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CONTRIBUTIONS TO DEFINING THE ROLE OF THE PROJECT MANAGER

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Abstract

One of the most common ways in the global practice of organizations is to promote and use project management, the most obvious evidence being the proliferation of studies, books, articles and other scientific materials dedicated to it, published after 1969, the year of the Institute of Project Management (PMI). Destined to solve complex problems, in a limited time, with also limited resources, project management requires the combination of efforts of several factors - from the project manager to the project team, from the top level management of the organization to other stakeholders - as a premise for achieving the assumed objectives. Their fulfillment, in predetermined conditions, of time, cost and quality, directly contributes to the achievement of the organization's objectives and, implicitly, to the achievement of high standards of quality and efficiency. We must not omit the fact that the projects contribute to the promotion of the new technical, technological, economic through a management of the allocated resources and a leadership of the project team exercised by a professional project manager. If in the organizations from Romania and the Republic of Moldova we cannot invoke a widespread use of project management, however, the existence of European funds and their access through appropriate projects, can stimulate such an area of managerial concerns and can contribute to the emergence and consolidation of focused organizations. on the project genuine. The fundamental condition for the success of project management is, in our opinion, the involvement of project managers, main actors along the entire path required by the "life" of a project, from initiation to planning, execution, completion, monitoring and control.

Keywords: *project, project management, project manager, talent triangle, competencies, responsibilities, job description*

1. Introduction

1.1. Project management overview

In the last two decades, scientific concerns in the field of project management have materialized in hundreds of books, thousands of specialized articles, conferences and workshops, and the PMI contribution has regulated the methodology, guide and standards for operationalizing project management. These are accompanied by remarkable pragmatic successes, with a favorable impact on the achievement of the objectives of organizations that use such an innovative managerial formula. Most of the issues raised by the intimate working mechanisms of the project team in an organizational context have been adequately addressed. The transition to digitalization in a global economy with increasingly intense globalization

features leads to other problems, such as agile project management, which specialists will address and solve by promoting specific software and selecting and hiring complete project managers. These issues will be addressed at the end of our research.

The literature review provided us with a wide range of information on projects and their management, the roles of the project team and the project manager, its qualities and skills, its decision-making involvement in each phase of the project life cycle. and so on. The reference works to which we refer refer mainly to:

- Project Management Methodology, 2021 (PM² is the European Commission's official project management methodology, developed initially for European Institutions, which aims to enable Project Managers (PMs) to deliver solutions and benefits to organisations through the effective management of project work. It is a methodology created by the European Commission)
- PMBOK (Project Management Body of Knowledge), Seventh edition, 2021 (The Project Management Body of Knowledge (The PMBOK® Guide) is a guide that describes a set of standard terminology, practices and guidelines for project management. It is published by the Project Management Institute (PMI))
- The Manager's Job: Folklore and Fact, by H.Mintzberg (HBR, 1990)
- Standard COR 242101, Project Manager (Roumanie).

Some terminological clarifications regarding some fundamental concepts we will operate with - project, project management, project manager and project team - are needed in the economics of our article. We will refer with priority to the definitions promoted by PMI, found both in PMBOK, PM² and in the reference works of some well-known specialists in the field.

Project is "a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a beginning and an end to the project work or a phase of the project work. Projects can stand alone or be part of a program or portfolio." [28, p. 4]. According to the PM² Methodology Guide v3.0.1 [9, p. 5], "a project is a temporary organisational structure set up to create a unique product or service (output) within certain constraints such as time, cost and quality.

x Temporary means that the project has a well-defined start and end.

x Unique output means that the project's product or service has not been created before. It may be similar to another product, but there will always be a degree of uniqueness.

x A project's output may be a product (e. g. a new application) or a service (e. g. a consulting service, a conference or a training programme).

The project is defined, planned and executed under certain external (or self-imposed) constraints. These can relate to scheduling, budgeting, quality, but also to the project's organizational environment (e. g. risk attitude, capabilities, available capacity, etc.)".

The main features are [32, pp. 10-12]:

- A project produces a "defined deliverable". A project is a vehicle for delivering change. It provides the governance by which an organisation can move from one steady-state to another, from A to B. One result of a project is a "defined deliverable", something which, by its use, enables the new steady-state to operate effectively. So this deliverable must be of sufficient quality to serve the purpose demanded of it.

- A project has a defined end date. There are many examples of projects whose deadlines are revised time and time again. For example, the European Fighter Jet has had several delivery dates set and missed. This may be because the defined deliverable was not defined as well as it should have been. A project should have a target end date otherwise it will lose focus, probably go over budget and delay the business from benefiting from its investment. Furthermore, since a project is temporary, any delay in its completion means that those working on it cannot be released for other tasks.
- A project has a defined budget. This will extend for the life of the project, in contrast to a departmental budget, which will cover the financial year.
- A project uses a wide range of resources. A project will need to benefit from the capabilities, knowledge, skills and experience of people from a wide range of backgrounds from within and, possibly, outside the organisation. However, a business-as-usual department is, almost by definition, characterised by a narrower range of knowledge and skills.
- People will be involved in peaks and troughs during the project. Whereas a department is likely to have roughly the same number of people working in it throughout the financial year, a project will use a variety of people at different times in its life. For instance, the people specifying what the project must achieve will probably be most heavily involved at the beginning and at the end, whereas those developing the end product may be most involved during the middle phase.
- A project has a life cycle. Philip Larkin, a 20th-century English poet, once described the structure of a novel as having “a beginning, a muddle and an end”, and many projects feel as though they are in a constant muddle. A project needs attention every day to reduce the risk of disorder and confusion, but it also needs direction from senior managers to ensure that it starts and stops according to plan. So the beginning is intended to create governance suitable for the project’s management, and the end is to make sure that the project has an outcome that meets expectations.

The most representative types of projects are: civil engineering, construction, petrochemical, mining and quarrying projects, manufacturing projects and management and business change projects [19, pp. 2-3]; to them are added scientific projects, specific to R&D organizations.

Scope is defined in terms of three dimensions-product, project and impact. Product scope is the full set of features and functions to be provided as a result of the project. The project scope is the work that has to be made to deliver the product. Impact scope is the depth and breadth of involvement by, and effect on, the performing and client organizations [26, p. 20].

An objective is something to be achieved. In project management, the objectives are the desired outcomes of the project or any part of the project, both in terms of concrete deliverables and behavioral outcomes (e. g., improved service, more income, etc.) [26, p. 12].

If the purpose is the rationale for the project, the objectives are quantified and / or qualitative expressions of the purpose for which the project was defined. The purpose is expressed generically, while the objectives have a predominantly quantified dimension. These differ from the company's objectives, the stages of the project, the deliverables through which it is completed. We make this point because there is a tendency to be confused. The objectives are desired and tangible results of the project [16]:

- Performance objectives (You may establish a performance objective when you want to improve your product, service or process)
- Business objectives (Create a business objective when you want to align a company's values with a project for potentially higher rates of success)
- Financial objectives (A financial objective is when you want to have a direct impact on an organization's finances, and you measure it in monetary values)
- Effectiveness objectives (Use an effectiveness objective when you want to improve the processes of a company and the way employees complete tasks)
- Regulatory objectives (A regulatory objective is when you want to understand the effects of your project outside of the organization)
- Technical objectives (Create a technical objective when you want to implement certain technology into the project)
- Quality objectives (Introduce a quality objective when you want to measure the quality control of your products during a project).

Project objectives and those broken down by project team members must meet SMART requirements.

Project management is the application of knowledge, skills, and tools to meet stated requirements. This includes setting objectives, balancing competing demands of time, cost, scope, quality, risk, resources, and other constraints or demands.

The PMI definition of project management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements. Project management refers to guiding the project work to deliver the intended outcomes. Project teams can achieve the outcomes using a broad range of approaches (e. g., predictive, hybrid, and adaptive).

Project management is the process by which projects are defined, planned, monitored, controlled and delivered such that the agreed benefits are realized. Projects are unique, transient endeavors undertaken to achieve a desired outcome. Projects are about change and project management is recognized as the most efficient way of managing such change [26, p. 16].

Generally, the project life cycle is a collection of sequential project phases that define the work and duration of the project. In some cases, based upon the assessment of risk, project life cycle phases can overlap to compress the total duration of the project. This technique is known as fast tracking. The Project Phases are:

Table 1. The Project Phases

Project Phase	Description
1. Initiating	Define the desired outcomes. Create a Business Case. Define the project scope. Get the project off to a good start.
2. Planning	Assign the Project Core Team (PCT). Elaborate the project scope. Plan the work.
3. Executing	Coordinate the execution of project plans. Produce deliverables.
4. Closing	Coordinate formal acceptance of the project. Report on project performance. Capture Lessons Learned and post-project recommendations. Close the project administratively.
Monitoring & Control	Oversee all project work and management activities over the duration of the project: monitor project performance, measure progress, manage changes, address risks and issues, identify corrective actions etc.

Source: [9, p. 14]

A hierarchical task list created by decomposing the project based on the breakdown of the product into components and the breakdown of the project process into increasingly detailed tasks. The WBS is depicted as a tree diagram (or hierarchy chart) or as a list in outline form with detailed items subordinated to higher-level items [26, p. 23].

People or organizations directly involved in or in some way impacted either positively or negatively as a result of the project. Stakeholders can be considered positive (support the project) or negative (impede the project). Project managers should consider the risks and potential impact of the negative stakeholder (whether internal or external to the organization). Key stakeholders include project manager, sponsor, customer, project team, the PMO (project management office), the performing organization, operations management, suppliers and business partners, the end user, and contractors.

Characteristics of Project Stakeholders [30, p. 8]:

- Stakeholders' interests may positively or negatively impact the project.
- Stakeholders may exert influence over the project and its outcome.
- Very important for the Project Manager to identify all the stakeholders and their expectations (sometimes their expectations may be implicit and not explicitly stated).
- Stakeholders may have conflicting interests and objectives; so managing stakeholders may involve balancing those interests.
- Project Manager must aim to find resolutions to issues among various stakeholders.
- Involving stakeholders in the project phases improves the probability of successfully completing the project and thus satisfying customer requirements. This may also result in buy in or shared ownership of the project by the stakeholders.
- In general, differences among stakeholders must be so resolved in favor of the customer.

Project sponsor is the person or organization that has authorized the project and provides the funding to support the project. (Note: Some organizations feel that it is best for the ultimate sponsor to be associated with an area or internal entity that does not have a direct vested interest in the project. This allows for impartial decisions to be made, such as termination for failing to provide the expected value or to reassign resources to a higher-priority project.).

The organization structure is the organizational environment within which the project takes place. There are several types of organizational structure [17, p. 38]:

- Organic or simple: Flexible work groups, little to no project manager authority, the project manager is a part-time position, very little resource availability
- Functional: Also known as chimney, smoke stack, or silo structure. In this structure there is generally one manager overseeing the work and the type of work that is associated with a specific skill or expertise. Examples: accounting, marketing, engineering, manufacturing.
- Hybrid: Generally a mix of several types of structures depending on the needs of the organization. Example: The organization may utilize matrix structures for some projects and utilize a projectized structure for high priority projects.
- Matrix: This type of structure is designed to maximize the use of resources by assigning resources to multiple functions. This creates an environment where employees may report to two or more managers. In this type of structure, there will be horizontal as well as vertical channels of communication and, in some cases,

intense negotiation for resources between project managers and functional groups. The matrix structure includes three sub-structures: Weak Matrix, Balanced Matrix, and Strong Matrix

- Multidivisional: This type of structure is associated with product development, program management, portfolios, geographic regions, and customer type. Project manager authority is very low, and overall management responsibility is assigned to a functional manager.
- Pure project or projectized: Also referred to as “project-oriented.” Work groups are arranged by project with a specific project manager assigned. The project manager has near total authority and accountability for the project. All project staff and personnel report directly to the project manager.
- Virtual: Distributed work groups in a network structure. The project manager may have low to moderate authority. Team members may be assigned full or part time
- Project Management Office (PMO): An organizational unit established to centralize and coordinate the management of projects under its domain. A PMO will generally establish organizational guidelines for managing projects. This includes methodologies, best practices, policies, procedures, and templates.

Projects succeed or fail with the project team. According to PMI, “every person involved with the person influences the realization of the project goal. Therefore it is important to carefully choose a project crew.

The core project team usually consists of the people most involved with the project. The core project team will be associated with the project from the start to the end. On small projects, this might be only one person (you!), on larger projects there might also be managers, coordinators, supervisory personnel. Key persons, such as scientists, engineers, advisors or other experts may also play important roles in a larger project.

In addition to the core team, there might be outside consultants and specialists. These people are usually required for specialized portions of the project, however, once their part is completed, they are no longer part of the team. Even though administration and support staff may play a role in the project, they are usually not considered core team members due to the fact that they are not usually considered an essential component.

There are usually two ways to find your project team: You can take people from within your organization or hire outside staff.

Hiring outside staff can add additional expense to the project. However, an organization that requires a project to be completed must make staff available, even if it means pulling people off other projects or bringing in outside help.

It is common to use people for projects on what is referred to as segmented time.

“Segmented time” means that they may work on other projects or have other duties within the organization while they are members of your team, part-time” [26, pp. 6-7].

The project team is constituted in the initiation stage of the project and goes through several stages of evolution during its realization [24, p. 77]:

- Forming: Members get to know each other and lay the basis for project ground rules.
- Storming: Conflicts begin as members come to resist authority, demonstrate hidden

agendas and prejudices.

- Norming: Members agree on operating procedures, seek to work together, developing close relationships and commitment to the implementation process.
- Performing: Group members work together to accomplish their tasks.
- Adjourning: Group may disband either following the installation or through group member reassignments.

”Team building can play a major role in team development-helping to form the project team into a cohesive group working for the best interests of the project and enhancing project performance. Make sure you know the following key points about team building [23, p. 316]:

- It is the project manager's job to guide, manage, and improve the interactions of team members.
- The project manager should work to improve trust and cohesiveness among the team members.
- The project manager should incorporate team-building activities into project activities.
- Team building requires a concerted effort and continued attention throughout the life of the project.
- WBS creation is a team-building activity because it allows team members to actively engage in the planning and ownership of the project; similar benefits occur when the team is involved in other planning efforts, as well.
- Team building should start early in the life of the project”.

The most common underlying features of successful implementation teams tend to be: 1) a clear sense of mission, 2) an understanding of interdependencies, 3) cohesiveness, 4) trust among team members, and 5) a shared sense of enthusiasm [24, p. 71].

Project Management Principles is another milestone for those engaged in the successful development and completion of the project. The principle labels are [28, p. 23]:

- Be a diligent, respectful, and caring steward
- Create a collaborative project team environment
- Effectively engage with stakeholders
- Focus on value
- Recognize, evaluate, and respond to system interactions
- Demonstrate leadership behaviors
- Tailor based on context
- Build quality into processes and deliverables
- Navigate complexity
- Optimize risk responses
- Embrace adaptability and resiliency
- Enable change to achieve the envisioned future state.

For his part, Stephen Hartley believes that the principles of project management are [13, p. 44]:

- identifying, analysing and communicating the real business need
- direct involvement and input from all key stakeholders
- commitment to planning the project in iterative and revised detail

- defining, agreeing and measuring the targeted benefits
- evidence of applied governance measures
- developing explicit, iterative and version-controlled project documentation
- allowing regular reviews, audits, adjustments and revisions (where appropriate and justified)
- agreeing on specified and measured outputs
- proactive decision-making involving all stakeholders (as required)
- direction, guidance and mentoring from a senior management project group/committee
- single point accountability with matching (and communicated) authority, along with visibility
- open, honest, complete and timely communication
- transparent processes, including roles, responsibilities and standard documentation
- compliance with an auditable change-control process
- cohesive and committed teamwork drawn from across the organisation's expertise
- balanced and demonstrable leadership from both the 'dance floor' and the 'balcony'.

Methodology refers to a written guideline that can be used to produce something. It includes specific components, such as phases, tasks, methods, techniques and tools. PM² is a methodology for Project Management [9, p. 128]. Cele mai cunoscute metodologii în teoria și practica managementului de proiect sunt: Waterfall Methodology, Agile Methodology, Scrum Methodology, PMI / PMBOK, Critical Path Method (CPM), Kanban Methodology, Extreme Programming (XP), Lean Methodology, Six Sigma, PRINCE2 [37].

The Project Management Office (PMO) has an important place in the economics of project management [14].

1.2. Project Manager

Project manager is "the person assigned by the performing organization to lead the project team that is responsible for achieving the project objectives. Project managers perform a variety of functions, such as facilitating the project team work to achieve the outcomes and managing the processes to deliver intended outcomes." [28, p. 4].

The PM can be selected and installed as soon as the project is selected for funding or at any time before it seems desirable for senior management. There are three types of project managers [38, pp. 409-410]:

- The Occasional Project Manager The first type of project manager is the Occasional Project Manager (OPM), sometimes referred to as the incidental or accidental PM. For the OPM, project management is a tool in their toolkit.
- The Career Project Manager The second type of project manager is the Career Project Manager (CPM). They are usually members of a professional society like Project Management Institute and have earned professional certification like the PMP. Project management is their occupation.
- The Hybrid Project Manager A HPMgr may be either an OPM or a CPM. The HPMgr will encounter project management situations where some type of hybrid approach will be needed. They have two options: adapt an existing PMLC model to

the specific needs of the project or create a unique management approach using the tools, templates, and processes that they are familiar with or have used before.

The project manager, regardless of his position, is the main promoter of the methodological elements of project management - principles, methodology, managerial tools, etc.

"As a leader you will command authority and take responsibility for guiding the project. You will also be a trusted and reliable source of information on the project. As a leader, you will be expected to be honest, competent, and inspirational. Your job is to motivate the team and to make sure everybody is moving in the same direction - towards the project goals and its finish.

As a manager you will monitor and control the project through to completion. You will review the plan, complete reports, balance the budget, update the plans, fix up the schedule, update the plans again, report on the updates, to complete the project on time and within the budget.

You will also do a lot of other administrative tasks that were not thought of prior to the beginning of the project and might drive you crazy. However, managing the work does not mean that you are required to do all the work, therefore the magic word for successful managers is "delegate"! A successful project manager will delegate administrative tasks to an administrative assistant.

It is important that you do not forget the leadership role over the manager role and vice versa. Don't get caught up in the management process and forget about the leadership part." [26, p. 20].

My analogy for the role of the project manager is the conductor of an orchestra. They musical theory (project management). They have played and even been skilled in one of the instruments (disciplines) and know something about the other instruments. They have studied the score (plan) and decided what emphasis (objective) to give each section (work package). They know when to bring in each group of instruments (functions) and have fun leading the orchestra (team). They create a successful end product, appreciated by their audience (users) [36, pp. 50-51].

The job of project manager is characterized by tasks, authority and responsibilities.

Task. A piece of work requiring effort, resources and having a concrete outcome (a deliverable). A task may be of any size (a project is a very large task). Sometimes the term is used to denote a piece of work at a particular level in a Work Breakdown Structure (WBS) hierarchy e. g., a phase is broken into a set of activities, and an activity into a set of tasks. Except for this hierarchical usage, activity is synonymous with task [26, p. 22].

Responsibility. The obligation to perform or take care of something, usually with the liability to be accountable for loss or failure. Responsibility may be delegated to others but the delegation does not eliminate the responsibility [26, p. 18].

Authority. The ability to get other people to act based on your decisions. Authority is generally based on the perception that a person has been officially empowered to issue binding orders. See Power [26, p. 4].

An interesting approach to the role and responsibilities of the project manager can be found in

[27].

Competency describes the skill and capacity required to complete (project) activities. Details will be provided in Chapter 4 of the article.

2. The degree of investigation of the problem and purpose of the research

The authors' investigations revealed the following findings:

- Still low degree of use of project management in solving complex problems, of a strategic nature, at the level of organizations.
- Project management has priority in the field of accessing European funds. PNRR is an excellent opportunity to and strengthen its use in solving major problems faced by Romania and its organizations.
- The extremely high degree of bureaucratization of project management, the development of each phase requiring the completion, transmission and, possibly, informational use of a large number of documents. Bureaucratization is a hindrance to the achievement of project objectives and a justification for delays in delivering deliverables - at the phase and project level as a whole.
- The manner of selection (appointment) of the project manager, especially in the case of occasional project managers, leaves something to be desired. His professional competence prevails, his success in the functional area in which he worked, not the overall image that takes into account, systemically, technical skills, leadership and business management.
- The detection of frauds in the use of European funds is also due to the insufficient experience in project management, the nomination of project managers without taking into account the requirements and conditions imposed on such a position by management theory. There is no selection that complies a minimum set of conditions of professional and managerial training, leadership style, etc.
- Not finding phases specific to the life cycle of the project. Insufficient scientific substantiation of the design and development of projects. Using a predominantly empirical project management, without resorting to a minimal set of managerial tools. Reduced involvement of project managers in negotiation and conflict resolution and, especially, in permanent communication with stakeholders - company management, customers, suppliers, sponsors, project team.
- Reduced project methodology, both in terms of promotion and use methodologies, as well as in terms of managerial tools used in project management
- Late emergence of occupational standards, including the one related to the project manager.
- Poorly drafted job descriptions, with confusing, stoning, incoherent expressions, the consequence of the manifestation of a paradox in organizations that use the services of project management: on the one hand, they are aware of the special importance of projects and their management in amplifying efficiency, and on the other hand, project managers are treated as "second-hand managers" and "forgotten" from a motivational or career point of view. The subjective manner of nominating project managers and setting up project teams also contributes to this situation. There can be

three situations:

- a. The project is very important for the organization, and its top management proceeds to a professional selection of the project manager; the project team is made up, at the proposal of the project manager, of specialists who can contribute effectively, actively and responsibly to the successful development and completion of the project.
 - b. The project is won, following a competition, by a certain person, who becomes a project manager. It requires top management people for the project team. The success of the team and the project depends on the way in which the members of the project team are nominated in terms of their professional competence.
 - c. The project is not important for the management of the organization. In order to demonstrate that "here I am the boss", the general manager nominates an awkward but professionally competent and managerial subordinate, and the project team is made up of specialists of questionable quality and with questionable competence from various departments of the organization. Failure is guaranteed!
- Most of the specialized works in the field insist on "how the project manager must be equipped in terms of competences" and less on "what to do in this situation"! If the detailed presentation of the phases of the project life cycle and of the project management processes suggests that their development is substantially dependent on the performance of the project manager, it should be noted that the share of the organizations that develop conclusive, realistic job descriptions for him and for the project team members is reduced.

The main purpose of our research is to outline a job description model for the project manager, which takes into account both the elements of job definition (tasks, competences and responsibilities) and the characteristics of the job occupant (knowledge, qualities and skills).

3. Applied methods and materials

- Experience of European projects, carried out for over 15 years in Romania
- Own research - postoperative diagnosis of the development of projects carried out at the level of the universities in which we operate; the feedback of the participants in such projects (mainly of the "clients", the beneficiaries of the "products" of the managed projects, delivered to them).
- Business and management consultancy provided to the business environment
- The personal experience of the first author as a project manager and as a member of the project team (another 5 projects).
- Courses and other teaching materials developed in this field of university research
- Specialized literature, from the country and, especially, foreign, extremely vast and rich
- Comparative analysis of the main regional institutions that regulate project management (PMI, APM, IPMA, P2M, etc.)
- Trends manifested in the world economy, in the society and economy of our

countries:

- consolidation of organizations focused on project-oriented, with specific characteristics;
- switching to the hybrid and / or agile waterfall approach.

4. The obtained results and discussions

4.1. The specialized literature of the last 20 years is focused on treating project management from a theoretical, methodological and pragmatic perspective, both in its classic and evolved version, marked by the transition to agile project management.

4.2. The approach of PM competence in the exercise of project management is ensured by several sources [7, p. 7]:

- The ICB-IPMA Competence Baseline, version 3.0;
- The PMI Project Manager Competency Development Framework, 2nd ed.;
- The APM Competence Framework and Provek-APM;
- The AIPM Professional Competence Standards for Project Management;
- GAPPS Framework for Performance Based Competence Standards for Global Level 1 and 2 Project Managers;
- P2M. A Guidebook of Program & Project Management for Enterprise Innovation, Third ed., Project Management Association of Japan, 2017 (The Japanese BOK is really interesting with its emphasis on innovation (Kakusin), development (Kaihatsu) and improvement (Kaizen), which together make up innovation reform (Kaikaku) [25];
- The UK National Occupational Standard for Project Management; and
- ECITB Project Management Competency Framework.

It is not the fact that there are several international (regional) organizations that bothers, but the fact that there is no consensus on some important aspects of project management (constraints, methodology, success factors, etc.) and the skills of project managers. Such a situation can be confusing to the unsuspecting reader and deepen the chaos in this area. Even if it seems exaggerated, we allow ourselves to formulate an alarming finding: the managerial jungle manifests itself in full in the theory of project management!

4.3. Unfortunately, the concept of competence does not benefit from a unitary content either, in the sense that it is approached narrowly, either in terms of skills or through knowledge.

The concept of competence is approached professionally in several management works. I remembered the following [12, pp. 14-15]:

"A competency is a combination of knowledge, skills, attitude and behaviour needed for proper functioning in a given professional situation.

Knowledge is what you know: for example, the theoretical part in your study books.

Skills are the things you can do: the practical application of knowledge, putting things into

practice.

Attitude is about what you really want: your personal motives and preferences, that which motivates you, and which you find worth the effort.

Behaviour is your way of doing things: for example, how an advisor goes about his professional work. But it also concerns the behavioural result: the end results and products you provide. Of course, the latter is extremely important: to function well means producing results. Behaviour is also about how you are perceived by others.

By competencies we mean the simultaneous combination of all these aspects. They represent a combination of knowing, ability, wanting and doing.

In brief, a competency is a professional aptitude. Thus, a nurse must be able to inoculate a crying child. The nurse must be aware of the components of the medicine (knowledge), he should know how to inject (skills) and he should be able to put the crying child at ease (behaviour). Without these competencies he cannot function: he will be incompetent, that is, unsuitable and incompetent as a nurse."

We find a similar approach in PMCD Framework [6]:

"Competence"... having requisite or adequate ability or qualities..." (Webster)

Competence can be defined as a cluster of related knowledge, attitude, skills, and other personal characteristics that affect a major part of one's job, correlates with performance on the job, can be measured against well-accepted standards, and can be improved via training and development.

Major components of competencies include: abilities, attitudes, behavior, knowledge, personality and skills.

When applied to project management, competence is the ability to perform activities within a project environment to expected and recognized standards. Competence can be described as consisting of three separate dimensions:

- Project Management Knowledge Competence - what the project manager knows about project management
- Project Management Performance Competence - what the project manager is able to do or accomplish while applying their project management knowledge
- Personal Competency - how the project manager behaves when performing the project or activity; their attitudes and core personality characteristics.

To be recognized as fully competent, an individual would need to be successfully evaluated against each of these dimensions. It would be impossible for project managers to be judged competent if they did not possess the expected combination of knowledge, performance, and personal competence."

4.4. Most theorists insist, in describing the job of project manager, on its roles and responsibilities

I agree with this view insofar as the responsibilities would indeed be tasks that the top management of the organization has assigned to the project manager to meet the objectives derived from the realization of the project. In general, however, the responsibility is the obligation of the project manager to fulfill the entrusted mission (project management) under

certain conditions. One of the most extensive approaches to the roles of the project manager belongs to him G. Horine. According Horine [15, p. 44], the key roles played by project manager are: Planner, Organizer, Point Person, Quartermaster, Facilitator, Persuader, Problem Solver, Umbrella, Coach, Bulldog, Librarian, Insurance Agent, Police Officer, Salesperson.

Essentially, the role of a project manager (PM) is to “make it happen.” This does not mean that he is the best engineer, programmer, or business process technician. It does mean that he has the necessary skills to acquire, develop, and manage a team of individuals who are capable of producing the desire product [31, p. 5].

The definition of project manager roles should be based on Mintzberg's view of manager roles. In 1990, he published in *The Manager's Job: Folklore and Fact*, published in the *Harvard Business Review*, the theory that the manager plays ten roles, grouped into three categories - interpersonal, informational, and decisional - that allow him to perform managerial duties under conditions. efficiency and effectiveness. These are [21]:

- a. Interpersonal Roles:** Figurehead, Leader, Liaison
- b. Informational Roles:** Monitor, Disseminator, Spokesperson
- c. Decizional Roles:** Entrepreneur, Disturbance handler, Resource allocator, Negotiator.

The intensity of the exercise of these roles differs from one organization to another, from one period to another. At the level of a project, considered a temporary structure, the roles of the project manager may be similar to those stated, obviously on a small scale.

Similar to a project passing through a variety of project management phases, a project manager needs to assume an array of roles with the people involved. These include: 1. Interpersonal 2. Information 3. Decisional and 4. Management roles [33, p. 17].

Interpersonal Role: 1. Work with a diverse range of professionals, 2. Solve team disputes, 3. Build positive relationships, 4. Motivate team members

Informational Role: 1. Communicate with all stakeholders effectively, 2. Keep people upto-date, 3. Organize team meetings frequently, 4. Provide performance feedback

Decisional Role: 1. Make a range of decisions at each stage, 2. Stay clear and focused, 3. Balance scope, time, and resources, 4. Prevent scope creep and budget slippage

Management Role: 1. Recruit and manage employees, 2. Manage finances, 3. Respond well to ambiguity, 4. Adhere to business priorities.

The project manager - an extremely important figure in the economics of project management, since the start-up phase - is allocated very small spaces, in which his roles, responsibilities and skills are concentrated. Our experience shows that, in case of project failure, the main culprit is the project manager and, less often, the team or another stakeholder.

It is interesting to describe the role of the project manager made by Gareis & Huemann presented below as it can be a basis in the construction of the job description [10, pp. 33-36]:

Role Description

Objectives

- Representation of the project interests
- Assurance of the realization of project objectives

- Coordination of project team and of project contributors
- Representation of the project to the relevant environments.

Organizational position

- Reports to the project owner
- Is a member of the project team.

Responsibilities in the project assignment process

- Formulation of the project assignment with the project owner
- Definition of the core team members with the project owner.

Responsibilities in the project start process

- Organization of the project start process (with the core team members)
- Know-how transfer from the pre-project phase into the project with the project team members
- Agreement on project objectives with the project team members
- Development of adequate project plans with the project team members
- Design of an adequate project organization with the project team members
- Development of a project culture, establishment of the project as a social system with project team members
- Performance of risk management and discontinuity management with the project team members
- Design of project context relations with project team members
- Implementation of project marketing with project team members.

Responsibilities in the project coordination process

- Disposition of resources for the performance of work packages
- Controlling the results of work packages, ensuring the quality of work packages
- Approval of work package results
- Communication with members of the project organization
- Communication with representatives of relevant environments
- Project marketing.

Responsibilities in the project control process

- Organization of the project control process (with the core team members)
- Determination of project status with project team members
- Agreement on or planning of corrective actions with project team members
- Further development of project organization and project culture with project team members
- Redefinition of project objectives with project team members
- Redesign of project context relations with project team members
- Project marketing with project team members
- Preparation of progress reports with project team members.

Responsibilities in the management of a project discontinuity process

- Organization of discontinuity management process (crisis or change management) with project owner
- Contributions to the contents of the crisis or change management with project team members

Responsibilities in the project close-down process

- Organization of project close-down process with project core team
- Emotional close-down of the project and regarding the content with project team members
- Transfer of know-how into the line organization with project team members and representatives of line organization
- Final project marketing with project team members.

We have selected, in the following two tables, the main activities / duties / tasks specific to project manager (Table 2) and the competencies (skills) representative for it (Table 3).

Table 2. Activities/duties/tasks specific to project management

Sources	Content
PMBOK® Guide Knowledge Areas and Processes – KA [28, pp. 19-21]	<ol style="list-style-type: none"> 1. Project Integration Management: • Develop Project Charter; • Develop Project Management Plan; • Direct and Manage Project Work; • Monitor and Control Project Work; • Perform Integrated Change Control; • Close Project or Phase 2. Project Scope Management: • Plan Scope Management; • Collect Requirements; • Define Scope; • Create the Work Breakdown Structure (WBS); • Validate Scope; • Control Scope 3. Project Time Management: • Plan Schedule Management; • Define Activities; • Sequence Activities; • Estimate Activity Resources; • Estimate Activity Durations; • Develop Schedule; • Control Schedule 4. Project Cost Management: • Plan Cost Management; • Estimate Costs; • Determine Budget; • Control Costs 5. Project Quality Management: • Plan Quality Management; • Perform Quality Assurance; • Control Quality 6. Project Human Resource Management: • Plan Human Resource Management; • Acquire Project Team; • Develop Project Team; • Manage Project Team 7. Project Communications Management: • Plan Communications Management; • Manage Communications; • Control Communications 8. Project Risk Management: • Plan Risk Management; • Identify Risks; • Perform Qualitative and Quantitative Risk Analysis; • Plan Risk Responses; • Control Risks 9. Project Procurement Management: • Plan Procurement Management; • Conduct Procurements; • Control Procurements; • Close Procurements 10. Project Stakeholder Management: • Identify Stakeholders; • Plan Stakeholder Engagement; • Manage Stakeholder Engagement; • Control Stakeholder Engagement
Sam Buah [5, pp. 153-155]	<p>Concept Stage</p> <p>Step 1 - Establish the need for the project (why)</p> <p>Step 2 - Understand the roles and responsibilities and who may be involved in the proje</p> <p>Step 3 - Decide delivery approach (which life cycle)</p> <p>Step 4 - Begin to prepare a high-level scope of what the project should deliver</p> <p>Step 5 - Identify the factors that can influence how the project is delivered</p> <p>Step 6 - Beware of the regulatory framework, laws, Acts, etc. which may impact on how the project is delivered</p> <p>Step 7 - Begin to document some of the risks presented by the various project options being considered</p>

	<p>Step 8 - Estimate the time and cost for each option being considered</p> <p>Step 9 - Commence the stakeholder management process. First start with identification, and then analysis, to determine who may be interested or affected by the project and the level of influence or power they have</p> <p>Step 10 - Be prepared to justify why the project or preferred option is the best one to progress to achieve the expected benefits</p> <p>Development (Planning) Stage</p> <p>Step 11 - Begin to prepare the project delivery strategy (project management plan)</p> <p>Step 12 - Refine the project scope outputs/outcomes (deliverables)</p> <p>Step 13 - Refine the project requirement</p> <p>Step 14 - Think about quality. Know/agree what you expect and how fit for purpose it should be. Avoid surprises and disappointments</p> <p>Step 15 - Prepare to succeed. Define what a successful project will mean to you. Think about the conditions that will make a successful project</p> <p>Step 16 - Carry out a detailed risk assessment presented by the project</p> <p>Step 17 - Identify the things-to-do. Arrange these sequentially/concurrently for optimum delivery approach</p> <p>Step 18 - Refine the estimates of the project time and cost and be sure of how much it will cost and how long it will take</p> <p>Step 19 - Refine the project management plan and ensure that all the planning activities above are documented and that relevant baselines are documented</p> <p>Step 20 - Procure the goods and services needed for the project</p> <p>Step 21 - Agree an appropriate working relationship with the supplier/contractor where applicable (contract)</p> <p>Deployment (Delivery) Stage</p> <p>Step 22 - Monitor progress on site</p> <p>Step 23 - Monitor and manage changes</p> <p>Step 24 - Monitor and manage issues</p> <p>Step 25 - Monitor and manage risks</p> <p>Step 26 - Monitor and manage configuration items</p> <p>Step 27 - Monitor and manage quality</p> <p>Step 28 - Monitor and manage project resources</p> <p>Transition (Handover & Closeout) Stage</p> <p>Step 29 - Handover and closeout</p>
Gerard Hill [14, pp. 25-29]	<p>Project Initiation Phase</p> <p>The first phase of project management deals with identifying, examining, and qualifying project and business opportunities and conducting project selection actions to determine what projects will be performed. The following activities should be considered for inclusion in the project initiation phase: ■ Customer identification and qualification; ■ Opportunity identification and qualification; ■ Project definition preparation; ■ Staffing requirements examination; ■ Vendor/contractor requirements examination; ■ Business case preparation; ■ Project selection; ■ Project charter preparation; ■ Formal approval to proceed.</p> <p>Solution Planning Phase</p> <p>This phase of project management is characterized by an examination of customer requirements, the establishment of a customer contract or agreement (including proposal development, as required), the formation of the project team and acquisition of any vendor/contractor resources, and the development of the WBS and project work plan and any other project support plans to be used during project implementation. The following activities should be considered for</p>

	<p>inclusion in the solution planning phase: ■ Customer requirements review; ■ Project team formation; ■ Vendor/contractor acquisition; ■ Customer contract/agreement preparation; ■ WBS preparation; ■ Project work plan preparation; ■ Project risk assessment; ■ Project plan preparation: Facilitates the project team in developing additional primary and support plans that are prescribed or otherwise needed for the project; the project team's planning efforts may include developing the following frequently used planning documents - Risk management plan, Quality and acceptance plan, Communications plan, Change control plan, Staff management plan, Vendor management plan, Management oversight plan.</p> <p>Solution Implementation Phase</p> <p>The project management solution implementation phase (sometimes called the execution phase) involves performing the project oversight and control needed to achieve project objectives. The following activities should be considered for inclusion in the solution implementation phase: ■ Project tracking and control; ■ Customer interface management; ■ Staff management; ■ Vendor/contractor management; ■ Project communications management; ■ Contract administration.</p> <p>Project Closeout Phase</p> <p>This final project management phase ensures a smooth and distinct wrap-up of project activities, both for the project team and the customer. The following activities should be considered for inclusion in the project closeout phase: ■ Customer acceptance and closeout; ■ Project team closeout; ■ Customer contract closure; ■ Vendor/contractor contract closure; ■ Project documentation disposition; ■ Operations and maintenance transition.</p>
Roel Grit [11, pp. 44-46]	<ul style="list-style-type: none"> • Management with an internal focus (on the project group) • Management with an external focus (on the sponsor) • Organising negotiation skills temporary boss professional skill expert in the field <p>The project manager has a number of responsibilities:</p> <ul style="list-style-type: none"> • To draw up a project plan and delivering it to the stakeholders and obtaining the sponsor's approval. • To take charge of external communication such as liaising with the sponsor and accounting for the project to him and to those department managers who have permitted their personnel to take part in the project. It also involves requesting the sponsor to clarify any uncertainties. • To take on the leadership of the team. • To preside over the project team meetings. • To keep the project team enthusiastic and motivated. • To resolve any problems that might arise between team members or between team members and others within the organisation. • To stand up for and protect his team members during conflicts with people outside the project. • To delegate the work within the team. • To plan aspects of the project along with the team members. • To monitor whether things are being done within the allocated time frames. • To monitor the project's budget. • To monitor the quality of the products produced. • To prescribe the tools and techniques to be used by the team, including the chart techniques and the computer software to be used.
European Union [9, pp. 13-16]	<p>Initiating Phase:</p> <ul style="list-style-type: none"> • Creation of the Project Initiation Request containing information about the requestor, business needs and desired project outcomes.

	<ul style="list-style-type: none"> • Creation of the Business Case, which provides the project justification and defines its budgetary requirements outlined in sections covering the business context, problem description, project description, possible alternative solutions, costs and timetable. • Creation of the Project Charter, which provides more details on the project definition in terms of scope, cost, time and risk. It also defines milestones, deliverables, project organisation, etc. <p>The Business Case and Project Charter define the project's scope and direction. The Project Manager (PM) and the Project Core Team (PCT) reference and use both throughout the project.</p> <p>Planning Phase:</p> <ul style="list-style-type: none"> • Running the Planning Kick-off Meeting to officially start the Planning Phase. • Creating the Project Handbook, which defines the project's management approach. • Developing the Project Work Plan (Work Breakdown, Effort and Costs, Schedule). • Updating the Project Stakeholder Matrix, which identifies all project stakeholders. • Creating other important plans such as the Communications Management Plan, the Transition Plan and the Business Implementation Plan. <p>The Project Manager (PM) uses the outputs of the Planning Phase to request approval to move on to the Executing Phase. This decision to move on is taken by the Project Steering Committee (PSC).</p> <p>Executing Phase:</p> <ul style="list-style-type: none"> • Running the Executing Kick-off Meeting. • Distributing information based on the Communications Management Plan. • Performing Quality Assurance (QA) activities as defined in the Quality Management Plan • Coordinating project, work people and resources, and resolving conflicts and issues. • Producing the project deliverables in accordance with the project plans. • Handing over the deliverables as described in the Deliverables Acceptance Plan. <p>Once the project deliverables have been accepted by the Project Owner (PO), the Project Manager (PM) can request approval to move on to the Closing Phase. This decision to move on is taken by the Project Steering Committee (PSC).</p> <p>Closing Phase:</p> <ul style="list-style-type: none"> • Finalising all activities in order to formally close the project. • Discussing the overall project experience and Lessons Learned with the project team. • Documenting Lessons Learned and best practices for future projects. • Closing the project administratively and archiving all project documents. <p>Monitor & Control activities run throughout the project's lifecycle. During Monitor & Control, all work is observed from the point of view of the Project Manager (PM). Monitoring is about measuring ongoing activities and assessing project performance against project plans. Controlling is about identifying and taking corrective action to address deviations from plans and to address issues and risks.</p>
Linda Kretz Zaval, Terri	<p>Phase 1: Initiating Process</p> <ul style="list-style-type: none"> ▪ Performing project assessment

<p>Wagner [35, pp. xxiii-xxiv]</p>	<ul style="list-style-type: none"> ▪ Defining high-level scope ▪ Understanding your stakeholders ▪ Identifying project limitations and proposing implementation approaches ▪ Developing the charter ▪ Obtaining approval for the project charter <p>Phase 2: Planning Process</p> <ul style="list-style-type: none"> ▪ Establish project deliverables ▪ Creating the work breakdown structure (WBS) ▪ Developing a budget plan ▪ Developing the project schedule ▪ Developing the human resource plan ▪ Developing the communications plan ▪ Developing the procurement plan ▪ Developing the quality management plan ▪ Developing a change management plan ▪ Developing the risk management plan ▪ Documenting and presenting the master project management plan ▪ Conducting the kick-off meeting <p>Phase 3: Executing Process</p> <ul style="list-style-type: none"> ▪ Obtaining and managing project resources ▪ Directing and managing project execution ▪ Implementing the quality management plan ▪ Implementing approved changes to the master project plan ▪ Following the risk plan to minimize the impact of risk ▪ Developing and managing team performance <p>Phase 4: Monitoring and Controlling Process</p> <ul style="list-style-type: none"> ▪ Measuring project performance ▪ Managing changes to the project ▪ Ensuring project deliverables conform to quality standards ▪ Managing the impact of risk on the project ▪ Assessing corrective action on the issues register ▪ Communicating project status <p>Phase 5: Closing Process</p> <ul style="list-style-type: none"> ▪ Formalizing project acceptance ▪ Transferring ownership of deliverables ▪ Obtaining legal and administrative closure ▪ Distributing the final report ▪ Collating lessons learned ▪ Archiving project documents ▪ Measuring project performance
<p>ANCR COR [1]</p>	<ol style="list-style-type: none"> 1. Establishing the purpose of the project <ul style="list-style-type: none"> – Establishes the strategic objectives of the project – Identify and select project options – Substantiates the need and feasibility of the project – Prepare the project proposal 2. Establishing the requirements of integrated project management <ul style="list-style-type: none"> – Establishes the operational objectives of the project – Decomposes (Breaks down) the project into elementary structures – Prepare project specifications

	<ul style="list-style-type: none"> – Ensures compliance with regulatory requirements
	<p>3. Planning project activities and milestones</p> <ul style="list-style-type: none"> – Identifies and prioritizes key project activities and events – Elaborates the detailed plan of the project – Monitors and adapts the project plan to correct deviations – Proposes solutions to solve the problems that have arisen
	<p>4. Management of the use of costs and operational resources for the project</p> <ul style="list-style-type: none"> – Plan the resources and costs required for the project – Recommends ways to procure project resources – Establish ways to secure resources for the project – Ensures the financial management of the project
	<p>5. Carrying out the procurement procedures for the project</p> <ul style="list-style-type: none"> – Elaborates the documents necessary for the procurement contracts for the project – Select suppliers – Conduct the negotiation – Check the contracts
	<p>6. Risk management</p> <ul style="list-style-type: none"> – Identifies the risks that may affect the project – Implement risk control measures – Monitor the effectiveness of measures taken to minimize the risks
	<p>7. Project team management</p> <ul style="list-style-type: none"> – Establishes the conditions for recruiting and hiring project team members – Develops plans and working methods for the project team – Distributes tasks, monitors and controls the performance of the project team – Evaluates the team's performance and provides the necessary feedback
	<p>8. Communication management within the project</p> <ul style="list-style-type: none"> – Identifies and establishes the conditions of communication within the organization – Ensures communication with all persons interested in the project – Provides a system for monitoring and reporting on the progress of the project
	<p>9. Project quality management</p> <ul style="list-style-type: none"> – Identifies quality requirements in the project – Establishes procedures for planning, monitoring and quality control – Evaluates the quality of project results

Source: Authors

Table 3. Competencies (Skills) of Project Manager

Sources	Content
PMBOK® Guide Knowledge, Talent Triangle [28, pp. 19-21]	<p>1. Technical project management: The knowledge, skills, and behaviors related to specific domains of project, program, and portfolio management. The technical aspects of performing one's role.</p> <ul style="list-style-type: none"> – Agile practices – Data gathering and modelling – Earned value management – Governance (project, program, portfolio) – Lifecycle management (project, program, portfolio, product) – Performance management (project, program, portfolio) – Requirements management and traceability – Risk management – Schedule management – Scope management (project, program, portfolio, product) – Time, budget and cost estimation

	<p>2. Leadership: The knowledge, skills, and behaviors needed to guide, motivate, and direct a team, to help an organization achieve its business goals.</p> <ul style="list-style-type: none"> – Brainstorming – Coaching and mentoring – Conflict management – Emotional intelligence – Influencing – Interpersonal skills – Listening – Negotiation – Problem solving – Team building <p>3. Strategic and business management: The knowledge of and expertise in the industry and organization that enhances performance and better delivers business outcomes.</p> <ul style="list-style-type: none"> – Benefits management and realization – Business acumen – Business models and structures – Competitive analysis – Customer relationship and satisfaction – Industry knowledge and standards – Legal and regulatory compliance – Market awareness and conditions – Operational functions (e.g. finance, marketing) – Strategic planning, analysis, alignment
Project Manager Competency Development Framework [29, pp. 88-107]	<p>Units of Project Manager Personal Competence</p> <ol style="list-style-type: none"> 1. Communicating <ul style="list-style-type: none"> • Actively listens, understands, and responds to stakeholders • Maintains lines of communication • Ensures quality of information • Tailors communication to audience 2. Leading <ul style="list-style-type: none"> • Creates a team environment that promotes high performance • Builds and maintains effective relationships • Motivates and mentors project team members • Takes accountability for delivering the project • Uses influencing skills when required 3. Managing <ul style="list-style-type: none"> • Builds and maintains the project team • Plans and manages for project success in an organized manner • Resolves conflict involving project team or stakeholders 4. Cognitive Ability <ul style="list-style-type: none"> • Takes a holistic view of project • Effectively resolves issues and solves problems • Uses appropriate project management tools and techniques • Seeks opportunities to improve project outcome 5. Effectiveness <ul style="list-style-type: none"> • Resolves project problems • Maintains project stakeholder involvement, motivation, and support • Changes at the required pace to meet project needs • Uses assertiveness when necessary 6. Professionalism <ul style="list-style-type: none"> • Demonstrates commitment to the project • Operates with integrity

	<ul style="list-style-type: none"> • Handles personal and team adversity in a suitable manner • Manages a diverse workforce, and • Resolves individual and organizational issues with objectivity.
Roel Grit [11, p. 45]	<ul style="list-style-type: none"> • Leadership abilities • Ability to negotiate, such as with the sponsor • A result-oriented working style • Ability to preside over meetings • Ability to distinguish between main issues and minor issues • Ability to estimate the risks that could threaten the project • Ability to determine the limits of the project • Ability to formulate a project plan • Ability to determine the required competency levels of the project team members • Ability to plan and think ahead • Ability to monitor quality • Ability to motivate the members of the project team • Ability to set up a project organisation • Ability to lead project members • Ability to organise and delegate • Ability to manage finances • Ability to negotiate (like with the sponsor, project members and suppliers).
Gregory Horine [15, pp.44-50]	<ol style="list-style-type: none"> 1. Project Management Fundamentals: The “science” part of project management, covered in this book, including office productivity suite (such as Microsoft Office, email, and so on), project management software, project collaboration tool, and work management tool skills. 2. Business Management Fundamentals: Those skills that would be equally valuable to an operations or line-of-business manager, such as budgeting, finance, procurement, organizational dynamics, team development, performance management, coaching, and motivation. 3. Technical Knowledge: The knowledge gained from experience and competence in the focal area of the project. With it, you greatly increase your effectiveness as a project manager. You have more credibility, and you can ask better questions, validate the estimates and detail plans of team members, help solve technical issues, develop better solutions, and serve more of a leadership role. 4. Communication Skills: Because communication is regarded as the most important project management skill by the Project Management Institute (PMI), I feel it is important to separate these out. Skills included in this category include all written communication skills (correspondence, emails, documents), oral communication skills, facilitation skills, presentation skills, and, the most valuable, active listening. Active listening can be defined as “really listening” and the ability to listen with focus, empathy, and the desire to connect with the speaker. 5. Leadership Skills: This category overlaps with some of the others and focuses on the attitude and mindset required for project management. However, it also includes key skills such as interpersonal and general people relationship-building skills, adaptability, flexibility, people management, degree of customer orientation, analytical skills, problem-solving skills, and the ability to keep the big picture in mind.
APM Competence Framework (IPMA), Competence	<p>Technical competence elements</p> <p>The technical competence domain contains the functional project management competence elements. The scope of technical competences includes the elements relating to:</p>

Baseline [2]	<ul style="list-style-type: none"> • the delivery of projects, programmes and portfolios; • the integration of work in any temporary project, programme and portfolio organisation; • the production of project deliverables in the project organisation; • the progress through all phases of the project, all stages of a programme and all periods of the portfolio considered. <p>The APM Competence Framework contains 30 technical competence elements.</p> <p>Behavioural competence elements</p> <p>The behavioural competence domain contains the personal project management competence elements, covering attitudes and skills. The scope of behavioural competences includes the elements relating to:</p> <ul style="list-style-type: none"> • the project manager specifically; • the project manager's relationship with direct contacts in and around the project; • the project manager's interaction with the whole project and parties involved; • the project manager's interaction with the broader environment, such as the political, economical, sociological, cultural and historical context. <p>The APM Competence Framework contains nine behavioural competence elements.</p> <p>Contextual competence elements</p> <p>The contextual competence domain contains the organisational competence elements. The scope of contextual competences includes elements relating to:</p> <ul style="list-style-type: none"> • the role of project management in permanent organisations; • the interrelationship between project management and the organisation's business functions and administration. <p>The APM Competence Framework contains eight contextual competence elements.</p>
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Source: Authors

4.5. Tasks, formal authority (the right to make decisions) and responsibilities define the management job. Towards a job description model

The elements presented above, of a theoretical and methodological or pragmatic nature, allow the formulation of a job description proposal for the project manager. The structure of this organizational document belongs to the professor emeritus Ion Verboncu [34, pp. 388-392].

The job description template has the following features:

- It has two main parts: job description and job requirements or specification;
- The first part, entitled "job description", is the most consistent as it includes job identification elements in the organizational structure of the organization, the job individual objectives (derived from the project objectives), as well as the support to achieve the objectives, respectively the task-authority-responsibilities trinomial;
- The second part, "job requirements" refers to the conditions that the job holder must meet: training school, experience, actual competence (knowledge, qualities and skills), as well as other specific requirements;
- The presentation of tasks, authority and responsibilities in tabular form is much more appropriate from the perspective of respecting the "golden triangle" of the organization;
- Highlighting tasks, authority and responsibilities can be done on management functions (forecasting, organizing, coordinating, coaching-motivation and control-

evaluation) or on phases of the project life cycle (initiation, planning, execution, monitoring-control and closure). It is important that either of these two options accurately captures the tasks, competencies (official authority) and responsibilities of the "project manager" position.

Each task is normally accompanied by a right to decide (formal authority) and a liability. The model of the job description presented at the end of these findings and, especially, the job definition part, are edifying.

Naturally, in carrying out the activities specific to each phase of the project management methodology, the project manager is directly involved and responsible for the consequences of their exercise. In our opinion, it is advisable to select and appoint the project manager from the start-up phase, as it also establishes the objectives of the project, and their fulfillment is directly dependent on his performance.

Regarding competence, two situations in which a project manager may be involved must be considered. It is competent in the sense that:

- is empowered to decisively solve the problems faced by the position held;
- has sufficient knowledge, qualities and skills to enable him to exercise the official authority (competence) confined to the post, ie he is "endowed" according to the requirements of such a profession.

As such, in the job description, in the job description part, the tasks, competencies (authority) and responsibilities will be inserted, and in the job requirements part, the personal skills - knowledge, qualities and skills will be entered.

The authority of the position of project manager raises some questions, mainly related to its scope. Does the project manager have full, absolute authority or is it limited to making decisions of a certain importance? Are there any differences between the position of project manager and the functional manager? A few comments are needed.

- The position of project manager is established by the decision of the top management of the organization in which the project is carried out. As this is a temporary organization established "on the territory" of the parent organization, it is obvious that the autonomy of the project manager position is not absolute, but limited to decisions regarding project management: setting project objectives and ensuring correspondence with the organization's objectives, planning, execution, monitoring and control of the project development, ensuring the deliverables of the project at the pre-established quality terms and conditions, setting up and leading the project team and so on. A project manager can be selected and appointed before the actual start of the project or in the start-up phase. The decision belongs to the general manager of the organization.
- If a functional (departmental) manager is highly specialized professionally in the field in which he exercises his prerogatives (commercial, production, financial, research and development, etc.), the project manager must have a systemic vision, as he deals with all issues specific to a project, of a technical and technological, economic, managerial, commercial, etc. nature. The difference between the functional manager, specialist and the project manager, generalist, is obvious. If the project manager deals with the project from A to Z, let's not forget that the functional

managers influence the development of the project, sometimes fundamentally, through the decisions they adopt regarding the technology used, the project team members temporarily displaced from the led departments. to the project team, the information provided to the project manager at his request and to the project team in various phases of the project, etc. A functional manager responds to a single boss (general manager), while the project manager is directly subordinated to the general manager, but must promptly respond to requests from the client, sponsor, supplier and even functional managers.

- Despite the limited autonomy of the position of project manager, there is a tendency, not only in theory, but also in the practice of organizations, to make this position a "factotum". Obviously, such a trend will contribute to the disorderly performance of multiple tasks by its holder [20, p. 77].

Correspondence with the official, formal authority is ensured by the actual or personal competence of the project manager, found in the knowledge, qualities and skills he must possess in the quantity and structure required by the nature, characteristics and complexity of the project, the organizational context. in which the project is defined and carried out. Therefore, the position of project manager is defined by tasks, competencies (formal authority limited to him) and responsibilities, and the occupant of the position, the project manager, must have the knowledge, qualities and skills (abilities) to enable him to exercise the position for meeting the objectives.

As we have already mentioned, the theorists ask the project manager for various and numerous knowledge, qualities and skills, which will allow him to successfully complete the project. Two well-known experts, Erik W. Larson and Clifford F. Gray, rightly ask: "So, what should one look for in an effective project manager? Many authors have addressed this question and have generated list after list of skills and attributes associated with being an effective manager. When reviewing these lists, one sometimes gets the impression that to be a successful project manager requires someone with superhuman powers. While we agree that not everyone has the right stuff to be an effective project manager, there are some core traits and skills that can be developed to successfully perform the job" [18, p. 359].

It is impossible to find the entire arsenal of skills at the level of a person who can fully satisfy the requirements of the project manager position! In our opinion, the selection must stop at the candidate with an average level of knowledge, qualities and skills specific to project management. Moreover, it is recommended that each of the competency lists be just selection criteria, and that their level be judged according to several factors: the nature and scope and constraints of the project, the experience of potential project managers and the organization in management. project impact, the impact of project implementation on its overall performance.

At the same time, in order to prevent the occurrence and manifestation of deviations from the planned conduct of the project, it is necessary to pay more attention to monitoring and control, a phase carried out along the entire route of the project, from start to finish.

We propose a job description model for the project manager in which tasks, skills and responsibilities are approached in a balanced way. Exemplificăm completarea tabelului 4 (Tasks-Competencies-Responsibilities) plecând de la cei 10 steps to effective project management, propuși de Michael Armstrong [3, pp. 181-182]:

1. Specify objectives and deliverables.
2. Carry out cost–benefit analysis or investment appraisal to justify project.
3. Determine:
 - what should be done;
 - who does what;
 - when it should be done (broken down into stages);
 - how much it should cost.
4. Define resource requirements (people, money, materials, systems, equipment, etc).
5. Prepare programme – identify stages.
6. Define methods of control – charts, network analysis, progress reports, progress (milestone) meetings.
7. Ensure that everyone knows what is expected of them and has the resources required.
8. Monitor progress continuously against the plan as well as at formal meetings.
9. Take corrective action as required; for example, reallocating resources.
10. Evaluate the end result against the objectives and deliverables.

A. JOB DESCRIPTION

1. **Job title:** Project Manager
2. **Department:** Project team
3. **Hierarchical level:** 4
4. **Span of control:** variable (3-12)
5. **Organizational relations**
 - 5.1. **of authority**
 - 5.1.1. **hierarchically**
 - **is subordinated to:** CEO
 - **subordinates:** members of the project team
 - 5.1.2. **functional:** with positions of functional managers (of compartments) involved in the realization of the project
 - 5.1.3. **of the General Staff**
 - 5.2. **cooperation:** with executive managers and other project managers
 - 5.3. **control:** not the case
 - 5.4. **representation:** if it represents the interests of the organization in relations with other organizations, financial-banking bodies, state institutions, etc.
6. **Individual objectives**
 - completion of the project by...
 - ensuring that the costs of... are included in the budgeted level
 - handing over the project deliverables in predetermined conditions of quality, cost, time
7. **Tasks-authority-responsibilities**

Table 4. Tasks, competencies, responsibilities

No.	Tasks	Competencies (Authority)	Responsibilities
1.	Planning Ensures the harmonization of the project with the mission and strategic objectives of the organization	Approves the dimensional and functional characteristics of the project in accordance with the strategic orientations of the organization	He is responsible for the way in which the project is integrated into the strategy and policies of the organization

2.	Participates in setting project objectives	Decide on the objectives of the project and their integration into the objectives of the organization	Responsible for complying with SMART requirements for project objectives
3.	Break down project objectives into project team members	Decides the degree of load of each component of the project team depending on training, experience, etc.	Responsible for the quality of the objectives assigned to each member of the project team

1.	Organizing Establishes the structural configuration of the project	Decide on the type of organizational structure suitable for the project	It is responsible for ensuring the functionality of the organizational structure
2.	Establishes the human dimension of the work processes required for the project	Decide on the fair distribution of activities and tasks to each team member	He is responsible for the compatibility of the occupants of the positions with them
3..	Prepare job descriptions for each of the members of the project team	Decide the degree of tasks, skills and responsibilities for each team member	Responsible for the quality of the job descriptions developed

1.	Coordination Convene, whenever necessary, harmonization meetings (transmission of decisions and synchronization of actions of project team members), information or creativity	Decide on the timing and content of harmonization, information or creativity meetings	Responsible for the operative transmission of specific informational messages to the members of the project team
2.	Promotes an appropriate leadership style	Decide on the style of leadership promoted	Responsible for team cohesion and the right working atmosphere
3.	Promotes and maintains two- and multi-side communication with project team members	Decide the time and intensity of communication	It is responsible for ensuring and maintaining a climate conducive to the manifestation of each component of the project team

1.	Motivating Ensures adequate conditions for the team's participation in establishing and achieving their objectives, from the project objectives	Decides on the organizational climate, the conditions of involvement in setting and achieving goals	It is responsible for ensuring a relaxed, trusting atmosphere throughout the project
2.	Establishes the profile of the specialist (component of the project team) in terms of the knowledge, qualities and professional skills they must possess	Decide on the "robot portrait" of the project team operator	Responsible for the judicious sizing of the execution positions in the project team
3.	Resolves conflict situations in the project team	Make decisions to prevent and combat the causes of conflict	He is responsible for the conditions provided to the team members for the active

			and responsible involvement in the realization of the project

1.	Control Evaluates and transmits to the Director General or PMO information on the degree of achievement of the project objectives	Decide the positive or negative motivation of the project team members, depending on the degree of achievement of the individual objectives	Responsible for the correlation of the results recorded as a whole and at the level of the project team member with the rewards and sanctions granted
2.	Performs managerial control focused on achieving project objectives and compliance with quality, cost and time requirements imposed on the project and its deliverables	Decides on the extent and intensity of corrections and updates to be made to the project	It is responsible for the need and timeliness of adopting and implementing such corrective and / or updating decisions
3.	Ensures the completion and transmission of the dashboard with information on the implementation of the project	Decide on the quantity and quality of information provided to top management	Responsible for compliance with the terms and conditions for completing the dashboard layouts

Source: I. Verboncu [34, pp. 388-392]

B. JOB REQUIREMENTS (SPECIFICATION)

1. Professional competence

- **Preparation:** higher economic or technical, depending on the nature of the project
- **Experience:** min. 5 years in the profession and min. 3 years in project management

1.1. Professional knowledge

- adequate economic or technical knowledge
- legal knowledge

1.2. Qualities and skills

- adaptability to various working conditions
- the ability to delimit important issues from urgent ones
- self-improvement ability
- computer skills
- perseverance
- courage
- high level of employment
- positive attitude towards certain situations

2. Managerial competence

2.1. Management knowledge

- knowledge of the particularities of exercising the management processes and of each function separately
- knowledge of the configuration of the management system and its particularities
- mastering the main models, project management tools & techniques (SWOT

Analyze, PESTEL, Make or Buy Analysis, Stakeholder Interest/Influence Matrix (SIIM), Risk Likelihood/Impact Matrix, Work Breakdown Structure (WBS), Deliverables Breakdown Structure (DBS), Effort and Cost Estimate, Three-Point Estimates, Decision Trees, Project Scheduling, Resource Levelling, Gantt Charts, Critical Path Method (CPM), Critical Chain Method (CCM), Earned Value Management (EVM), Pareto Analysis, Ishikawa/Fishbone Diagram, Delphi Technique, Plan-Do-Check-Act Method, 10 Cs of Supplier Evaluation, SECI Model - The Knowledge Spiral, Triple C Model - Communication, Cooperation, Coordination [4, pp. 30-33], Time Management Methods and Techniques et al.

- knowledge in the field of information systems specific to project management

2.2. Managerial qualities and skills

- skills: flair, intuition, talent, desire to lead, ability to lead (leadership)
- project-specific hard and soft skills
- qualities: health, vigor, skill, organizational spirit, intelligence, ability to perceive, accept and promote the NEW, imagination, adequacy (sociability, honesty, frankness, firmness, confidentiality, etc.), ability to analyze and synthesize.

3. Specific requirements

- PMI certification in the field of project management
- graduation of a postgraduate course in the field of Project Management
- knowledge of an international language (preferably English)
- PC operation in various programs, depending on the nature of the project
- mastery of project management software

5. Conclusions

- Project managers are managers like any other, ie they carry out management processes, respectively they forecast, organize, coordinate, train, control and evaluate the performance of the executors materialized in achieving the objectives.
- The differences between the project managers and the managers of the organization in which the projects are carried out are given by:
 - the specificity of the project, approached as a temporary organization, with a single objective - the realization of the project in terms of time, cost, quality, etc. default.
 - the large and diversified volume of tasks and responsibilities that fall to the positions of “project manager”, compared to the official, formal, reduced authority conferred on them.
- The position of “project manager” can be, from the moment of its establishment, an unbalanced one, as the condition stated in the previous point, called the “golden triangle” of the organization, is not respected. Underestimating formal competence in relation to assigned tasks and responsibilities can create discomfort for the job holder, ie for the recruited and nominated project manager to lead the project team and manage the project from all points of view - resources, stakeholders, conflicts, risk, etc.
- The previous finding requires the preparation of a realistic job description, with

tasks, competencies and responsibilities harmonized with each other and correlated with the objectives of the project manager position. Hence two other aspects to consider:

- the project manager to be selected and nominated in the project initiation phase;
 - he can participate in the establishment of the project objectives, following which the individual objectives will be established, which belong to the project manager position and, implicitly, to his occupant;
 - the job description of the project manager will be prepared by the project coordination body of the organization in question, and if it is not constituted, by the HR specialists from the human resources department.
- It is necessary, both in Romania and in the Republic of Moldova, the professionalization of project managers, through the following actions:
 - active and responsible involvement of universities with a managerial profile in the training and specialization of higher education graduates in the field of project management (postgraduate and master's courses);
 - national and international certification of project managers, according to the standards in force, recommended by the European Union;
 - the appropriate recruitment, selection and appointment, in a professional manner, on the basis of competency criteria with international visibility, of project managers;
 - periodic training in management, leadership and project management, organized by institutions with national and international recognition.
 - In the context of amplifying hybrid or agile project management approaches, it is necessary to reconsider the set of knowledge, qualities and skills recommended to project managers, by introducing new skills (such as digital project management skills recommended by Project Management Institute in 2018). which must not be missing Data Science Skills, Innovative Mindset, Security and Privacy Knowledge, Legal and Regulatory Compliance Knowledge, Ability to Make Data-Driven Decisions) and strengthening software skills (Confidence, Interpersonal skills, Organization, Agility).
 - Expanding the use of project management in public and private organizations.
 - The proliferation of project-oriented organizations, with project management emerging as a defining feature of the 21st century [22, chapter 6].
 - Proliferation of the complete project manager, "owner" of a wide range of skills [8, pp. 6-7].
 - Managerial methodology of the project by:
 - promoting and using an appropriate project management methodology (PM² Project Management Methodology. Guide 3.0.1, 2021, promoted by the EU being the most conclusive example);
 - the use of hybrid methodologies (Waterfall & Agile) and, implicitly, the promotion of hybrid project managers;
 - amplifying the use of a specific managerial tool, consisting of management models, methods and techniques, as a whole and in each phase of the project (from PESTEL and SWOT, to SMART and WBS, CPM, Pareto, Deming or time management methods).

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Rezumat

Una din modalitățile foarte răspândite în practica mondială a organizațiilor o reprezintă promovarea și utilizarea managementului proiectelor, dovada cea mai evidentă fiind proliferarea studiilor, cărților, articolelor și a altor materiale științifice dedicate acestuia, apărute după 1969, anul apariției Institutului de management al proiectelor (PMI). Destinat soluționării unor probleme complexe, într-un interval de timp limitat, cu resurse de asemenea limitate, managementul proiectelor necesită conjugarea eforturilor mai multor factori – de la managerul de proiect la echipa de proiect, de la managementul de nivel superior al organizației la ceilalți stakeholderi – ca premisă a realizării obiectivelor asumate. Îndeplinirea acestora, în condiții prestabilite, de timp, cost și calitate, contribuie nemijlocit la realizarea obiectivelor organizației și, implicit, atingerea unor standarde de calitate și eficiență ridicate. Nu trebuie să omitem faptul că proiectele contribuie la promovarea noului tehnic, tehnologic, economic printr-un management al resurselor alocate și un leadership al echipei de proiect exercitate de un manager de proiect profesionist. Dacă în organizațiile din România și Republica Moldova nu putem invoca o utilizare pe scară largă a managementului proiectelor, totuși, existența fondurilor europene și accesarea acestora prin proiecte corespunzătoare, pot dinamiza o asemenea zonă de preocupări manageriale și pot contribui la apariția și consolidarea unor organizații centrate pe proiect veritabile. Condiția fundamentală a succesului managementului proiectelor este, în opinia noastră, implicarea managerilor de proiect, actori principali pe întreg traseul solicitat de "viața" unui proiect, de la inițiere la planificare, execuție, finalizare, monitorizare și control al acestuia.

Cuvinte-cheie: proiect, managementul de proiect, manager de proiect, triumphiul talentului, competențe, responsabilități, fișa postului

Аннотация

Одним из наиболее распространенных в мировой практике организаций способов является популяризация и использование проектного управления, крайне очевидным свидетельством которого является распространение посвященных ему исследований, книг, статей и других научных материалов, опубликованных после 1969 года, момента создания Института управления проектами (ИУП). Предназначенное для решения сложных задач, в ограниченное время, с ограниченными ресурсами, управление проектами требует объединения усилий нескольких факторов - от руководителя проекта до проектной команды, от высшего руководства организации до других заинтересованных сторон - как предпосылка для достижения предполагаемых целей. Их выполнение в заранее определенных условиях времени, стоимости и качества напрямую способствует достижению целей организации и, косвенно, достижению высоких стандартов качества и эффективности. Нельзя упускать из виду тот факт, что проекты способствуют продвижению нового технического, технологического, экономического достижений за счет управления выделенными ресурсами и руководства проектной командой, осуществляемой профессиональным менеджером проекта. Если в организациях из Румынии и Республики

Молдова мы не можем призывать к широкому использованию управления проектами, однако существование европейских фондов и их доступ через соответствующие проекты могут стимулировать такую область управленческих проблем и могут способствовать появлению и объединению ориентированных на проект организаций. Фундаментальным условием успеха управления проектами является, на наш взгляд, вовлечение руководителей проектов, основных действующих лиц на всем пути, необходимом для «жизни» проекта, от инициации до планирования, выполнения, завершения, мониторинга и контроля.

Ключевые слова: проект, управление проектами, руководитель проекта, треугольник талантов, компетентность, ответственность, должностные обязанности

PROSPECTS OF INTEGRATED REPORTING APPLICATION IN CATERING ESTABLISHMENTS

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Abstract

The paper focuses on findings, conclusions, and recommendations having regard to the practice and prospects of integrated reporting application in the Republic of Moldova while drawing attention to the general aspects and main advantages of applying such in catering establishments.

A vast spectrum of definitions touching on the concept of "integrated reporting" is given. Also defined are the main purpose and the core functions underpinning the integrated reporting, highlighted are the key principles of its application while giving a thorough consideration of the international regulatory framework.

The author produced the structure of the integrated reporting covering: an overview of the company and the environment, management, business model, risks and opportunities, strategy and resource allocation, operating results, and future prospects. Given for each of the structural elements of the integrated reporting, is a brief description of its content while touching on the overall business activity and on the catering domain in particular.

Serving as the methodological and theoretical grounds for the research were numerous papers published by the scientists and specialists in the field of integrated reporting as well as a series of international regulations.

Keywords: *integrated reporting, international standard, catering establishment, business model, management*

1. Introduction

In the background of the ever-changing economic environment and social and environmental requirements, there is a pressing need to create and implement much more sophisticated and comprehensive mechanisms for assessing the activities of commercial undertakings. With regard to catering establishments, the integrated reporting is being deemed as one of such promising mechanisms. According to the Value Reporting Foundation, more than 500 of the world's leading companies already use the integrated reporting (more than 150 of which are companies based in Europe) [13]. These include, for example, BASF (Germany, chemical industry), Toyota (Japan, automotive industry) Bayer AG (Germany, pharmaceuticals), NUTRESA (Colombia, food-processing company).

A mandatory use of the integrated reporting is stemming from the fact that in making any managerial or investment decision in modern economy, one needs to bear in mind a series of subtle factors missing from the classical financial and managerial reporting. Nowadays, the investors and managers are obviously interested in getting data on the non-financial aspects of the corporate performances, including economic, social and environmental policies pursued

by the company. These, as well as all other important non-financial data would be easily accessible once the integrated reporting is in place.

2. The status of studying the problem and the purpose pursued by the research

The integrated reporting in the Republic of Moldova is a domain, known by a concise cohort of specialists, and hence, there is virtually no practice in its application, except for some specific reports complied to meet the inquiries made by some investors in addition to the ordinary financial statements. It is worth noticing, that such issue, as integrated reporting remains vaguely studied by the Moldovan economists. Accordingly, the procedure of compiling integrated reporting in the Republic of Moldova is not governed by the effective legislation. At the same time, as part of the international practice, applicable in compilation of the aforementioned reports are the provisions stipulated in the following standards:

- **IFRS - (International Financial Reporting Standards)** – a set of documents (standards and interpretations) governing the rules for making out financial statements as needed by the external users for taking economic decisions with regard to a company [11];
- The **International standard ISO 26000** contains guidance for businesses and organizations committed to operate in a socially responsible way. The standard serves as a guide for all business operators, regardless of the size and scope of activity or they location [9];
- **International Integrated Reporting Standard** – contains definition of the integrated reporting, along with the core principles of reporting. It outlines the content and essence of the reporting elements, while identifying the objectives and users of such [1];
- **AA1000 AS - social accountability reporting standard** is designed to measure the performance of companies from the ethical standpoint and provides a procedure and a set of criteria for carrying out social and ethical audit of their activities. Also given are the definitions of the compliance with the basic principles of the Accountability series of standards [10].

It is worth noticing that nowadays the major contribution to the development of integrated reporting is made by the **International Integrated Reporting Council (IIRC)**. The IIRC is a global coalition of regulators, investors, companies, standard setters, the accounting profession, and Non-Governmental Organizations. The members of this structure are pursuing the objective of creating a fruitful environment allowing for the exchange of practical experience and theoretical developments in the process of creation or depreciation of value over time. The IIRC-led activity is highly appreciated within the professional circles in terms of its impact on the development of corporate reporting.

It is worth noticing that there is no unique concept of “integrated reporting” in the regulations or in the economic literature.

Thus, according to the IIRC, integrated reporting is “a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation, preservation or erosion of value over the short, medium and long term” [1].

The economist V. G. Hetman, in defining this type of reporting indicates that the main difference of this type of reporting is that when compiling an integrated report, it is necessary to pay major attention to the analysis of the ability of a company to create value bearing on the interaction over short, medium and long-term periods with the external environment and capital (financial, industrial, human, intellectual, environmental, and social) [2, p. 44].

Therefore, the researcher N. V. Malinovskaya emphasizes that integrated reporting is meant to maintain a more sustainable business environment and improve the quality of decisions taken by the financial capital lenders. Thereat, the purpose underpinning the integrated reporting is to offer data making it easy for the interested users to assess the organizational capability to create value over time [3, p. 13].

M. S. Rybyantseva and V. E. Khramova propose the following definition: “the integrated reporting is a financial accounting tool, representing a fully packed up data base concerning an entity, including a set of indicators mirroring the economic, social and environmental aspects of the domain of economic engagement of an entity and its corporate governance system, which allows interested users to see the value creation process managed by the business and shape up an opinion on its economic value [4, p. 1].

However, we believe, that the most accurate definition of integrated reporting, bearing on the systematization of its main aspects, was given by M. A. Vakhrushina and A. A. Tolcheeva. The authors view the integrated reporting as a best match to the criteria of corporate reporting, i.e. combining financial, environmental and social components of corporate activities. It captures financial and non-financial, systemic and non-systemic, reporting and projection data while focusing on the challenges posed by the development of the corporate business model [5, p. 306].

Based on the expert-suggested definitions, a conclusion could be drawn that the **main goal of integrated reporting** is to show corporate value creation over a certain period of time bearing on the analysis of a wide range of financial (common for the traditional forms of reporting) and non-financial corporate indicators.

As noted earlier, the integrated reporting is successfully used by large scale enterprises engaged in a large spectrum of activity, providing a series of notable advantages at the background of other methods, allowing to investors and managers a chance to make a full-fledged assessment of company performances with due account for the factors gaining importance. Thus, the integrated reporting applied to catering establishments provides an opportunity to obtain a number of important non-financial data, including on the following aspects of corporate activities:

- level of environmentally friendly food production;
- efficiency of food waste disposal;
- efficiency (sustainability) of food raw materials consumption in preparation of semi-finished and finished products.

The purpose of this paper is to disclose the importance, function, principles, structure, as well as the possibilities of practical application of integrated reporting in public catering establishments of the Republic of Moldova.

3. Methods and reference materials used

In writing this paper, use has been made of general cognitive methods, such as comparison, analysis, and composition of theoretical material, generalization, systematization, abstraction, and principles of formal logic.

The methodological and theoretical grounds laid in the foundation of the study was the research work of scientists and specialists in the field of integrated reporting from Russia [2-8], Romania and Moldova [12, 14], international regulations, in particular: International Standard ISO 26000 [9]; International Integrated Reporting Standard (IIRS) [1]. Also in drafting the paper, use has been made of the official Internet resource made available by the International Council for Integrated Reporting <https://www.integratedreporting.org/> [13].

4. Results and discussions

Integrated reporting is the final product of the accounting process. It stands for a set of reliable data and indicators on the activities performed during a certain period by a business or a group of interrelated companies, grouped up pursuant to the established procedure and sequence [6, p. 45].

Corporate reporting serves to mirror the culture of ethics in business. The importance of improving the reporting lies with the fact that it serves to add changes to the practice of corporate management, i.e. there is a link between reporting and managing business: on the one hand, the better is the reporting, the more effective is the management; on the other hand, the more efficient is the business, the better is the reporting. Thus, the intensive introduction of integrated reporting can ensure a more stable financial and economic standing not only for the individual companies but also for the country's economy as a whole.

Integrated reporting provides information on the overall assets of a company and the links between such. Hence, the reporting provides a clear answer to how exactly a company through its interaction with the external environment and capital, creates value, providing a more transparent perception of the resources owned by the latter. The range of potential users of reporting information is rather wide and includes creditors, investors, sellers and buyers, regulatory authorities, etc.

A general conclusion could be drawn that **thanks to the integrated reporting, one could get a comprehensive picture of the company and of the prospects of cooperation with such** [3, p. 466].

Integrated reporting in case of public catering establishments can perform a number of functions, among which one can highlight the following:

- ✓ information function that provides for mirroring in the integrated reporting all types of indicators touching on the entire domains of corporate activities: turnover, profit return, manning, etc.;
- ✓ analytical function, standing for evaluation and analysis of all types of corporate activities: cost effectiveness, labor productivity, maintaining environmentally friendly production, etc.;
- ✓ oversight function allowing to control the assets owned by the company, keep an

inventory of tangible assets, labor and financial resources, to assess company's physical infrastructure.

Integrated reporting should comply with the following principles:

- **complexity** – the report should shape up a holistic picture of company's activities, interrelation of the factors that could affect creation of its value over time;
- **targeted orientation** – inclusion in the reporting specific information relevant for various interested users;
- **reliability** – providing that the information reflected in the reporting contains positive and negative facts, in a well-balanced and accurate form;
- **relevance** – reflecting only such information, the change of which could significantly affect the activities of the company in the foreseeable future;
- **rationality** – the information should be as useful as practically possible;
- **conciseness** – the report should not be excessively loaded with a large amount of data, the information should be completed in such a way as to make it compelling.

It is worth noticing that the integrated reporting of a business operator should contain most recently updated information only, as well as such information that allows for assessing the financial stability of the company. The reporting volume depends on the specifics of the activity carried out by the company and on the choice of information to be disclosed [7, p. 128]. Based on the International Integrated Reporting Standard, it is highly recommendable to include the following elements in the integrated report as shown in the following Table [1, p. 26].

In conclusion, it is worth noticing that the report should give an answer on a range of difficulties and uncertainties encountered by the company while implementing its strategy, and highlight the potential consequences for its business model and future performances. In this case, the management, bearing on the results of the systemic analysis, should identify all of the sore points that prevent the company from achieving its strategic goals and reflect such in the integrated reporting. Meanwhile, it would be necessary to indicate a procedure that could be used by the company to respond to the encountered difficulties, while highlighting the potential consequences of these phenomena that could affect its performance and financial standing. It is worth noticing that the author of this paper shares the opinion that some of the companies would prefer not to make this information publicly disclosed as it affect the image maintained by the latter.

Table 1. Structure of the integrated reporting

Section	Components (applicable to any type of business)	Components (applied to catering establishments)
1. Company overview and	<i>Basic information contained in the</i>	<i>Basic information contained in the section:</i> <ul style="list-style-type: none"> • <i>types of products and output volume produced by the catering establishment;</i> • <i>types of services provided;</i> • <i>main sales markets;</i> • <i>number of employees on the payroll;</i>

external environment	<i>section: company's mission, development strategy, types of activities, general figures.</i>	<ul style="list-style-type: none"> • <i>revenue gained;</i> • <i>list of the regions covered by the operation of public catering establishments;</i> • <i>market positioning;</i> • <i>competitiveness of the catering establishment and prospects for business expansion; availability of external factors (political, legal, social, environmental, etc.) that can affect further development of the establishment.</i>
2. Management	<i>Administrative structure of the establishment and the extent to which the latter could help to create value in the short, medium and long term.</i>	<i>Information having regard to business and personal qualities of company's managerial staff: skills, approaches to risk management, responsibility for creation and promotion of innovations. Likewise disclosed shall be the information on the system of rewards and incentives established for the managers and how these relate to value creation [2].</i>
3. Business model	<i>This section deals with disclosure of information on planning the key inputs, actions to boost the cost increment as well as the outputs that should help the company in creating the value in the short, medium and long terms.</i>	<p><i>A business model of a catering establishment should represent a comprehensive strategy for setting up commercial activities, allowing to use the available resources for production of goods and services (ready-made products, organizing leisure activities, etc.) with maximum efficiency of value creation and achieving short-, medium- and long-term goals.</i></p> <p><i>The integrated report should include a business model specifying the following:</i></p> <ul style="list-style-type: none"> • <i>resources;</i> • <i>commercial activity;</i> • <i>goods and services;</i> • <i>goals and outcomes .</i> <p><i>In particular, business model of a catering establishment should include at least: definitions of the concept, target consumers, processing technology (giving as much detail as possible: from the product delivery procedure up to the description of the technology of orders payment by customers), strategic objectives pursued by the establishment, as well as the marketing plan and possible directions for further development of business model.</i></p>
		<i>Addressed are the internal risks, directly dependent on the activities performed by the establishment. The ones that could be controlled</i>

<p>4. Risks and opportunities</p>	<p><i>Addressed are the major opportunities and risks faced by the establishment.</i></p>	<p><i>and managed, while the external risks that could affect the establishment externally occur independently of the activities performed by the latter and are not always controllable and manageable.</i></p> <p><i>The following are the main internal risks faced by the catering establishments:</i></p> <ul style="list-style-type: none"> <i>• shortage of resources: tangible, labor, financial; risk of making counterproductive managerial decisions resulting in a complex negative impact produced on the overall organization's activities;</i> <i>• human capacity risk associated with shortage or low qualification of personnel, infringement of labor discipline and staff turnover;</i> <i>• risk of inefficient marketing strategy;</i> <i>• and the most significant - risk of bankruptcy.</i> <p><i>The external risks include as follows:</i></p> <ul style="list-style-type: none"> <i>• political risks;</i> <i>• economic risks;</i> <i>• technological risks;</i> <i>• natural and environmental risks;</i> <i>• social risks characterized by public opinion about the company, mass media influence as well as the style and living standards of the population, country's demographic profile and dynamics;</i> <i>• information security risks posing threat to the transfer and use of company's data resources by the competitors [8].</i>
<p>5. Strategy and resource allocation</p>	<p><i>This section outlines the objectives pursued by the company and the means used to achieve such.</i></p>	<p><i>Subject to analysis is the strategy pursued by the catering establishment, as well as the procedure of resource allocation, specifically, the total number, priorities and the required ratio. The following is being done:</i></p> <ul style="list-style-type: none"> <i>• analysis of variance in the allocation of resources as compared to the initial planning and mandatory clarification of the reasons of their occurrence;</i> <i>• analysis of the links between the past, current and future activities of the catering establishment, future projections bearing on the available results;</i>

		<ul style="list-style-type: none"> • <i>demonstrations of linkages between the financial and other types of capital;</i> • <i>company's position on the market compared according to the average indicator across the industry.</i>
6. Performance results	<i>Given is the analysis of success in the implementation of company's company managed to achieve the goals and what are the main outcomes of its activities.</i>	<i>In this section, the integrated reporting should contains all of the information having regard to the procedure through which the catering establishment creates value over time.</i>
7. Prospects for the future	<i>Describing a range of difficulties and uncertainties that could potentially emerge in the process of strategy implementation, potential consequences for company's business model and its future activities</i>	<i>This section deals with the prospects of further development of the catering establishment during the subsequent reporting periods, taking into account the current situations and expected events (for instance, the COVID-19 pandemic, armed conflict in Ukraine, growing energy prices, etc.)</i>

Source: Author's own findings

In conclusion, it is worth noticing that the report should give an answer on a range of difficulties and uncertainties encountered by the company while implementing its strategy, and highlight the potential consequences for its business model and future performances. In this case, the management, bearing on the results of the systemic analysis, should identify all of the sore points that prevent the company from achieving its strategic goals and reflect such in the integrated reporting. Meanwhile, it would be necessary to indicate a procedure that could be used by the company to respond to the encountered difficulties, while highlighting the potential consequences of these phenomena that could affect its performance and financial standing. It is worth noticing that the author of this paper shares the opinion that some of the companies would prefer not to make this information publicly disclosed as it affect the image maintained by the latter.

5. Conclusions

Integrated reporting is a rather promising type of reporting that as compared to financial and management reporting, comprehensive information on company performances, with due account for economic as well as the environmental, social, and political factors that seem to

gain greater importance nowadays. The introduction of this type of reporting is recommended for use by large business operators in any domain of activity, including catering establishments - chain restaurants, cafeterias, and snack bars.

Among the potential advantages that could be achieved by the company through the transition to integrated reporting, one could notice such as capital mobilization, improving business reputation and competitiveness.

At the same time, it should be noted that introduction of the integrated reporting in the Republic of Moldova cannot progress without active intervention and support on behalf of the government. The latter should be directly interested in promoting this type of reporting as it serves to enhance the transparency of the business environment. Therefore, it looks appropriate for the Ministry of Finance of the Republic of Moldova to develop and put in place a separate standard on integrated reporting or at least a regulation on the procedure of compiling and applying this type of reporting based on the international standards.

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Rezumat

Articolul conține observații, concluzii și recomandări cu privire la practica și perspectivele de utilizare ale raportării integrate în Republica Moldova, examinarea aspectelor generale și principalelor avantaje ale utilizării acestora la întreprinderile de alimentație publică.

În articol se prezintă multilaterale definiții ale conceptului de „raportare integrată”, se definește scopul principal, se evidențiază principalele funcții ale raportării integrate, se formulează principiile cheie pentru aplicarea acestora și se examinează reglementarea normativă internațională.

Autorul prezintă structura raportării integrate, care cuprinde elementele: imaginea de ansamblu a organizației și a mediului extern, aspectele manageriale, modelul de afaceri, riscurile și oportunitățile, strategia și alocarea de resurse, rezultatele de performanță, perspectivele de viitor. Pentru fiecare dintre elementele structurii de raportare integrată se face o scurtă descriere a conținutului acestora, atât în general, în raport cu întreprinderile din orice domeniu de activitate, cât și în particular, cu privire la întreprinderile de alimentație publică.

Ca bază metodologică și teoretică a studiului au servit investigațiile științifice ale savanților și ale specialiștilor competenți în domeniul raportării integrate, reglementările normative internaționale.

Cuvinte-cheie: raportare integrată, standard internațional, alimentație publică, model de afaceri, management

Аннотация

В настоящей статье представлены наблюдения, выводы и рекомендации относительно практики и перспективы применения интегрированной отчетности в Республике Молдова, рассмотрены общие аспекты и основные преимущества её применения на предприятиях общественного питания.

Даны разносторонние определения понятия «интегрированная отчетность», определена основная цель, выделены главные функции интегрированной отчетности, сформулированы ключевые принципы ее применения, рассмотрено международное нормативное регламентирование.

Автором представлена структура интегрированной отчетности, составленная из следующих элементов: обзор организации и внешняя среда, управление, бизнес-модель, риски и возможности, стратегия и распределение ресурсов, результаты деятельности, перспективы на будущее. По каждому из элементов структуры интегрированной отчетности дана краткая характеристика относительно его содержания, как применительно к предприятиям любой сферы деятельности в целом, так и для предприятий общественного питания, в частности.

Методологическую и теоретическую базу исследования составили научные работы ученых и специалистов в области интегрированной отчетности, международные нормативные акты.

Ключевые слова: интегрированная отчетность, международный стандарт, общественное питание, бизнес-модель, управление

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THE NEED FOR INTEGRATION OF THE ENERGY COMPLEX OF THE REPUBLIC OF MOLDOVA INTO THE EUROPEAN ENERGY SYSTEM IN THE CONTEXT OF ENERGY SECURITY

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Abstract

This study is an attempt to reflect the current situation in the field of energy security in the Republic of Moldova in the context of international economic relations. The presented article demonstrates the results of a study of scientific, open sources of information, as well as the current experience of European countries in the field of energy, ways of developing alternative energy sources.

Based on a review of previous studies in the field of energy and data on the current state of the energy complex of the Republic of Moldova, the existing problems of the strategic vision of the situation in the field of energy security and sustainable development of the energy complex of the Republic of Moldova were identified.

The author reflects the economic, environmental, infrastructural aspects of energy security, through the prism of which the relevance of this research topic is demonstrated. Based on the presented approaches, the understanding of the essence of the concept of energy security is modified and supplemented. Therefore, the author made an attempt to formulate a comprehensive definition that is maximally adapted to modern realities.

Some possible solutions are proposed, formalized in the form of strategic directions and appropriate steps for the development of energy cooperation of the Republic of Moldova in the context of energy security. These strategic steps can form the basis of future research and development.

Keywords: *energy security, international relations, integration, energy complex, European Union*

1. Introduction

For the correct and effective choice of specific ways of rapprochement between the Republic of Moldova and the European Union in the field of integration of the fuel and energy complex into the European energy system, a clear understanding of the currently emerging context of international relations in the region and the world as a whole is necessary. The formation of strategic initiatives for the energy integration of Moldova into the European Union is greatly influenced by the current geopolitical realities. This factor in the near future, definitely, will have a strong impact on the entire system of international relations, will largely lead to their reformatting and will affect the economic indicators of the European Union, including in the field of energy safety.

The issue of energy security is of a particular topicality, because the reliable and secure supply of energy produced in environmentally acceptable ways is the one that creates the premises for the harmonious development of modern economies. Thus, the author addresses the subjects such as: the evolution of the concept of energy security; the issues of energy

security of the Republic of Moldova; the current situation in the European Union in the field of energy supply.

The aim of this research is to identify the opportunities for the integration of the Moldavian energy sector into the European energy system, taking into account the need to ensure the energy security.

2. The extent of the current study of the problem, objective of the study

In recent years, the term "energy security" has taken its place in various economic and public debates as a weighty factor and a universal argument for bringing countries closer together in this context. Despite the presence of a significant number of academic and scientific works of domestic and foreign authors, there is still no single definition of energy security.

The first mention of the term occurred in 1947 in the United States, when a law was passed regulating the state policy of national security. This concept became an independent concept after the 1973 oil crisis, which led to the creation of the International Energy Agency, which provided the following formulation of energy security - confidence that energy will be available in the required quantity and quality under certain economic conditions [8].

Since then, this concept has evolved and acquired a new meaning. In the context of new trends, such as environmental and technological safety, the concept under study is no longer limited to the borders of a single state and the energy supply of the population and a certain national economy, but is expanded and supplemented as a result of a global rethinking.

Judging by the research of other scientists, energy security in the current context is not just the security of supply, but something that includes aspects of security in a broader sense - economic, political, environmental, infrastructural, and even in terms of terrorist activities. threats., taking into account the current challenges of sustainable development and the challenges associated with climate change [2, p. 1094].

Provision of a high level of energy security is an important link for the economic security of a country. Focusing on the economic aspect of energy security, we should talk about the state of society and the economy that allows, on the basis of the efficient use of fuel and energy potential, the maintenance of the level of energy consumption necessary for the socioeconomic development of the country, of an optimal level of export to the world energy markets in terms of trade criteria, as well as of a level sufficient for the interests of the country. After all, the energy sector has a fairly significant share in the overall assurance of economic security, forming the necessary fuel reserves for the entire state economy.

On the other hand, there is a correlation between the economic conditions of a country and the quantity and quality of energy. Thus, energy security can be defined as the confidence that energy will be available in sufficient quantity and quality, depending on needs, under certain economic conditions [8]. Thus, the energy security of a region must be understood as a characteristic of the energy and fuel complex of a state, which determines the capacity of this complex, on the basis of efficient use of internal and external resources, to ensure a reliable energy supply of economic entities and of population, without compromising the economic security of the state or region.

Energy security can be ensured only if environmental factors are taken into account. The fuel and energy complex represents one of the largest sources with negative impact on the environment. It is one of the objects of high risk for society and for environment. Energy security is an integral element of national security, as it is closely linked not only to the economic prosperity, but also to the concept of sustainable environmental development. Therefore, revealing the essence of the ecological aspect of energy security, it is advisable to mention that it is related to the impact of the fuel and energy complex on the environment, the emissions of fuel combustion products into the atmosphere and, consequently, the occurrence of the problems such as the intensification of the greenhouse effect and climate changes, acid precipitations, formation of smog, etc. The tightening of environmental protection measures has already become an important factor for energy security itself, which in its turn stimulates the development of alternative energy and hydroelectric energy, energy savings and efficient technologies from energetic point of view.

Climate aspects of energy development are actively discussed in the European Union countries. The so-called climate strategies for the energy sector do not refer to the limitation of the economic growth of countries, but to the maintenance of the ecological balance and taking into account of all requirements necessary for environmental security.

The infrastructural aspect of energy security is characterized by a wide range of necessary facilities: buildings, structures and other complexes that are designed to extract, process, transport, receive energy in its various forms.

Some authors explain the definition of energy security from the point of view of ensuring the protection of the population and the country from threats to energy availability, which are possible due to adverse natural, artificial, domestic and foreign political, socio-economic and other environmental factors [13, p. 7].

The aim of the study is to develop a strategic approach aimed at ensuring the energy security of the Republic of Moldova on the basis of its integration into the EU energy complex. Achieving this goal is planned in three stages, each of which is formalized within a certain timeframe and specific areas of activity. The sequence of stages implementation and the systemic nature of the overall strategy can guarantee the successful integration of the Republic of Moldova into the energy system of the European Union, as well as contribute to the development of the country's international cooperation to a new qualitative level.

3. Methods and materials applied

For the analysis of the situation in the field of energy in the Republic of Moldova, scientific and publicly available sources of information on international trends in the field of energy were used. The qualitative method of expert assessment of the situation in the field of energy in the Republic of Moldova was applied. The author developed the scenario of the in-depth interview, in the course of which the expert opinions of the representatives of the scientific community, specialized specialists in the field of energy and energy security in the Republic of Moldova were collected. The results of the study were recorded on the voice recorder or sent by the respondents by e-mail. The obtained expert opinions made it possible to formulate the directions for the strategic development of the process of the integration of the fuel and

energy complex of the Republic of Moldova into the European energy system.

The originality of the research method applied for the achievement of the objective of this article consists in the following: at present, there is little or no published scientific paper on some aspects related to energy security, because the changes are too dynamic, significant changes taking place almost daily. As a result, interviewing of experts made it possible the faster obtainment of answers to questions that is a clear advantage in the current context of instability.

4. Results obtained and discussions

Today, energy plays a significant role in raising living standards and expanding development opportunities in both highly developed and developing countries of the world. Energy is now regarded as the main resource that ensures the life of civilization on the planet. The world's energy needs are covered by the extraction of oil, natural gas and coal. However, these valuable resources are unevenly present throughout the world, which leads to an increase in the speed and volume of extraction, processing, and improvement of the processes involved. In this case, the process of exhaustion is inevitable and occurs very quickly. The rapid depletion of non-renewable resources is becoming a global energy problem. Therefore, an integrated approach is needed, taking into account a long-term vision for solving this problem. Ensuring an efficient, environmentally friendly, but reliable energy supply at prices that reflect the fundamental principles of a market economy is of great interest and at the same time a challenge for all countries of the world and the world community.

The different points of view regarding the understanding of the essence of energy safety and their evolution demonstrate that this is not a static process and its relevance is proved by the experience of many countries. Of particular interest in this sense is the experience of the European Union, which has recently encountered significant energy difficulties. In addition, many highly developed member countries of the European Union were constantly in search of alternative energy sources.

Today, one common objective has been set in Europe – to achieve the climatic neutrality by the middle of the century, and in the new realities another one has appeared – not to be dependent on the supplies from the countries that extract and supply the energy resources, which can, at some point, use this tool for the political blackmail. And in this regard, the decarbonization path followed by the European Union will lead to climate and energy safety at the same time. At the same time, it must be taken into account that European countries practically do not produce their own fuel and are penetrated by Russian oil and gas pipelines, which is clearly demonstrated in the figure 1.

Accordingly, the rejection of Russian oil can be relatively painless for Europe, due to the fact that some countries of the European Union (Lithuania, Poland, Finland) almost completely depend on it. In this case, the global strategic reserves and Middle Eastern suppliers that can increase production can help. With the supply of Russian gas, the situation becomes more complicated, because, as you know, European countries are more dependent on it than on oil. In the last thirty years, the European Union has moved to import 40% more gas, in particular Russian. For example, the Republic of Moldova, Finland, Estonia, Bulgaria consume only it.

Natural gas, unlike oil, is not sold on the world market and is almost never delivered by tankers, for this reason the change of the gas supplier in the immediate future is an extremely difficult objective. At the moment, neither Europe nor other countries are ready to increase natural gas production, and its strategic reserves practically do not exist.

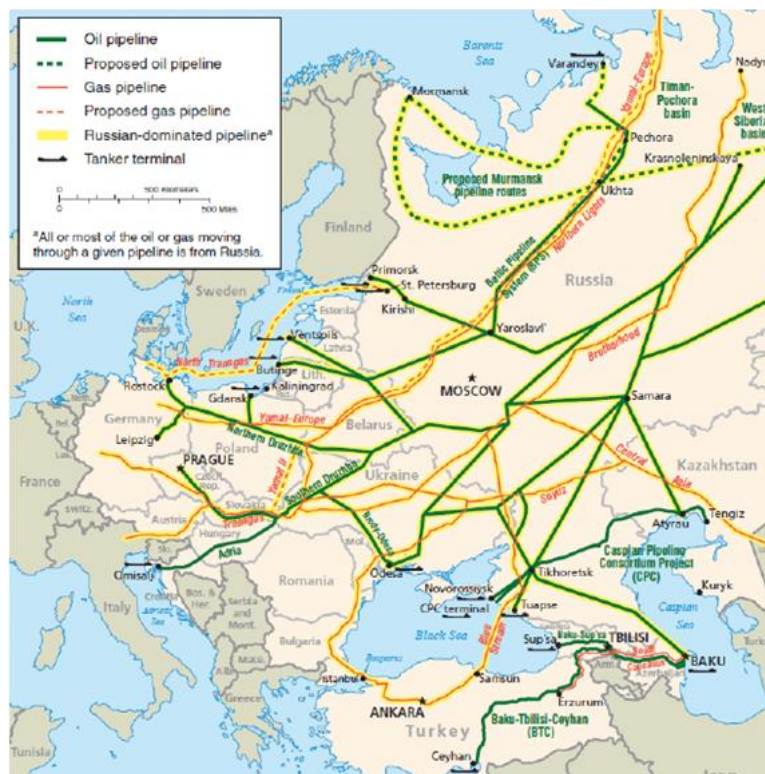


Figure 1. Scheme of existing oil and gas pipelines from Russia on the territory of Europe

Source: [3]

The response measures to the indicated problems become the agreements of European leaders to speed up the renunciation of Russian coal, oil and gas as much as possible. It is also planned to fill gas storage facilities, temporarily limit the price of fuel and seek to diversify the supply of energy, that is, not only to replace Russian pipeline gas with Norwegian, Azerbaijani and Algerian ones, but also count on the possibility of switching to liquefied natural gas from the USA, Qatar or Japan. Thus, Austria no longer purchases oil from Russia, and the Netherlands plans to stop importing Russian energy resources by the end of the current 2022.

However, it should be understood that the real goal of the current strategy is not exclusively a direct rejection of fossil fuels from Russia, but the rejection of it in principle. Dependence on fossil fuels can lead to dependency on the supplying country. In order to reject of oil, gas and coal in its energy systems in the visible future, the European Union is planning their modernization oriented to the introduction of biogas and “green” hydrogen, to make a decisive and dynamic transition to eco-transport, to instal sufficient number of solar panels and wind turbines, to improve accordingly the insulation of buildings and heat them with the help of the heat pumps, to apply the carbon capture technologies and more. Some European countries, such as Greece, the United Kingdom, have already expanded the use of renewable resources, other countries, such as Belgium, Germany, postponed the closure of the projects

within nuclear energy. Some countries (Italy, Czech Republic) even decide on a temporary return to the use of coal.

For the European Union, the coming years may be difficult, but in the long term, today's crisis may, paradoxical as it may sound, affect positively the state of the climate and contribute to the strengthening of the energy safety in the region [5]. The scientists and practitioners in the field of energy have long attracted the attention of politicians and economists in the field of international relations to the fact that excessive enthusiasm for fossil fuels is not only the cause of climate change, but also the root of geopolitical conflicts, since it makes democratic states dependent on unpredictable and authoritarian regimes.

Speaking about the Republic of Moldova in this context, it can be noted that the country is one of nine countries in the world that, according to the authoritative assessment of "Maplecroft", are in the group of "high risk" within the terms of energy security [10]. The country faces a rather difficult energy situation of all time among all states of the Eastern Partnership of the European Union. This situation is exacerbated by the deficit of the local resources, as well as the lack of direct access to sea.

Analysing the current state of the energy sector of the Republic of Moldova it is rational to refer to energy statistics, which are elaborated and disseminated by the National Bureau of Statistics. The evolution of exports and imports in the period 2015-2020 is presented in the table 1.

Table 1. Evolution of export and import of energy resources, Republic of Moldova, in thousands of tons of oil equivalent, 2015-2020

	2015	2016	2017	2018	2019	2020
Import	1766	1818	2012	2109	2031	1935
Export	16	15	34	27	9	21

Source: [1]

These indicators demonstrate an overwhelming preponderance of energy imports over exports, the situation of the energy structure of the energy complex of the country and its passive position, as well as its weak modernization. Constant preponderance of imports over exports. Slight modifications of the indicators suggest that imports remain consistently predominant.

More up-to-date data provided by the National Bank of Moldova demonstrate that in 2021, compared to 2020, energy and electricity imports increased by 1,9 times in value terms, up to 1 billion 037,37 million dollars [11]. At the same time, the imports of energy and electricity of the Republic of Moldova, in value terms, amounted to 192,03 million dollars in the first quarter of 2021, 188,73 million dollars in the second quarter of 2021, 248,12 million dollars in the third quarter of 2021 and 408,49 million dollars in the fourth quarter of 2021 (in the same periods of the previous year – 203,85 million dollars, 94,33 million dollars, 107,54 million dollars and 153,87 million dollars). Thus, in the quarter IV of 2021, compared to the same period in 2020, energy and electricity imports in the Republic of Moldova increased by 2,7 times in value terms, mainly because of the prices advance for natural gas, diesel and gasoline. In particular, in the quarter IV of 2021, compared to the same period in 2020, natural gas imports in the country increased by 4,8 times in value terms – from 45,81 million

dollars to 217,79 million dollars, of diesel – by 78% - from 68,4 million dollars to 121,78 million dollars, of gasoline – by 64% - from 20,29 million dollars to 33,28 million dollars and of coal – by 56,9% - from 3,62 million dollars to 5,68 million dollars.

Gross and final domestic energy consumption in the Republic of Moldova is presented in the form of a diagram in the figure 2.

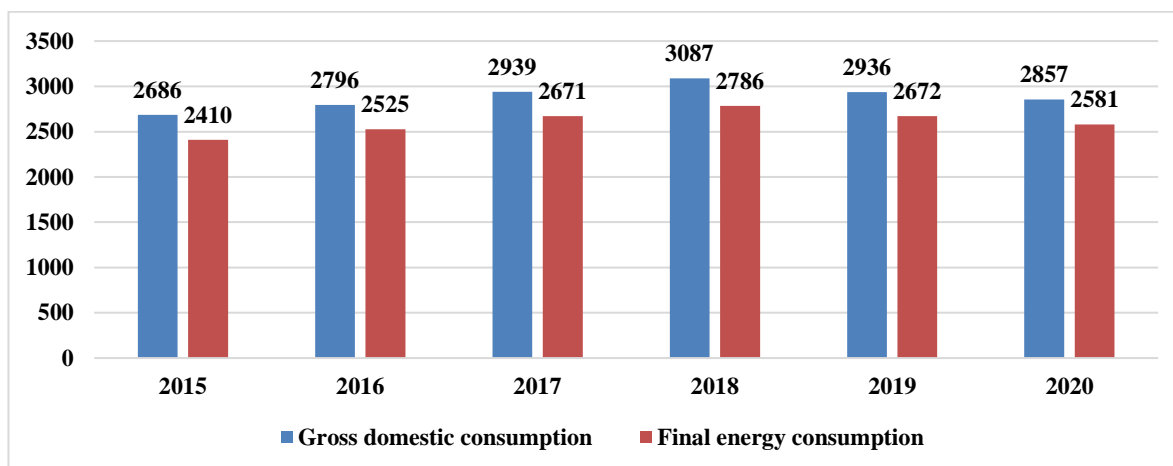


Figure 2. National consumption of energy resources of the Republic of Moldova, in thousands of tons of oil equivalent, 2015-2020

Source: [1]

The diagram demonstrates an insignificant dynamic over six years in terms of energy consumption. This indicates, on the one hand, the lack of strong demand growth (weak growth trend) and, on the other hand, the lack of energy efficiency (weak downward trend). The final energy consumption by types of activity is presented in the figure 3.

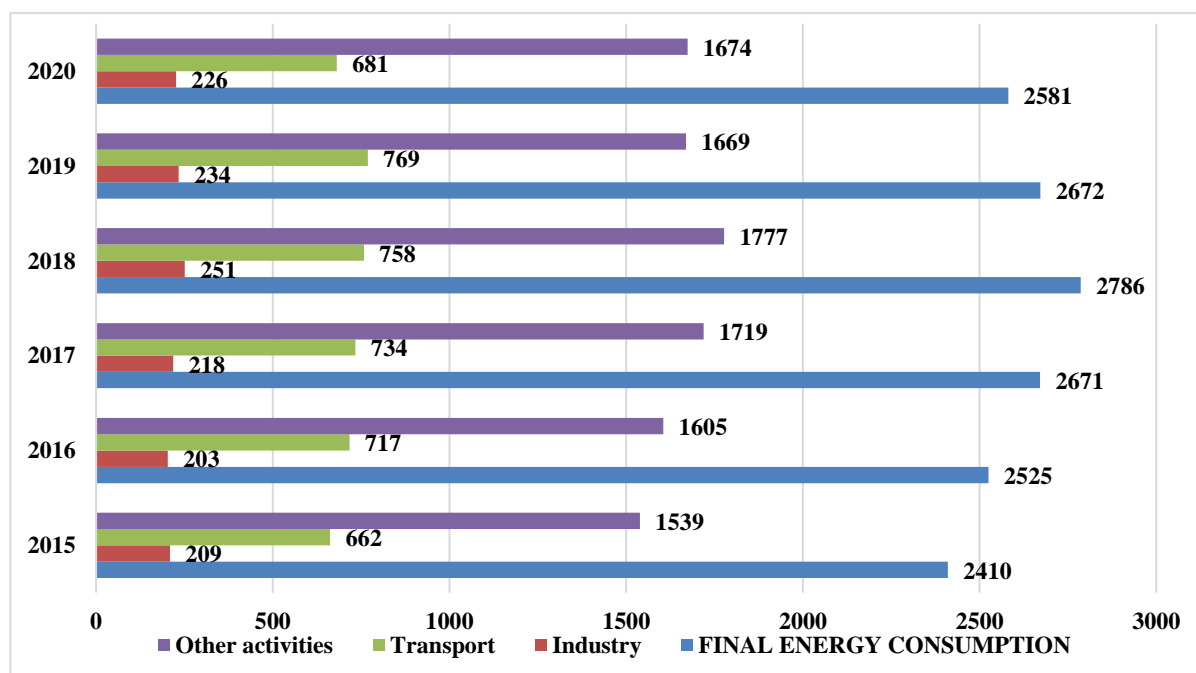


Figure 3. Structure of energy consumption in the Republic of Moldova by types of activity, 2015-2020

Source: [1]

From the diagram above results that other types of activity, and namely the residential sector, prevail at present in significant manner in the overall balance, indicating low energy efficiency, which is primarily because of the outdated infrastructure of the residential sector, both concerning the building itself (high volume of residential sector of the 60s and 70s), as well as the low level of modernization of energy transport routes. Indicators of final energy consumption for transports demonstrate a clear predominance of road transport (approximately 90% in the last 6 years). All other types of transport (air, rail, pipeline and others) also account for about 10% in the last six years.

The problems in the field of energy safety in the Republic of Moldova include the following [14, p. 150], [12, p. 7]:

- insufficiency or shortage of electricity;
- with the possibility of the development of the “green energy”, complete absence of own energy resources;
- significantly high wear of power engineering equipment;
- insufficiency of investments for the formation of the basic needs of energy systems and infrastructural opportunities;
- increase in energy dependence;
- low energy efficiency.

These problems appeared as a result of a wide range of factors and unresolved situations, including an underdeveloped energy infrastructure, frozen conflict and significant tensions in terms of regional gas transit [7]. Some authors agree that the high energy dependence of the Republic of Moldova on Russia may reinforce negative trends in the field of energy safety. And also, the fact that there is no progress in the given issue, despite the recent attempts of the Republic of Moldova to strengthen ties with the European Union [4], [9].

The author conducted an in-depth interview with experts (head of technical direction business center; UTM university lecturer, scientific researcher of the Institute of Cultural Heritage of the AS of the Republic of Moldova). The author interviewed the experts in the fields close or directly related to the energy complex of the Republic of Moldova. The obtained results, for the most part, are presented by direct quotation, and only a few were reduced with the maintenance of the general meaning of the idea of expert. The answers of the experts are presented in the table 2.

Table 2. The results of the expert assessment of the state and development prospects of the energy safety of the Republic of Moldova

Question	Expert commentary
In 2013, the energy strategy of the Republic of Moldova until 2030 was developed [5]. What are the “weak points” and modalities of improvement of the given strategy?	<ul style="list-style-type: none"> – The strategy needs to be adjusted in the light of the changed geopolitical events and, as a result, increase in the energy resources prices; – The strategy does not provide concrete ways for the energy development of the Republic of Moldova; – There is no consideration of risks, emergency situations that are possible in the energy field; – Consideration of the exclusively European vector.
What are the main problems of the energy	Lack of diversification of supplies/extremely high dependence on a small number of suppliers (often dependent on geopolitical decisions);

safety of the Republic of Moldova that are relevant today?	Focus on a limited set of types of electricity generation (thermal power plants); Overregulation of the market/close to monopoly or monopoly position of suppliers and importers/difficulties for new players to enter the market; Low energy efficiency of productions/households; Slow transition to alternative types of fuel (electric vehicles/biofuel/heat pumps for heating, etc.); Deficit of investment resources; Financial instability in provision of the functioning of the energy complex; Inefficient use of fuel and material resources; High levels of monopoly of producers; Deficit of energy capacity; Insufficient transmission capacity of networks; Foreign political and foreign economic threats; Management imperfection.
Indicate the main strategic approaches for settlement of these problems at the current stage and approaches to ensure energy security in the future for the Republic of Moldova?	Connection to the electric networks of the EU directly through the Moldavian-Romanian border; Bringing gas pipelines from Romania for complete alternative coverage of the country; Liberalization of the energy supply market and maximum simplification of the entry of new players to the market; Coordination of business and scientific community in the settlement of the energy issues; Improvement of the efficiency of the use of own energy sources; Modernization of the existing energy potential for energy saving and involvement of renewable energy sources in the energy balance.
Is ensuring the energy safety of the Republic of Moldova effective in the context of the integration into the Eurasian energy system? Are there prerequisites for this process? What effects can be expected?	The possibility of the use of the experience of various countries, not only of the European vector. Energy safety involves primarily the risk management/risk limitation. And one of the key mechanisms of the minimization of risks is the availability of reserve sources. Until recently, the Republic of Moldova fully relied on the historically established mechanisms for energy delivery – integration with the Ukrainian-Russian gas transportation system, integration with the Ukrainian power grids. High risk of the maintenance of the status quo in the supplies against the background of the military conflict in Ukraine. Positive assessment of the fuels and lubricants market – the supplies are diversified. Disadvantages: over-regulation, limited competition and high prices. Regulation of regimes and provision of parallel operation with the energy systems of Ukraine, the CIS and the EU will contribute to the status of energy security.
What are the main prospects and directions for the development of the energy complex in the Republic of Moldova?	Integration of Moldova with the European energy supply systems and synchronization of Moldova/Ukraine with the European power grids (construction of power transmission line to Romania/continuation of the connection of the gas transmission system of Moldova to the Romanian one). Balancing between eastern (lower prices) and western (backup supply option) suppliers. Slow development of wind and solar energy generators. Market liberalization is necessary for the development of renewable power sources. There is a need for donor-funded projects to develop/subsidize alternative energy sources. Prospects: search for mineral deposits in the Republic of Moldova; non-traditional energy sources (biogas, solar energy, etc.).

Source: developed by the author

Summing up, it can be noted that the main yet unresolved problem of the predominant number of the post-Soviet countries, which include the Republic of Moldova, is considered the fact that they are forced to develop and implement their own energy strategies under the conditions of small market volumes, limited financing from international investors in the creation of a better energy and transport infrastructure, as well as under the conditions of

complex geographical aspects that sometimes does not allow the search for the alternative supply routes.

In this regard, the Republic of Moldova may soon face serious challenges for its energy safety and in view of the existence of certain problems in the energy sector, the author has developed the stages of integration of the fuel and energy complex of the country into the energy system of the European Union, which are presented in the table 3.

Table 3. Stages of integration of the fuel and energy complex of the Republic of Moldova into the energy system of the European Union

Name of stage	Strategic directions	Period of implementation
The 1st stage: maintenance of stable status of transit country/consumer of energy resources	<ul style="list-style-type: none"> – Creation of prerequisites and gradual implementation of legislative and economic integration mechanisms on the basis of the documents of the European Union; – Diversification of energy sources; – Increase in the volume of renewable energy sources; – Start of infrastructural restructuring. 	2023-2024
The 2nd stage: infrastructural modernization of generating and transport capacities	<ul style="list-style-type: none"> – Formation of the network of transportation of traditional energy carriers integrated with the European Union; – Multiple reduction of dependence on Russian supplies of energy carriers and fuel; – Increase in the share of renewable energy sources in the structure of the generating capacities of the country; – Gradual introduction of European Union standards in the field of energy. 	2025-2026
The 3rd stage: The entry of the Republic of Moldova into the energy complex of the European Union	<ul style="list-style-type: none"> – Final refusal of the supplies of Russian energy carriers; – Full integration of the national energy infrastructure with the network of the European Union; – Complete transition to the application of energy standards and requirements of the EU; – Achievement of the basic target structural indicators in the energy sector of the economy of the country. 	2027-2028

Source: developed by the author

The successive stages presented in the table will become the strategic milestones in the development of the energy complex of the Republic of Moldova. At the first stage of the maintenance of the stable status of the transit country/consumer of energy resources, the following steps are supposed to be implemented:

- Conduct of comparative technical-economical analysis and monitoring of legislative framework in the field of energy in the European Union and the Republic of Moldova;
- Elaboration of the program of the diversification of the sources of energy supplies;
- Monitoring of current state and achievement of target indicators of the development

of renewable energy sources;

- Increase of the existing infrastructural capacities on the basis of the accepted design models.

These steps are basic, providing the foundation for the construction of a more advanced infrastructure for full entry into the energy complex of the European Union.

The second stage concerns the infrastructural modernization, on the way to which the following steps will have to be taken:

- Transition to the common-European model of standardization of legislation in the field of energy security;
- Completion of construction of new transport corridors of traditional energy carriers and technical reequipment of the existing ones;
- Formation of the structure of the capacities of renewable energy sources in the energy balance of the country.

This stage is necessary to ensure the prerequisites for a stable transition to “green” energy. This approach is fully consistent with the stated goals of the EU and will lead to the future energy security of Moldova.

The third stage is the entry of the Republic of Moldova into the energy complex of the European Union. The final stage of the integration strategy involves the implementation of the following main steps by the end of 2028:

- Full transition to the supply of the traditional energy sources from the European Union;
- Final integration of the energy infrastructure of the Republic of Moldova into a single network with the European Union;
- Transition to stable maintenance of the level of sustainable development and energy security of the country.

The main content of the 3rd stage consists in the achievement of the goal of true energy security of the Republic of Moldova.

The future energy security of the Republic of Moldova is impossible without the comprehensive integration of the fuel and energy complex of the country into the energy complex of the European Union. Strategic cooperation in this area is undoubtedly the most important factor on the way of rapprochement of the Republic of Moldova with the European Union and will accelerate its entry into the European family of equal partners.

5. Conclusions

The current state of the fuel and energy complex of the Republic of Moldova clearly demonstrates the need for its deep modernization. The main problems for the energy security of the country are the shortage of electricity, the lack of own energy resources in the presence of the potential of “green energy”, a high degree of depreciation of energy equipment, lack of investment for development, growing energy dependence and low energy efficiency.

It should be recognized that without reaching a certain modern level of development of the fuel and energy complex in the country, its integration into the European energy system

seems unlikely. The solution of these problems is becoming more urgent in the light of the military-political events taking place in Europe. The reaction to these changes was the formulation of the application of the Republic of Moldova for accession to the European Union of March 03rd, 2022. Obviously, these events are only the first steps on the way of the obtainment by the Republic of Moldova of the status of the candidate country for membership in the European Union, however, it can be said with confidence that the process of the European integration is reaching a new qualitative level. It should be understood that the requirements for a candidate country for membership in the European Union affect many aspects of a political, social and economic nature, among which the state and development potential of the energy sector of the economy is extremely important. To make the integration process systemic, a certain set of measures, plans, or, in other words, a strategy for the integration of the fuel and energy complex of the Republic of Moldova into the European energy system is required.

The strategic approach involves the passing of three successive stages: maintenance of a stable status as the transit/energy consuming country; modernization of the infrastructure of generation and transmission capacities; integration of the Republic of Moldova in the energy complex of the European Union. The set of measures may vary depending on the current events, but should include: restructuring and legislative preparation; a number of modifications of infrastructure; increase of the share of renewable energy in the structure of the production capacity of the country; transition to the application of the EU standards and requirements in terms of energy.

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Rezumat

Această cercetare este o încercare de a reflecta situația actuală a securității energetice a Republicii Moldova în contextul relațiilor economice internaționale. În articolul prezentat sunt abordate rezultatele cercetării surselor de informație științifice deschise, precum și experiența actuală a țărilor europene în domeniul energiei, modalitățile de dezvoltare a surselor alternative de energie. În baza analizei studiilor anterioare din domeniul sectorului energetic și a datelor privind starea actuală a acestuia în Republica Moldova, au fost identificate problemele existente în viziunea strategică a situației securității energetice și a dezvoltării durabile a sectorului energetic din Moldova.

Autorul a reflectat aspectele economice, de mediu și infrastructurale ale securității energetice, prin prisma cărora este demonstrată actualitatea acestei teme de cercetare. Pe baza abordărilor prezentate, este modificată și completată înțelegerea esenței securității energetice. Din acest motiv, autorul a încercat să formuleze o definiție cuprinzătoare, adaptată cât mai mult posibil la realitățile actuale.

Sunt propuse câteva soluții posibile, identificate ca direcții strategice și pași corespunzători pentru dezvoltarea cooperării energetice a Republicii Moldova în contextul securității energetice. Acești pași strategici pot constitui baza pentru viitoarele cercetări și elaborări.

Cuvinte-cheie: securitate energetică, relații internaționale, integrare, complex energetic, Uniunea Europeană

Аннотация

Данное исследование является попыткой отразить текущую ситуацию в области энергетической безопасности Республики Молдова в контексте международных экономических отношений. В представленной статье демонстрируются результаты исследования научных, открытых источников информации, а также актуальный опыт европейских стран в сфере энергетики, путей развития альтернативных источников энергии. На основании обзора предыдущих исследований в сфере энергетики и данных о текущем состоянии энергетического комплекса Республики Молдова, были выявлены существующие проблемы стратегического видения ситуации в области энергетической безопасности и устойчивого развития энергетического комплекса Республики Молдовы.

Автором отражены экономические, экологические, инфраструктурные аспекты энергетической безопасности, через призму которых продемонстрирована актуальность данной темы исследования. Исходя из представленных подходов видоизменяется и дополняется понимание сущности понятия энергетической безопасности. Поэтому автором была предпринята попытка сформулировать комплексное и максимально адаптированное к современным реалиям определение.

Предложены некоторые возможные решения, оформленные в виде стратегических направлений и соответствующих шагов по развитию энергетического сотрудничества Республики Молдова в контексте энергетической безопасности. Данные стратегические шаги могут стать основой будущих исследований и разработок.

Ключевые слова: энергетическая безопасность, международные отношения, интеграция, энергетический комплекс, Европейский союз

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ENVIRONMENTAL EXPENDITURES AND TRENDS IN THE CIRCULAR ECONOMY

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Abstract

Environmental policy aims to guarantee for the current and future generations a clean and healthy environment that ensures the protection of nature, quality of life, in conjunction with green and competitive economic development, low carbon dioxide and efficiency in terms of resource use. The circular economy represents a new perspective on the country's political agenda.

The basic purpose of environmental economic instruments is to determine the responsible behavior of the population and economic agents towards the environment, including by accumulating budgetary financial resources for the proper management of natural resources and the prevention of pollution environment. The Republic of Moldova aligns with this international practice and applies various economic levers to promote environmental policies.

The environmental protection system faces many constraints and problems in its activity, such as legal issues, harmonization of environmental legislation with the provisions of EU directives, staff turnover which reduces the degree of institutional experience, and the need to increase number of specialists in the area of environment as well as strengthen the institutional system.

Keywords: *environment, environment pollution, quality of life, policies, strategies*

1. Introduction

The price of comfortable living in the 21st century is the damage that human activity brings to the environment. The impact of people and businesses on the environment is becoming increasingly significant and impossible to ignore, and many developed countries have put this issue on the list of national priorities.

Protecting the environment is essential for the quality of life of present and future generations. The current challenge is to combine environmental protection with continuous economic growth in a sustainable way.

One of the biggest environmental problems today is outdoor air pollution. The research made by the World Health Organization (WHO) shows that approximately 4.2 to 7 million people die from air pollution worldwide each year and that nine out of 10 people breathe air that contains high levels of pollutants.

When determining the state's priorities, we must start from the premise that without air and water none of us would exist today [8]. Without measures to rectify the situation and prevent new pollution, we are heading for self-destruction.

For this reason, when reviewing its areas of intervention, the state must take this into account. Although the Republic of Moldova faces major environmental problems, the state's current investments in environmental protection are still insufficient.

The state aims to streamline the application of economic instruments to ensure better implementation of environmental policies. The state's vision regarding the application of economic instruments in the area are stipulated in the "Environmental Strategy for 2014-2023".

Thus, the specific objective no. 4 stipulates for reducing the negative impact of economic activity on the environment and improving measures to prevent environmental pollution. This objective is to be achieved by improving and streamlining environmental economic instruments.

Moreover, countries and the entire world have recently faced an unprecedented challenge - the COVID-19 pandemic -, which poses serious risks not only from a public health point of view, but also from an economic and social perspective.

In order to ensure the maintenance of a high level of competitiveness and supply solutions that contribute to a sustainable natural resource management and continuous economic growth, at the national and international level it is supposed to be promoted the activities aimed at rethinking the way of producing and consuming by adopting a circular approach. Such an approach can also open up an accelerated transition to green technologies and services.

Increased production has led to pressures on the environment to the detriment of water and soil quality, biodiversity, Eco systemic services and climate - among others. In order to prevent further depletion and overexploitation of the earth's limited resources, a change of system is needed.

2. The extent of the current study of the problem, objective of the study

The purpose of the research is to identify the factors and financial resources required to improve the protection of environmental pollution in the Republic of Moldova.

The objectives set to achieve the proposed goal are the following: study and analysis of legal acts in the area of environmental protection (documentary research of various bibliographic sources); conducting complex research using statistical data relevant to the researched field.

Promoting a consistent policy in the area of environmental protection in the Republic of Moldova is a current requirement of the time and is aimed at consolidating the country's path towards sustainable development, the integration into European structures and the intensification of international cooperation processes in order to solve multiple environmental problems. Achieving this will ensure the right of every human being to an environmentally safe and healthy life from an ecological point of view.

3. Methods and materials applied

In order to carry out this study, various research methods were used such as analysis, synthesis, induction, deduction, and comparative analysis, and documentation, scientific abstraction with a systemic and complex approach. The informational support uses various bibliographic sources with reference to environmental protection. The basis of the substantiation of the environmental research, the respective results and conclusions were the analysis, synthesis, deduction, inductive, table, graphic method, used for a clear and representative interpretation of the research results.

4. Results obtained and discussions

The area of environmental protection is regulated by a set of legal and normative acts, elaborated, adopted and, as the case may be, modified according to the new conditions and provisions of environmental protection. Moreover, some of them have been partially linked to the provisions of the European Union's environmental legal framework.

The development of the legal/ normative framework began with the adoption of law no. 1515-XII of June 16, 1993 on the protection of the environment. Currently, the area of environmental protection is regulated by about 30 legal acts and a set of normative acts, elaborated on the basis of the mentioned framework law.

Table 1. Legal acts in the area of environmental protection

Law no. 1515/1993 on environmental protection	This law is the basic legal act for the elaboration of special normative acts and instructions in the regulation of environmental protection. It establishes the basic principles of environmental protection, including the collection of taxes and the charges of fees concerning the relevant legislation and the exclusive use of the tools obtained to combat environmental pollution, drainage of natural resources, development of hazardous geological processes and environmental recovery.
Law no. 1102/1997 on natural resources	Mentions the use of natural resources against payment (payment for natural resources and payment for environmental pollution). Payment is the compensation in cash by the beneficiary of public expenditures for the exploration, conservation and restoration of usable natural resources, as well as the company's efforts to compensate for them.
The law of the vegetal kingdom no. 239/2007 and the Law of the animal reign no. 439/1995	Describes the economic mechanism for the rational use of plant / animal objects, which includes: <i>(i) the financing of rational use programs, strategies, action plans; (ii) payments for the acquisition and export of objects of the plant / animal kingdom; (iii) economic stimulation of the rational use of plant / animal objects.</i>
Law no. 1041/2000 for the improvement by afforestation of degraded lands	It stipulates that the afforestation of degraded lands, as well as other related works and is financed from: <i>(i) the allocations from the local budgets of the Local Public Authorities level I and level II, (ii) the allocations from the state budget, (iii) the contributions of the national ecological fund.</i>

Source: prepared by the authors based on the Report by "Expert group", 2020 [4]

Although there are legal and normative acts that regulate practically all environmental sectors, they do not fully comply with the international environmental treaties to which the Republic of Moldova is a part and do not ensure adequate management of natural resources to prevent environmental pollution and the right to a healthy environment. This also stems from the need to bring national legislation into line with European Union directives.

The existence of a clean environment contributes to ensuring the fundamental human rights provided by the Constitution of the Republic of Moldova: the right to life and the right to physical and moral health. This involves maintaining the quality of the main components of the environment (air, water, soil, flora and fauna), in conditions of sustainable development.

The circular economy is seen as a lever for state policies to ensure the sustainable development of the economy and meet the needs of present consumers and future businesses. The circular economy plays an important role in environmental policies that are increasingly geared towards protection, greening, economy and efficiency.

The circular economy is defined as an ideal model of production and consumption, which aims at the manufacture, use and reuse of all recyclable raw materials, to put them back on the market and to help them to live as long as possible. Thus, production and reuse become the key words of the circular economy [3]. The shift to a circular economy has only benefits in terms of reducing environmental pressure.

Among the definitions reflected in the policy documents there is the notion of "green" economy - the economic model that aims to improve welfare and social equity, while significantly reducing environmental risks and the ecological deficit, and the circular economy - economic model in which the value products and materials is maintained as much as possible; waste and resource use are kept to a minimum, and when a product reaches the end of its life, it is used again to create

The Republic of Moldova promotes the green economy in the sectors of the national economy and is seen as a long-term priority. At the same time, practice shows that in addition to the funds attracted from development partners to achieve the "2030 Agenda" on Sustainable Development and achieving the goals of the circular economy, it is important that the private sector does not focus exclusively on attracting green investment from public funds but also to reallocate own resources in clean and important projects from an economic, ecological and social point of view.

Like other countries in the region, the Republic of Moldova faces many significant environmental problems. Insufficient management of solid waste causes soil, air and water pollution; inadequate forest management and irrational agricultural practices cause soil degradation and biodiversity loss; rivers and wells are heavily polluted due to agricultural activities, obsolete water treatment infrastructure, illegal waste storage and animal manure; industrial activities and the large number of old cars cause air pollution in urban areas, and the lack of renewable energy sources induces energy insecurity.

The elaboration of the Environmental Strategy for 2014-2023 was also dictated by the European integration of our country, by the current requirements of aligning the national legislation with the provisions of the European Union directives and ensuring a sustainable development of the country by promoting the green economy [7].

The general objective of the Strategy is to create an efficient environmental management system, which will contribute to increasing the quality of environmental factors and ensure for the population the right to a clean, healthy and sustainable natural environment. Adequate investment is needed to implement this goal. According to p.52 of the Environmental Strategy for the years 2014-2023, the cost of implementing this Strategy in the period 2014-2023 is estimated at 9.1 billion lei, which is approximately 910 million lei per year (approximately 1% of Annual GDP) [8].

Taxation related to environmental protection in Moldova is based on the principles of "polluter pays" and "extended producer responsibility", in terms of entrusting consumers, producers and generators of pollutants and waste, in adopting a regulatory framework and a set of tools corresponding to environmental requirements.

Environmental economic instruments are considered to be taxes for the use of natural resources, payments for environmental pollution and fines for non-compliance with the existing legislation and for the recovery of damage caused to the environment. The system of environmental taxes and pollution payments has not changed much in the last 10 years.

In 2019, compared to 2018, the revenues from environmental taxes increased from 4.6 billion lei to 4.9 billion lei. In this regard, our country is in close proximity to the average of European countries with a level of revenues relative to GDP of 2.4% in 2018 and 2.5% in 2019 [4].

At the same time, it is noteworthy that the potential of environmental taxes in the Republic of Moldova is not fully exploited, and a number of shortcomings in their establishment drop their ability to significantly change the behavior of the population and economic agents and thus solve environmental problems.

Despite international practices in this field, public authorities continue to rely on a different interpretation of the concept of "environmental taxes".

Thus, in the document that represents the state's vision in the field of environmental policies (Environmental Strategy for 2014-2023), as fiscal instruments are addressed only the taxes for the use of natural resources and the payments for environmental pollution, to which are added payments such as fines and injury. Thus, energy taxes and transport taxes are not treated as environmental taxes, which affect the quality of the involvement of public institutions responsible for environmental protection in setting fiscal policies on the environmental dimension, as well as the effective implementation of environmental policies [7].

At the same time, budget expenditures for environmental protection do not meet needs. On the one hand, they are quite small, so we cannot say that this area is really a priority of the state. On the other hand, there is often a distribution of resources that does not correspond to the commitments made in the policy documents or even the inability of the authorities involved to execute them. Therefore, these gaps reduce the capacity and effectiveness of environmental policies, as well as their expected results.

Expenditure on environmental protection reflects the financial flows allocated to actions aimed at preventing, reducing or combating damage to the environment. These actions refer to the reduction of emissions of pollutants into the air, the protection of surface and groundwater, soil, the avoidance of waste production, their collection and treatment, the

reduction of noise. Also it concerns the protection of natural resources and the conservation of biodiversity, scientific research to obtain products, raw materials or the production of environmentally friendly production processes, general environmental management, and other environmental protection activities [10].

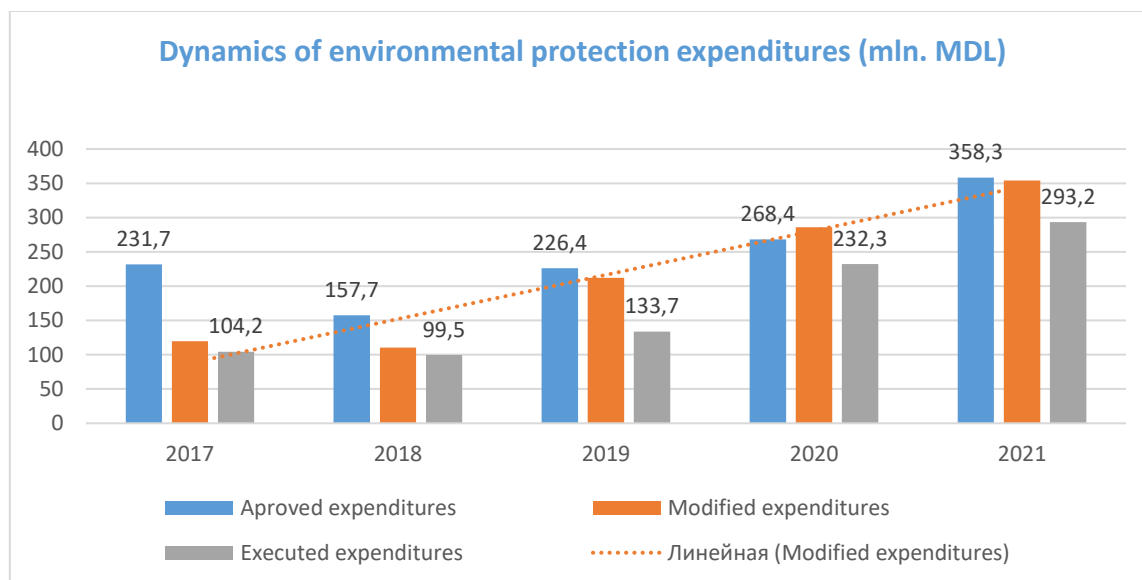


Figure 1. Dynamics of environmental protection expenditures

Source: <https://mf.gov.md/ro/trezorerie/rapoarte-privind-executarea-bugetului/rapoarte-anuale> [6].

The Republic of Moldova allocates 0.1% of GDP for environmental protection or about 200 million lei annually, with this allocation being the lowest in Europe. Although growing, the level of public spending on the environment remains very low.

In the table below it is presented the dynamics of allocations and expenditures and their share in the total state expenditures.

Table 2. Dynamics of allocations and expenditures for environmental protection for the years 2018-2021 (million lei)

Indicators	2018		2019		2020		2021	
	Modified	Executed	Modified	Executed	Modified	Executed	Modified	Executed
Total state budget expenditures	42031,9	38708,3	46346,2	43073,9	53280,6	49635,4	57658,8	54116,9
Expenditure on total environmental protection, including	110,5	99,5	212,4	133,7	285,9	232,3	353,9	293,2
<i>Share in total state budget expenditures, %</i>	0,4	0,3	0,5	0,3	0,5	0,5	0,6	0,5
Current	92,7	82,2	117,7	97,1	212,1	186,7	245,8	228,2

expenditures								
Capital expenditures	17,8	17,3	94,7	36,6	73,8	45,6	108,1	65,0
Total resources related, inclusive	110,5	99,5	212,4	133,7	285,9	232,3	353,9	293,2
general	99,7	89,6	203,6	126,7	239,4	214,7	279,5	266,8
funded projects from external sources	2,7	0,8	0,5	0,00	32,0	6,7	60,6	14,3
revenue collected	8,1	9,1	8,3	7,0	14,5	10,9	13,8	12,1

Source: Reports of the Ministry of Finance on the execution of the budget for the years 2018-2021 [6]

The data from the table show that the share of expenditures executed for environmental protection in the total state budget expenditures increased from 0.3% in 2018 and 2019 to 0.5% in 2020 and 2021.

The given expenditures were executed in proportion of 90% in 2018, 62.9% in 2019, 81.3% in 2020, and 82.8% in 2021, respectively, compared to the specified annual expenditures. In economic terms, a high degree of non-execution is registered by Capital expenditures, especially in 2019 in a proportion of 38.6% in 2020 - 61.8% and 60.1% in 2021, which has a negative impact on the implementation of investment projects and the development of environmental infrastructure. The trend of capitalization is a worrying one, which reveals a number of shortcomings in the planning and efficient use of resources [6].

In the structure of the state budget expenditures for 2021, those for environmental protection constitute 0.5%, with the amount being clearly lower than the needs of the field.

Table 3. Dynamics of environmental protection expenditures by areas for the years 2018-2021 (thousands MDL)

Areas	2018	2019	2020	2021
Total, including total, inclusive	284309,2	285007,3	280047,9	334114,9
<i>Current expenditures</i>	269046,8	258478,7	264982,5	314678,6
<i>Expenses for the repair of fixed assets</i>	15262,4	26528,6	15065,4	19436,3
For the protection of the atmospheric air and the prevention of climate change, total, inclusive	7989,9	18843,2	10837,0	11056,2
<i>Current expenditures</i>	7496,8	3573,5	5553,0	8753,2
<i>Expenditures for the repair of fixed assets</i>	493,1	15269,7	5284,0	2303,0
For the collection and treatment of wastewater, total, inclusive	188345,7	187650,2	190651,7	195448,9
<i>Current expenditures</i>	180161,5	179276,3	182530,3	189528,0
<i>Expenditures for the repair of fixed assets</i>	8184,2	8373,9	8121,4	5920,9
For waste management, total, inclusive	65991,3	61501,8	67356,9	126993,3
<i>Current expenditures</i>	64765,6	61266,7	66258,6	124585,9
<i>Expenditures for repair of fixed assets</i>	1225,7	235,1	1098,3	2407,4
For the protection and rehabilitation of the	3829,0	4768,9	3553,8	3205,8

total soil, inclusive				
<i>Current expenditures</i>	3829,0	4742,3	3553,8	3205,8
<i>Expenses for repair of fixed assets</i>	0,00	26,6	0,00	0,00
For the protection and rehabilitation of total groundwater and surface water, inclusive	7286,1	7572,9	3792,2	11489,4
<i>Current expenditures</i>	4595,0	5891,7	3284,1	3119,3
<i>Expenses for repair of fixed assets</i>	2691,1	1681,2	508,1	8370,1
For the conservation of biodiversity and natural areas, total, inclusive	2230,5	70,7	173,5	125,0
<i>Current expenses</i>	615,4	70,7	173,5	125,0
<i>Expenses for repair of fixed assets</i>	1615,1	0,0	0,00	0,00
For other areas total, inclusive	8636,7	4599,6	3682,8	5232,6
<i>Current expenses</i>	7583,5	3657,5	3629,2	4797,7
<i>Expenditures for repair of fixed assets</i>	1053,2	942,1	53,6	434,9

Source: <https://statistica.gov.md/pageview.php?l=ro&id=2193&idc=263> [2]

From the data of the table, it is evident that during 2018-2021 the largest share of expenditures in total expenditures belongs to current expenditures with an average of 93.3%, with capital expenditures amounting to 6.7%.

Regarding the current expenditures for environmental protection in the period 2018-2021, the largest share was held in the field of “wastewater” management with an average for the entire period of 68.1% followed by “waste management” with 24,5%. In 2021, the most significant current expenditures for environmental protection were registered, in the field of “wastewater management” 189528.0 thousand.

Also in this field were registered the highest expenditures for the repair of fixed assets, which represents 5920.9 thousand lei with a share of 53.9% of the total.

It is notable that the annual expenses are much lower than those indicated in the strategy. Although increasing, the level of environmental spending remains low compared to several indicators. Moreover, the comparative analysis of the expenditures approved at the beginning of the year and of those executed indicates an average discrepancy of about 100 million MDL for the last 5 years. Practically only a little over half of the environmental expenditures that the state proposes at the beginning of the year end up being executed.

The causes of this situation are multiple, from the sacrifice of environmental priorities in favor of other current priorities (the Government reduces environmental expenditures during the budget year) to the inability of the responsible institutions to implement the expenditure programs assumed.

The allocation of public resources for maintaining and improving the quality of the environment in the Republic of Moldova should be done according to the environmental benefits, which can be obtained as a result of investments.

In the Republic of Moldova, the potential of environmental taxes is not fully exploited, and a number of shortcomings in their establishment erode their ability to change the behavior of the population and economic agents, as well as to solve environmental problems. At the same time, budget expenditures for environmental protection do not meet the needs.

On the one hand, they are quite small, so we cannot say that this area is really a priority of the state. On the other hand, there is often a distribution of resources that does not correspond to the commitments made in the policy documents or even the inability of the authorities involved to execute them.

Therefore, these gaps reduce the capacity and effectiveness of environmental policies, as well as the expected results of the state, citizens, the business environment and external partners.

5. Conclusions

1. There is a need to increase budgetary allocations for environmental protection and to pay greater attention to this area at the central level;
2. For transport taxes - elaboration of the calculation formula that would include components that take into account pollutant emissions and distance travelled;
3. For taxes on goods that cause environmental pollution – it is proposed to replace the taxation on value with that on quantity of goods;
4. For all environmental taxes except energy taxes – there is a need to consider formulations that provide for the application of fixed taxes adjusted annually to the inflation rate.

The allocation of public resources for maintaining and improving the quality of the environment in the Republic of Moldova should be based on environmental benefits, which can be obtained as a result of investments. Policy objectives should ensure the accessibility of vulnerable segments of society, including.

The amount of these environmental tax payments is insignificant and has not been calculated in relation to the cost of recovering the damage caused to the environment. These payments also do not create incentives for polluters to take action to reduce pollution, as they prefer to pay the given penalties, which are much lower than the potential costs of pollution reduction measures. The role of the current system of payments and taxes for the environment is very small in relation to the needs and challenges in the area of financing environmental activities. Regarding environmental taxes in the Republic of Moldova, their potential is not fully exploited, and a number of shortcomings in their establishment do not effectively change the behavior of the population and economic agents, as well as to solve environmental problems.

Clearly defining objectives and targets, assuming responsibilities, monitoring procedures, consulting the public, verifying results, auditing and reporting are crucial for the effective implementation of environmental protection measures.

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Rezumat

Politica în domeniul protecției mediului are scopul de a garanta generației actuale și celor viitoare un mediu curat și sănătos, care să asigure protejarea naturii, calitatea vieții, în corelare cu o dezvoltare economică verde și competitivă, cu emisii reduse de dioxid de carbon și eficiență din punctul de vedere al utilizării resurselor. Economia circulară reprezintă o perspectivă nouă pe agenda politică a țării.

Prin urmare, scopul de bază al instrumentelor economice de mediu este de a determina un comportament responsabil din partea populației și agenților economici vis-a-vis de mediul înconjurător, inclusiv prin acumularea de resurse financiare bugetare pentru gestionarea adecvată a resurselor naturale și pentru prevenirea poluării mediului. Republica Moldova se aliniază la această practică internațională și aplică diverse pârghii economice pentru a promova politicile de mediu.

Sistemul de protecție a mediului se confruntă cu numeroase constrângeri și probleme în activitatea sa, precum: probleme de ordin legislativ, armonizarea legislației de mediu la prevederile directivelor UE sau de ordin instituțional, fluctuația cadrelor, care determină reducerea gradului de experiență instituțională, precum și a numărului de specialiști în domeniul mediului, etc. (necesitatea de a se consolida sistemul instituțional).

Cuvinte-cheie: mediu, poluarea mediului, calitatea vieții, politici, strategie

Аннотация

Политика в области охраны окружающей среды направлена на то, чтобы гарантировать нынешнему и будущему поколениям чистую и здоровую окружающую среду, способную обеспечивать охрану природы, качество жизни, в сочетании с зеленым, конкурентоспособным, низкоуглеродным и ресурсоэффективным экономическим развитием. Циркулярная экономика – это новое направление в политической повестке дня страны.

Поэтому основной целью эколого-экономических инструментов является формирование ответственного поведения населения и экономических субъектов по отношению к окружающей среде, в том числе путем накопления бюджетных финансовых ресурсов для надлежащего управления природными ресурсами и предотвращения загрязнения окружающей среды. Республика Молдова присоединяется к этой международной практике и применяет различные экономические рычаги для продвижения экологической политики.

Система охраны окружающей среды сталкивается с многочисленными ограничениями и проблемами в своей деятельности, такими как: проблемы законодательства, гармонизации природоохранного законодательства с положениями директив ЕС, проблемы институционального характера, текучка кадров, что приводит к снижению степени институционального опыта, а также количества специалистов в области окружающей среды, и т. д. (необходимость укрепления институциональной системы).

Ключевые слова: *окружающая среда, загрязнение окружающей среды, качество жизни, политика, стратегия*



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QUALITY EDUCATION FROM A LIFELONG LEARNING PERSPECTIVE

Lifelong Learning (LLL) has become a priority of educational policies not only for European area, but also for the Republic of Moldova due to the importance and impact of the implementation of this concept on the economic development, society and each person. Recognizing the importance of LLL for our country and the cooperation with European partners experienced in the field, a group of Moldovan and EU universities, assisted by central public authorities, decided to support and stimulate the implementation of the LLL concept in Moldova by the Project “*Towards European university lifelong learning model in Moldova*” (COMPASS, 597889-EPP-1-2018-1-MD-EPPKA2-CBHE-SP). This project has been funded with support from the European Commission, within ERASMUS+ programme.

The overall objective of the Project is to contribute to the deeper integration of the Republic of Moldova into the European Higher Education Area through the integration of an inclusive and responsive University Lifelong Learning (ULLL) model in Moldova.

The main objectives are:

- promote and strengthen the LLL culture in Moldova and to build national consensus of the key-actors on the development issues,
- develop and advance a national legislative framework and stimulate regulatory changes on LLL in Moldova,
- build up the university’s integrative function in Moldova by developing integrated university LLL strategies,
- enhance the university’s institutional capacities in Moldova for efficient and

effective implementation of LLL reform.

The project brings together European and Moldovan partners, representing academia, central public authorities, and non-governmental organizations. A lead institution is the Academy of Economic Studies of Moldova. Moldovan universities benefit from the opportunity to discover the experience and good European practices in the field of LLL development (regulatory framework, implementation mechanisms) due to the openness to collaboration of European institutions, among which European University of Continuing Education Network, University of Turku (Finland), Danube University of Krems (Austria), University of Graz (Austria), European Policy Development and Research Institute (Belgium), University of Barcelona (Spain), University of Genova (Italy), University of Brest (France).

In Republic of Moldova part of this project are Trade Co-operative University of Moldova, Academy of Music, Theatre and Fine Arts, University of Physical Education and Sport, State Pedagogical University “Ion Creanga”, Comrat State University, The National Council of Rectors of Moldova, the Ministry of Education.

The successful implementation of the mentioned Project will end with the National Policy Roadmap on LLL, Regulations on Validation of prior learning, including non-formal and formal, Regulation on application of the existing ECTS tools and procedures to LLL, Regulation for the continuing education of academic staff, University LLL strategies, Guidelines on ULLL, development of new ULLL services, development of new ULLL courses.

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