

The External Evaluation Report of a Doctoral Study Domain

Contents

I. Introduction

II. Methods used

III. Analysis of performance indicators

IV. SWOT Analysis

V. Overview of judgments awarded and of the recommendations

VI. Conclusions and general recommendations

VII. Annexes

I. Introduction¹

The external evaluation report of doctoral study domain - **Military Science** - was prepared on the provisions of the Romanian normative acts and in particular of Article 158 para. (2) – (5) of the Law of National Education No. 1/2011 and Order 3651 of 12.04.2021 of the Minister of Education to approve the Methodology for evaluation of doctoral studies and the systems of criteria, standards and performance indicators used in the evaluation and the systems of criteria, standards and performance indicators used in the evaluation.

The evaluation of doctoral study domain's at the "Carol I" National Defense University was carried out in the period: **15.11.2021 – 19.11.2021**. The external evaluation visit was organised in the online form. During the visit, meetings were held with the authorities of the University, the doctoral school, persons responsible for the implementation of the education process in the visited doctoral school, including the authors of the self-assessment report, academic teachers conducting classes at the doctoral school, students and bodies responsible for the internal system of ensuring the quality of education.

The Experts Committee of periodical external evaluation for the doctoral study domain Military Sciences consist of:

No.	Name	University
MILITARY SCIENCE		
1	<i>Coordinator</i> Prof. univ. dr. Dumitru BATÂR	Universitatea "Lucian Blaga" Sibiu
2	<i>International expert</i> Andrzej SOBOŃ (online)	War Studies University, Poland
3	Ionut ZBRANCA	Universitatea „Babeş-Bolyai” din Cluj-Napoca

¹ Each time when applicable the information shall be presented gender-wise.

“Carol I” National Defense University (*Universitatea Națională de Apărare “Carol I” - UNAp*) is a public higher military education institution, part of the national education system, with accredited study programmes under the legislative framework applicable to higher education. “Carol I” National Defense University is classified as an education and scientific research university. Under Bologna Process, the University provides third level - doctoral studies in the field of “Military Sciences” and “National Security and Intelligence”. Doctoral studies have a long tradition, begins since 1968 (Military sciences field). In 1995 the University was accredited as a Doctoral Organizing Institution (IOD), and since 2011 as an Organizing Institution for Doctoral University Studies (IOSUD). The doctoral school has long experience so the studies are mainly based on university and institutional-departmental scientific research activities. The doctoral school is subordinated to the Council for Doctoral Studies. The administrative component of the doctoral school is created by Director of the doctoral school from Faculty of Security and Defense and 5 administrative positions. Within the doctoral fields, Intelligence and National Security as well as Military Science in 2021/2022 16 doctoral supervisors carry out their activity. Additionally, in the same academic year 193 PhD students continue their education.

Particularly noteworthy is the fact that the field of Military Science accredited at IOSUD is the only one in Romania and one of the few in Europe. As a result, the doctoral study domain - military science has activities, which are composed of military actions by their essence - armed struggle, military actions by destination and actions related to armed struggle. Based on an introductory presentation, 5 students from the whole number of 125 students in Military Studies domain started education at the “Carol I” National Defense University” in 2021/2022.

In accordance with the evaluation procedure, the evaluator analysed the data and information contained in the self-evaluation report provided by the University authorities and prepared this report in the scope of the entrusted responsibility.

II. Methods used

The evaluation procedure followed the current ARACIS program evaluation procedure. The evaluation of doctoral study domain, Military Sciences, was carried out in blended form. Before the visit started, the duties were divided among the experts participating in the work of the evaluation team. Additionally, a detailed schedule of the visit was established, including on-line meetings. Based on the evaluation procedure, the *Self-assessment Report on the Field of Doctoral Studies of Military Science* and 97 Annexes sent by the ARACIS Cloud were

analysed. All annexes were in the Romanian language, which significantly limited their interpretation. The analysis of the self-assessment report of the Military Studies doctoral study domain and annexes, confirmation of data and information available on the UNAp website <https://www.unap.ro/index.php/ro/oferta-educationala/studii-de-doctorat> allow the evaluator to be sufficiently prepared for the beginning of the visit. The visit was preceded by an internal organizational meeting of the evaluation team, during which the self-assessment report and information provided in the form of attachments to the report were discussed. During the evaluation visit, which was previously configured online with the authorities of at "Carol I" National Defense University, the timetable of doctoral study domains was drafted with the representatives of the University, Doctoral University Studies Council (CSUD), director and members of doctoral school, members of the Ethics Commission, team who drafted *Self-assessment Report on the Field of Doctoral Studies of Military Science*, directors of the research centres/laboratories within the doctoral study domain, academic staff corresponding to the military sciences doctoral study domain, graduates, PhD students and administrative workers. Before the end of the visit, an internal meeting of the evaluation team was held, during which compliance with the criteria set out in the assigned responsibility was summarized, the necessary information was exchanged and the first observations were discussed, about which the University and faculty authorities were informed at the summary meeting.

III. Analysis of ARACIS's performance indicators

Domain A. INSTITUTIONAL CAPACITY

Criterion A.1. The administrative, managerial institutional structures and the financial resources

Performance Indicator A.1.1.1.

The regulations of doctoral studies of military science at the Doctoral School were approved by the Senate of "Carol I" National Defense University and published at UNAp website. The process of development was carried out at three stage levels: elaborating by the Council of the doctoral school, validating by the doctoral supervisors and approving by CSUD. *Doctoral School Regulations*, AM 2401, Bucharest, 2020, <https://www.unap.ro/ro/doctorat/regulament.pdf> and *The Regulation on the organization and development of doctoral study programs at "Carol I" National Defense University*

<https://www.unap.ro/ro/doctorat/regulament%20iosud.pdf> are completed. University has the methodology of organizing the elections and appointing the members of the council for doctoral studies. The document was approved by the Senate (Decision no. 69 of 19.06.2019). Furthermore, the confirmation of the election can be found at <https://www.unap.ro/index.php/ro/consiliul-pentru-studiile-universitare-de-doctorat-csud>. To ensure correct election of the members of the doctoral school, the council has prepared the methodology of organizing the elections and appointing the members of the doctoral school council. The document was approved by the Senate (Decision no. 104 of 29.10.2019) and is available at <https://www.unap.ro/index.php/ro/informatii-utile-doctorat>. Within IOSUD management structure monthly meetings are organised to analyze specific matters and related decisions. The director of the doctoral school organises meetings during which he prepares reports. All reports and decisions are archived and kept for 5 years.

The university makes all documents available in an open way at webpage.

The doctoral admission is organized in September and takes place at three stages, including registration of candidates, evaluation of candidates and admission session. Since the academic year 2020-2021 the admission is made in accordance with the *Regulation on the organization of admission to the doctoral studies program in the fields of "Military Sciences" and "Intelligence and National Security"*. Admission to doctoral university studies is regulated at IOSUD level. Agenda and regulation of the doctoral admission in the fields of military sciences is understandable and easy to explore by <https://www.unap.ro/index.php/ro/informatii-utile-doctorat>. All details regarding admission are published at least 6 months before the admission. The completion of doctoral studies is regulated by the methodology for evaluating and defending the doctoral thesis and Guide for writing the doctoral thesis at "Carol I" National Defense University. The aforementioned documents describe formal thesis requirements, quality standards, steps to preparing and the public defence of the doctoral thesis. Methodology secures the student and the university in situations in which suspicions may arise regarding violations of the rules of ethics and academic integrity, as well as for situations in which grade is recognised as unsatisfactory. The completion of doctoral studies is regulated at IOSUD level by the *Regulation on the organization and conduct of examinations* to complete studies at "Carol I" National Defense University <https://www.unap.ro/index.php/ro/prezentare/documente-institutionale>

In accordance with present mechanisms for recognizing the status of a doctoral advisor and the equivalence of the doctoral diplomas obtained abroad, IOSUD UNAp has got special procedures. For this purpose, there are presented *The procedure regarding the recognition of*

the doctoral degree and the doctoral title in the fields “Military sciences” or “Intelligence and national security”, obtained abroad, by “Carol I” National Defense University,” and The procedure regarding the automatic recognition by “Carol I” National Defense University, of the quality of doctoral supervisor / ability in the fields “Military sciences” or “Intelligence and national security”, obtained in foreign educational institutions. However, the recognition of foreign diplomas does not automatically imply their affiliation to the doctoral school.

Annex no. 19 of the Doctoral School Regulations presents a contract of doctoral university studies <https://www.unap.ro/ro/doctorat/regulament.pdf> It includes all details regulated by the code of doctoral university studies.

Analyses of documents and discussion with the director and academic staff confirmed right internal procedures for preparing and approval the topic of doctoral university study programs. The establishment of the topic of doctoral study programs has two diverse ways. For places financed by the Ministry of National Defence, IOSUD UNAp receives topics from the Ministry of National Defence. For fee-paying places the doctoral supervisor elaborates their own research plan, which must be approved by CSD and CSUD. Doctoral School presented proper documents to argue the existence of internal procedures for analysis and approval of proposals on the topic of doctoral study programs.

These are good practices that prove the potential candidates for PhD studies are willing to undertake research important for military sciences.

Recommendations:

The indicator is fulfilled.

Performance Indicator A.1.1.2.

“Carol I” National Defense University proved possession of the regulations of the doctoral school that include criteria, procedures and standards that are mandatory for the aspects specified in art. 17 para. (5) of the Code of doctoral studies, approved by Government Decision no. 681/2011. They were also emphasized during the interviews. Details regarding the conditions and the procedure of affiliation and disaffiliation are in the *Doctoral School Regulations* <https://www.unap.ro/ro/doctorat/regulament.pdf>: Application for enrolment; Content of the enrolment file; and Withdrawal of the quality of member of the doctoral school. In order to become members of the doctoral school candidates must meet scientific requirements: at least 3 publications in WoS, ERIH or ISI Proceedings; at least 2 scientific articles in the field of Military Science and posses a level of scientific Hirsch index of at least

2. University claim also that the doctoral supervisors who in 2020 did not fulfill the obligation to have maximum 3 years according to an order of the Minister of Education and Research no. 3020/2020. Failure to comply with these provisions will unconditionally result in disaffiliation.

Under indicator A.1.1.2 IOSUD UNAp confirmed the system of: (1) structure and content of the training program based on doctoral university studies, (2) change of doctoral supervisor, (3) conflict mediation, (4) the contract of doctoral university studies, (5) interruption of the doctoral program and expelling process of a doctoral student, (6) ensuring access to research resources and (7) attendance obligations of doctoral students. Requirements fulfilled. Meeting with the members of the Ethic Commission confirmed right process to prevent fraud in scientific research, including plagiarism at Doctoral School. The evaluator concludes that the procedure for the anti-plagiarism verification of the doctoral theses elaborated in „Carol I” was properly selected:

<https://www.unap.ro/index.php/ro/informatii-utile-doctorat>

Recommendations:

The indicator is fulfilled.

Performance Indicator A.1.2.1.

“Carol I” National Defense University offer the DOXED web application (<https://doxed.adlunap.ro/dashboard>) for IOSUD. The application enables the connection between databases stressing information about doctoral students, their academic background, generating reports on doctoral supervisors and commissions to support the doctoral thesis. Widely known software is appropriate for the record of doctoral students and their academic career.

Recommendations:

The indicator is fulfilled.

Performance Indicator A.1.2.2.

“Carol I” National Defense University prepares a Similarity Report for each doctoral thesis. Under the Order no. 3482 the Doctoral School has specified document *Procedure for the antiplagiarism verification of the doctoral theses elaborated in "Carol I" National Defense University* - <https://www.unap.ro/index.php/ro/informatii-utile-doctorat>. Since 2016 the University has a contract with S.C. Plagiarism - Anti-Plagiarism System through Internet SRL of the service of electronic comparison of documents by using the internet service

Sistemantiplagiat.ro. The software calculates the percentage value of these coefficients and finally generates certain alert thresholds. The Anti-Plagiarism System is appropriate to verify the percentage of similarity in all doctoral theses.

Recommendations:

The indicator is fulfilled.

Performance Indicator A.1.3.1.

In the period 2015-2020 “Carol I” National Defense University prepared for the field of study Military Science 8 research-development-innovation projects. In the process of preparing the projects doctoral students (6) and 4 doctoral supervisors were also involved. Therefore, doctoral students carried out scientific research activity in the following projects: *Predictive methodology for Technology Intelligence Analysis*, PYTHIA (Grant agreement no. 800893/2017), *European network of Cybersecurity centres and competence Hub for innovation and Operations*, ECHO (Grant agreement 830943/2019), *Strategy Oriented Analysis of the Market Forces in EU Defence*, SOLOMON (Grant agreement 831739) or *SMART Decision* (Grant agreement 239/23.08.2018).

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.1.3.2.

In the period 2015-2020 “Carol I” National Defense University offered financial support for 85 doctoral students enrolled in the field of Military Science. For 28 students financial support was funded by the Ministry of National Defense. At the time of the evaluation the proportion of doctoral students who benefit for a minimum of six months from sources of funding other than government funding, is 32,9%.

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.1.3.3.

The total income which OSUD-„Carol I” UNAp has received from MoD non-budget and MoD budget spent mainly for supervisors salaries. For example in 2019/2020 from total budget 721200 Lei, 526552 Lei was spent for salaries. It is 73%. The rest of the funds are allocated to reimburse the training costs of doctoral students, like publication of articles or

dissemination of their scientific activities. In this matter 42 doctoral students (46.7%) disseminated the results of scientific research through articles published in journals: Bulletin of "Carol I" National Defense University, Strategic Impact Magazine, Journal of Defense Resources Management.

Recommendations:

The indicator is fulfilled.

Criterion A.2. Research infrastructure

Performance Indicator A.2.1.1.

The research infrastructure of Doctoral School offers: a computerized complex for the doctoral and postdoctoral studies which consists of 2 computer rooms. The research infrastructure endowments for Military Sciences PhD students meet the requirements of scientific education and research of doctoral studies. Additionally, an offer of research services are presented publicly through the ERRIS profile platform. A library of UNAp is a specialized collection, without legal personality and operates within the limits provided by its own regulations and as a public library. The library provides the necessary info-documentation for the main users of the university, including doctoral students. Bibliographic resources are appropriate to the fields of military <https://www.unap.ro/index.php/ro/asigurare-invatamant/biblioteca-unap>. Access to electronic resources is publicly available.

Recommendations:

The indicator is fulfilled.

Criterion A.3. Quality of Human Resources

Performance Indicator A.3.1.1.

Doctoral supervisors in the field of Military Sciences at the doctoral school have current and documented scientific achievements and professional experience in the field of Military Sciences. Within standards, of Annex no. 26 - *Commission of Military Sciences*, the minimum standards in this field is 100 points. All doctoral supervisors in the Military Sciences field meet the qualification conditions and meet the minimum CNATDCU standards. Academic achievements of the following academic teachers need to be emphasized: Prof. univ. dr.

BÂRSAN Ghiță with 1396,89 points, Prof. univ. dr. MINCULETE Gheorghe with 1265,72 points and Prof. univ. dr. MINCULETE Gheorghe with 1265,72 points.

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.3.1.2.

The doctoral field of Military Sciences has 21 doctoral supervisors who perform their activity at the Doctoral School. "Carol I" National Defense University as Organizing Institution for Doctoral University Studies employs 4 doctoral supervisors as full professors: Prof. univ. dr. HERCIU Alexandru, Prof. univ. dr. LEHACI Tudorel, Prof. univ. dr. STANCIU Cristian and Prof. univ. dr. VASILESCU Cezar. Next 8 doctoral supervisors in the field of Military Sciences are full professors at academies forming IOSUD: "Nicolae Bălcescu" Land Forces Academy (Prof. univ.dr. BÂRSAN Ghiță, Prof.univ.dr. PLEȘANU Toma) and "Mircea cel Batran" Naval Academy (Prof. univ.dr. CHIORCEA Ion). Since 2013 the Consortium of Military Higher Education Institutions had another two academies: "Ferdinand I" Military Technical Academy and "Henri Coandă" Air Force Academy which are not represented at that moment.

Knowing the specifics of military service and the necessity to retire at the age of 55, it is recommended to take measures to maintain the officer-profesors resources originally from the Consortium of Military Higher Education Institutions.

Recommendations:

The indicator is fulfilled.

Performance Indicator A.3.1.3.

Having analyzed the annex *Centralizing table with the situation of the staff involved in teaching the doctoral level disciplines*, subjects in the training program of the Military Studies discipline are supported by teachers who have the quality of doctoral supervisor, professors with proven expertise in the field of taught subjects. Some examples include: *Metodologia cercetării științifice* Prof. univ. dr. ROCEANU Ion, *Etică și integritate academică* Prof. univ. dr. REPEZ Filofteia, *Fundamente ale științei militare. Studii strategice* - Prof. univ.dr. HERCIU Alexandru, *Arta militară* - Prof. univ. dr. STANCIU Cristian, *Management al resurselor de apărare* - Prof. univ. dr. VASILESCU Cezar, *Managementul sistemelor informaționale* - Prof. univ. dr. TOPOR Sorin and *Securitate cibernetică* - Prof. univ. dr. ROCEANU Ion.

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.1.3.4.

The indicator calculate doctoral supervisors who coordinate at the same time 8 or more doctoral students in the field of Military Sciences. Having analyzed the annexes it can be concluded that the Doctoral School has no doctoral supervisors who coordinate at the same time more than 8 doctoral students during their doctoral studies. Close to the minimum is Prof. univ. dr. NICA Dumitru who coordinates 7 doctoral students at the same time. UNAp aims at increasing the quality of doctoral students' selection by *inter alia* reducing the enrollment rate. Therefore, the plans of the doctoral school indicate that in October 2022 the ratio will fall below 7 students / doctoral supervisor.

Recommendations:

The indicator is fulfilled.

Performance Indicator A.3.2.1.

The scientific and publishing activity in highly ranked scientific journals is exceptionally hard in Military Sciences. In Europe there are only a few journals in this field. Hence in Military Sciences was, is and will be an extensive discussion about this indicator, unrealistic for scientists in uniform. In the analyzed period, the doctoral school did not reach this level. 6 doctoral supervisors (28.5%) published at least 5 manuscripts indexed in WoS or ERIH. UNAp presented publishing plans and publishing projects to allow for an optimistic view of the Military Science at IOSUD. Since the beginning of 2021, the Board of Directors of the National Defense University "Carol I" approved measures for the ranking of doctoral supervisors in the field of Military Sciences based on the requirements of Order no. 3651/2021 regarding the evaluation of doctoral schools. The University senate approves the maintenance of the quality of affiliated doctoral supervisor for the next university year in order to fulfil the indicator "at least 50% of the doctoral thesis advisors in the evaluated domain have at least 5 publications indexed in WoS or ERIH". In the interest of further development of Military Sciences, we should assume the plan as the current state: 10 doctoral supervisors, out of which 4 full professors + 6 associates, respectively 5 supervisors with international scientific activity proven by documents and other relevant contributions in the field of Military Sciences.

Recommendations:

The indicator is partially fulfilled.

Performance Indicator *A.3.2.2.

Referring to Annex no. 26 - *Commission of Military Sciences, Information and Public Order to the MENCS* Order no. 6129/2016, the minimum score required to obtain the certificate of qualification is 100 points. All doctoral supervisors, i.e. 100% of the affiliated doctoral supervisors, continue to be scientifically active, obtaining at least 25 points, which represents 25% of the score required by the CNATDCU minimum standards for obtaining the habilitation certificate, based on scientific results from the last five years.

Recommendations:

The indicator is fulfilled.

Domain B. EDUCATIONAL EFFECTIVENESS

Criterion B.1. The number, quality and diversity of candidates enrolled for the admission contest

Performance Indicator *B.1.1.1.

In annex B.1.1.1 "*Raportul dintre numărul candidaților absolvenți la nivel de masterat ai altor instituții de învățământ superior/ număr candidați înscriși - domeniul Științe Militare*" the Doctoral School has the ratio higher than 0.2. The ratio between the number of master's degree graduates from other higher education institutions and the number of candidates registered for the competition for admission to doctoral studies in the last 5 years, is as follows: 0,31 (it has a minimum value – 0,12 for admission in 2020 and a maximum value of 0,43 for admission in 2015).

Recommendations:

The indicator is fulfilled.

Performance Indicator *B.1.2.1.

Admission to doctoral study programmes is based on the following selection criteria: candidates choose a research theme from the list of themes proposed by the doctoral supervisors. Next, they submit the registration papers to the secretariat of the doctoral school. PhD candidates are required to submit their CV and the list of scientific works which includes: articles published in journals or conferences, dissertation, courses, etc. Then, doctoral

supervisor performs a preliminary selection. Next, the doctoral supervisor performs a preliminary selection of candidates and completes a pre-selection form with a score/ grade (Annex no. 16 A / Doctoral School Regulations). The final examination for the best candidate involves two stages: (1) oral test that aims to assess the level of knowledge of the concepts specific to the field of study; (2) interview, which aims to assess the ability to argue the scientific research intent and its relevance for the interest areas of the educational services beneficiaries of UNAp, in relation to the research topic of the doctoral supervisor. The procedures presented by Doctoral School are in accordance with the indicator “Admission to doctoral study programs is based on selection criteria”.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.1.2.2.

For the 2015-2018 admission sessions, the ratio between the number of doctoral students registered in the third year of doctoral studies and the number of doctoral students admitted to the doctorate in the same series was calculated. The dropout rate of doctoral students 2 years after enrollment is 4.05% (not exceeding 30%). The Annex B.1.2.2 presents 6 PhD students dropout at 2 years.

Recommendations:

The indicator is fulfilled.

Criterion B.2. The content of doctoral programs

Performance Indicator B.2.1.1.

The curriculum <https://www.unap.ro/ro/doctorat/plan%20doctorat%20SM.pdf> for the training program based on doctoral studies field of Military Sciences contains 3 compulsory subjects: *Etică și integritate academică, Metodologia cercetării științifice, Fundamente ale științei militare. Studii strategice* and 5 optional subjects: *Arta militară, Logistica apărării, Managementul sistemelor informaționale, Management al resurselor de apărare, Securitate cibernetică*, among which the doctoral student must complete one. Both *Metodologia cercetării* and *Fundamente ale științei militare* are very important to Military Sciences. They allow to transmit knowledge from Military sciences to research projects and to train the competence to use advanced research methods and techniques.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.2.

The curriculum <https://www.unap.ro/ro/doctorat/plan%20doctorat%20SM.pdf> for the training program of doctoral studies in the field of Military Sciences includes a mandatory subject “Ethics and academic integrity” that requires 20 hours (14 classes and 6 seminars). The course syllabus presents the following content: knowledge of concepts, theories and norms specific to academic ethics, use of knowledge of academic ethics for the development of scientific papers and scientific research.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.3.

Annex B.2.1.3. “*The Regulation on initiating, approving, monitoring and evaluating study programs in "Carol I" National Defense University*, chapter III has created mechanisms to ensure that the study program based on advanced university studies are monitored and evaluated, internally and externally. Also, each Discipline Sheet contains: the objectives of the discipline (general objective and specific objectives), specific skills accumulated (professional skills). At the same time, in the structure of the Discipline Sheet there is a point through which the contents of the discipline are corroborated with the expectations of the employers in the field related to the program.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.4.

The representatives of the Doctoral School stated that each doctoral student is supported by a guiding committee, which is in accordance with Art. 31 of *Regulations of the Doctoral School for the development of the doctoral university study program*. The members of the guiding committee are tenured teachers of the university or doctoral supervisors affiliated to the Doctoral School with the degree of doctor. The guiding committee participates in guiding doctoral student activity through guidance, study and evaluation of the progress made during the research program, until the completion of the doctoral thesis. Additionally, according to Annex no. 4 of the aforementioned Regulations, the doctoral student must

complete the Self-assessment form and decide about the number of requests for consultations of the guiding committee. The Annex B.2.1.4 confirmed the above.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.5.

A teacher or researcher who meets the requirements may be a member of several guiding committees. The maximum number of guiding committees, which may include a tenure professor of the university or a doctoral supervisor affiliated to the Doctoral School, is established by the Council of the Doctoral School. Over the years, given the dynamics of the number of PhD students and the number of teachers at UNAp, this ratio has been outdated in some places, especially in some PhD supervisors who preferred to form guiding teams, but the 3: 1 ratio has never been higher in the whole field, especially in the last 5 years when doctoral students have decreased in number. The list of professors belonging to the guidance committee is in the Annex B.2.1.5 validates indicator. For the field of Military Sciences, the ratio is 2.07 (125 PhD students guided by 62 teachers / researchers) which does not exceed 3:1.

Recommendations:

The indicator is fulfilled.

Criterion B.3. The results of doctoral studies and procedures for their evaluation.

Performance Indicator B.3.1.1.

Doctoral student has Individual Training Plan. In accordance with the national and institutional requirements regarding the dissemination of results, every doctoral student has the obligation to publish at least 6 articles in nationally and internationally classified journals as well as at relevant scientific conferences in the field. All newly promoted doctors fulfilled this requirement. Based on Annex B 3.1.1 and List of authors and articles the evaluator has selected the paper by Dorin IONIȚĂ titled *The Role Played by the Armed Forces for Protection of the Civilian Population as Part of Humanitarian Crises Management. The Romanian Approach*. Selected paper contains significant original contributions in Military

Sciences domain. Dorin IONIȚĂ rightly concluded (2017) that “*that the civil-military (interagency) integration/cooperation is indispensable at all levels, so that the armed forces will effectively accomplish their support roles within the civil protection and humanitarian operations*”.

Recommendations:

The indicator is fulfilled.

Performance Indicator *B.3.1.2.

Doctoral students from IOSUD in the domain of Military Sciences must realize their Individual Training Plan. Therefore all doctoral students who graduated from IOSUD UNAp must prepare at least 6 scientific works: articles, conference papers etc. This causes that the indicator B.3.1.2 is fulfilled. The ratio between the number of presentations of doctoral students and the number of doctoral students who completed their doctoral studies between October 2015 and September 2020, is at least equal to 1.

Recommendations:

The indicator is fulfilled.

Performance Indicator *B.3.2.1.

University documents submitted for analysis: the Annex B.3.2.1 presents the *Situation of the doctoral commissions for the PhD theses in the field of Military Sciences, during October 2015-September 2020* shows that in the field of Military Sciences, there were 132 PhD theses presentations guided by 27 doctoral supervisors. In three cases (two in 2015-2016 and one in 2016-2017) more than two theses were assigned to a reviewer from another university. As a result of the Order of the Minister of National Education no. 5403/2018, starting with October 2018, higher education institution reviewers, others than “Carol I” National Defense University, have been assigned maximum two theses coordinated by the same doctoral supervisor in one year. Furthermore, by adopting in January 2020 the *Methodology for evaluating and defending the doctoral thesis within the doctoral school of IOSUD- the “Carol I” National Defense University* <https://www.unap.ro/index.php/ro/informatii-utile-doctorat> an official reviewer may not be assigned in more than two commissions for the defense of doctoral theses during an academic year.

Recommendations:

The indicator is fulfilled.

Performance Indicator *B.3.2.2.

In the period October 2015-September 2020, 132 theses were defended. Having as reference the situation of the doctoral commissions for the theses defended in the field of Military Sciences, the following has been observed. In every commission for public defence of doctoral theses, at least 2 scientific reviewers are from outside the IOSUD. Scientific reviewers from other universities were invited on some interdisciplinary topics. Despite all these specific aspects, there are no situations in which a scientific reviewer has participated in many dissertations. Given the specifics of the doctoral field of Military Sciences, most of the scientific reviewers come from higher education institutions in the field of military science, information and public order. The highest values of the ratio between the number of doctoral theses assigned to a certain scientific reviewer from another higher education institution and the number of doctoral theses presented in the field of Military Sciences are less than 0.3. The Doctoral School presented several examples: (1) 0.16 Mihai-Marcel NEAG, “Nicolae Bălcescu” Land Forces Academy - Sibiu, 2015-2020; (2) 0,098 Mircea BOȘCOIANU, Transilvania University of Brașov, 2015-2020; (3) 0,083 George Marius ȚICAL, Andrei Șaguna-Constanța University, 2015-2018. After 2019, measures were taken so that a specialist from another institution is not nominated more than twice a year for the same doctoral supervisor. Since 2020, the rule has been even more drastic, a specialist can participate in at most two theses, regardless of the supervisor, in an academic year.

Recommendations:

The indicator is fulfilled.

Domain C. QUALITY MANAGEMENT

Criterion C.1. Existence and periodic implementation of the internal quality assurance system

Performance Indicator C.1.1.1.

Under article 10 *Doctoral School Regulations* the self-evaluation of the Doctoral School is organised at two-year intervals. The self-evaluation report of the Doctoral School for the period October 2015 - September 2017 was analyzed and approved by the Decision

of the Doctoral School and approved by the CSUD Decision (AM 2290, G2-1627 of 13.07.2018)

[https://www.unap.ro/ro/doctorat/docs/Raport_Autoevaluare_Scoala%20doctorala%202015-](https://www.unap.ro/ro/doctorat/docs/Raport_Autoevaluare_Scoala%20doctorala%202015-2017.pdf)

[2017.pdf](https://www.unap.ro/ro/doctorat/docs/Raport_Autoevaluare_Scoala%20doctorala%202015-2017.pdf) The self-evaluation report structure includes: (1) evaluation of doctoral supervisors, (2) evaluation of the material basis of education, (3) the feasibility of the structure of doctoral school. The reports also present the strengths and weaknesses of the activities carried out within the Doctoral School. In 2019, in accordance with the Order of the Minister of National Education no. 3200/2019, the Doctoral School resumed the evaluation process. The Self-assessment report of the doctoral school in the fields of Military Science was created and submitted to the Romanian Agency for Quality Assurance in Higher Education:

https://www.unap.ro/ro/doctorat/docs/Raport_Autoevaluare_IOSUD_UNAp_2019.pdf

(in Romanian). In the Self-assessment report the following were evaluated: the scientific activity of doctoral supervisors; the infrastructure and logistics necessary to carry out the research activity; the procedures and subsequent rules on the basis of which the doctoral studies are organized; the scientific activity of doctoral students; training program based on advanced university studies of doctoral students. At the same time, the scientific activity of the doctoral supervisors is materialized by the periodic elaboration (every 2 years) to verify the fulfillment of the minimum standards, established by the Commission of Military Sciences, Information and Public Order (CNATDCU).

Recommendations:

The indicator is fulfilled.

Performance Indicator *C.1.1.2.

During the stage of the doctoral study program the Doctoral School implemented mechanisms to enable feedback from doctoral students allowing to identify their needs as well as their overall level of satisfaction with the doctoral study program in order to ensure continuous improvement of the academic and administrative processes. *The Regulation of the Doctoral School* art.10, para.2, letter g) makes clarifications regarding elements of the feedback mechanism from doctoral students (evaluation of the degree of satisfaction of the doctoral school graduates and their employers), aspect materialized by completing the *Form for the self-assessment of the doctoral student* (Annex no. 4 to the Doctoral School Regulations) and of the *Questionnaire for the evaluation of doctoral supervisors by doctoral students* (Annex no. 2 to the Doctoral School Regulations). The information provided through these questionnaires is analysis, interpreted and used in the *Self- Assessment Reports of the Doctoral School*, once every 2 years. The conclusions resulting from analyses determine

future actions against identified deficiencies and the implementation of procedures that will improve an efficiency of the activities carried out within the Doctoral School. The *Action Plan* is a useful tool to remedy the reported deficiencies and stimulating the scientific and academic performance of the doctoral school published in Annex no 8 to the *Doctoral School Self-Assessment Report for the period October 2015 - September 2017*.

Recommendations:

The indicator is fulfilled.

Criterion C.2. Transparency of information and accessibility of learning resources

Performance Indicator C.2.1.1.

“Carol I” National Defense University as a public higher military education institution, runs clear communication at the webpage. All regulations, procedures or other doctoral documents are available on the university web page in the doctoral studies section: <https://www.unap.ro/index.php/ro/scoala-doctorala>. University offers also information in English. Primary information are published in section: <https://www.unap.ro/index.php/en/phd-academic-studies>.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.2.2.1.

“Carol I” National Defense University offers for PhD students free access to the University Library and all scientific databases. The database platform for doctoral students is free of charge with permanent access from anywhere - through mobile access. The access account based on login and password is obtained after completing the standard application form. The University Library ensures an adequate material base for the development in optimal conditions of the doctoral university studies. The bibliographic resources adequate to the field of Military Sciences are also found in the online catalog of the structure: <http://bibliotecadigitala.unap.ro/> Library of "Carol I" National Defense University has access to the electronic information and documentation resources through the AnelisPlus Project which ensures doctoral students access to secured databases, eg. ProQuest, Cambridge University Press, Copernicus, Oxford Journals Open. It ensured for doctoral students the increase of access to scientific research literature with relevant impact factor and

international visibility. The Doctoral School promotes free access to a platform with academic databases in the spirit of the principles of promoting open access to scientific knowledge.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.2.2.2.

„Carol I” National Defense University has a contract with S.C. Plagiarism - Anti-Plagiarism System through Internet SRL for software to electronic document comparison by using the internet service Sistemantiplagiat.ro. The software is used for preparing the doctoral thesis during the pre-defend process. To do this, the doctoral student is required to submit to the Doctoral School a request to check the doctoral thesis in Sistemantiplagiat.ro. Request must be approved by the doctoral supervisor.

Doctoral School should also open access for doctoral students to platform Sistemantiplagiat.ro in others situation like preparing scientific articles and monographs.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.2.2.3.

“Carol I” National Defense University in *Doctoral School Regulations* Art. 62. point (2) has legal provision “*all doctoral students have free access to the academic resources relevant to doctoral studies generated / administered by the university, such as: scientific research laboratories, university library, scientific journals, content of national / international scientific events*”. According to this provion all doctoral students who have a login and password for computer systems are allowed to access IT resources from scientific research laboratories. Accounts for the use of computers are created on the basis of requests made by applicants, after they have been trained on the rules on the operation of computer systems. After that, doctoral students can use labolatory, for example *Laboratory for the Simulation of Military Actions, ILIAS Labolatory*. Doctoral students can also access the ILIAS online educational platform via a doctoral student account: [https://lms.adlunap.ro/login.php?target=&client_id=unap&auth_stat=.](https://lms.adlunap.ro/login.php?target=&client_id=unap&auth_stat=)

Recommendations:

The indicator is fulfilled.

Criterion C.3. Internationalization

Performance Indicator *C.3.1.1.

Ministry of National Defense through "Carol I" National Defense University supports the participation of Romanian Army soldiers in international missions to combat terrorism, to offer peace support or humanitarian missions, such as and major multinational exercises. These missions carried out under the auspices of NATO, EU and UN are expressions of ensuring the development of specific action skills in contemporary military actions. At the same time, the execution of such missions allows the transfer of high qualified knowledge in the contemporary environment of military combat, as well as the analysis / experimentation of action procedures specific to Military Sciences and vice versa. IOSUD "Carol I" National Defense University signed collaboration agreements with 32 institutions in the country and with 27 institutions abroad. The Doctoral School recognises the development of collaborative relations with higher education and scientific research institutions in the country and abroad, which is very important to increase the efficiency of the university's activity and prestige. It is one of the strategic objectives of the university. In this sense IOSUD UNAp matches reciprocity in the organization of education and research activities. Based on annex C.3.1.1, 23 international journeys were organized in wich 75 mobilities of doctoral students in the field of Military Sciences were carried out. In conclusion, 75 doctoral students, which represents more than 60% of the students who defended their doctoral thesis between October 2015 and September 2020, completed a training course abroad or another form of mobility.

"Carol I" National Defence University possesses Erasmus + University Charter for study and students mobility. The Doctoral School should also use Erasmus + University Charter for doctoral students.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.3.1.2.

"Carol I" National Defense University and Doctoral School in the field of Military Sciences very actively cooperates in military scientific environment. IOSUD UNAp within the field of Military Sciences invited leading experts to give lectures for doctoral students, eg: Josef JANNING, Director of the European Council on Foreign Relations with a talk on *"EU policies. Perspectives and evolutions after BREXIT"* on 11.23.2018; Professor James WITHER, representative of the "George C. Marshall European Center for Security Studies", conducted a speech *"Information Warfare: the Core of Modern Hybrid War"* on 05.12.2018;

Professor Adrian GHEORGHE, representative of "Old Dominion University, Norfolk Virginia (USA)" with presentation on *"Critical Infrastructure, Resilience, Blockchain - New Developments Internationally"* on 18.12.2018. The aforementioned visits are good examples of inviting senior experts for doctoral students. In the self-assessment report the process of organizing doctoral studies as a part of international co-tutelage has not been justified. During the meeting with CSUD and CUD members, cooperation with other doctoral schools has been repeatedly confirmed. The Director of the Doctoral School indicated that the European Doctoral School is a part of the Common Security and Defense Policy - CSDP (<https://esdc.europa.eu/doctoral-school/>). Furthermore, doctoral supervisors e.g. Prof. univ. dr. Cezar VASILECSU or Prof. univ.dr. BÂRSAN Ghiță pointed out their cooperation with other foreign institutions and professors from this HEI under the co-tutelage within the aspects of Military Studies.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.3.1.3.

IOSUD UNAp participates in international fairs to attract doctoral students. The participation in the Black Sea Defense, Aerospace and Security International Exhibition (BSDA) needs to be pointed out. Thus, "Carol I" National Defense University was present at Black Sea Defense & Aerospace 2018 to promote the educational offer, including doctoral programs. The internationalization of activities carried out by IOSUD UNAp during the doctoral studies is supported by partnership with the European Doctoral School on the Common Security and Defense Policy – CSDP. This is a European doctoral school based in the field of study of Common Security and Defense Policy (CSDP). CSDP is an initiative launched by the European Security and Defense College in Brussels. This creates opportunities for the Doctoral School to internationalize research in the field of Military Studies in the following areas, e.g. cybernetics, critical infrastructure, defense industry, conflict studies, defense economics, governance, management and decision making.

Recommendations:

The indicator is fulfilled.

IV. SWOT Analysis

<p><u>Strengths:</u></p> <ul style="list-style-type: none"> - 50 years tradition of doctoral studies in the field of Military Sciences; - Military Sciences are unique at the national level and have a special significance for the military institutions of higher education in Romania; - self-evaluation of the Doctoral School; - PhD candidates undertake research important for Military Sciences; - teaching and ensuring high academic integrity; - supporting academic development of PhD students (online library resources, access to high-quality international databases); - high enrollment rate; 	<p><u>Weaknesses:</u></p> <ul style="list-style-type: none"> - aging academic community in Military Sciences; - using Erasmus+ University Charter for doctoral students; - using Sistemantiplagiat.ro in other scientific works.
<p><u>Opportunities:</u></p> <ul style="list-style-type: none"> - suggesting topics for doctoral dissertations by the Ministry of National Defense; - external evaluation and accreditation by ARACIS; - partnership with European Doctoral Schools on the Common Security and Defense Policy; - less than two commissions for the defense of doctoral theses during an academic year. 	<p><u>Threats:</u></p> <ul style="list-style-type: none"> - decreasing interest in doctoral studies among young military researchers; - the feasibility of developing a plan for doctoral supervisors in the field of Military Sciences.

V. Overview of judgments awarded and of the recommendations

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
1.		A.1.1.1	fulfilled	IOSUD has implemented the effective functioning mechanisms provided for in the specific legislation on the organization of doctoral studies
2.		A.1.1.2.	fulfilled	IOSUD has implemented the effective functioning mechanisms provided for in the specific legislation on the organization of doctoral studies
3.		A.1.2.1.	fulfilled	The IOSUD has the logistical resources necessary to carry out the doctoral studies' mission
4.		A.1.2.2.	fulfilled	The IOSUD has the logistical resources necessary to carry out the doctoral studies' mission
5.		A.1.3.1.	fulfilled	The IOSUD makes sure that financial resources are used optimally, and the revenues obtained from doctoral studies are supplemented through additional funding besides governmental funding
6.	*A	A.1.3.2.	fulfilled	The IOSUD makes sure that financial resources are used optimally, and the revenues obtained from doctoral studies are supplemented through additional funding besides governmental funding
7.	*A	A.1.3.3.	fulfilled	The IOSUD makes sure that financial resources are used optimally, and the revenues obtained from doctoral studies are supplemented through additional funding besides governmental funding
8.		A.2.1.1.	fulfilled	The IOSUD has a modern research infrastructure to support the conduct of doctoral studies' specific activities
9.		A.3.1.1.	fulfilled	At the level of Military Sciences domain there is sufficient qualified staff to ensure the conduct of doctoral study program
10.	*A	A.3.1.2.	fulfilled	To take measures to maintain the officer-profesors resources originally from the Consortium of Military Higher Education Institutions
11.		A.3.1.3.	fulfilled	At the level of Military Sciences domain there is sufficient qualified staff to ensure the conduct of doctoral study program
12.	*A	A.3.1.4.	fulfilled	At the level of Military Sciences domain there is sufficient qualified staff to ensure the conduct of doctoral study program
13.		A.3.2.1.	partially fulfilled	Realisation of presented plan: 10 doctoral supervisors with international scientific activities in the field of Military Sciences
14.	*A	A.3.2.2.	fulfilled	The Doctoral advisors within the domain are carrying out a scientific activity visible at international level
15.	*B	B.1.1.1.	fulfilled	The institution organizing doctoral studies has the capacity to attract candidates from outside the higher education institution or a number of candidates exceeding the number of seats available
16.	*B	B.1.2.1.	fulfilled	Candidates admitted to doctoral studies demonstrate academic, research and professional performance
17.		B.1.2.2.	fulfilled	Candidates admitted to doctoral studies demonstrate academic, research and professional performance

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
18.		B.2.1.1.	fulfilled	The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science
19.		B.2.1.2.	fulfilled	The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science
20.		B.2.1.3.	fulfilled	The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science
21.		B.2.1.4.	fulfilled	The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science
22.		B.2.1.5.	fulfilled	The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science
23.		B.3.1.1.	fulfilled	Doctoral students capitalize on the research through presentations at scientific conferences, scientific publications, technological transfer, patents, products and service orders
24.	*B	B.3.1.2.	fulfilled	Doctoral students capitalize on the research through presentations at scientific conferences, scientific publications, technological transfer, patents, products and service orders
25.	*B	B.3.2.1.	fulfilled	Realisation of presented plan: less than two commissions for the defense of doctoral theses during an academic year
26.	*B	B.3.2.2.	fulfilled	The Doctoral School engages a significant number of external scientific specialists in the commissions for public defense of doctoral theses in the analyzed Military Studies domain
27.		C.1.1.1.	fulfilled	There are an institutional framework and procedures in place and relevant internal quality assurance policies, applied for monitoring the internal quality assurance
28.	*C	C.1.1.2.	fulfilled	There are an institutional framework and procedures in place and relevant internal quality assurance policies, applied for monitoring the internal quality assurance
29.		C.2.1.1.	fulfilled	Information of interest to doctoral students, future candidates and public interest information is available for electronic format consultation
30.		C.2.2.1.	fulfilled	The Doctoral School provides doctoral students with access to the resources needed for conducting doctoral studies
31.		C.2.2.2.	Fulfilled	Access for doctoral students to platform Sistemantiplagiat.ro for other scientific works
32.		C.2.2.3.	fulfilled	The Doctoral School provides doctoral students with access to the resources needed for conducting doctoral studies
33.	*C	C.3.1.1.	fulfilled	More dynamically use Erasmus + University Charter for mobilities of doctoral students
34.		C.3.1.2.	fulfilled	There is a strategy in place and it is applied to enhance the internationalization of doctoral studies

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
35.		C.3.1.3.	fulfilled	Expand partnership with the European Doctoral School on the Common Security and Defense Policy

VI. Conclusions and general recommendations

The doctoral study program in the fields of Military Sciences subject to external evaluation for re-accreditation, **meet the mandatory regulatory requirements and performance indicators of standards for accreditation and periodic evaluation of the fields of doctoral university studies**, according to Order no. 3200/2020 on the approval of the Methodology for the evaluation of doctoral studies and the systems of criteria, standards and performance indicators used in the evaluation. The strength of the Doctoral School is the quality assurance system based on self-assessment reports and their use in recommendations and improving the quality of education. The system works good and should be still continued. Extremely good practices that are managed by IOSUD UNAp refer to conduct research by doctoral students within the ordered research areas by the Ministry of National Defence. It allows determines scientific research on the research field specific to Military Sciences both by doctoral student and doctoral supervisor. In conclusion, Doctoral University Studies Council should also paid attention on the development of scientific articles among doctoral supervisors so that at least 50% of them reach at least 5 publications indexed Web of Science or ERIH in journals with impact factor or other achievements.

VII. Annexes

- *The detailed schedule of the evaluation visit*