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# Sports Events and Project Management. A PM² Proposal

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***Abstract:***

***Purpose:*** We suggest using a project management approach to manage sports events. To this aim, we propose an adaptation of PM², the project management methodology developed inside the European Commission, to manage sports projects.

***Design/methodology/approach:*** We perform theoretical analyses arguing why a sport event is a project, about the roles of the event and sport management and a theorethical adaptation of the PM² methodology to sport management.

***Findings:*** We show that events management could benefit from PM² methodology if we introduce several adaptations. The main one implies splitting the original project execution phase into two separate ones: the deployment phase and the execution (strito sensu). The former includes all the activities performed to prepare for the sports competition; the last, to cope with the complexity of the competition particular dates, characterized by simultaneous and mass involvement of participants and spectators in the event. We also propose changes into the original project governance model, for accommodating a market orientation to maximize the economic return of the event and for including the concept of "extended customer" that comprises the owner of the event, the participants and the spectators.

***Research limitations/implications:*** Further empirical research is needed to analyze the implementation of this adaptation of PM².

***Practical implications:*** We offer an adaptation of PM² methodology for the event managers that allow them to apply project management standards in their particular events. Our adaptation accommodates the marketing approach and the market orientation commonly used by event managers.

***Social implications:*** The redefinition of the role of sports event managers with a project management orientation allows to introduce the cost-benefit analysis in the development of a sport event, making sports events not only successful but also profitable, sustainable and efficient.

***Originality/value:*** For the first time, PM² is applied to events, in particular, to sport events. The specific characteristics of PM² make it interesting in any sector, as sports events, where managers do not have extensive experience using project management standards and methodologies.

***Keywords:*** project management, PM², sports management, event management

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## 1. Introduction

In this paper, we offer a project management perspective to sport events management in spite that the sports industry considers that those events should be treated differently from other types of events (Fanjul-Suárez & Magaz-González, 2012: page 140). Moreover, the methodology applied to the organization of sports events has been mainly marketing oriented, treated as processes that are organized in a series of stages and sections. Project management has not a dominant role in the organization of sports events. One explanation for the marketing being the alpha and omega in this field is in the training of the events managers around the Sport Business Schools (SBS). Therefore, today sport marketing, as an extension of the traditional concept of marketing, as well as the process-based approach –as opposed to project-based- cover all the phases of the organization of a sport event.

Taking this context into account, the aim of the paper is to use the project management approach for the management of sports events. To achieve this objective, we explain how this could be done –could be extended to any kind of event-, and we start by asking whether a sport event is a project, and what must be fulfilled for it to be so. Then we suggest managers adopt mainstream project management standards and methodologies. In particular, we advocate using $PM^2$, the project management methodology developed inside the European Commission (European Commission, 2021). $PM^2$ has specific characteristics that made it interesting in sectors where managers do not have extensive experience using project management standards and methodologies, as it is the case of sports events. In particular, it specifies in a simple way what has to be done on a project, who has to do it and when. The $PM^2$ Guide advises on how to tailor and adapt the methodology to the complexity of a particular project.

$PM^2$ proposes a governance model with well-defined roles concerning the responsibilities of each participant in the project. It proposes a live cycle and a swimlane diagram describing all the activities to be done in order for the project to succeed. $PM^2$ includes a set of "artifacts", that is, a set of predefined templates of almost all documents a project team can need.

Other predictive methodologies like PMI or ISO 21500 could be also appropriate for managing sports events projects, but in practice, they need more effort from "novel" project managers. Likewise, competence-based methodologies like the one developed by IPMA can be used complementarily to $PM^2$. $PM^2$ has been developed as general purpose methodology and has been developed to be used for any kind of project. However, it is opened to changes and extensions to cope with the particular features of some kinds of projects. This is the case of event exports, as we explain in this paper.

But sports events as projects have some specific characteristics, like the role of some stakeholders or the phases in which sports events can be structured. Thus, in this paper, we propose some modifications to the original $PM^2$ Guide affecting the governance model and the project lifecycle phases. The most relevant innovation is that we consider an additional phase, by dividing the original execution phase into two: deployment and execution (*stricto sensu)* phases.

The rest of this paper is organized as follows. In section 2, we summarize the current mainstream approach to managing sports events, usually based on processes and marketing. In section 3 we argue that sports events can be considered as projects, benefiting from the project management methodologies that we review in section 4. We also remark on the relevance and advantages of using $PM^2$ for managing sports events. In section 5 we explain our proposal for extending the original methodology to sports events and we end with the main conclusions of our work

## 2. Sports Events Management

Sports events can be organized by the public sector, by the private sector, or by collaboration to varying degrees of both sectors. The purposes of one or the other sector are different, and hence their level of participation in sports events (Gómez, Opazo & Martí, 2007). Taking into account that making the event profitable is an important condition for sports events, the private sector plays a highly representative role due to its capability of generating an increasing amount of profitable events. Within the firms dedicated to the organization of sports events, many of them are dedicated to the organization of events in general, and contradict the vision of specificity of sports events.

Over the years, the profile of the event manager or the event director has been created, and by specializing further, it gives rise to the profile of the director/manager of sports events. However, it is not always the case that such a specific profile is dedicated to the organization of sports events, nor a more generalist profile that is dedicated to all types of events.

### 2.1. The Project Management Perspective in Sports Events University Programs

The professionalization of sports impulse economists to create sport economics or sport management. Some business schools, in Spain and other countries, having a great vision, packaged and marketed an MBA with the combination of both worlds (sports and business). The high demand and the possibilities of generating higher income in a specific business niche gave rise to the SBS (Sport Business Schools). Therefore, this professionalization of the industry replaced experienced volunteers and amateurs, who had historically developed some activities, with salaried qualified professionals.

Caminero-Granja (2019) collects the contents of the programs related to sports management taught in Spanish universities, including the undergraduate programs in "Physical Activity and Sport Sciences" and the master's degree programs in Sport Management. The main conclusion is that the curricula offered in the programs of those SBS include mainly economics, marketing and management. As we mentioned before, the reason for the focus in those areas is due to the origin of this kind of studies, while project management has its origin in engineering and architecture. Project management either does not exist, or it is included as a generalist subject that can be useful for people coming from project management but it is never applied to sports events. The only school that has a focus on project management is Ramón Llull University (Spain). They have a master's degree program called Master in Management of Sports Organizations and Projects, and includes, subjects as Advanced Project Management predictive methodologies such as ISO21500, PMI, IPMA, Prince2, or Logical Framework and agile methodologies such as Scrum, Lean, Kanban, or Extreme Programming (Mirabed-Agulled, Gambau-Pinasa, Ambit-Fernandez & Esteve-Roca, 2021).

### 2.2. Sports Events Management from Marketing and Processes Approaches

The organization of sports events has been widely studied, but not from a project management approach, nor using methodologies such as IPMA, PMI, Prince2, but from the perspective of marketing, and especially when it comes to large-scale events (Fanjul-Suárez & Magaz-González, 2012). This fact is common to other events management, not only sports (Bladen, Kennell, Abson & Wilde, 2017). Most of the books concerned with sports event management focus their chapters on marketing, processes and financial issues (see for instance, Watt, 2004; Parent & Ruetsch, 2020; etc.).

Given that marketing is the prevailed approach in the management of large events, the protocol has its own prominence (Fernández-Vázquez, 2005, 2018). There are few manuals that incorporate project management to events (Williams, 2012; Pielichaty, Els, Reed, & Mawer, 2016), and generally, the organization of events is treated as processes that are organized in a series of stages and sections. In the following, we detailed both marketing and processes approaches.

#### 2.2.1. Sports Marketing Approach

When applied to sports events, operational marketing extends the number of elements: the classics (product -and brand-, price, place, and promotion), together with sponsorship and services (Smith & Stewart, 2014). We can find "the 9 Ps of Sports Marketing": the 4 elements of tangible products (product, price, place and promotion) plus the 5 elements of intangible products, services, meetings or events (people, process, physical, performance and programs) (Coutinho da Silva & Luzzi Las Casas, 2017). All of those elements are combined in a sponsorship framework (together with investors who assume a risk) that can be based on the exploitation rights of the names of the event or licenses, or on the association of a brand to an athlete or a team (Fullerton & Merz, 2008). Moreover, the sport event marketing plan defines the activities –following the value chain in the sports industry- which define the actions to be carried out so the sports event reaches the greatest number of spectators.

### 2.2.2. Processes Approach

Other than the marketing approach, sports events management has been organized using a processes approach, where processes are usually grouped within domain areas. Thomas and Adams (2005) review six event management books to obtain the most common processes domains covered by them. Silvers, Bowdin, O'Toole and Nelson (2005) suggest an "event body of knowledge (EBOK)" based on domains, phases and processes. The organization of the event is considered as a set of actions to be carried out taken from a manual containing all the possible tasks that can be carried out in a sport event. Thus, there is a list of activities proposed for the organization of sports events, always the same and repeated. Therefore, although the event could be different –it has different what, when, where...-, the companies that offer services for the organization of sports events have a similar catalog of services (processes) –which obviously can be customized-: registration management, multimedia, web page, timing, stage assembly, classifications, catering... and which bring little new between sports events –these have been processed-. Risks are not part of the plan, and are not taken into account, beyond the fact that an action in the plan cannot be done, and, therefore, there are no responses to risks (Fanjul-Suárez & Magaz-González, 2012).

In sum, the organization of sports events based on processes is not so different from that based on marketing. In fact, each of the elements of operational marketing and its associated strategies would have a more or less equivalence in an area, or parts of areas, that group the processes.

## 3. Sports Events as Projects

In this paper, we suggest that sports events management can benefit from a project management perspective. The proposal for using project management tools for managing sports events is not new. Muir (1986) suggests using some project management techniques for organizing a car rally. Recently, Schnitzer, Kronberger, Bazzanella and Wenger. (2020) reviewed the topic. Current literature suggests that sports events managers are becoming more aware of the relevance of project management, but in practice, its use is still rare. And when it is considered, managers usually only implement some "popular" tools like Gantt Charts, to-do lists, budget plans, and work breakdown structures.

Therefore, they do not use the standards and methodologies developed by international professional institutions, that is, the frameworks that are commonly employed in projects in sectors such as engineering, construction or information technologies. In this paper, we encourage sports events managers to make a qualitative leap to incorporate these standards.

The Project Management Institute, one of the most relevant international professional associations of project managers defines a project as "a temporary endeavor undertaken to create a unique product, service, or result" (PMI, 2017). Similarly, The Project Management Guide ($PM^2$) considers that "a project is a temporary organizational structure set up to create a unique product or service (output) within certain constraints such as time, cost and quality" (European Commission, 2021). Both definitions underlie the concepts of "temporary" and "unique". This means that any project has a beginning and an end, and the concept of something "unique", that is, a project delivers an output (product, service, deliverable) that is singular, not repetitive. Beyond the similarities between both definitions, the $PM^2$ one conceives a project as an organizational structure and stresses the role of the constraints.

Although there are many definitions of project, most of them emphasize the temporality and the unique character of the output. In this way, projects are perfectly differentiated from "processes". For instance, the continuous production of the same cars by an automobile factory is done through processes (it is not a project), but the design and prototyping of a new car engine can be considered as a project.

Most of the sports events are unique and singular. The dates of the events, the site where they take place, the participants, the attendees as spectators, etc., are usually different. Even for many of the events that are repeated over time, there are differences between them, due to differentiating conditions such as the type of participants, the route in a race, or the characteristics of the athletes. Also, the context and constraints (duration, budget, sponsors' interests and needs, etc.) are usually particular and unique to each sport event.

Most sports events have an easily identifiable beginning and end. Some start when the organizers begin to plan the event, or even earlier, when an institution applies to organize the event (e.g. Olympic Games, World Football Championship). And they usually end when all the administrative procedures have been completed, after the sport competition has finished.

Because of the above reasons, we suggest that most of the sports events can be considered as projects. Obviously, the boundary between what is and is not a project is not a rigid line. Some activities are clearly projects (e.g. building a bridge or developing new software) and others are not (continuous production on a factory line). But some activities and businesses can be managed as a project or through a set of processes depending on the managerial opportunity. Let us consider a public administration that grants aid to families with economic difficulties. This public service can be organized as a set of processes, each department performing a subset of the processes (Providing information on requirements, receiving applications, requesting reports from the Tax Office and Health Service, investigating particular situations, resolving applications, reporting, etc.). But alternatively, each applicant family can be "considered as a project", with a project manager who leads the whole process, integrating time, budget and effectiveness in the consecution of the objectives, and supervising all the departments involved.

For instance, Fred (2020) reports experiences concerning the application of the "project logic" for managing ordinary operations in local government administrations, within the Department for Children and Youth, or the area engaged in the exploitation of land for new buildings. Crawford, Simpson and Koll (1999) report more experiences of public administrations and Lerouge and Davis (1999) suggest using a project-based approach for customizing solutions for internal customers within the firm.

The same happens in sports events. Some of them can be easily considered a project while others not. Maybe the set of all Football Matches of the Premier League can be managed repetitively, as the conditions are similar for all the matches during the term. But the Olympic Games, any Word Championship, the neighborhood tennis championship or the 163 km. bicycle challenge around the "Canal de Castilla" (Spain) can be managed as projects; "if it is a project, you had better manage it as a project".

The more differentiating a sports event is and the more identifiable it is the beginning and the end, the more similar it is to a project. Likewise, the more important time and budget constraints are, and the more sponsors and other stakeholders are involved (e.g. municipalities, governments, security forces, suppliers, etc.), the more appropriate the project approach will be.

The main advantages of the "project approach" is that it focuses on objectives, work scope and the definition of deliverables. It concentrates on the budget and time constraints, performs risk analysis and stakeholders' management is a core element during all project lifecycle.

Using a project management approach to events management does not mean that we encourage managers to give up the current mainstream approaches like the marketing or processes approaches.

On the contrary, we suggest that all the approaches can be complementary and can be used together. Event managers have their origins in marketing, while project managers have their origins in engineering. The former focus on increasing demand for what they organize, and the latter focus on doing the sport event within a given set of constraints, for which they consider all possible risks. Therefore, we claim that the event manager lacks the caution of a project manager, and the project manager who organizes events lacks the motivation, not the ability, to make maximum value from the sport event.

## 4. Benefiting from Project Management Methodologies

We suggest that sports events management can benefit from project management methodologies and best practices. For this reason, in this section, first, we summarize some the most used project management standards and methodologies, and then we argue why we chose $PM^2$ for managing sports events projects.

### 4.1. Project Management Standards and Methodologies

Projects have been performed (and therefore managed) since ancient times. However, there is some consensus that modern project management begins with the Gantt chart technique developed by Herry Gantt in 1910 (Clark &

Gantt, 1922), and later with the development in the 50s of the PERT (Program Evaluation Review Technique) for the Polaris Project and the CPM (Critical Path Method) for the Dupont and Remington Rand companies (see, for instance, Seymour & Hussein, 2014, for more details about project management history).

Project management is multidisciplinary and it uses theories and methodologies from a wide range of disciplines like engineering, operations research, psychology, accounting, strategic management, etc. (Ahlemann, El Arbi, Kaiser & Heck, 2013; Kwak & Anbari, 2009). But the main standards, practical guides and books of knowledge have been developed by professional associations and public institutions, according to best practices by practitioners. We summarize the features of some of the most widely used.

The Project Management Institute (PMI) is an international professional association founded in 1969 in The United States. It publishes the Guide to the Project Management Body of knowledge, commonly known as PMBOK (PMI, 2017). PMBOK proposes a process-based approach to project management, that is, it proposes the set of processes that should be implemented for the project to succeed. In its 6$^{th}$ edition, it proposes 49 processes falling into 5 project lifecycle phases (initiating, planning, executing, monitoring and control, and closing) and 10 knowledge areas of management (integration, scheduling, cost, quality, resources, communications, risk management, procurement, and stakeholder management).

The 5 phases and the 10 knowledge areas build a matrix table where the different processes are accommodated. For each process, PMBOK lists a set of inputs and outputs (e.g. documents, information, organizational constraints, etc.) and the associated tools and techniques for obtaining the outputs.

In 2021, PMI has published the 7$^{th}$ edition of the PMBOK (PMI, 2021) with relevant changes from the previous versions. Project management practitioners will have to incorporate in their methodological frameworks in the short term. In particular, it moves from a process-based approach to a principles-based approach and the knowledge areas are replaced by project performance domains.

The International Project Management Association (IPMA) was founded in 1965 and is officially located in Switzerland. IPMA is an international federation of more than 70 national member associations. In the Individual Competence Baseline (ICB 4.0) (IPMA, 2015), IPMA proposes a competence-based approach to project, program and portfolio management, that is, the set of competences that project managers and project management teams members should have for the project to succeed. In particular, IPMA considers 29 competences organized in 3 areas: People (transversal competences), Practice (technical competencies, methodologies) and Perspective (the context of the project, program or portfolio).

PRINCE2 (Projects in Controlled Environments) (AXELOS, 2017) is a structured project-based management method, developed initially as a UK Government Standard for information systems projects, although nowadays is used for any type of projects.

ISO 21.500 (International Standards Office, 2012) provides guidance for successful project success within a process-based framework. It shares some common approaches with PMBOK, but only addresses processes inputs and outputs, without summarizing tools and techniques for managing those processes.

There are many other standards and methodologies but now we are going to focus in PM$^2$, as it is the methodology we propose for managing sports event projects.

PM$^2$ (Project Management Methodology, pronounced P-M-square) is a methodology developed by the Center of Excellence in Project Management of the European Commission. It was initially developed in the year 2007, but in 2016 the CoEPM developed an *Open* version (Open PM$^2$) that was presented to society at a conference held in Brussels in February 2018. The main document explaining the methodology, the Project Management Methodology Guide (European Commission, 2021) can be downloaded from the Publications Office of the European Union, and it has been translated to several European languages.

PM$^2$ is a methodology *stricto sensu* (not a standard nor a book of knowledge). PM$^2$ adopts a process-based approach with precise processes to be implemented during all the phases of the project lifecycle (initiating, planning, executing, closing and monitoring and control). PM$^2$ integrates elements from good practices from other standards

and methodologies like PMBOK, IPMA-ICB or PRINCE2, but also integrates distinctive elements such as the following:

- A Governance Model specifying all the project roles and their responsibilities, identifying who and how decisions are taken.
- PM² Artefacts. It is a set of templates for the main documents that are needed to manage a project. For instance, there are templates for the business case, project charter, project handbook, project work plan, several management plans, checklists, etc. The artefacts can be tailored and adapted to project complexity and project characteristics.
- The PM² Mindsets. A set of proposed behaviors and ways of thinking, philosophies and "*infrequently asked questions*" that help project teams to focus on what is relevant to achieve project objectives.
- A clear definition of all the processes, detailing not only inputs and outputs, but also who is responsible (governance model and RASCI matrix), when it is to be done (lifecycle) and what documents (artefacts) should be used to manage it.

### 4.2. The Election of PM² for Managing Sports Events

In this section, we argue why we suggest using PM² to manage sports events. Once we realize that a big proportion of sports events can be managed as projects, we encourage managers to use any of the methodologies, standards or guides. Practitioners and researchers suggest that project success probability increases when project management discipline is applied (Mir & Pinnington, 2014; Thomas & Mullaly, 2007; Besner & Hobbs, 2006; etc.).

However, we suggest that PM² can be an appropriate approach for managing sports events because of several reasons.

First, as we said above, sports events managers have traditionally used marketing and processes approaches, so they are not familiar with project management methodologies. As far as we understand, PM² is very simple, easy to understand and apply, and it can be implemented progressively depending on organizational maturity.

First, PM² guide is 86 pages long (plus appendixes). The European Commission has also published a synthesis of the guide (European Commission, 2016) with only 28 pages (plus appendixes). For instance, IPMA ICB 4.0 (IPMA, 2015) is 431 pages long and the PMI's Body of Knowledge (PMI, 2017) is more than 500 pages long.

The synthesis allows people who are not familiar with project management to understand what activities need to be performed and by whom. The guide allows managers who have already mastered the initial concepts to go deeper into the processes and learn additional details. For anyone who has not used project management methodologies before, the overview allows him or her to take a big step from "outside to the inside" of the project management discipline. The European Commission has also published a "quick start leaflet" and other materials to facilitate the access of any professional to the methodology.

Simplicity and incrementality are hallmarks of this European methodology so that it can be used by different institutions –as it is currently the case- like the Council of the European Union, the European Central Bank, the European Investment Bank, the Committee of the Regions, the European External Action Service, the European Court of Justice, the European Parliament and many EC Services and EU Agencies.

And the methodology has the vocation to reach new practitioners in fields as diverse as: R&D, International Cooperation and Development Projects, new software development, etc. The methodology is open to all the society.

The simplicity and incrementality of the methodology are possible because it details the activities to be done in a project and when. The governance model specifies who has to do the activities, who has to approve them, and who has to be informed (RASCI Matrix). The Artefacts are templates of documents that also suggest how to do everything. They are a very important element for the acceptance of the methodology because they provide templates for almost everything, for example, project charter, project plans, deliverable acceptance documents, risk

management, quality, etc. There are explanations about what to write in each subsection, that is, what to do during the project execution.

Finally, PM$^2$ is easy to adapt and tailor to the particular features of a project, and the methodology suggests how to do it.

## 5. A PM$^2$-based Proposal for Managing Sports Events

PM$^2$ was developed for managing any type of project. But the guide also encourages practitioners to tailor and customize the methodology, to ensure that it serves the organization's and project's needs. Tailoring refers to changes in some parts of the methodology, such as processes, artefacts or roles and responsibilities. Customization refers to changes at the project level, for instance, risk tolerances. The methodology suggests documenting those changes in the Project Handbook.

Most sports events have characteristics that make it advisable to make small changes in some of the elements of the methodology. In the next subsection, we will argue these changes.

### 5.1. Special Characteristics of Sports Events Projects

First, we remark again that the mainstream marketing approach to managing sports events is powerful. In this paper, we argue that sports events can also benefit from a project management view, but both the marketing and project frameworks are compatible; the maximum benefit comes from working together. For this reason, we propose to include explicitly the marketing approach in several PM$^2$ elements, like the "House of PM$^2$" or the governance model. For instance, concerning risks, mainstream sports events management focuses on financial risk, whereas the project management approach is also aware of operational and external risks and the strategies to deal with those risks.

Second, stakeholder analysis and management are very important for project management practitioners, who classify them according to their power and interest in the project. But in most sports events, the project owner, the participants ('athletes') and the spectators play a predominant and equally important role. In our proposal, we suggest highlighting this fact and adjusting the different elements of the methodology accordingly.

In some events, the public administrations also play an important role, as they provide health and safety services, and allows, for example, in the case of municipalities, sports events to be held in public spaces. And the persons who are engaged in providing these services also play an important role.

Therefore, we propose the name 'extended customer' to address these special stakeholders, suggesting a separate stakeholder artefact. Another interesting feature of sport events is the phases in which the event is structured. From a marketing or a processes approach, scholars propose three or four phases (initiation, planning, organization and control). However, when define the life cycle of the event –before the event (pre-event), during the event (event), and after the event (post-event)-, we observe that it is only during the event –the shortest and most intense moment (it can last only minutes)-, that the participants and spectators of the event intervene simultaneously and in large numbers, which means that there is a minimum capacity to carry out control and corrective processes if something should go wrong. Therefore, the execution phase should be divided into two clearly differentiated phases, because the realisation of an event is different from having done all the processes of the plan in order to have what is necessary to carry out the event.

Consequently, one of the main changes that we propose to apply PM$^2$ to sports events consists of splitting the PM$^2$ execution phase into two distinct phases: deployment and execution (*stricto sensu*).

- Deployment Phase: Most sports events require doing a lot of work for a long time before the moment when the competition starts. There is a margin to change planned details. During this phase, participants, neither the public nor the players are present.
- Execution Phase (*stricto sensu*): This phase begins when the "start of the race is signaled", that is the time when the *event* takes place and the athletes do their job. This is the phase that involves the most effort and stress, it lasts a short time compared to the previous phase and, in addition to the team organizing the

event, athletes and spectators also participate. A great effort is made in a short time, with hardly any time to react to any unforeseen event.

As we explain in next section, this new phase has to be accommodated in most of the elements of PM$^2$.

In Figure 1, we compare the effort diagrams of the lifecycles of a project managed with the original PM$^2$ approach (upper side of the figure) and the sports events approach (lower side of the figure).

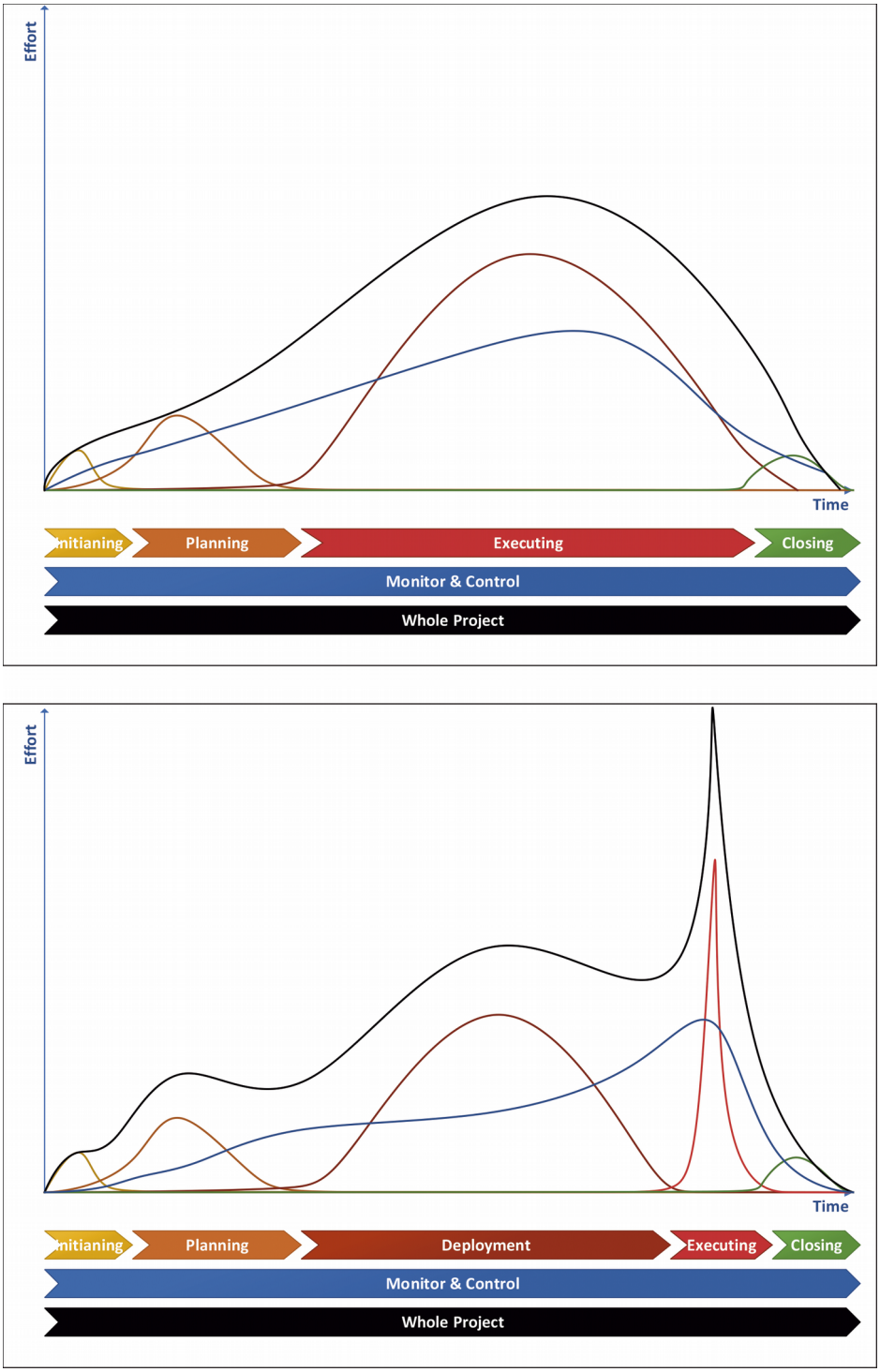


Figure 1. Comparison of the original PM$^2$ lifecycle and the sports events lifecycle

### 5.2. The Proposal for the PM² House

The "House of PM²" is a picture showing the pillars of the methodology (governance, lifecycle, processes and artefacts), what it is based on (mindsets and foundations) and what its ultimate objectives are (roof). In Figure 2, we show the "modified House of PM²" that we propose for managing sports events. It is quite similar to the PM² original one, but it has the following changes:

- The roof: It requires the delivery of solutions and benefits to what we have called the extended customer (owner, participants –players- and spectators of the event). It could be argued that those agents can be considered as stakeholders. However, we want to emphasize that they have the same "status" as customers of the sport event.

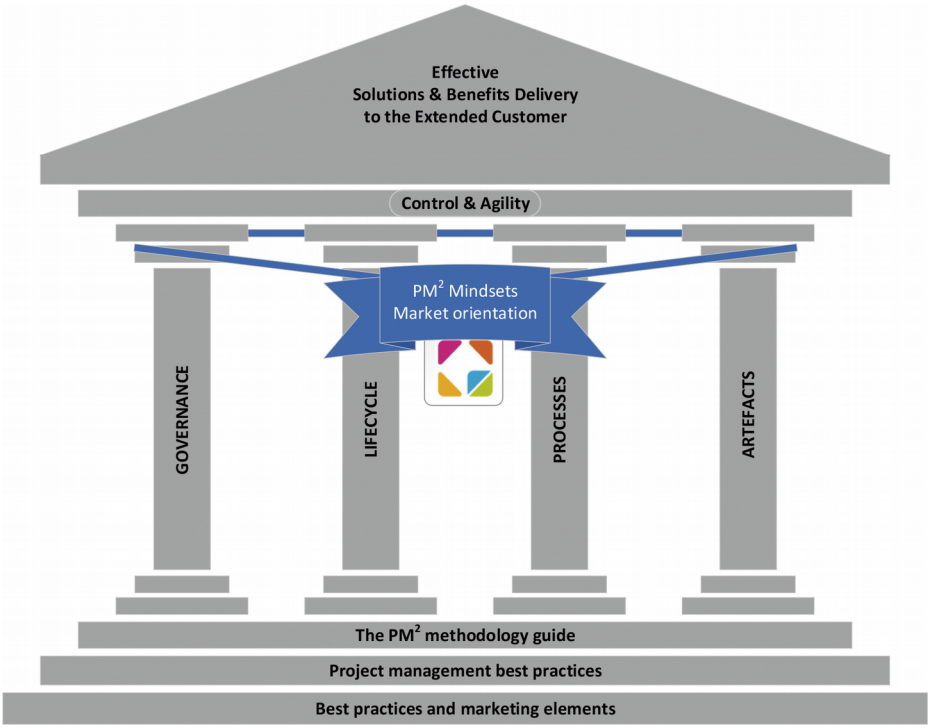


Figure 2. The PM² House for sports events. Extended from (European Commission, 2021)

- The "mindsets": All the mindsets of the original methodology are considered, but we suggest adding new ones introducing the market orientation into projects, at its various levels, and the higher the better (to production, to product, to sales, to marketing, and to holistic marketing). As we suggested earlier in this paper, we suggest that the mainstream marketing approach should work together with de project-based approach.
- The foundations: Incorporates marketing best practices and elements into projects, and this is where we introduce the concept of relative efficiency, as the indicator to achieve the objectives with the highest revenue/cost ratio to realize them, and which maximizes the overall revenue of the project.

As we have explained in the previous section, these changes have consequences for the pillars of the House of PM², in particular for the lifecycle (Figure 1) and for the governance model (Figure 3). Related to the governance model, we suggest five main changes.

First, there are layers that contain other layers, and therefore overlap. This is because the work carried out in each layer may be done by the same person, or group of people, and therefore, even if the roles are different, it will be very difficult to separate them. The less important an event is, the easier it is for the layers to overlap.

Second, we include representatives of participants, spectators, and administrations in the Business Implementation Group, as the main stakeholders to identify business requirements, accept testing of deliverables, and implement necessary organisational changes.

Third, the Project Execution Team is split into the Execution phase and the Deployment phase, from which the Project Deployment Team emerges. This is because the Deployment phase and the Execution phase are quite distinct: the first occurs before the event, and the second during the event.

Fourth, the word 'Event' is incorporated as a substitute for 'Business'. In accordance with how we have said that an event can always be considered as a project, perhaps it would be more appropriate to substitute the word 'Project' for 'Event', but we claim that it is necessary to bring the Event closer to the Performing layer.

Fifth, the Project Deployment Team is incorporated, responsible at the operational layer for carrying out the new Deployment phase of the project life cycle.

Another possible changes could be the following. The word 'Demand' is better suited to 'Requestor' and, 'Supplier' instead to 'Provider', so that we could quickly draw a parallel with the supply and demand curves, which would end up justifying the existence or disappearance of an event. This is important because it would determine the price of the event –when both curves intersect- and it would show how one event manager or project manager is better than another at acting on demand.

If there is no 'Requestor', no one would ask for an event, but the interested party as the owner of the project would carry it out. Obviously, the same person would have two different roles, but the interests would be very different when two different people or organisations are involved, because when the roles are in the same person or organisation, the latter must ensure a balance, whereas if they are different people or organisations, whoever has better negotiation tools will tip the balance in their favour.

Finally, it could be interesting that the 'Participants' and 'Spectators' of the event are also part of the Steering layer, and not only of the Performing layer. The event is by and for them, so the event should be focused on them.

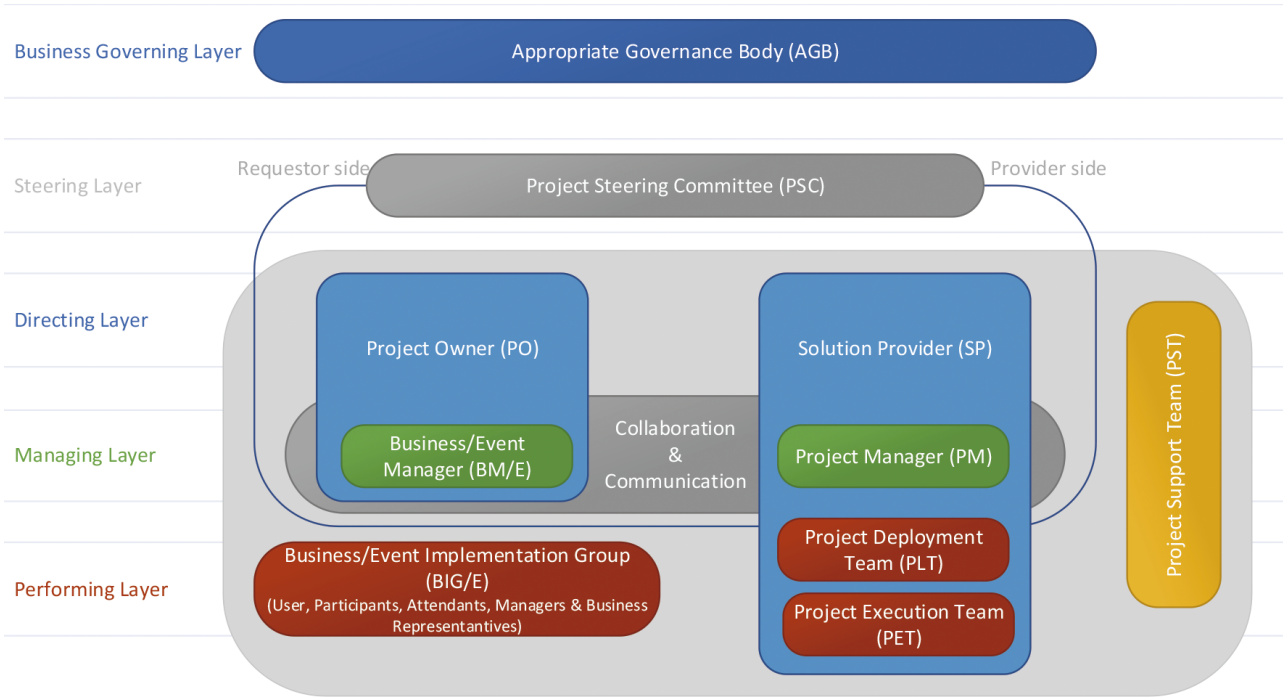


Figure 3. PM² governance model for sports events

Related to the lifecycle, other than the changes that we have already mentioned, we propose a new swimlane diagram (Figure 4). We include the new phase, to accommodate the distinction between deployment and execution

phases. The Deployment phase is driven by the project deployment team, where the execution phase is driven by the project core team (execution team). The Project Work Plan includes the Deployment work plan. We also make difference between the Project Deployment Deliverables and the Project Execution Deliverables. The former is an input of the Execution Phase and both are inputs of the closing phase.

Making the analogy with the start of a 100m sprint race (ready, set... bang!), for the participants (athletes), when the race judge says ready, this would be the 'Deployment phase', where the runners stand on their starting blocks with their hands just before the line, saying ready is the same as being at the review and approval point where the race judges check that no one is in an advantageous position with respect to the starting line (if there is anyone, the start is declared void and the race is run again), and the firing of the gun would be equivalent to the 'Execution phase' where the runners start a race that lasts a few seconds.

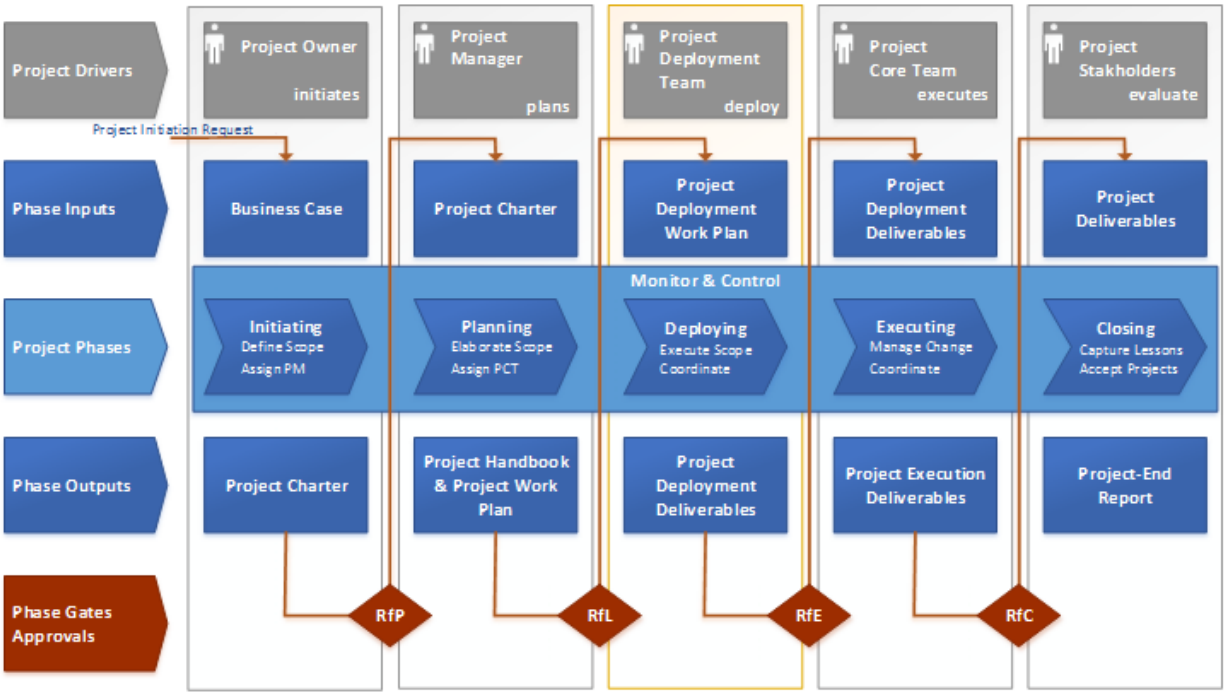


Figure 4. Swimline diagram for sports events management

Finally, related to the rest of the pillars of the House of PM², processes and artefacts. First, the processes could also apply to the new Deployment and Execution phases. However, it should be noted that the objective of these processes is different, because as depicted in Figure 4, in the Deployment phase the scope of the project is prepared, and then in the Execution phase the scope is managed. Therefore, all the processes of the Deployment phase need to take into account all the tasks of the organization of the event before the Execution phase starts. Second, the artefacts need to take into account the new Deployment phase and the redefined Execution phase and, it is necessary to add new key artefacts (Figure 4). In the Deployment phase, we add the Project deployment work plan and the Project deployment deliverables. In the Execution Phase, we add the Project deployment deliverables and the Project execution deliverables.

We have only created a new key artefact, which is the one between the deployment and execution phases –the project deployment deliverables- but we have made explicit the need to split the project work plan that is produced in the Planning phase into two very distinct parts: The Project deployment work plan and the Project execution work plan.

In addition, in order to follow the sequence of the swimlane diagram and the logic of PM², all the documentation received at the beginning of the Deployment phase and generated during the Deployment phase is transferred to those responsible for the Execution phase so that they can have it at their disposal in case they need to use it.

However, there will be two types of deliverables at the start of the Execution phase: *Executive deliverables:* those that will be used during the Execution phase (quick guides, checklists of tasks of the deployment phase with their responsible, lists of responsible with their contact forms, schedules, locations...), because which the intensity of this phase there is no time to handle more deliverables. *Rest of deliverables:* All those produced in $PM^2$ at the end of the Planning phase.

Therefore, the deliverables of the project execution will be all the deliverables of the project deployment, plus those records that have been made on the executive deliverables, plus all those contents that have been generated by the execution of the event (for instance, if there has been a retransmission by any channel, this can be recorded).

## 6. Conclusions and Further Research

In this paper, we have shown how sports events management can benefit from a project management approach. We have adapted and extended $PM^2$, the project management methodology developed by the European Commission, to manage sports events projects. In particular, the main changes of our proposal are:

- We have modified the $PM^2$ house to include the traditional marketing approach to sport management and the concept of relative efficiency. The project manager should also have a clear "sales" focus.
- We have modified the governance model, to include the concept or "extended customer" that includes the owner of the event, participants, spectators, and if it is the case, related public administrations. The new governance model layers take into account the representatives of participants, spectators, and administrations in the business implementation group, etc.
- The most relevant innovation is that we split the execution phase into two clearly distinct parts: deployment and execution; the forme being the one where the scope is prepared, and the latter being the phase in which the event is actually executed and the effort is maximized. This extension affects many other elements like the swimlane diagram or the artefacts.
- The first one the scope of the project is prepared, and in the Execution phase its scope is managed.

There are several avenues for further research that we listed in the following. Apply the proposed adaptation to empirical cases; delve on event organization materials; define and develop new artefacts; review and adapt the existing artefacts; define the best practices and marketing elements; incorporate the concept of the extended customer: Owner, participant and viewer in other domains; define and develop the guidelines to turn a project manager into an event manager, and thus make projects holistic marketing oriented; study the categorizations of sports events based on monetization and profitability; and make quantitative research of the necessary effort in the five identified phases in an event applied to different events, analyzing how effort relates to the risks that may be present in each of the phases based on the number and type of participants and spectators.

## Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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