

SEVILLA



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PROJECT MANAGEMENT OF INTEGRATED REGENERATION OF DEPRIVED NEIGHBOURHOODS THROUGH THE PMBOK METHODOLOGY. LIFE CYCLE, PROJECT CHARTER AND IDENTIFY STAKEHOLDERS IN PROJECTS.

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Abstract:

In the doctoral thesis that gives rise to this article, we work to develop a methodological foundation for the management of intervention projects in obsolete residential neighbourhoods, based on what has been said in the discipline of Project Management. The so-called Project Management is an instrument of knowledge that establishes methodologies and processes that favour the success in the achievement of the objectives of the project. These instructions, tools and resources are transferable in the case of obsolete residential neighbourhoods and their knowledge and application are recommended in these intervention projects.

Based on the project management manuals PMBOK and PRINCE2, we can establish recommendations adapted to these urban intervention projects through the best practices established in the document *Intervention in obsolete residential neighbourhoods: Manual of best practices*. This union builds a project management infrastructure and a methodology where good application practices are organized at each moment and in relation to the different aspects of the project.

The work of the thesis addresses the treatment of complexity and uncertainty from the transdisciplinary approach. From the methodology of the Transdiscipline, proposed by authors like Max-Neef, Nicolescu or Morín, can be established objectives and tools of project coherent with the planetary limits and the ethics and values that our society wants to project towards the future.

The content of this article will focus on the concept of project life cycle and the "develop project charter" and "identify stakeholder" processes.

Keywords: Management, Deprived neighbourhoods, Project Management, Transdiscipline, PMBOK.

1. Introduction

The research that is presented, *Project management of projects of integrated regeneration of obsolete residential neighbourhoods. From the transdisciplinary approach and through the PMBOK methodology* (Ledesma de la Rosa 2017) (Fig.1), is framed within the context of the residential neighbourhoods built mainly in the 60s and 70s. These neighbourhoods are affected by an accelerated aging compared to other areas of the city. The origin of this deterioration is due, mainly, to the conditions of departure. The urgency of accommodating rural migration, the poor quality of construction materials and the lack of execution of the projected urban facilities have made these urban areas unattractive to new residents, causing phenomena of empty houses, aged population and concentrated immigration (García Vázquez et al. 2016). This problem, called obsolescence of residential neighbourhoods, threatens to become the main issue to be addressed by European cities (García Vázquez et al. 2010).

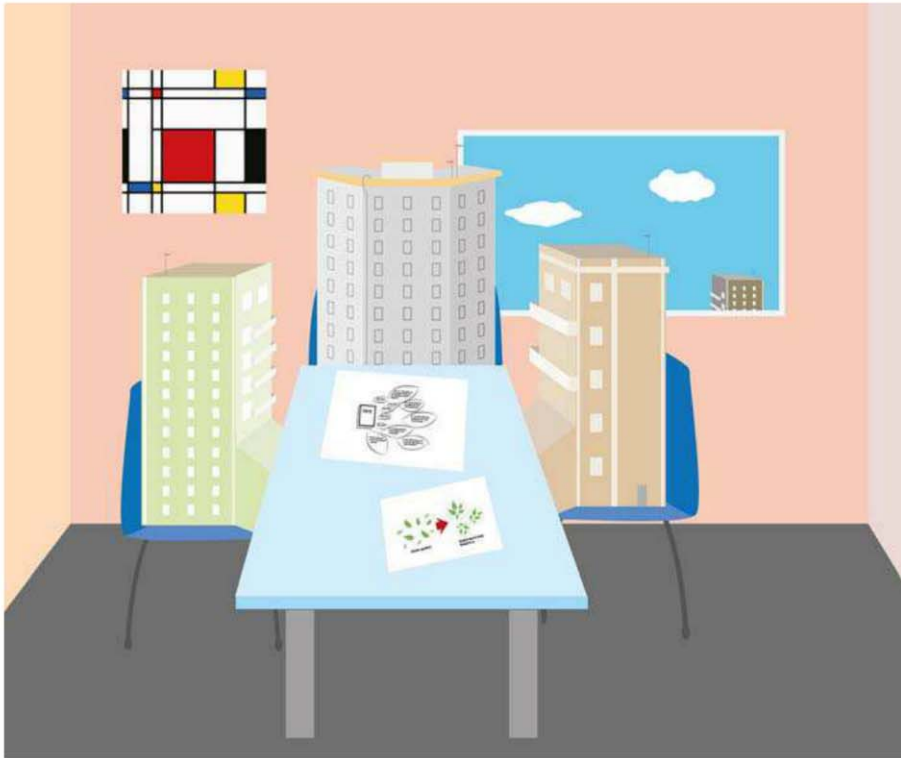


Fig. 1 What do we want to do? (Ledesma de la Rosa 2017)

The consequences of this accelerated aging can lead to serious problems in the social field, so that the treatment of this obsolescence to slow its progression and the reversion of its effects, are preferential topics within the priorities of public administrations. The administrations involved in the definition of problems and their resolution, as well as in public investment related thereto, are of different scales of competence, from the local and regional scale to the administrations at European level, the latter being those that mark the lines of strategic action in numerous official documents and declarations (CESE 2010, CoR 2010 and EU 2010).

The research that gives origin to this article develops the methodology of project management exposed in the PMBOK for the case of the intervention in deprived neighbourhoods. A review of the best practices collected from the perspective of the project management processes exposed in the PMBOK is carried out. Subsequently, each of the steps identified in the PMBOK is characterized with the singularities of the urban intervention processes in deprived neighbourhoods. Resulting in a document which articulates the recommendations on such interventions in an organizational structure based on project management. The product is an instruction manual that serves as a starting point for the design of project management in deprived neighbourhoods, allowing the adaptation of its content to the different circumstances of the neighbourhood and the project, and being open to new best practices.

2. PMBOK as structure of recommendations in intervention in obsolete residential neighbourhoods

In the research that gives origin to this article *Project management of projects of integrated regeneration of obsolete residential neighbourhoods. From the transdisciplinary approach and through the PMBOK methodology* (Ledesma de la Rosa 2017), the need to establish an organization what have been learned through the study of the intervention experiences studied in the project *Intervention research in obsolete residential neighbourhoods. Manual of best practices* (García Vázquez et al. 2016) (hereinafter MBP) and, specifically, with respect to the "Best management practices" (Ledesma de la Rosa 2016) compiled in this publication.

This work establishes the need for, in order to implement the recommendations that have been established as best practices in intervention in disfavoured neighbourhoods, these best practices should be organized through a structure, which should allow to know at what time of the process and in relation to which topic these best practices are advisable or should be addressed.

The structure selected to support best practices comes from the discipline called Project Management. The tools and documents of this discipline are being recognized as key strategies for the direction of

changes and transformations, providing, the knowledge in this matter, an improvement in the achievement of success in this type of task. It is for this reason that these methodologies are being used by corporations, academies, governments and other organizations that recognize the value of them and of the professionals instructed in them (Rooij 2009). Examples of applications in which a project methodology has been used include software development, construction, aerospace projects, petroleum, manufacturing or pharmaceuticals (Edkins et al. 2013).

In this sense there are manuals that can be of assistance in the design and implementation of projects. One of these manuals is the Project Management Fundamentals Guide or PMBOK® Guide (PMI 2013) (PMBOK). The methodology presented in the PMBOK has been applied in projects as diverse as the installation of nuclear power plants (Aaltonen et al., 2015), the construction of industrial models, construction related projects (Rose 2008) or clinical investigations (Pandi-Perumal et al. 2015). This methodology has a great international recognition among professionals and academics in the field (McHugh & Hogan 2011).

The fundamentals for Project Management included in the PMBOK (PMI 2013), describe a prescriptive methodology in which we find the processes that we must follow in order to achieve a successful project. The knowledge contained in this document evolved from the practices recommended by the professionals of the Project Management for their value and usefulness. The PMBOK identifies the subset of basics that can be recognized as best practices, so that they can serve as a basis in the development of a project management plan and its implementation. The selection of recommendations included is based on the fact that its implementation contributes to increase the chances of success of the project. These recommendations should not always be applied nor in the same way, it is the organization and / or project management team that are responsible for establishing what is appropriate for each specific project (PMI 2013).

Despite its wide range of application, the implementation of the PMBOK methodology to urban intervention has not been documented, so that the relationship between these two disciplines is an opportunity for innovation and the development of new tools and instruments of management of urban transformations. The PMBOK guide organizes its recommendations into a matrix structure ordered in groups of processes and areas of knowledge (Fig. 2). This concise and comprehensible organization of the processes favours the structuring of the knowledge acquired in disfavoured neighbourhoods in an organized working method.

3. Materials and methodology

The research presented in this article has as main base three manuals. The first of them, *Intervention in obsolete residential neighbourhoods. Manual of best practices* (MBP), (García Vázquez et al. 2016), regarding the recommendations established for actions in deprived neighbourhoods with an accelerated deterioration of the urban qualities that define it as a city (Mumford 1966) and, the other two, which establish guidelines to improve the chances of success of a project: *Guide for Fundamentals of Project Management*, Fifth Edition (PMI 2013) (PMBOK) and *Success in Project Management with PRINCE2* (Murray 2014) (PRINCE2).

The first step in the methodology starts with a preliminary meeting between what is indicated in the MBP and PMBOK manuals. This meeting reveals that a majority of recommendations can be adequately organized in the PMBOK process matrix, within this majority there are best practices that should be taken into account in more than one process of those established in the reference guide. This first approach also reveals how a minority of recommendations do not find their place within the structure established by the PMBOK. These best practices are mainly related to preparatory or previous aspects of the project that are not subject to what is contained in the PMBOK guide. There are, in turn, processes indicated in the project management guide that lack any recommendations. It will be the subject of the investigation to complete the organizational structure regarding recommendations that can not be located in the PMBOK matrix, as well as the revision of the recommendations that may be related to processes of the methodology for which there are no direct indications.

The method used to structure and develop management recommendations related to the intervention in obsolete residential neighbourhoods in the PMBOK organizational matrix has been to compare, step by step, each of the project management processes described in the PMBOK with each one of the best management practices defined in the MBP, developing, on each of the processes, the best practice or aspect of it that is related to the described process.

In the case of best practices that had not been developed because they were not related to the processes indicated in the PMBOK, mainly those that indicated agents or management instruments that are not object of the mentioned guide, a complementary structure was established based on what described in the PRINCE2 method (Murray 2014). For the PMBOK process cases that did not contain

recommendations, especially regarding risks and acquisitions, the revision of the Best practice manual MBP and case studies of the research that originated the manual was studied, developing the recommendations that could be extracted when reviewing the described from the prism indicated in the guide of Project Management.

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
9. Project Human Resource Management		9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
11. Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Control Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement	

Fig.2 Correspondence between groups of processes and areas of knowledge of project management (PMI 2013). The numbering of the table corresponds to the chapters where PMBOK addresses each of the areas of knowledge, beginning this review in chapter four of the document. Table Acronym: WBS, Work Breakdown Structure.

4. Results

The research presented seeks to answer the question: how to manage intervention projects in deprived or obsolete residential neighbourhoods. And in order to do so, it presents a manual of management of intervention projects in these kind of neighbourhoods, product of the study, process to process, of the PMBOK matrix. This manual establishes the steps to be taken for the design of the project and its management and establishes what recommendations are appropriate in relation to each step. Within each process, best practices are prioritized and related, developing and enriching what is established in them with the vision provided by the Project Management discipline and the PBMBOK methodology. The result of this work is a document that deals with the project approach (through the transdisciplinary methodology), the management infrastructure (through the PRINCE2 method and the PMBOK guide) and the project management methodology, with the development of a set of tabs (one tab per process) that establish the characterization of the PMBOK methodology for intervention in deprived or obsolete residential neighborhoods.

Each file is composed of basic indications that outline what is determined in the project management guide PMBOK, after which, the recommendation established for the neighbourhoods is specified. In the case of project management processes that host a large number of recommendations, the development of an application example illustrates best practices. The collection of these sheets forms an instruction manual for the design of integral urban regeneration projects, where to find recommendations that favour the achievement of the objectives of the project according to the perspective of the discipline of Project Management.

The characterization of best practices in groups of processes; in the areas of knowledge, namely, integration, scope, time, costs, quality, human resources, communication, risks, acquisitions and stakeholders, favours its applicability, providing people in charge of the design and direction of the project, base for the development of each process according to the characteristic circumstances of the neighbourhood.

This article highlights a synthesis of the results obtained in the application of the PMBOK methodology to what is recommended for intervention in obsolete residential neighbourhoods for the concept of *Project life cycle* and the processes *Develop project charter* and *Identify stakeholders* for its special relevance in the design and management of the Project.

4.1. Project Life Cycle

Prior to the description of each of the project management processes compiled in the PMBOK guide, the document defines some basic concepts for understanding and applying those established in the manual. Among these concepts; project, portfolios, project manager, etc. the definition of project lifecycle has a special relevance in the case of intervention in deprived neighbourhoods. The PMBOK details this concept as the series of phases through which a project runs from its inception to its closure (PMI 2013). This design from its initial stage to the achievement of the objectives of the project is strategic for the case of intervention in these neighbourhoods. The projects of integral regeneration want to print, in the neighbourhoods of intervention, a line of evolution differentiated to the current one. Moving from an accelerated deterioration of its urban qualities to a progressive improvement of the conditions of physical and social habitability of the same. This definition of the life cycle from the total accomplishment of the objectives of the project, allows the organization of the different phases according to their milestones, characteristics and, with special importance for the correct administration of the project, the resources that each one of these phases goes to require for the completion of its goals.

Applying the recommendations established in the MBP to the concept of life cycle described in the PMBOK we can establish a minimum number of three phases, corresponding to the three typologies of work with a greater differentiation in the process. The first one would address the exploratory work of the neighbourhood, both physically and socially, identifying stakeholder groups in the process, their expectations and citizen commitment required for the actions to be implemented. This stage is focused on the dialogue and agreement on the objectives that the project should pursue. In the second phase, the selected actions would be carried out to complete the objectives of the project, agreed with the human group living in the neighbourhood. The third phase of the project would carry out the necessary activities to maintain the achievements reached in the previous phases and design the progress to be started from the new starting point reached with the intervention.

This perspective, which defines different phases in the project, allows the promoters and the project management team, to establish objectives and resources for each one of the stages of the project, and makes visible the importance of the maintenance phase of the projects and the planning and the allocation of resources to carry out the projected activities. A first phase of dialogue and a second phase of intervention, without the design and control of a third phase of monitoring and supervision,

does not guarantee the final achievement of the objectives of the project, and all the investment and effort employed in the neighbourhood could remain without effect.

The first phase would be preceded by a preliminary stage in which the neighbourhood situation would be assessed with respect to others, choosing the neighbourhoods of intervention through criteria established by public policies or intervention agents (based on best practices PG401: Establish a protocol for the rehabilitation process, PG501: To establish levels of intervention, to classify them by priorities and to carry out a phased division, in the MBP, García Vázquez et al. 2016). This data collection will require a preliminary protocol to establish the data of interest of the different neighbourhoods and that allows to relate the different circumstances.

After the preliminary evaluation and the decision to act in a neighbourhood, the first phase would start and it would be necessary to begin with the understanding of this neighbourhood through its inhabitants; know their needs, opinions, weaknesses and strengths, so that the required intervention can be agreed. Behind it, once established what to do and with what resources and if the achievement of the defined objectives is feasible, the design and implementation phase of the implementation of the agreed-upon would start. Initiated this Phase 2, planning a phase where to keep achievements reached would be required, Phase 3. The completion of the first phase and the re-evaluation of the project objectives and their risks would determine the appropriateness of starting the second phase or closing the project. However, the start of the second phase calls for the opening of a third phase of maintenance that should be initiated during Phase 2 planning / implementation.

Phase 1: In this first phase of the intervention, the organization would try to establish an understanding of the neighbourhood (based on best practice PG502: Carry out a preliminary diagnosis with neighbourhood participation, in the MBP, García Vázquez et al. 2016). To do so, it must initiate and structure the dialogue with the people who inhabit it and orderly record the physical data of the neighbourhood together with the subjective appreciation of inhabitants and professionals. From this understanding and interaction a proposal for improvement actions elaborated collaboratively and approved by inhabitants and organization must be obtained, as well as by the sponsors where appropriate. Improvement proposals and actions should be discussed together with resources for implementation and maintenance operations (based on The assessment of risks is a basic action within the definition and design of projects. However, in urban intervention, this practice is not usual. Classical urban planning instruments, such as partial plans, special plans, etc. do not define what risks can affect the implementation of what have been projected. PG402: Writing a community development plan, in the MBP, García Vázquez et al. 2016). The decision-makers must report on the limits of resources provided by the organization and the citizen commitment that would imply the taking of the different decisions (organization, search for supports, barter, labor, etc.) (based on best practices PG404: Establish a monitoring plan, PG406: Carry out a catalog of actions to be carried out by people living in the neighbourhood, in the MBP, García Vázquez et al. 2016). If this Phase 1 is to be successful, the organization should start Phases 2 and 3. Otherwise, the organization in charge of the intervention should evaluate the problems and re-determine the appropriateness of the intervention or implement a new one *Phase 1B* with corrected strategies or differentiated objectives.

Phase 2: The agreement between the neighbourhood and the intervention agents of what is wanted for the neighbourhood and how to get it opens the beginning of the second phase of the project. The objective of this phase is to implement what has been agreed. This will require the preparation of a master plan for the phase that will develop how the actions will be implemented. The detailed planning of the actions can generate different alternatives. The organization must select the options according to the resources of the project and in a consensuated way with the inhabitants of the neighbourhood and entities involved, and it may happen that some of them must modify their scope.

Phase 3: The actions defined and executed in Phase 2 must include the maintenance work that will be necessary for the conservation of the objective or improvement achieved. These tasks should be taken into account when approving the performance of an action or the selection of a goal. Along with the consensus of the actions to be carried out in the neighbourhood commitment of the maintenance and conservation of the executed must be made. This last phase tries to strengthen the achievements and progress on what has been reached it, must establish its own objectives and work within the coherence of the implemented and available resources.

This third phase, where what has been achieved must be consolidated and a favorable evolution must be propose, has not been planned or endowed with resources in most of the intervention cases, leaving this new operation, neglected due to lack of resources or organization, but also by an omission of the importance of this stage in the design of the project. Through the concept of life cycle proposed by PMBOK, this stage which had been hidden for the design and management of projects, is visible.

4.2. Develop project charter and identify stakeholders

Once revised the proposed concepts for the project management by the PMBOK, the research begins the inner journey to the process matrix defined by the guide, beginning with the start processes. The two processes that PMBOK proposes to define the beginning of the project turn out to be key to the case of neighbourhood regeneration. The first one, Process 4.1 Defining the project constitution, obliges us to make a statement of the objectives to be achieved with the implementation of the intervention project. In the case of understanding the intervention as an integrated urban regeneration project, it would be necessary to determine what this regeneration means for the particular neighbourhood in a way that is aligned with what is determined in the public policies of regeneration and how is going to be measured the success of the project. This concretion of the aspirations of regeneration in delimited and measurable objectives requires a definition of the problematic according to the resources available and the global context in which the actions to be designed are framed. Research addresses this issue with the definition of a holistic approach through transdisciplinary methodology (Max-Neef 2010). The approach selected for the project must provide feasibility and value, and the choice of approach is a decisive factor in achieving project objectives (Murray 2014).

The definition of the project charter for the intervention in deprived neighbourhoods, based on the best practices recommended (García Vázquez et al. 2016), has allowed the development of strategic lines that serve as a basis for the definition of the objectives of the project taking into account the three phases indicated in the life cycle of the intervention in this neighbourhoods (Ledesma de la Rosa 2017). These strategic lines would be:

Governance-Dialogue: This strategic line deals with the achievement of a new model of urban organization with an increasing level of citizen participation and commitment through innovation in formulas and tools for dialogue, decision-making and sharing of responsibilities. The objectives related to the understanding of the neighbourhood and the structuring of an interlocution methodology (person-person within communities and communities-city management entities) are grouped in this line so that collective decisions can be taken. This section concentrates the companies related to the expansion of the neighbourhood's relations with the outside, seeking the maturation of a network of entities that supports the constitution and maintenance of a new local governance. This strategic line can be translated into concrete objectives such as: the development of a dialogue methodology, the realization of a physical and human understanding of the neighbourhood, a documented consensus on the improvements that the place needs or the development of a support structure or network for the processes of improvement of neighbourhoods and its governance (concept matrix parliament in Ledesma de la Rosa 2010).

Exchanges-Cooperation: This line of action houses the improvement of the social resilience of the community that inhabits the neighbourhood by increasing exchanges and reciprocity relationships between people, both internally to the neighbourhood and to the outside. In this line are grouped the objectives aimed at establishing an orderly system of exchanges that contributes to the obtaining of goods and services independently of the established economic system, so that people can improve their quality of life through better coverage of their basic needs (Max Neef et al. 1998). The increase of commercial or service relations, favours the emergence of new personal relationships that increase the social resilience of the neighbourhood human group, improving its better functioning as a community and its collective intelligence (Calvo Salazar 2007). The concretion in objectives of this line could be the reinforcement of the actions of reciprocity existing in the neighbourhood first and the expansion and establishment of new relations in a second stage. This community fabric fosters relationship and mutual help. The main instruments of this increase of relations could come from the hand of the new technologies, being a platform of exchanges of objects and services the vehicle of these relations (concept munus market in Ledesma de la Rosa 2010).

Learning-Creativity: This strategic line aims at personal and community development through actions of improvement in knowledge and understandings relating especially to common themes such as deep ecology, identity and individual responsibilities and as a community. This line can be defined in objectives related to the construction of a community identity or the improvement in knowledge related to contemporary values; global / local sustainability, gender equality, opportunity, respect, tolerance, etc.

Objectives Base: It would meet the needs that must be met whether or not the rest of the intervention purposes are developed. These are minimum objectives for the improvement of the quality of life of people who are in situations with no possibility of progress in the absence of a support system or social intervention. Despite their importance, interventions should not be considered from these minimum objectives, since this minimum would affect the design of the whole process. The perspective offered by the best practices compiled reveals to us how the best approach to these issues is based on the perspective of belonging to a community and that a better situation of its members affects a better situation of the group. For this reason, in the context of the general intervention, they must be objectives served or resolved thanks to the services established and

provided by the community generated. But in the event that nothing else is possible, these situations must be met.

The second of the processes established in the project start-up group, Process 13.1 Identifying the parties involved, turns out to be another key factor for the success of the project. Regeneration projects in particular neighbourhoods and urban intervention in general are processes of great concern to citizens, neighbours, merchants, residents in neighbouring areas, public administrations of different scales, financial entities, bodies responsible for administrative acts (licenses, permits, inspection, etc.), etc. Identifying these groups and interested entities is the first step in aligning their aspirations and expectations with the project to be culminated.

The identification of the parties involved in the project allows to include within the file of this process a list of agents and persons identified as involved in the project with their corresponding characteristics or specific singularities that must be addressed in the collective. This list may work as a checklist for future projects, which allows the design team and project management to check which agents and groups are present in your case and add to this list the particularities of your neighbourhood, expanding the checklist for later cases. The reference research proposes a checklist defined by the study of best practices (García Vázquez et al. 2016) and the European cases studied for the elaboration of these recommendations during the R & D & I project (project identification code: G-GI3001 / IDIH), Intervention in obsolete residential neighbourhoods. Manual of best practices. This identification begins with the definition in categories of the groups and interested agents; citizenship, public sector, private sector, third sector and project team, detailing collectives and singularities of each of these categories.

4.3. Areas of knowledge: risks, communication and stakeholders

After performing the processes included in the startup group, the PMBOK presents the planning process group. This group is composed of twenty-four processes distributed among the ten areas of knowledge defined in the PMBOK. This group of processes together with the set of initiation processes are the ones that harbour a greater number of the recommendations gathered in the MBP document (García Vázquez et al. 2016). The characterization of the objectives establishing scope, time and cost, allows to put in perspective the purposes of the project, determining the feasibility of the same according to the approach and revealing the needs of altruistic support and unconventional resources for the achievement of the goals considered essential (Max Neef et al. 1998). The design of quality, while projecting urban actions, will contribute to the development of a project management plan designed from the evaluation of what is planned or executed in an integral way. The valuation of the area of human resources will allow us to develop non-conventional resources that allow the participation in the process, not only of the people who live in the neighbourhood, but also of non-profit groups that generate synergies in the transformation of the neighbourhood.

We emphasize within the planning processes those included in the areas of knowledge: communication, risks and stakeholders. The assessment of risks is a basic action within the definition and design of projects. However, in urban intervention, this practice is not usual. Classical urban planning instruments, such as partial plans, special plans, etc. do not define what risks can affect the implementation of what have been projected. This exploration involves: identifying risks (process 11.2 of PMBOK), qualitatively and quantitatively analyzing risks (process 11.3 and 11.4) and planning the response to risks (process 11.5), as well as compiling all of these into a risk management plan 11.1), and provides an overview of the possible scenarios in which the intervention organization and the project management team can be found. Estimating these risks also allows to assess the viability of the plan and the alternatives with better options to complete the objectives. For this reason, the vision offered by the project management and the PMBOK methodology related to the risks suppose a great contribution as a tool of urban intervention in general and of integrated regeneration in particular. In the case of intervention in deprived neighbourhoods, the risk assessment due to its inherent long term, high number of parties involved and great resource consumption can be planned and controlled through the processes expressed in the PMBOK, allowing this planning and control a lower impact of the risks that happen and an avoidance of avoidable risks.

The other two areas of knowledge to highlight are communication and stakeholders. The journey through the processes proposed in the PMBOK reveals a duality of these concepts, since, in the case of interventions in neighbourhoods and of the urban actions in general, these concepts are objective of the project and process of management of the project at the same time. The progress of the PMBOK processes and the recommendations compiled show the great importance of these two areas in the interventions of integrated urban regeneration.

The design of the management of the large number of agents and groups with interests in the projects of urban regeneration and interventions has been a common cause of overflow of the planned management resources. The study of the projects through the PMBOK methodology shows the need

to have sufficient resources for the development of these communication tasks that are key to the management of neighbourhood regeneration projects.

5. Conclusions

The structure of project management processes established by the PMBOK guide is valid for the purpose of organizing what has been learned about the management of intervention projects in obsolete residential neighbourhoods in a base document that allows us to start the path of the adaptive systematization of neighbourhood interventions in a clear and effective manner, completing what is set out in the guide with a comprehensive and coherent approach and an orderly and sufficient infrastructure. The PMBOK methodology allows us to develop different aspects of the best practices compiled in the MBP document and has provided the links and relationships required for better understanding and implementation. The course of its concepts and processes provides the people in charge of the different aspects of the rehabilitation, an adaptable and versatile roadmap, that facilitates the consideration of the recommendations in the design and implementation of the projects in neighbourhoods. The structure established through the PMBOK allows to present what have been learned about intervention management in neighbourhoods in a thematic form and within a chronologically ordered temporal framework. This provides the possibility of knowing and attending to the recommendations in a gradual way, depending on the project moment and in relation to the area of knowledge attended. The study of best practices contained in the MBP from the perspective proposed by the PMBOK has also allowed the development of new recommendations concerning, for example, project risks or human resources.

The application of the PMBOK to the recommendations in the neighbourhoods has led to the development of a guide to the fundamentals of project management for the case of obsolete residential neighbourhoods, obtaining, from this fusion, a foundation instruction manual for this typology of projects that allows conceive it in an integral way. This concept favours the coherence between the proposed objectives and the available resources, facilitating the revision of previous aspects such as the feasibility and the development of the necessary management infrastructure to address them.

The PMBOK concepts and processes related to Project Management have validity and application in the case of the intervention in deprived neighbourhoods. The processes belonging to the start group, attend the objectives of the project and identify stakeholder, condense two strategic points of the project; the definition of the objectives to be achieved which dependent on the approach, and the identification of agents and groups will define the context of the project. With respect to the processes belonging to the group of planning processes, we see how the correspondence between the best practices and the processes, has had repercussion in the development of new aspects of the recommendations not contemplated in origin. We can highlight the large number of recommendations regarding communication planning and stakeholder management, due to their importance as a management process and project objective. Note that these are the two areas of knowledge defined in the PMBOK with the highest number of the MBP recommendations along with integration.

These are two groups of processes, beginning and planning, which contain more content and indications in the PMBOK document and, at the same time, in which we can place a greater number of recommendations related to the management of the intervention in deprived neighbourhoods. This fact indicates the specific weight of the preparation and planning in projects in what is wanted. Likewise, the processes belonging to these categories are precisely those that consume the least resources (PMI 2008; PMI 2013), highlighting the strategic factor of developing the planning, with its different scenarios and alternatives and according to the possible evolution of the project and of the context.

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