QUATREC 2 – Comparing qualifications for reliable recognition 2

Country chapter

The aim of the country chapters is to collect information about the use of learning outcomes in higher education. Information from country chapters will be used to develop methodology for writing and comparing learning outcomes in terms of recognition.

Please provide detailed information about each aspect regarding learning outcomes:

Country: **Romania**

Chapter 1. General information about the use of learning outcomes

1.1 Legal framework for learning outcomes in higher education

Law of National Education No 1/2011 with its subsequent amendments and additions[1].

Government Decision No 918/2013 on the approval of the National Qualifications Framework, with subsequent amendments and additions[2].

Government Decision No 728/2016 - Annex No 4 – regarding the provisions for filling the Diploma Supplement[3].

Order of the Minister of Education and Scientific Research No 5204/2014 on the approval of the Methodology for enrolling and registering higher education qualifications in the National Register of Higher Education Qualifications (RNCIS)[4].

Order of the Minister of National Education No 5.146/2019 on the approval of the general application of the European system of transferable credits – Annex User guide of the European ECTS / SECT credit transfer and accumulation system[5].

Order of the Minister of Education, Research, Youth and Sports No 5.703/ 2011, on the implementation of the National Framework of Qualifications in Higher Education – Annex of the Methodology on the implementation of the National Framework of Qualifications in Higher Education[6].

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1 https://www.edu.ro/sites/default/files/_fi%C8%99iere/Legislatie/2020/LEN_actualizata_octombrie_2020.pdf

2 http://legislatie.just.ro/Public/DetaliiDocument/153002

3 https://lege5.ro/Gratuit/geztcnjug4ya/norme-de-completare-a-suplimentului-la-diploma-hotarare-728-2016?dp=geydknrugaytiny

4 http://legislatie.just.ro/Public/DetaliiDocumentAfis/164561

5 http://legislatie.just.ro/Public/DetaliiDocumentAfis/218730

6 http://legislatie.just.ro/Public/DetaliiDocumentAfis/134342

Methodological Guide on writing learning outcomes issued by the National Authority for Qualifications[7].

1.2 Categories/ dimensions in which learning outcomes are expressed (e.g., knowledge, skills, competences) and how are they defined?

At national level

At national level, the National Qualifications Framework for Higher Education (CNCIS) is the only instrument that establishes the structure of qualifications and ensures national recognition, as well as the compatibility and international comparability of qualifications acquired within the higher education system. Through it, all the learning outcomes acquired within the higher education system (Bachelor's, Master's and Doctoral study cycles) can be recognised, measured and related, and the coherence of the qualifications and certified titles is ensured. CNCIS is, at the same time, the tool for optimising the university curriculum, for ensuring the readability and the convergence of learning outcomes at all levels and forms of national qualifications system. From this point of view, CNCIS constitutes a binder in the implementation of the Bologna process and an essential step in the European and international process of recognition of diplomas and qualifications.

Each qualification is defined by the learning outcomes, expressed in terms of knowledge, skills and competences, related to the respective level of university studies. In the description of the qualifications, it is taken into account the fact that the professional activity presupposes the existence of several competences of different degrees of complexity: professional competences and transversal competences.

The key concepts used to define CNCIS are: qualification, learning outcomes, knowledge, skills, competence. Qualification is a formal result of an evaluation and validation process, which is obtained when a competent body establishes that a person has achieved results as a result of learning to certain standards. Therefore, qualification means the official recognition of the value of individual results, learning for the labour market, as well as for education and continuous professional training, through an act of studies (diploma, certificate, attestation) that confers the legal right to practice a profession / occupation. Learning outcomes mean what the learner recognises, understands and can do at the end of the learning process. These are defined in the

7 http://www.anc.edu.ro/wpcontent/uploads/2019/11/Ghid_Metodologic_privind_scrierea_rezultatelor_invatari.pdf; https://lege5.ro/gratuit/gezdmobygu/figura-1-matricea-cadrului-national-al-calificarilor-din-invatamantul-superior-tipuri-de-rezultate-ale-invatarii-niveluri-de-calificare-descriptori-imagine-metodologie?dp=gqydgmrygeydg

form of knowledge, skills and competences. Therefore, learning outcomes represent the set of knowledge, skills and competences that a person has acquired and is able to demonstrate after completing the learning process over a given schooling cycle.

Knowledge is the result of assimilating information through learning. Knowledge is the set of facts, principles, theories and practices related to a particular field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/ or factual.

Ability means the ability to apply and use knowledge to accomplish tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). Ability includes certain types of operating structures, from skills to interpreting and problem-solving skills.

Competence is the proven ability to select, combine and use appropriately knowledge, skills and other acquisitions (values and attitudes), in order to successfully solve a certain category of work or learning situations, as well as for professional or personal development in conditions of effectiveness and efficiency. In the context of the European Qualifications Framework, competence is described from the perspective of responsibility and autonomy.

Each type of learning outcome has its own autonomy, indicates distinct training targets, specialised vocational training processes and specific assessment processes. Between these three types of learning outcomes there is a relationship of interdependence and, at the same time, a hierarchy in the process of achieving these results, namely: certain types of knowledge underpin skills, and a certain set of knowledge and skills leads to the development a skill (Figure 2).

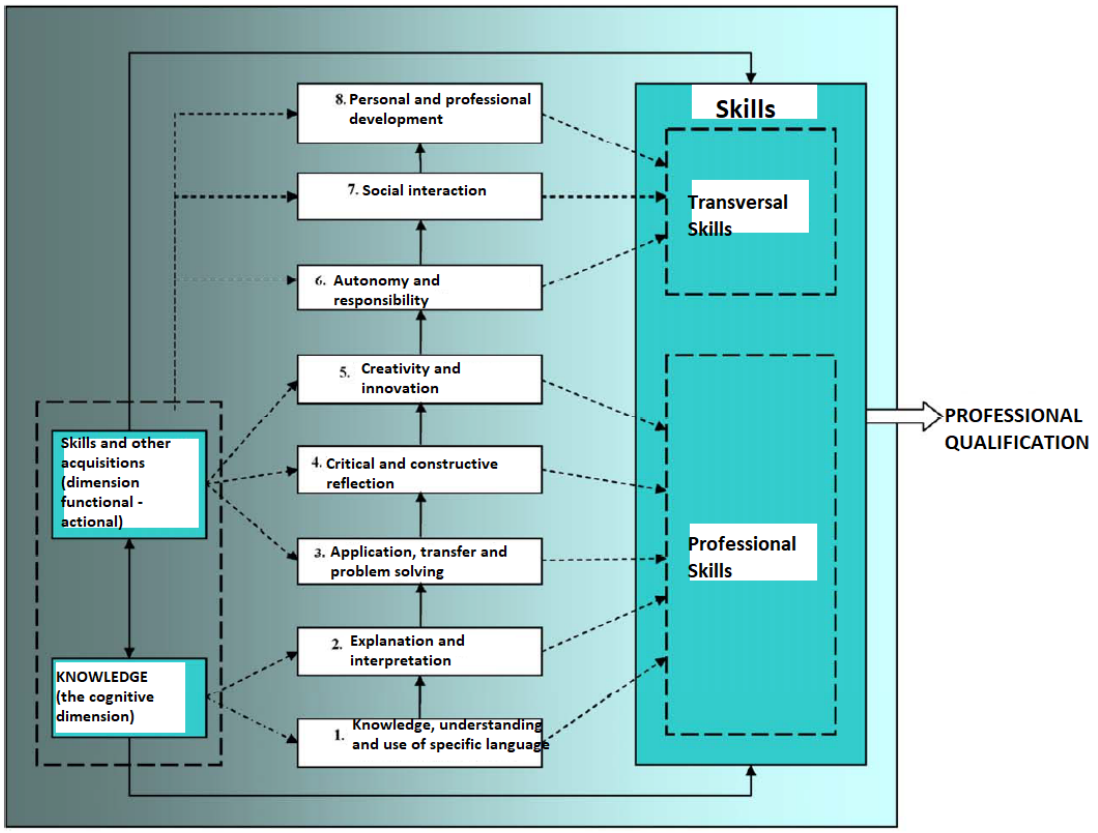

Figure 2 Learning outcomes

Competencies can be classified into two categories:

a) professional skills;

b) transversal competences.

Professional competence means the proven ability to select, combine and use appropriately knowledge, skills and other acquisitions (values and attitudes), in order to successfully solve a certain category of work or learning situations, limited to the profession, in conditions of effectiveness and efficiency.

The transversal competences are those capacities that transcend a certain field, respectively study programme, having a transdisciplinary nature. These consist of teamwork skills, oral and written communication skills in the mother tongue / foreign language, use of information and communication technology - ICT, problem solving and decision making, recognition and respect for diversity and multiculturalism, learning autonomy, initiative and entrepreneurship, openness to lifelong learning, respect and development of professional values and ethics, etc.

Learning outcomes and their descriptors

a) Professional competencies represent the unitary and dynamic ensemble of knowledge and skills. Knowledge, as a cognitive dimension and structural element of competence, is expressed through the following descriptors:

(1) Knowledge, understanding and use of specific language;

(2) Explanation and interpretation.

The abilities, as a functional-action dimension and structural element of the competence, are expressed by the following descriptors:

(3) Application, transfer and problem solving;

(4) Critical and constructive reflection;

(5) Creativity and innovation.

b) The transversal competences represent value and attitudinal acquisitions that transcend a certain field / study programme and are expressed through the following descriptors:

(6) Autonomy and responsibility;

(7) Social interaction;

(8) Personal and professional development.

Each qualification correlated to a certain cycle of studies (Bachelor's, Master's, Doctorate) is defined based on the general description of the learning outcomes and is expressed by:

a) General professional competencies, which are developed in the wider framework of the field of studies;

b) Specific professional competencies, which are developed within a narrower framework of a study programme.

The conceptual - methodological model represents a frame of reference elaborated for the analysis, description and interpretation of the qualifications from higher education.

The CNCIS model is compatible with the vision of the European Qualifications Framework (EQF) 7, mainly with the learning outcomes specified by it for qualification levels 6, 7 and 8. The structure and content of the model capitalise on the descriptors of the general framework of qualifications for the European Higher Education Area, as well as the content elements of some models that already enjoy the appreciation of European experts (French, Irish, British, etc. models).

At the same time, the CNCIS model has its own identity; it integrates categories and types of competencies, qualification levels and specific descriptors, consistently respecting the conceptual bases presented above.

The essential elements of the model are concretised in the CNCIS Matrix (Figure 3) and in two complementary tools: Grid 1 (Annexes 1, 1a, 1b and 1c) and Grid 2 (Annex 2) – Methodology on the implementation of the National Framework of Qualifications in Higher Education[8].

The CNCIS matrix includes: qualification levels, learning outcomes expressed through knowledge, skills and competences, as well as level descriptors for higher education qualifications.

Level descriptors for each type of learning outcome explain the generic descriptors for each type of competence and for each qualification level: Bachelor's, Master's and Doctorate.

From a structural point of view, the CNCIS matrix integrates professional competencies and transversal competencies, each of the two categories of competences having its legitimacy and importance in the exercise of a profession. They form a solidary couple, which expresses the effectiveness and professional efficiency of the graduate of a study programme.

Professional competencies are expressed through knowledge and skills that comprehensively cover the professional dimension for any qualification.

In the matrix, the transversal competences are structured in: role competences and personal and professional development competences. They take into account the social and group context of practicing a profession, as well as the awareness of the need for continuous professional training.

The level descriptors, entered in the matrix, indicates activities, results and expected performances for each qualification level. They allow the description of qualifications and, at the same time, formulate necessary benchmarks for assessing the level of achievement or achievement of learning outcomes.

The matrix is an integrative approach to higher education qualifications and offers two perspectives for analysing them: vertically and horizontally.

a) Vertical analysis indicates the progress of professional skills from knowledge and understanding (generic descriptor 1), the basic level of a learning outcome, to the stage

[8] http://legislatie.just.ro/Public/DetaliiDocumentAfis/134342

of creativity and innovation (generic descriptor 5), but also transversal skills (generic descriptors 6, 7 and 8). In this way, professional competences are examined and described from the perspective of generic descriptors 1 to 5, and transversal competences are examined and described from the perspective of generic descriptors 6, 7 and 8.

b) The horizontal analysis concretises a generic descriptor in relation with the three cycles of university studies: Bachelor, Master and Doctorate. In this case, the descriptors highlight the development of skills and the increase of the professional qualification degree. It is remarked that the model aims at a different type of progress, suggesting the increase of the added value to each type of learning result, with the transition from one level of university qualification to another.

The vertical perspective highlights that a certain learning outcome cannot be achieved if the subordinate levels have not been achieved and consolidated.

The horizontal perspective demonstrates that each type of learning outcome, corresponding to the three cycles of studies, necessarily integrates the previous levels. It turns out that each learning outcome has a relative autonomy, being conditioned by previous acquisitions, both horizontally and vertically.

Figure 3 - Matrix of the National Qualifications Framework in Higher Education
(types of learning outcomes, qualification levels, descriptors)

			Bachelor	Master	PhD
Transversal competencies	Personal and professional development skills	**8 Personal and professional development**.	Awareness of the need for continuous training; the efficient use of the resources and of the learning techniques for the personal and professional development	The self-control of the learning process, the diagnosis of the training needs, the reflective analysis of one's professional activity	Developing some projects focused on creativity, as a basis for self-realisation
	Role-specific skills	**7 Social interaction**	The familiarisation with the roles and activities specific to teamwork and the distribution of tasks for subordinate levels	Assuming leadership roles / management positions of the activity of professional groups or of some institutions	Assuming the responsibility and the capacity to organise and lead the activity of professional groups, scientific research or of the institutions
		6 Autonomy and responsibility	The responsible execution of professional tasks, in restricted autonomy conditions and qualified assistance	Performing some complex professional tasks, in conditions of autonomy and professional independence	The Initiation and the innovative development of complex theoretical and practical projects

Professional skills	Abilities (the functional-action dimension)	**5 Creativity and innovation**	The elaboration of professional projects with the use of some principles and methods established in the field	The elaboration of professional and / or research projects, innovatively using a varied spectrum of quantitative and qualitative methods	Designing and conducting original researches, based on advanced methods which lead to the development of scientific, technological knowledge and / or research methodologies
		4. Critical and constructive reflection	The adequate use of the standard evaluation criteria and methods in order to assess the quality, the merits and limitations of some processes, programs, projects, concepts, methods and theories	the nuanced and pertinent use of the evaluation criteria and methods, in order to formulate value judgments and to substantiate constructive decisions	The critical-constructive evaluation of the projects and of the results of the scientific research, the appreciation of the stage of the theoretical and methodological knowledge, the identification of the knowledge and applied priorities of the field
		3. Application, transfer and problem solving	The application of some basic principles and methods for solving problems / well-defined situations, representative of the field, in conditions of qualified assistance	The integrated use of the conceptual and methodological apparatus, in incompletely defined situations, in order to solve new theoretical and practical problems	The selection and the application of principles, theories and advanced methods of knowledge, transfer of methods from one field to another, interdisciplinary approaches to solve theoretical and practical problems, new but complex
	Knowledge (the cognitive dimension)	**2. Explanation and interpretation**	Using basic knowledges in order to explain and interpret some various types of concepts, situations, processes, projects, etc., linked with the field	Using specialised knowledge in order to explain and interpret some new situations, in broader contexts linked with the field	Using advanced principles and methods in order to explain and interpret, from multiple perspectives, new and complex theoretical and practical situations / problems, specific to the field
		1 Knowledge, understanding and use of specific language	The knowledge, the understanding of the basic concepts, theories and methods of the field and of the area of specialisation; their proper use in professional communication	In-depth knowledge of an area of specialisation and, within it, of the theoretical, methodological and practical developments specific to the programme: the adequate use of the specific language in communication with different professional environments	The systematic, advanced knowledge of concepts, research methods, controversies and of the new hypotheses specific to the field: the communication with specialists in related fields
Learning outcomes		Generic descriptors	Level descriptors		

At higher education institution level

Most of the universities that answered to the Questionnaire mentioned that there are no specific recommendations for formulating learning outcomes, but for some curriculum, several institutions have developed either methodological guides for evaluating and using the curriculum, or procedures. Other institutions have reported that they use the Methodological Guide for writing learning outcomes, prepared in 2019 by the National Authority for Qualifications.

Learning outcomes are also expressed through knowledge, skills, responsibility and autonomy, using the definitions in the European Qualifications Framework and the descriptors of each skill level in the same document.

For example, a university states that for most undergraduate and Master's degree programmes, learning outcomes are defined as expressed through skills (transversal and professional), knowledge and skills. For some of the undergraduate and Master's degree programmes, level descriptors are described for the knowledge and skills corresponding to the professional competences (specific), minimum standards for the assessment of professional competences (specific), as well as level descriptors for transversal competences, respectively minimum standards, performance for the assessment of transversal competences. In this context, knowledge is defined as theoretical aspects of the integration of educational content, the skills capture the ability to apply knowledge in practical, applied contexts, while skills are integrative structures that reflect the ability to select, combine and use knowledge appropriately, skills, values and attitudes.

Knowledge is defined as the result of assimilating information through learning; skills are defined as the ability to apply knowledge to perform tasks and solve problems; competences are defined as the proven ability to use knowledge and skills in work situations and in professional and personal development.

One of the institutions survey response provided the following definitions used:

"Knowledge" means the result of assimilating information through learning. Knowledge is the totality of facts, principles, theories and practices that are related to a field of work or study; “Skills” means the ability to apply knowledge and use know-how to perform tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive or practical; “Competence” means the proven ability to use personal, social and / or methodological knowledge, skills and abilities in work or study situations and in professional and personal development.

1.3 Are learning outcomes subject to Quality Assurance? Who assesses and how?

Most of the higher education institutions participating in the questionnaire answered that the evaluation of the learning outcomes in the study programmes is summative and formative and it is carried out according to the Internal Regulations or, according to the specifications in the Discipline Sheets. For example, a university details that the evaluation of learning outcomes is summative and formative, both at the level of each

discipline and through the final exam. The learning outcomes highlight qualitatively and quantitatively, the knowledge that students will gain after studying a discipline, including the minimum knowledge they must prove to obtain a grade 5 (the pass mark). The relationship with quality assurance is obvious, by the very definition of the concept: "part of management focused on providing confidence that quality requirements will be met".

By the selective association of the level descriptors for knowledge and skills, respectively of the specific and transversal professional competences with certain educational disciplines (Grid 2 CNCIS), a sequential evaluation of them is made during the study programme through the designed evaluation methods and tools and used by each subject holder (included in the file of each educational discipline). Specific professional competences are assessed at the end of each study programme, in the context of the final examinations (bachelor's and dissertation), while the transversal competences are subject to a rather qualitative assessment in the same context mentioned above.

In accordance with the Quality Manual of the "Alexandru Ioan Cuza" University of Iași (available online at https://www.uaic.ro/wp-content/uploads/2018/06/Manualul-calitatii_UAIC_vers-1.0_2018.05.pdf), the design of study programmes is done in such a way as to achieve the objectives for which they were created, including learning outcomes, and the qualification resulting from graduating a programme must be strengthened (p. 4), and to maintain and continuously improve the quality of study programmes. The University monitors the learning outcomes and the determining factors (Regulation on the initiation, approval, monitoring and periodic evaluation of study programmes, art. 12, p. 3, available online at https://www.uaic.ro/wp-content/uploads/2013/12/Anexa30_R_programe-de-studii.pdf).

In fact, the analysis of learning outcomes after completing study programmes is reported annually by the number of graduates with / without the final exam passed, and this information is included in the annual reports of deans, vice-rectorates and the rector. The university runs programmes to support and stimulate students in acquiring learning outcomes and programmes to recover students with learning difficulties, career counselling and guidance programmes, personal and professional development, and support in preparation for employment. In order to improve the use of learning outcomes, the University conducts analyses and studies on: capitalising on learning outcomes through the ability to engage in the market; continuing university studies; studies on employers' expectations related to higher education graduates; studies on graduates' expectations of employers. This component is also taken into account in the

annual internal evaluation report of the study programmes. An analysis should be made of the results of the semester assessment of students and those competences and skills that students fail to acquire in each subject should be identified; in other words, a closer analysis of the causes of exam failure should be made, which is, in fact, a sign that the expected learning outcomes are not being achieved either.

In higher education institutions, the learning outcomes in curriculum are assessed according to their own regulations (internal and external) of the study programme and the establishment of measures to improve it. Quality assurance of a study programme aims consistency between the requirements of the labour market and the learning outcomes. There is no clear link between these results and quality. The results are assumed declaratively but it is not verified if we really have the results we intended.

Some universities measure the use of learning outcomes by the number of graduates hired relative to the total number of graduates and sometimes to be more selective by the total number of graduates employed in the field relative to the total number of graduates. However, the need for manpower accentuated by the demographic decline and the low number of graduates, especially in the technical field, has made these indicators very good artificially. The quality of a study programme should be assessed by tests taken during or at the end of the study years before the bachelor's test. We could define tests to verify the knowledge, skills and competences that we declare in the specialisation sheet (study programme). Even if we tested only the assimilated basic elements, we would have a better measure of the quality of the study programmes.

The second alternative was used by employers in the tests organised by them in recruitment. Tests have been instituted with the basic requirements that the employer wants to obtain from that specialisation. Exemplifying the results, sometimes employers were very satisfied with the level of skills / knowledge / abilities but in other situations they gave up testing graduates because the vast majority did not meet the minimum criteria and preferred the training of graduates in the company from scratch. Both situations say a lot about the quality of the study programme. The acquisition of learning outcomes is evaluated at the level of each discipline, through the evaluation methods established by the holder of the discipline through the discipline sheet, which include both evaluation during the semester and summative evaluation at the end of each semester. In order to ensure proper harmonisation, correlation tables are developed for each study programme between: - curriculum learning outcomes and curriculum disciplines; - the learning outcomes at the level of the programme and the

skills required by the occupations on the labour market relevant for the qualification formed by the respective educational programme.

1.4 Are learning outcomes of the study programme indicated in Diploma Supplement (if there is one)?

Section 4.2 of the DS will include the learning outcomes, expressed through professional and transversal competences, according to the Order of the Minister of Education and Scientific Research No 5.204 of December 22, 2014 regarding the approval of the Methodology for enrolling and registering higher education qualifications in the National Register of Higher Education Qualifications (RNCIS).

Chapter 2. Good practice for writing learning outcomes in terms of recognition

1.5 Recommendations, guidelines, set procedures for writing learning outcomes (if applicable)

At national level

At national level there is a Methodological Guide on writing learning outcomes developed by the National Authority for Qualifications[9].

At higher education institution level

There are no specific recommendations for formulating learning outcomes for curriculum. The educational discipline sheets specify the learning outcomes expressed in the form of specific, professional and transversal competences that are acquired in each discipline in the Curriculum. The elaboration of the Curriculum is made according to the internal procedure: https://www.chem.uaic.ro/files/File/2018-2019/legislatie/didactic/procedura-elaborare-planuri-de-invatamat-licenta-si-master-r.pdf

Examples of discipline sheets:

https://www.fssp.uaic.ro/images/fise_disciplina/ru/LRU02_Introducere_in_sociologie.pdf

https://www.fssp.uaic.ro/images/fise_disciplina/ru/LRU10_Practica_de_specialitate.pdf

There are no explicit procedures for writing learning outcomes.

9 http://www.anc.edu.ro/wpcontent/uploads/2019/11/Ghid_Metodologic_privind_scrierea_rezultatelor_invatari.pdf

Some universities have a specific procedure regarding the elaboration, revision, endorsement and approval of the Curriculum: https://www.chem.uaic.ro/files/File/2018-2019/legislatie/didactic/procedura-elaborare-planuri-de-invatamat-licenta-si-master-r.pdf

and a Regulation regarding the didactic activity in which learning outcomes are subject to evaluation by students: https://www.uaic.ro/wp-content/uploads/2013/12/Recrutare-promovare-complet.pdf.

Procedures and regulations are updated / revised wherever the national and European standards are changed or when the labour market requires it[10].

The diploma supplement is a document used to recognise learning outcomes[11].

Within some universities, there is a process of revising university curriculum in such a way that they are defined according to learning outcomes, not just on the basis of competences exclusively. The new models of curriculum explicitly contain the learning outcomes, defined according to knowledge, skills and responsibility and autonomy. Thus, within the institutions there is a Methodological Guide for the elaboration and use of the discipline sheet, as well as an own educational vision, which contain recommendations for the teachers for defining the objectives of the disciplines. In accordance with the Regulation on the development of curricula for study programmes within educational institutions, university study programmes are reviewed annually, in consultation with teachers, students, graduates and employers. During this review process, both the learning outcomes, if applicable, and the subject sheets are updated, taking into account the Methodological Guide for the elaboration and use of the subject sheet and the educational vision. All these procedures are reviewed periodically, in consultation with the university community.

[10] https://didactic.unitbv.ro/images/dac/stiri/Preciz_definire_competente_sept2009.pdf; https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2018/R04.11_REGULAMENT_INITIERE_MONITORIZARE_PROGRAME.pdf

[11] https://www.upg-ploiesti.ro/sites/default/files/prezentare/regulamente/2017/R_10._Regulamentul_credite_transferabile.pdf

1.6 Formulation of learning outcomes (who defines, what methodology is used, who approves, ownership)

At national level

There are no provisions at national level.

At higher education institution level (including – number if learning outcomes used; use of NQF/EQF level descriptors)

In general, regarding the number of learning outcomes, the surveyed institutions stated that they do not use a specific number of learning outcomes, as they differ from one study programme to another. Only one institution mentioned that on average, there are 25 of skills, approximately 6-7 learning outcomes.

In general, the formulation of learning outcomes takes into account NQF/EQF Level Descriptors. One of the participating institutions detailed as follows:

Bachelor's degree - Level 6: Knowledge: advanced knowledge of a field of work or study, involving a critical understanding of theories and principles; Skills: advanced skills, demonstrating mastery and innovation, necessary to solve complex and unpredictable problems in a specialised field of work or study; Responsibility and autonomy: manages complex technical or professional activities or projects, assuming responsibility for decision-making in unpredictable work or study contexts; assumes responsibility for managing the professional development of individuals and groups.

Master's degree - Level 7: Knowledge: highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as a basis for original thinking and / or research Critical awareness of knowledge problems in a field and at the interface between different domains; Skills: specialised problem-solving skills needed in research and / or innovation to develop new knowledge and procedures and to integrate knowledge from different fields; Responsibility and autonomy: manages and transforms work or study contexts that are complex, unpredictable and require new strategic approaches; assumes responsibility for contributing to professional knowledge and practice and / or for reviewing the strategic performance of teams.

PhD - Level 8: Knowledge: knowledge at the most advanced frontier of a field of work or study and at the interface between fields; Skills: the most advanced and specialised skills and techniques, including synthesis and assessment, needed to solve critical problems in research and / or innovation and to expand and redefine existing knowledge or professional practice; Responsibility and autonomy: to demonstrate substantial authority, innovation, autonomy, scientific and professional integrity and

sustained commitment to the development of new ideas or processes at the forefront of work or study contexts, including research. In formulating the learning outcomes, the greatest attention is paid to the general and specific objectives, the descriptors associated with the competences in the discipline sheet and the assessment method.

For each study programme are established about six professional skills and about three transversal skills. The Competence Grid 1 is used, in the form designed by the Ministry of Education Order No 4430/29.06.2009 and with the content agreed by the domain consortium in the period 2008-2010. The level of knowledge accumulated and how to use them in practical laboratory and project applications. Knowledge and skills differ from one curriculum to another. A uniformity on the part of transversal competences is promoted (from the chapter Responsibility and autonomy). NQF / EQF level descriptors are used to write learning outcomes. These descriptors determine the complexity in which learning outcomes will be addressed. The starting point in writing the learning outcomes is represented by the occupation/s representative for the targeted study programme. Normally these occupations are characterised by the existence of occupational standards in which the competences required on the labour market for the exercise of those occupations are established. For each competence a series of specific learning outcomes are defined. At this stage, a special emphasis is placed on consulting labour market representatives. The sum of all learning outcomes underlies the definition of subjects and the curriculum. In the absence of occupational standards, learning outcomes are established only by consulting the labour market representatives.

The number of learning outcomes differs from one curriculum to another. In case of the study programmes for which we work systematically with Grid 1 and Grid 2 CNCIS, level descriptors are used (for specific professional skills, knowledge - knowledge, understanding and use of specific language; explanation and interpretation; skills - application, transfer and solving problems, critical and constructive reflection, creativity and innovation, for transversal competences, autonomy and responsibility, social interaction, personal and professional development). For each discipline included in the curriculum, the subject holder decides the level descriptors corresponding to the specific professional competences, which he targets during a semester and to which he refers when proposing the minimum performance standard, as well as the assessment methods and tools. In the development of study programmes, the conformity between the acquired competences and the learning outcomes related to the competences specific to the existing occupations in the Classification of Occupations in Romania (COR) or the international standard for the classification of occupations (International

Standard Classification of Occupations ISCO-08) is ensured. For some of the undergraduate and Master's degree programmes, the learning outcomes were formulated in the context of projects co-funded through the European Structural Funds, being agreed at national level by specialists in the relevant fields. For new study programmes, the learning outcomes are developed / written after consulting students and teachers, specialists from other universities in the country, relevant employers, professional associations and the study of similar structures corresponding to study programmes in Europe.

The learning outcomes also differ depending on the study programmes. For example, the technical faculties pursue the skills related to conducting analyses, experiments, measurements, operation of machines, devices, processing, heat treatments. At a humanities faculty, the skills related to the interpretation of laws, the identification of valuable aspects from a literary work, an efficient communication regarding a given subject are taken into account. The main elements of the EQF level descriptors are used. NQF descriptors are imagined, adopted by similarity with study programmes at other higher education institutions. A clear definition of level descriptors on university specialisations at levels 6 and 7 internally NQF (ROQF) is not known. Correspondence with national and European descriptors is not known. And there is no staff specialised in establishing and using these indicators. There is also a distinction between establishing learning outcomes in undergraduate and Master's programmes that has been understood from the wording made in the EQF descriptors. Thus, the three categories: knowledge, skills and competences are oriented towards solving known situations, according to well-established procedures (license), respectively understanding the causes of atypical / accidental situations and finding solutions to solve / improve. It starts from the activities that we know that graduates perform in the economic units in which they work, known based on direct experiences with internships, recruitment campaigns, job fairs, workshops organised with partner companies and discussions with the graduates who you hired. Then write down the knowledge, skills and competencies that are considered essential for performing the known service tasks. If the person/s who make these associations really know the field in which the graduates work is a good thing and we obtain a trustworthy correspondence. Next is the taking over of the learning results in the subject sheets. Sometimes this take-over is done formally in the subject sheets and many teachers use the indicators taken from the curriculum but carry out the course without analysing too much whether these results are achieved. The situation can be worse when the information about the activities of the graduates is not known exactly or is not adapted

in relation to the evolution of the respective field. Here graduates appear with questions: Why can't I find a job? Why this programme is still being made?

1.7 Good practice example of formulating learning outcomes

Properly prepared, the subject sheets are an example of good practice, they contain essential information on: general and specific objectives, detailing the topic and assessment for each topic, bibliography, number of hours of individual study required, corroborating the content of the course with the expectations of business and other stakeholders, evaluation criteria, as well as the minimum performance standard regarding the acquisition of the discipline.

Updating RNCIS information for undergraduate study programmes. At the level of some higher education institutions, the update for all undergraduate programmes (84 programmes) was completed this year.

By participating in externally funded projects, two higher educational institutions have developed learning outcomes as follows:

Faculty of Psychology and Educational Sciences within the project “Defining the qualification of psychologist in order to adapt the master's programmes in psychology to the needs of the Romanian labor market” POSDRU / 86 / 1.2. / S / 58717, implementation period 02.12.2010 - 30.11.2013, beneficiary University of Bucharest, UAIC partner, learning outcomes (including level descriptors and minimum performance standards) were developed for Master's programmes in Psychology. The UAIC team reviewed or wrote, as appropriate, the learning outcomes for Master's programmes in Psychology. Within the project “Articular Development and Reconstruction in Social Pedagogy - DarPS”, POSDRU / 156 / 1.2 / G / 139847, beneficiary “Alexandru Ioan Cuza” University of Iași, the learning outcomes were developed (including level descriptors and minimum standards of performance) for a new undergraduate programme in the field of Educational Sciences - Social Pedagogy.

Another example of good practice in formulating learning outcomes for a Master's programme level 7 CNC / EQF is the following:

No		**Who**	**What/verb action**	**The object and the purpose of early learning**	**Occupational and/or social context for which the qualification is relevant**
1		The graduate	Can establish	the economic purpose of a technical project	to substantiate decisions made in its context
	The graduate can establish the economic purpose of a technical project, in order to				

	substantiate the decisions taken in its context. (knowledge)				
2		The graduate	can translate	the vision of the organisation into the vision of the technical project	in order to align it with the strategy of the organisation
	The graduate can translate the vision of the organisation into the vision of the technical project, in order to align it with the strategy of the organisation. (skills / abilities)				
3		The graduate	Can coordinate	a technical project ensuring its successful completion	in the context of significant time and quality constraints and major technical challenges
	The graduate can coordinate a technical project ensuring its successful completion, in the context of significant time and quality constraints and major technical challenges. (skills / abilities)				
4		The graduate	Can coordinate	the team members of a technical project	by understanding their strengths and weaknesses and by their determination to support each other in the activities in which they involve them
	The graduate can coordinate the team members of a technical project, by understanding their strengths and weaknesses and by their determination to support each other in the activities in which they involve them. (knowledge)				
5		The graduate	Can identify	The resistance to change	to overcome the critical points in the project by avoiding conflicts
	The graduate can identify resistance to change, in order to overcome critical points in the project by avoiding conflicts. (skills / abilities)				
6		The graduate	Can decide	on the key aspects and problems in the technical projects	through the systematic analysis of the alternatives, in due time, in order to achieve the objectives
	The graduate can decide on the key aspects and problems in the technical projects, through the systematic analysis of the alternatives, in due time, in order to achieve the objectives. (skills / abilities)				
7		The graduate	can establish and provide	information on tasks, plans, programme, strategies and organisational structure	to the stakeholders of the technical project
	The graduate can establish and provide information on tasks, plans, programme, strategies and organisational structure to the stakeholders of the technical project. (knowledge)				

8		The graduate	Can negotiate	agreements for the benefit of all parties involved	in the context of a technical project
	The graduate can negotiate agreements for the benefit of all parties involved, in the context of a technical project. (skills / abilities)				
9		The graduate	Can determine	the effective collaboration of the members of the team of a technical project	in order to complete it successfully
	The graduate can determine the effective collaboration of the members of the team of a technical project, in order to complete it successfully. (skills / abilities)				
10		The graduate	Can apply	knowledge about basic processes, methodologies, tools and techniques in project management	in the specific context of the project and the organisation that implements it
	The graduate can apply knowledge about basic processes, methodologies, tools and techniques in project management, in the specific context of the project and the organisation that implements it. (knowledge)				
11		The graduate	understands	the formal and informal structures of the organisation	in order to coordinate effectively the project
	The graduate understands the formal and informal structures of the organisation in order to coordinate effectively the project. (skills / abilities)				
12		The graduate	knows	the applications from the industrial field of the organisation	in order to adapt the project management processes to the specifics of the life cycle of its products / services
	The graduate knows the applications in the industrial field of the organisation, in order to adapt the project management processes to the specifics of the life cycle of its products / services. (skills / abilities)				
13		The graduate	Can coordinate	technical projects with problems	to ensure the recovery and finally the success of the project
	The graduate can coordinate technical projects with problems, to ensure the recovery and finally the success of the project. (responsibility and autonomy)				
14		The graduate	Can coordinate	the interaction between the beneficiary and the project team	to ensure its success
	The graduate can coordinate the interaction between the beneficiary and the project team, to ensure its success. (responsibility and autonomy)				

15		The graduate	Can manage	the continuous changes within the project	through firm decisions and responsibility, in order to meet the expectations of all stakeholders
	The graduate can manage the continuous changes within the project through firm decisions and responsibility, in order to meet the expectations of all stakeholders. (responsibility and autonomy)				
16		The graduate	Can gain	the trust and respect of the stakeholders of the technical project	in order to influence positively the strategic decisions regarding the project
	The graduate can gain the trust and respect of the stakeholders of the technical project, in order to influence positively the strategic decisions regarding the project. (responsibility and autonomy)				

Another example of good practice offered by a University is the development of study guides for certain undergraduate programmes:

- http://ac.upg-ploiesti.ro/ghid_studii/ghid_studii_LAIAZ.pdf
- http://ac.upg-ploiesti.ro/ghid_studii/ghid_studii_LCALZ.pdf
- https://tpp.upg-ploiesti.ro/images/Educatie/Licenta/Ghiduri-de-studii/ghid_studii_CSPA.pdf
- https://tpp.upg-ploiesti.ro/images/Educatie/Licenta/Ghiduri-de-studii/ghid_studii_LIPCZ.pdf

1.8 Is the labour market involved in the development and use of the learning outcomes? If yes, then how?

Regarding the involvement of the labour market in the development and use of learning outcomes, most of the responding institutions reported that the employers' representatives are regularly consulted on the skills required for a graduate to enter the labour market.

Several educational institutions have an advisory board that maintains the permanent contact with the university and conveys the need felt in the labour market in terms of the necessary skills and the qualifications of graduates.

The starting point in writing learning outcomes for a university is represented by the occupation/s relevant for the targeted study programme. Normally these occupations are characterised by the existence of occupational standards in which the competences required on the labour market for the exercise of those occupations are established. For each competence a series of specific learning outcomes are defined. At this stage,

a special emphasis is placed on consulting labour market representatives. The sum of all learning outcomes underlies the definition of subjects and the curriculum. In the absence of occupational standards, learning outcomes are established only by consulting labour market representatives.

One of the institutions mentioned that they have a Service for Students, Career Guidance and Professional Insertion, which regularly organises consultative meetings with the employers, targeting inclusive the competence structures provided by completing the study programmes. Following these meetings, research reports are prepared (see for example the research report: Employers' expectations in the N-E area of the country regarding the competencies of University graduates and collaboration with the university environment, 2014, available online at: https://www.uaic.ro/wp-content/uploads/2014/01/2014_raport_cercetare_companii_angajatoare.pdf). Research reports are brought to the attention of the entire academic community, through internal and public communication mechanisms. The results of the study programmes are established and constantly updated according to the current requirements of the labour market. The declared results of the study programmes allow the graduates to engage on the labour market in positions that correspond to the qualification obtained. In the context of the establishment / provisional authorisation of new study programmes, an analysis is elaborated regarding the opportunity to establish the respective study programme and the need for specialists on the labour market in the respective field. Also, another project of the same university, entitled "Start experience -START.EXE" is carried out and aims to train and develop professional, transversal and entrepreneurial skills required on the labour market. The activities provided in the project aim to increase the participation rate of students in the target group in on-the-job learning programmes, including by organising practical training courses in the fields of study, strengthening the relationship between academia, economics and the public sector, in order to improve the university curriculum and to facilitate the interaction between students and employers in different contexts. Internships are also targeted in those areas that focus on potentially competitive economic sectors and areas of smart specialisation, in the newly developed partnerships between universities and potential employers, to facilitate the insertion of graduates into the labour market.

At another educational institution, there is an Advisory Committee consisting of personalities representing the socio-economic environment in the region where the university operates, which seeks to identify requirements and feedback from the

beneficiaries of the university's service as a provider of knowledge, being engaged in identifying the skills needed in the labour market.

Also, on the same principle, within another institution, the Alumni Association operates, promoting actions related to the skills needed by the future graduates on the labour market. These skills are derived from the practical activity of the graduates and they are formulated periodically in the form of recommendations to the councils of the faculties of the University: https://www.upg-ploiesti.ro/ro/alumni . During the recruitment processes (there are about 10 -12 annually in each faculty) there are prior discussions with the employers and their point of view is always required about the study programme involved and possible suggestions for improvement.