculty is enhancing, that results with improved response rate

²⁸ Internal Evaluation Report, TUCN, 2023

²⁹ Interview with the Internal Evaluation Report authors team

I.2. Responsiveness of the QA systems to the students' evaluation impact is evident and accordingly commended.

I.3. Enhance the extent of QA tools for analyzing processes and impact of TUCN activities and operations, e.g. Examination results, Student satisfaction (Services), Employer satisfaction, etc.

I.4. Ensure that all additional quality-related processes "close the loop" by implementing a full PDCA (Plan-Do-Check-Act) cycle.

I.5. (for ARACIS) Stipulate Internal Quality Assurance systems and dedicated units' scope in accreditation standards and organize supportive workshops to guide institutions on how to enhance the Quality Culture.

I.6. (for ARACIS) Explore ways to raise the culture of the outcome-based approach in higher education, with emphasis on cascading learning outcomes from program to course level and vice-versa, and aligning outcomes, teaching approach, and assessment methods.

J. Internationalization

One of the clear strategic intentions of the UTCN is to maintain strong international engagement and exposure. Since 2017, several internationalization-related projects have been launched and executed, spanning the scope from strengthening internationalization capacities to developing specific instruments for TUCN internationalization³⁰. The crown in these efforts represents the European Universities project where TUCN joined the "EUt+" - European University of Technology consortium that won a 5M euros grant to develop its vision of technology centered on humans.

Such success has been continuously supported by numerous activities such are inbound and outbound student mobility (majorly under Erasmus + framework that consists of almost 500 partner institutions), English courses for teachers and staff, grants to students to participate in international events, purchasing books in foreign languages, etc.

TUCN runs 9 bachelor and 6 master programs in foreign languages (English, German, French), attracting around 300 international students every year, many of them supported by the Romanian students' "Buddy Network". In addition, TUCN has placed significant efforts to develop and conduct 8 dual master's degree programs with partners from France, Germany, Belgium, and Italy³¹.

³⁰ Internal Evaluation Report, TUCN, 2023

³¹ Internal Evaluation Report, TUCN, 2023

To promote additional opportunities for foreign students, since 2018 TUCN organizes the preparatory year of the Romanian language for foreign citizens.

Besides the Romanian language, the TUCN has rich versions of its website available in English³², German, and French.

Comments/Recommendations:

J.1. Engagement within the European University Consortium "EUt+" is highly commended.

³² <u>https://www.utcluj.ro/en/</u>

CONCLUSIONS

The Technical University of Cluj-Napoca is a mature higher education institution, successfully educating tens of thousands of students from Cluj-Napoca and across the Transylvania region. The centennial tradition of technical education is strongly embedded in the institutional DNA, and enriched by the TUCN leadership vision to keep up with the newest global industry innovation trends.

During the last five years, TUCN shows stable enrollment trends, that prove competitiveness at the regional level. By maintaining satellite campuses, TUCN supports community development with a wide geographic range.

The Self Evaluation Report is comprehensive, very readable, and covers beyond areas and topics related to the accreditation process. However, it would be suggested to enhance the level of analytics and self-investigation to ensure continuous improvement at the recommendable level.

The range of offered study programs is wide and in alignment with the university's mission. However, some revisions shall be considered to ensure the agility of the offer and the efficiency of operations.

The worrying point is the high dropout rate of first-year students. A deep analysis is recommended to identify key reasons, propose, and implement corrective and supportive measures, and ensure the balance between academic rigor and social role not to leave students behind.

Regardless of the highly recommendable research & scholarship support strategy, there are still certain obstacles in attracting a sufficient number of faculty members in competitive discipline, e.g. IT. TUCN shall explore additional tools to avoid additional decreases and jeopardize the program delivery.

Success stories in collaboration with the industry partners e.g. BOSCH and Emerson shall be widely promoted as best practices to attract more partnerships. In addition, international engagements enhance students' opportunities to develop skills and competence beyond the curriculum.

Finally, the overall impression after the visit provides the trust that the leadership, and the university at large, possess the sufficient capacity for stable growth aligned with the national and international standards of academic quality and rigor.

In Cluj-Napoca / Abu Dhabi June 7- 19, 2023

International Expert for Institutional Evaluation

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