

LIFE CYCLE ANALYSIS OF INVESTMENT PROJECTS IN THE CONTEXT OF EUROPEAN FINANCING

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ABSTRACT

Optimizing project management represents a necessity and, at the same time, a challenge for all the companies oriented on this type of organizing. This can be accomplished on one hand by improving the used methodology and instruments, and on the other hand, by raising the level of professionalization of human resources involved. In the following paper there are highlighted a series of modifications in the life cycle of a project with European financing, in relation to the classical approach of the concept, the nature of these modifications being to ensure the increase of accessibility and coherence with the European Union's policy and strategy.

The constant concern for assuring a common setting of project development in all the area of activity within the purview of socio-economics has materialized in the appearance of a specialty technology and some techniques, instruments, and methods with a generality character.

In a simplified approach, the life cycle of a project represents the totality of stages that a project passes through, from the emergence of a project idea, till the complete dissolution of it. Whatever the manner of analysis and interpretation, the life cycle of a project is sternly tied to the variable time, either globally through total dimensioning, or individual by differential assignment of time intervals for each suggested stage.

By means of this instrument, the project manager can be helped in clarifying some essential aspects for the development of a project, such as: elaborating the feasibility study must be treated as a stage of the life cycle or, as an independent project with a separate evolution. The answer to this type of dilemma must be in regard to the nature of the results. In case the result for such a preliminary effort is not identified in a clear way, it is best to handle this category of efforts as being separate projects.

The passing from a stage to another in the life cycle entirely implies, most often, the defining of an adequate transfer framework which respects the technical, economical, etc. criteria class. The results from a stage must be reappraised for thoroughness and accuracy, and also approved before initiating works for the next stage. Even so, there are numerous situations in which a stage begins before the results from the previous stage are approved, when the risks involved are within acceptable limits. This method of stages superposed, is used in situations where the time horizon is very limited, and solutions for optimizing activities in association with this constraint are attempted.

Whatever the solution, the life cycle of a project must give answers to problems related to:

- what technical works must be done in every stage, and also their heaviness in the amount of activities developed;
- when deliverable results are generated, in case they are envisioned to be generated in every stage, and the manner in which every result is revised, certified and validated;

- who is involved in every stage of the life cycle and who is responsible for it;
- how the result control and validation is made for every stage?¹

Whatever the nature of the project, the strategy of the initiating company or the parts involved, the life cycle typology of a project presents a series of characteristics, from which the most relevant are:

- the suggested stages are, most often, sequentially ordered and have defined transfer procedures, including the ones who assure the projects continuity and coherence (useful information, intermediate or final results, abnormalities, their causes and improvement propositions etc.)
- the costs associated to different stages of the cycle are smaller in the beginning, they increase and reach the maximum limit in the intermediate stages, and rapidly decrease towards the end of the project;
- the level of uncertainty and, implicitly, the risk of not reaching the objectives are highest in the commencement stages of the life cycle, characterized especially by the absence of information, common experience, manner of perception from the partners etc. Throughout the evolution, the certainty degree increases accordingly, as the completion of the project approaches and the proposed objectives are reached;
- the stakeholder's capacity to influence the characteristics of the final result of the project (product or service), registers in the beginning very high values and throughout the evolution it becomes gradually smaller. In correlation, the cost of change can be analyzed, and it reflects the cost increase as a result of modifications or corrections to some errors, which will have very low values at the beginning of the life cycle after that the evolution being ascending, so that in the end the cost reaches very high values.

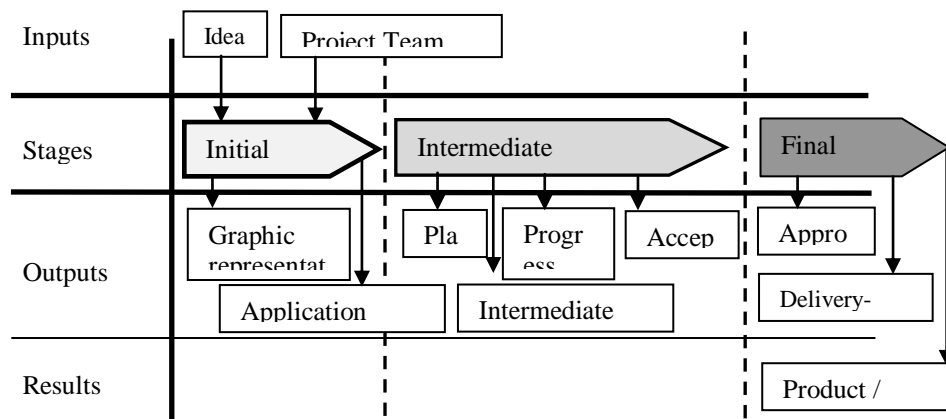


Figure no.1 Stage sequence in a project's life cycle

Direct outputs of every stage can differ depending on the activity domain of the future project, the manner of organizing for the initiating company and the applied and proposed monitoring and control procedures. Throughout the 3 stages, both resource consumption and time horizon assign the highest weight to the intermediate stage, in terms of characteristics, level of available information and associated risk.

¹ *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Third Edition*, 22, 2004 Project Management Institute, Four Campus Boulevard, Newtown Square, PA 19073-3299 USA

Integrating the European Union has brought into sight a complex confrontational process with a system of challenges, dilemmas and opportunities for all the actors of the local socio-economical environment. The classical approach to this system has generated a series of issues for all the companies, most of which were unable to assure their existence and development. The solution for such a situation has not been a simple one, for reasons such as: lack of knowledge, competence, human resources, financial resources etc. and also the increasing speed of change in correlation with the evolution of developed economical systems. The alternative to pass to an organizing system oriented on projects, has become a solution in terms of its numerous advantages and especially for improving the chances to access different financing sources. Therefore projects have become the common way to approach and solve some strategic and operational problems.

In the unity of consequences of the european integration process, identifiable is the one objectified in the possibility of accessing European Funds through programs and possible projects that some institutions and organizations from the national economical environment can carry out.

In regard to the manner of approaching the two concepts, the european practice in the domain has highlighted that the programs represent the general framework through which the priority domain, relevance, impact, rough dimension and methods of evaluation are established, meanwhile the projects are operational instrument for attracting administrative funds, and result administration, implementation, monitoring and quantification. This approach to projects has generated a series of modifications and customizations within the ongoing projects in the European system, by integrating new concepts that reduce the importance of some interested parties in disadvantage to others, limiting the activity domain but enlarging the complexity of the substantiation process etc.

The adaptability of projects to the peculiarities of needs and necessities of civil society and organizations, and also the conceptual framework of the european financing system have generated a different model for the life cycle of a project, which consists in six stages as follows: programming, identification, elaboration, financing, implementation and evaluation. The difference between stages is realized in relation with a series of distinct elements from which the most

relevant are mentioned: the responsibility of unfolding, the reference documents, the specific decision, the involved factors, the specific activities and the amount of consumed resources. The six stages are briefly presented in figure no.2.

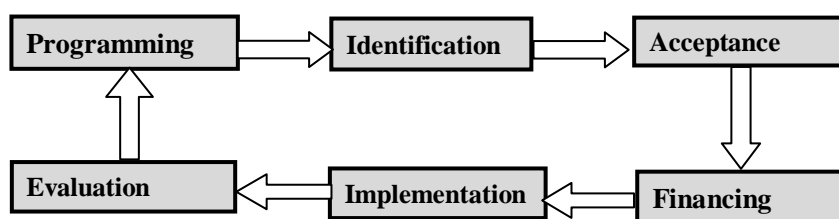


Figure no.2. Stages of the life cycle for a project with european financing

Programming, considered the first stage of a project's cycle, consist in defining and establishing the general cooperation framework of the European Union with a certain country or geographical region. The importance of this stage is related to insuring coherence between the proposed development directions at national level, the european priorities and the needs of all the implicated entities. In this stage, the process of negotiation

and consultation is relevant for the correlation of problems and development opportunities of the country or geographical region with to the policies and directions of the European Union at the territorial or sectoral level.¹

The direct results of the programming stage consist in documents such as: National Strategic Document, National Development Plan, Regional Development Plan, in which there are identified and thoroughly presented the activity domains that are supported by the European Union, types of interventions and their general characteristics.

Identification, as a stage of the life cycle, consists in selecting those types of programs and project that, based on the strategic documents mentioned earlier, will be detailed and deepened. The main work documents for this stage are opportunity and prefeasibility studies from which project options are identified, a preliminary comparative analysis is made and certain recommendations are given in reference to the options that must be followed and deepen in order to capitalize the existing opportunities. In conclusion, it can be said, that the direct result of an identification stage consists in the decision to continue and detail the study for a certain option that is considered to be more suitable for the analyzed context.

The next stage of the life cycle consist in elaborating the projects, and deals with the analysis of relevant aspects of the project's idea, according to the objectives and strategy of the European Union and also the local characteristics and main opinions of the involved factors, including the project initiator (public or private organization, authorities, associations, etc.). In this stage the project team is established, and it becomes an active entity, whose main role is to assure the convergence between the ideas and principals of all the factors involved in substantiating the project.

The relevant labor documentation for this stage consists in the feasibility study, the detailed plans, including the logical framework matrix accompanied by the expected results, the project's impact and the estimated implementation budget. The final decision for this stage highlights, the projects financing proposition and assures the legal and institutional framework for supporting the project, by closing an official document, agreed and signed by all the implicated partners.

The financing stage practically implies forwarding the financing request and the support documents (business plan, feasibility study, technical project, notices, approvals, etc.) elaborated in a standard form for every type of program or project. The submission is made to the empowered institution for every program, also called intermediate constitution, which initializes the evaluation process and maintains the relationship with the project beneficiary throughout its implementation. The project evaluation is made in several stages in according with the european procedures and regulations, with the possibility of adding observations and additions after every stage. There are some criteria in the evaluation procedure whose breach leads directly to the elimination of the project from that competition, because of their binding character.

The auspicious case of financing a project implies, as a direct result, the signing of the financing contract between the contracting authority and the financial support beneficiary, contract which foresees strict clauses and obligations for the course of the project, both in the implementation and exploitation stage.

The implementation of the project, consist actually, in using the assigned human and material resources in agreement with the implementation plan, for achieving the proposed goal and objectives. Without diminishing the importance of the other stages of the

¹ *** - *Managementul ciclului de proiect : manual – București*, Ed. Blueprint International, București 2003.

cycle, it must be said that, the implementation of the project actually implies a total implication in levels of action and responsibility from the initiating organization. The resource consumption is maximum for this stage, but it must be mentioned that this complies with an implementation graphic, which represents an annex to the financing request, and with certain rules and principals strictly defined by the European Union and the specialized constitution of the state: The Ministry of Finance, The Implementation Agencies, etc. The developed activities in this stage have a complex and divers character, from the organization of acquisition procedures to the signing of contracts for technical studies, actual constructions, devices, personal training and even supporting exploitation tests. The totality of ongoing activities is evaluated and monitored based on progress reports, through which the intermediate evolution is analyzed at different phases, and also the adjustment measures that are imposed if it is necessary. Most often they relate to amount of financial, human or time resources, modifications of the proposed performance parameters or relocations of some resources, depending on the projects evolution. Depending on the project, the deviations and corrections are conditionally approved, in some limits, and they can be realized only with the approval of the contracting authorities.

There are limit situations in which, based on the evolution analysis of the project, amassed with some technical or economical considerations, the ending of the project is decided in a certain phase of implementation. Such a decision can be based on the fact that, despite all the resources consumed at that moment, continuing the project would generate even greater lose, this solution being in fact one that can bound loses.

In the case of a favorable project evaluation conclusion, based on progress reports the sequel of the project can be decide in the current conditions, with framing the initial established limits. Evaluation, as the final stage of the project's life cycle, implies a systematic and objective estimation of the results, registered throughout the entire life cycle. The goal of the evaluation also has in sight the comparison between the project's result and its proposed objectives, through which the project's efficiency, efficacy, impact and durability can be evaluated.

In the process of evaluation a series of conditions must be assured, so that the obtained results can be proper. A first condition targets the credibility and relevance of the methods and instruments proposed for the evaluation. These must be in keeping with the type of project and must have the capacity to intercept its entirety, and not independent parts that might determine an unfavorable image. The recommendation for such a situation is to use general valid and recognized techniques in the domain, which can also offer the possibility of adaptation to specific situations. The corrections and additions must not affect the basic structure, but only bring a series of improvements to the process in order to ease the adaptability of the evaluation process. Another condition necessary to the evaluation process is related to the credibility of the evaluation or of the evaluation team.¹ This implies the existence of some people with proven, acknowledged and certified experience and competence in this domain. The quality of the evaluation process also depends on the individual subjectiveness and any other form of interest in the success or failure of a project.

Another relevant item of the evaluation is in reference to the manner of result dissemination, and by that we refer to the interested parties, the manner in which they are informed, and also the decisions that can interfere after learning the results. Alternatives for communicating the information must be adapted to the final recipient, so that the results are communicated in one manner to the sponsor and in another to the target group and indirect

¹ Brown Mark, *Managementul proiectelor*. Ed. Cosmos Viking Pinguin 2005

beneficiaries. The results of the evaluation process must allow, as much as they can, the integration in a totality of good practices in the process of project management and in the decision process, from the perspective of both beneficiaries and sponsors of the project.

The concrete decision, in the case of a successful ending project, must cover on one hand the appropriate capitalization of all the results, and, on the other hand, a set of ideas and suggestions from which new projects can emerge. Even if the intercession of elaborating and implementing a project financed from European funds is not considered to be effortless, experience, information and gathered competence, must be accounted into generating other projects. As the efforts made in such a project increase, the results are likewise, if an appropriate capitalization of all the results is assured at an internal and external organization level.

In the practice for these types of projects, duration, relevance and importance can be different for every stage of the cycle, but the basic structure and the legal framework is essentially the same. The segregation criteria are related to the nature of the project and estimated results, the number of partners involved, the type of need that it answers to, the phase of the life cycle that the organization is situated in, the experience of human resources involved, the length and complexity of the technical activities, the manner in which the population perceives the project, etc. The most important highlighted aspects are related to: using the logical framework matrix in the process of elaborating a project, achieving a high quality documentation for substantiating decisions at every level, consulting and implicating all the interest holders, assuring a correct convergence level for the goal and objectives with the general problems of the sustainable development, equality of chances or promoting some categories of people with special features, inclusion, even from the elaboration stage, of quality key aspects for the activities and proposed results.

Overall, the concerns for using the specific life cycle for these types of projects have in view the insurance that the projects / programs respect and contribute to the development of the objectives and the European Union's policy, are relevant for the adopted strategy and for the real problems of the target groups and final beneficiaries, are feasible, meaning the proposed objectives are doable in the context of more and more complex constrains, and also, they have the capacity of reproducing and supporting themselves without external help, on a long term, after the financing is over.

The project cycle represents a managerial and operational instrument of leading a project, at every stage, that can assure the wanted performance in the context of an evolving environment, but who's using is depends on the knowing capacity, competence and experience of the human resources involved.

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