

**University of Miskolc**

**Faculty of Economics**

**Elemér Hantos Doctoral School of Economics and Regional Sciences**

**Zoltán Rakaczki**

**Management Challenges, Impacts, and Success of Large-Scale  
International Sporting Events – A Case Study of the 2024 European  
Universities Games**

Theses of the Doctoral (PhD) Dissertation



**Scientific Supervisor:**

**Prof. Dr. Mariann Éva Somosi Veresné**

**Full Professor**

**Scientific Co-supervisor:**

**Prof. Dr. Tamás Sterbenz**

**Full Professor**

**Head of the Doctoral School:**

**Prof. Dr. Géza Tóth**

**Full Professor, Doctor of the Hungarian Academy of Sciences**

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## **1. Introduction**

The organization of international sporting events has long been among the strategic objectives defined by the Hungarian government in the field of sport (Stocker & Szabó, 2017). Within this category, multisport events stand out due to their scale and multifaceted impacts. However, given the inherent high risks involved, these impacts can be both positive and negative. The direction and extent of such impacts largely depend on the quality of event management.

Hungary hosted the 2024 European Universities Games, which introduced several innovations compared to previous international sporting events organized in the country. It was the largest international multisport event ever held in Hungary; in addition to sport, it was closely linked to higher education; and the number of participants and guest nights was almost evenly divided between the two host cities, Debrecen and Miskolc. These characteristics posed numerous challenges for the organizers while providing a compelling research context for the analysis of event management and organizational processes.

The central focus of this research was a case study of the 2024 European Universities Games. In line with the relevant literature, I presented the event's specific features and management areas, including project management, organizational and functional domains (competition and time management, venue management, participant services, logistics management, health and safety management, marketing and communication, volunteer management, and the management of supplementary programs), as well as financial management. Through a combination of descriptive and empirical approaches, I examined the event's impacts and success based on theoretical frameworks in management science and sport studies.

The Hungarian academic literature has so far lacked experiential analyses of large-scale sporting events with a higher education dimension, while the international literature only contains case-specific impact studies. This gap justified a detailed investigation of the 2024 European Universities Games. At the same time, my research goes beyond the individual case: based on the analysis, I formulated theoretical recommendations that can be generalized to event-type megaprojects. Consequently, the dissertation contributes both to filling a gap in the literature and to expanding the theoretical foundations of project management and sport management.

### **Research Objectives**

In my research, I examined the management, impacts, and success of a major international sporting event hosted in Hungary – the 2024 European Universities Games. The event can be distinguished from previous international sporting events organized in Hungary by the following characteristics:

- a. It was the largest international sporting event ever held in Hungary. The total number of participants (4,513) was complemented by approximately 800 volunteers, as well as about 1,000 referees, representatives and staff members of national and international sports federations, and other professional contributors.
- b. In both content and organization, the event was linked to two domains: sport and higher education.
- c. While in many sporting and other large-scale events some competitions or programs are hosted at different venues, in this case both the number of participants and guest nights

were almost evenly distributed between the two host cities, Debrecen and Miskolc, located about 100 kilometres apart.

- d. The traditional stakeholders of sporting events were joined by the actors of university sport, resulting in a large and diverse group of stakeholders whose interests had to be harmonized along different value dimensions.

Using a case study approach, I examined the implementation of the project, focusing on the organizational processes and management areas. My aim was to formulate findings and recommendations that could be applied in practice – specifically, in the organization of future major international sporting events or other event-type megaprojects in different fields. Although the organizers prepared professional and financial reports after the event, no comprehensive analysis of its impacts had been carried out; therefore, performing such an analysis was also defined as a research objective.

At the closing ceremony, the President of the European University Sports Association (EUSA) described the Games as the best-organized edition so far (five previous European Universities Games had been held). While the authenticity of this statement is not questioned, it can be assumed that the positive atmosphere of the closing event also influenced the assessment. The Hungarian University Sports Federation (MEFS) – the project initiator – along with the University of Debrecen and the University of Miskolc, all reported the event as a success. Therefore, the third objective of my research was to evaluate this claim from a scientific perspective, using appropriate theoretical frameworks to determine whether the event was indeed successful, and in what sense and to what extent it can be considered so.

Finally, based on the reviewed literature, primary and secondary data, and the findings of the research, I aimed to develop a methodological recommendation that could be applied more generally to the implementation of event-type megaprojects.

## **Relevance of the Research**

In Hungary, sport has been designated a national strategic sector since 2010 (Sárközy, 2017). The country regularly hosts a variety of international sporting events which, in most cases, can be regarded as successful in terms of organizational quality, public interest, and feedback from participants and international sports federations. However, there have also been instances where event budgets required additional state funding – either through amendments to the original support decisions or via supplementary governmental resolutions. In some cases, organizing committees or sports federations closing the event with a deficit had to be financially consolidated, while in others, the sustainability of related infrastructure developments proved problematic.

Based on numerous media reports, examples include the 2017 FINA World Aquatics Championships, for which the government significantly increased public funding; as well as the Hungarian Boxing Federation in 2018 and the Hungarian Tennis Federation in 2020. The credibility of these reports is reinforced by the absence of official denials, the fact that both federations received extraordinary state subsidies, and that leadership changes soon followed in each organization.

Negative examples also exist in international practice, which every host nation aims to avoid. The most well-known cases are associated with the Olympic Games. The final budget of the 1976 Summer Olympics in Montreal exceeded initial estimates to such an extent that the host

city incurred debts lasting three decades. Similarly, although the 2004 Athens Summer Olympics were successful from both a sporting and organizational standpoint, their legacy management was poorly planned: many of the newly built facilities could not be utilized after the event (Scandizzo & Pierleoni, 2018).

In the case of the 2024 European Universities Games, two higher education institutions played key roles in implementation. Consequently, the structural transformation of Hungarian higher education became an important contextual factor. Both the University of Debrecen and the University of Miskolc transitioned in 2021 from direct state maintenance to a foundation-based governance model, where ownership and management rights were transferred to public trust foundations established for this purpose. This transformation provided an opportunity for a research extension: to examine how this “model change” influenced the organization of the 2024 European Universities Games.

Moreover, Government Decree 1571/2022 (XI. 28.) transferred the preparation and execution of major sporting and state events, effective January 1, 2023, to the National Event Management Agency (NRÜ). This created a new operational framework for organizing the 2024 European Universities Games. Therefore, I considered it essential to briefly present both the previous and the new organizational models used in hosting international sporting events in Hungary.

## 2. Research Process

My research was conducted within one of the applied human sciences, the field of management theory, specifically focusing on project management. As the examined phenomenon was a sporting event, the study also relates to the domain of sport management. This field can be regarded, on the one hand, as an applied branch of management theory – since it deals with the organization and operation of sport, as well as the management of sports clubs and facilities – and, on the other hand, as a discipline that combines sport sciences with other academic fields. In addition, I considered it important to provide brief overviews of two related areas: impact assessment and the structure, functioning, and competition systems of university sport.



Figure 1. The research process

*Source: author's compilation*

Following the review of the relevant literature, I conducted a comparative analysis to contextualize the examined event. Alongside the 2024 European Universities Games, I selected four sporting events of similar scale for comparison: the previous edition of the European Universities Games; the most recent large-scale and significant international sporting event hosted in Hungary; and two Universiades, which are also multisport events organized within

the framework of university sport. I defined five analytical dimensions for comparison: organizational structure, mode of financing, inter-organizational cooperation, participant-related and statistical data, and the overall significance of the event.

The presentation and analysis of the 2024 European Universities Games were carried out through a case study, which I structured into four main parts. In the first part, I introduced the event and its key characteristics, and – following Masterman's (2009) model – described the organizational process in chronological order. In the second part, I analyzed the various management areas of the event, including project management, financial management, and the management of specific organizational and functional fields. This section also addressed two major contextual factors that posed challenges for event management: the changes in the regulatory environment and the transformation of Hungarian higher education. The third part of the case study focused on examining the impacts of the 2024 European Universities Games, while the fourth part analyzed its success.

Based on the relationships identified through the case study, I proposed a methodological framework for the implementation of event-type megaprojects. Subsequently, I formulated the new or novel findings of the research in the form of theses. In the final part of the dissertation, I summarized the research results and presented the potential directions for future research in both Hungarian and English.

### 3. Applied Methodology

In my research, I examined the 2024 European Universities Games as a complex project event. My aim was not only to provide a detailed description of the event, but also to draw conclusions and formulate recommendations that could be applied to other international sporting events or event-type megaprojects. Therefore, according to Stake's (1995) typology, the study is most closely related to the instrumental case study approach. A significant part of the research is descriptive in nature – including the presentation of the event's general and Miskolc-related management functions, as well as the examination of its impacts and success. At the same time, the study also includes the formulation of a model-based recommendation, meaning that the case study forming the methodological core of the research represents both descriptive and interpretive approaches, in line with Yin's (2009) typology.

Accordingly, my research was primarily qualitative in nature, although it also included quantifiable data. As part of the case study, which formed the backbone of the research, I used both qualitative methods (document analysis and structured in-depth interviews) and quantitative methods (survey-based data collection).

Within the qualitative data collection, I conducted in-depth interviews to explore respondents' deeper emotions, motivations, and experiences (Babbie, 2003). This method allowed the data collection to go beyond superficial information and uncover deeper relationships and meanings. The use of in-depth interviews made it possible to achieve a context-embedded understanding of the studied phenomenon, complementing the information obtained from other data sources.

For the analysis of the interviews, I applied the grounded theory qualitative research method. The foundations of this approach were laid by Glaser and Strauss (1967), who emphasized that researchers should systematically and inductively derive theoretical conclusions from observations and interviews. The grounded theory methodology distinguishes several interrelated stages of coding.

During open coding, the textual data (e.g. interview responses) are broken down into smaller meaning units, which are assigned codes—labels that identify key concepts or phenomena. This is followed by axial coding, during which open codes are compared, and their relationships are examined. Related codes are grouped into categories and subcategories, revealing links such as causal relations, contextual associations, or consequences. Finally, selective coding integrates the most significant categories into a comprehensive theoretical framework, identifying a core category that represents the central concept of the emerging theory. In the constructivist grounded theory interpretation proposed by Charmaz (2006), the resulting theory is co-constructed through the interaction between the researcher and the data, rather than simply emerging passively from it. Therefore, researcher reflexivity and consideration of context play essential roles in the analytical process.

The coding and analysis were carried out using Microsoft Excel, which, given the manageable size of the dataset (four structured interviews), allowed transparent, systematic, and interpretable data organization and analysis – providing results as accurate and reliable as those produced by specialized qualitative research software.

The survey data were processed using the Jamovi statistical software package, which enabled the identification of complex relationships between variables and the testing of statistical hypotheses. For data analysis, the following multivariate statistical methods were applied:

- Descriptive statistics (means, standard deviations, frequencies)
- Hypothesis testing using the Mann–Whitney U test.

The Mann-Whitney U test is a non-parametric statistical procedure suitable for comparing questionnaire responses between two independent groups (Conover, 1999; Nachar, 2008). This method is particularly useful when the data are not normally distributed, as it does not require the assumption of normality and can therefore be reliably applied to ordinal or asymmetrically distributed data (McKnight & Najab, 2010; Siegel & Castellan, 1988). Essentially, the Mann-Whitney test serves as the non-parametric alternative to the independent-samples t-test. The test computes the “U statistic” based on ranked values, allowing assessment of whether there is a significant difference between the two group distributions in terms of medians (Conover, 1999; Sheskin, 2003).

As I participated in the entire life cycle of the event, I had first-hand knowledge of its details, organizational processes, challenges, and outcomes. Consequently, my research primarily relied on primary data. Secondary data were collected through document analysis, as well as through the surveys and interviews conducted during the study.

#### 4. Theoretical Background of the Research

##### *The Concept and Domains of Sport Management*

One of the first widely accepted definitions of sport was formulated by the European Union in the European Sports Charter (1997): “All forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships, or obtaining results in competition at all levels.” In Hungary, sport is interpreted primarily as an activity in Act I of 2004 on Sport, which defines it as: “A physical exercise or an activity in an intellectual sport carried out according to specific rules, either freely or in an organised form, or as a competitive activity during leisure time, serving to maintain and develop physical fitness and mental performance.”

The literature approaches sport management from two main perspectives: sport management as an independent field, and the management of sport, meaning the application of general management principles and tools within the context of sport (Lachance et al., 2023). According to Chalip (2006, p. 3), “If sport management is to be more than the mere application of general management principles to the context of sport, then there must be something within sport that makes it distinctive.” Proponents of the first perspective argue that the independence of sport management stems from a unique body of knowledge derived from sport-specific theories (Chalip, 2006; Costa, 2005; Mills, 2021; Newman, 2014; Pitts, 2001; Smith & Stewart, 2010; Stewart & Smith, 1999; Zeigler, 1987). By contrast, the second perspective views the management of sport as a lens through which sport phenomena can be examined, focusing on the application and refinement of fundamental concepts and theories originating from the broader field of general management (Doherty, 2013a, 2013b; Frisby, 2005; Gerrard, 2015; Slack, 1996; Stewart, 2014).

Table 1. Different Approaches to Sport Management

| Author                  | Definition                                                                                                                                                                                                         |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sterbenz & Géczi (2023) | The aim of sport management is to create opportunities for more and higher-quality participation in sport.                                                                                                         |
| Pitts & Stotlar (2007)  | Sport management involves the study and practice of all activities, processes, and organisations related to the production, organisation, or development of sport-related business and products.                   |
| Matsuoka (2010)         | The management of business activities related to the participation of athletes and/or the involvement of spectators.                                                                                               |
| Bednarik et al. (1998)  | The primary tasks of sport management include the coordination of sporting events, operation of facilities, management of human resources, finances and social relations, as well as the coordination of athletes. |
| Bartoluci (1997)        | Sport management is a process that involves the coordination of all factors required to achieve defined objectives.                                                                                                |
| Chelladurai (1994)      | Sport management refers to the coordination of various resources, technologies, processes and ad hoc situations to ensure efficient operation and the provision of sport-related services.                         |

*Source: author's compilation*

Every managerial activity, including sport management, shares the fundamental objective of ensuring the effective use of available resources to achieve organisational goals. However, sports leadership represents a special field within management sciences, where the rapid flow of information and continuous change make managerial approaches more practice-oriented than theory-driven (Kelemen et al., 2018). Sport management is therefore an interdisciplinary field that combines management and organisation theory with the relevant branches of sport sciences – such as sport economics, sport law, sport marketing, sport sociology, sport psychology, and sport pedagogy – depending on the specific context. Consequently, a sport manager must possess and integrate knowledge from multiple disciplines (Sterbenz & Géczi, 2023).

The tasks of a sport manager can generally be divided into two main categories: general management tasks and sport-specific tasks. According to Mintzberg (2010), general management roles fall into three categories: interpersonal, informational, and decisional roles. The sport-specific tasks, in contrast, depend on both the manager's position within the organisation (top management, middle management, or operational level) and the segment of the sports sector in which the organisation operates.

### *Classification of Sporting Events and the Examination of Their Impacts*

According to the definition by Fazekas and Harsányi (2011, p. 219), “An event is an organised, purposeful, and occasional social gathering held at a specific place and time.” As Rofner (2009) notes, the main criteria for distinguishing between different types of events include their size, duration, occasion, frequency, and the extent of their economic benefits.

Sterbenz and Géczi (2023) distinguish between sport competitions, sport programmes, and sport events. Sport competitions are sport-related events whose primary purpose is competition itself. Sport programmes are also events centred around sport, but their main objective is not, or only partially, competition. Sport events, in turn, encompass the distinctive features of both sport competitions and sport programmes. One particular type of sport event is the international sporting event, which may take the form of an invitational international competition, a European Championship (senior or youth), a World Cup, a World Championship, the Olympic Games, or the Paralympic Games.

Máté (2017) classifies international sporting events according to the following dimensions:

- Competitive sport or recreational
- Single-sport or multisport
- Individually initiated or supported by a key stakeholder
- Annual or cyclical
- One-off or recurring venue
- Part of a series or returning event.

Stocker and Szabó (2017) interpret the impact mechanism of international sporting events organised in Hungary along six dimensions: professional, sport policy, social, economic, technological, and environmental impacts (abbreviated as SPSETE). The objectives associated with international sporting events primarily focus on ensuring that these impacts are realised – except in the case of environmental impacts, where the goal is to minimise negative effects and to develop effective management responses to mitigate them. This approach implies that the success of international sporting events can be understood as a function of their impacts.

## *Project Management*

A project can be defined as any activity within an organisation that represents a unique and complex task with a clearly defined timeframe (start and end) and budget, aimed at achieving a specific result or goal. As project management has evolved, several perspectives have emerged: a project can be interpreted as a tool for achieving an organisation's strategic objectives; as a temporary organisation established for a given period; or as a process for completing a particular task. According to Görög (2003), a project is a temporary organisation whose activities are directed towards completing a unique and complex task, with specified deliverables, time, and cost constraints. Kerzner (2022) similarly defines a project as a sequence of activities and tasks undertaken with a specific purpose, executed under defined conditions, focusing on business value creation. It has specified start and finish dates, a cost framework, employs both human and non-human resources, and has a multifunctional nature.

Görög Mihály refers to projects with fixed implementation times as “event-like projects” (Görög, 2003). In my doctoral dissertation, however, I consistently used the term “event-type project”, which I consider to more accurately reflect the typological classification of such projects.

Project management involves the planning, organising, directing, and controlling of a company's resources in order to achieve short-term objectives related to a specific goal. It represents a sequence of activities through which the project's objectives—regarding schedule, cost, and technical performance—are achieved in collaboration with project team members and other stakeholders (Cleland & Ireland, 2006). The project management process originates from general management, yet it incorporates distinct project-specific approaches. While general management carries corporate-level responsibility, project management focuses on the targeted control and achievement of goals within specified time and resource constraints.

According to Görög (2013), project management is a leadership activity that concentrates the available information, resources – especially the project team as a temporary organisation – and project management tools toward achieving a specific project outcome within defined time and cost limits. As project activities differ substantially from regular operational processes in both duration and outcome, such unique and temporary work requires specialised management tools and methods (Veresné Somosi, 2014). The fundamental functions of project management include planning, organising, coordinating, directing, and controlling.

The traditional managerial functions – planning, organising, directing, coordinating, and controlling – apply equally to project management; however, due to the specific characteristics of projects, project managers require different managerial competencies from those used in general management. Görög (2003) categorises these competencies into technical, human, and project-specific skills. Human skills refer to the abilities that enable project managers to communicate and collaborate effectively with organisational leaders and project team members. Technical skills encompass professional knowledge derived from the content of the project (e.g. engineering, finance, or operations). Project-specific management skills include the understanding and application of project management tools used to direct and lead the project execution process. According to Cleland (1994), project-specific management competencies consist of three key elements: knowledge – mastery of the tools and methods of project management; application skills – the ability to apply this knowledge in practice; and attitude – the project manager's approach to the project's role within the organisation.

The Project Management Institute (PMI), one of the leading international professional bodies in the field, distinguishes five phases within the project life cycle in its PMBOK® Guide (6<sup>th</sup> edition, 2019): project initiation, project planning, project execution, project monitoring and control, project closure.

The objectives of a project are defined through the combination of three interdependent elements: time, cost, and scope (deliverable) – a relationship commonly known as the traditional project management triangle. Projects utilise resources that incur costs, and organisations aim to minimise these costs; hence, maintaining the defined budget is a key objective. Each project must have a clear start and end point – that is, a specific timeframe for achieving its objectives. Exceeding the deadline, or completing the project prematurely, generally results in additional costs, though for different reasons in each case.

The coordination of project-related activities is ensured by the project organisation. Veresné Somosi (2014) highlights that different project organisational structures possess varying coordination capabilities; thus, the appropriate project structure plays a decisive role in the project's success. According to Mantel et al. (2001), three fundamental types of project organisations can be distinguished:

- Project organisations based on a linear-functional structure
- Project-oriented project organisations
- Project organisations based on a matrix structure.

Görög (2003) refers to the stakeholders of a project as interest groups. He defines project stakeholders as any individual or community that has an interest in the implementation of the project or the operation of its final outcome. He distinguishes between internal stakeholder groups (within the project-owning organisation) and external stakeholder groups (outside the project-owning organisation). Examples of both internal and external interest groups are presented below.

### *Megaprojects*

Projects that are extremely complex and consist of several subprojects are commonly referred to as megaprojects or superprojects (Görög, 2003). These subprojects may include investment, research and development, or service-related components. Megaprojects are generally created to implement unique processes with significant (often societal) impact.

Megaprojects often operate under different rules and guidelines compared with smaller projects. They typically require large human resources, sometimes for short and intensive periods. During the various phases of the project life cycle, continuous organisational restructuring may be necessary, and the forms of matrix and project-based organisations can be applied alternately. Megaprojects are frequently associated with special governmental, municipal, or institutional structures.

Müller (2009) emphasises that megaprojects require government-level coordination, particularly when financed from public funds and when social acceptance is of critical importance. Flyvbjerg et al. (2003) point out that megaprojects often serve political purposes, which makes transparency and the distribution of decision-making responsibility especially critical factors.

According to Kerzner (2022), several challenges are characteristic of megaproject management. Typically, there is insufficient local labour availability, along with shortages of skilled workers and materials. These, in turn, may lead to the following consequences:

- The organisation assigns its best employees to the megaproject, thereby endangering the progress of smaller projects.
- Long-term overtime becomes necessary, resulting in lower efficiency and dissatisfied employees.
- Once the project falls behind schedule, management tends to hire additional administrative staff to support it.
- After the project is completed, the entire organisation becomes oversized, creating a dependency on new megaprojects to sustain the existing workforce.

In the case of the 2024 European Universities Games, which formed the focus of my research, different scientific fields use different terminology to describe this type of large-scale initiative. In sport science, the terms mega event or mega sport event are used; in project management, megaproject or superproject; while in social marketing, the term major event is more common.

Although these definitions differ in wording, there is no substantial difference in content: all three terms refer to the same type of complex, large-scale, and high-impact event, expressed through the disciplinary language of each respective field.

### *Project Success*

In the Hungarian academic literature, the generally accepted approach to analysing project success is Mihály Görög's hierarchical model. The model consists of three interdependent levels of success, where each higher level inherently includes, to some extent, the achievement of the lower-level success criteria, although each level can also be interpreted independently (Görög, 2003). The levels of the hierarchical model are as follows:

- Level 1: Primary project objectives – time, cost, and quality.
- Level 2: Satisfaction of the project-owning organisation – strategic alignment.
- Level 3: Satisfaction of the stakeholder groups involved in the project.

In the international literature, a widely used perspective is Kerzner's (2022) multidimensional interpretation of project success, which distinguishes between primary and secondary levels of success. The primary level refers to success as perceived by the client, while the secondary level reflects the internal organisational benefits resulting from the project. According to Kerzner, successful project management means consistently executing projects in a way that meets time, cost, and quality expectations while efficiently and effectively using resources, and providing real value and benefits to the client. However, he also emphasises that it is rare for a project to be completed without compromises or adjustments to the constraints of time, cost, or quality.

### *Agile Project Management*

As organisations reach a certain level of maturity in project management, a transition from formal to more informal approaches typically occurs. According to Kerzner (2022), this evolution is characterised by three main tendencies: a reduction in the need for excessive documentation, growing trust in the project team's ability to make sound decisions, and a shift towards a less formal yet more efficient mode of operation. To support such informal project management approaches, various agile techniques have emerged – among them, agile project management. There are multiple forms of agile project management, most of which aim to

mitigate the common shortcomings of traditional project management, such as rigid processes, excessive bureaucracy, inflexible documentation requirements, and slow response times to changes.

Table 2. Comparison of traditional versus agile project management

| Factor                  | Traditional Project Management                      | Agile Project Management                       |
|-------------------------|-----------------------------------------------------|------------------------------------------------|
| Structured focus        | Tools and processes                                 | People                                         |
| Completion focus        | Paperwork and contractual documentation             | Results and deliverables                       |
| Leadership style        | Authoritarian using the pyramid leadership approach | Participative using self-managed team concepts |
| Amount of documentation | Extremely heavy                                     | Minimal                                        |
| Trust                   | Mistrust may prevail                                | Trust                                          |
| Customer interfacing    | Negotiation                                         | Collaboration                                  |
| Customer feedback       | Minimal, perhaps only at project termination        | Throughout the project                         |
| Project planning        | Planning prior to execution                         | Iterative planning                             |
| Project direction       | Follow the plan exactly                             | Respond to changes                             |
| Project solution        | Follow the contractual requirements exactly         | Constantly evolving solutions                  |
| Deliverables            | Single release at the end of the project            | Multiple releases of a usable product          |
| Delivery                | Often a late delivery                               | Shorter delivery time                          |
| Unused features         | Too much “gold-plating”                             | Minimal                                        |
| Number of features      | Too many                                            | What the client needs                          |
| Acceptance              | Often high rejection of deliverables                | Minimal number of rejected deliverables        |

*Source: Kerzner (2022, p. 307)*

The essence of agile project management lies in implementing projects in accordance with the four core principles of the Agile Manifesto (2001). However, traditional project management methods should not be entirely disregarded. Its fundamental objective is to ensure customer satisfaction through continuous and frequent feedback, achieved through close collaboration between the client and the supplier, enabling the project to respond quickly to emerging needs and changes. Traditional project management follows a prescriptive approach, with a well-defined project scope and sequential life cycle phases, where work progresses step by step in a linear order. The goal in such an approach is to ensure that the deliverables remain unchanged throughout the project. In contrast, agile project management is iterative in nature. Its aim is to deliver results as quickly as possible through continuous development cycles, allowing for flexibility and adaptation during the implementation process.

## 5. Research Findings

### *The Pyramid of European University Sport*

For the purposes of my research, I considered it important to examine the relationship between European university sport and Hungarian university sport. I drew on the European sport pyramid developed by Gulyás et al. (2023), which is shown on the left side of Figure 2. Next to it, I constructed the pyramid of European university sport, indicating the connections between the two systems.

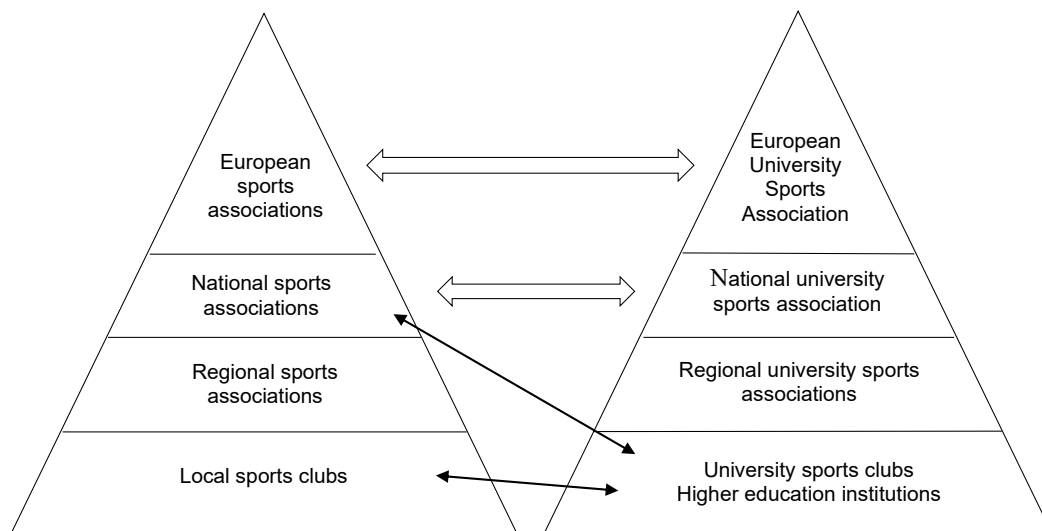


Figure 2. Pyramid of European sports and university sports  
*Source: Author's compilation based on Gulyás et al. (2023)*

At the top of the European university sport pyramid stands the EUSA. The aim and mission of EUSA are to promote the complementary values of sport and the academic spirit. Its key objectives include ensuring the quality of its sporting events (the European Universities Games and the European Universities Championships), enhancing the organisation's reputation, supporting the development of existing national university sports associations, and strengthening relationships among universities and students through the European university sports movement.

The members of EUSA are the national university sports associations, of which the MEFS is the Hungarian member. Applications to host an EUSA event are submitted by MEFS, and in the event of a successful bid, a tripartite agreement is concluded between EUSA, MEFS, and the Organising Committee. Although in the past there were several, at present, apart from the Budapest University Sports Federation, Hungary has no regional university sports federations, whereas in other countries (e.g. Poland) they play a significant role. Hungarian higher education institutions and university sports organisations are members of MEFS.

The following relationships were identified between the European sport pyramid and the European university sport pyramid:

- EUSA develops its competition system in close cooperation with the respective European sports federations, maintaining a formal relationship between them.
- The relationship between national sports federations and national university sports federations (through national university championships) is equally formal, mirroring

that between EUSA and the European sports federations (through the European Universities Games and Championships).

- Local university sports organisations are also members of national sports federations, and at the same time form part of the lower level of the European sport pyramid, as they are classified as local sports clubs.
- In the case of regional federations, such formal links do not exist. These bodies are typically organised or represented on a territorial basis, operating as parts of the national sports or university sports federations, with varying degrees of autonomy and authority. Both European sports federations and local sports clubs maintain their formal relationships primarily with the national sports federations.
- Higher education institutions participate in the competition systems of both EUSA and the national university sports federations, but they are not members of national sports federations.

### *Findings of the Comparative Analysis*

The evaluation of major international sporting events is not carried out according to a uniform set of criteria; both the indicators used and the interpretation of data may vary considerably. Impact studies may examine direct, indirect, or induced economic impacts, as well as complex, multi-dimensional effects, each within different geographical scopes. One reason for this variability is that, due to their high cost, such studies are often commissioned by specific stakeholders. The total budget of mega-events can generally be divided into organisational and investment budgets. The organisational budget is largely financed by public funds, though other sources of revenue also appear, and most of these expenditures flow into the local economy. The investment budget, on the other hand, is typically funded by state support and is almost entirely spent at the host location. Hosting such events often requires government-level decision-making, and therefore the formal integration of the government into the organising structure can support the successful implementation of the project in several ways. Among the three types of events analysed, the FISU World University Games (formerly Universiade) exhibit the broadest social impact, while the World Athletics Championships stand out in terms of international image building. The European Universities Games, in turn, represent more than a sporting competition: they also play a significant role in education, culture, and community development.

### *Identification of Event Stakeholders*

To analyse the stakeholders of the event, I used both a Venn diagram and a stakeholder power-interest matrix. By combining these two methods, I visualised the event's stakeholders in Figure 3. The size of each bubble indicates the extent to which the given stakeholder group was connected to the project. Stakeholders marked in dark blue were those that had the greatest influence on the project and played a key role in its implementation. Those marked in green had a significant impact on the project; yellow represents those who played an important organisational role; and light blue denotes the target groups whose satisfaction was a determining factor in the project's overall evaluation.

The EUSA granted the hosting rights of the European Universities Games—which form part of its competition system—to the MEFS, which had submitted a joint bid with the University of Debrecen and the University of Miskolc. In the domestic organisation, the Government of Hungary was represented by the NRÜ. Although MEFS remained the contractual partner and the official liaison with EUSA, under national regulations the event formally fell within the

competence of NRÜ. The International University Sports Federation (FISU) appears among the stakeholders not because EUSA is one of its continental bodies, but because EUSA must coordinate its event calendar with that of FISU, and the European Universities Games also represent competition for FISU's World University Games. The sports clubs of the two host universities played a crucial role both in the organisation and in the participation of the host institutions, since a large proportion of the athletes from Debrecen and Miskolc are members of their respective university clubs. The national sports federations of the 18 disciplines involved also took an active part in the organisation of their respective competitions. The event also relied on municipal facilities and services, making the municipalities of Debrecen and Miskolc (indicated as such in the figure) important partners that supported the Games in several ways. At the centre of the event were, naturally, the participants themselves. The volunteers played an essential role not only in the operational organisation but also in contributing to the positive atmosphere and perception of the event. They were personally motivated to gain organisational experience, build connections, and practise foreign language skills. Other stakeholders included the suppliers and contractors performing various organisational tasks, as well as the media outlets covering and broadcasting the event. The students of the two universities and the residents of both host cities were connected to the Games in numerous ways—whether as spectators, or through encounters with participants and organisers at university and city venues. Finally, the local sports clubs became stakeholders through their athletes, their involvement in sports-related tasks, or by benefiting from the legacies of the event, such as infrastructure developments.

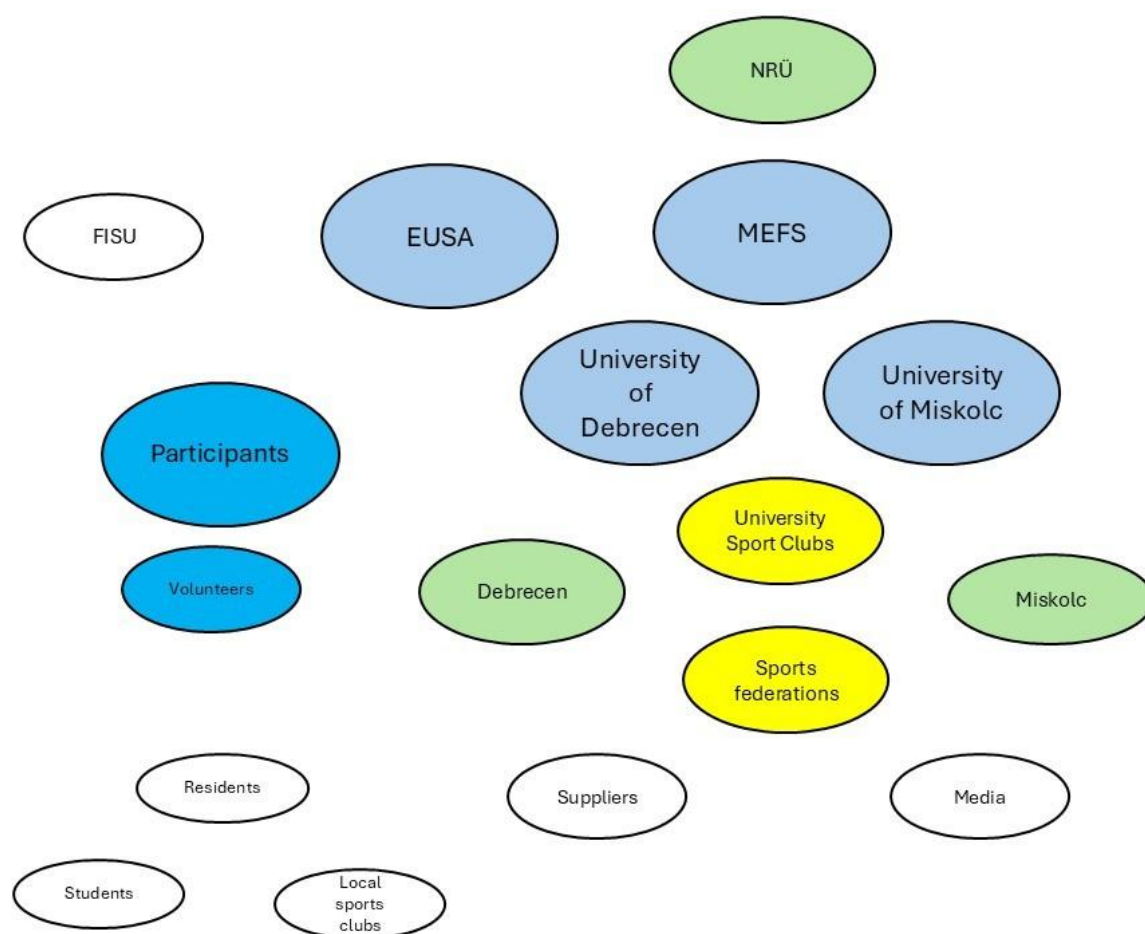


Figure 3. Stakeholders of the 2024 European Universities Games  
*Source: author's compilation*

### *Impacts of the Event*

The event generated professional, sport policy, technological, economic, social, and environmental impacts. From a professional sport perspective, Hungarian participation and performance were outstanding, particularly in relation to university sport and the University of Debrecen. In terms of sport policy, Hungary's presence within international university sport diplomacy was strengthened, and the MEFS improved its position both domestically and internationally. The economic impacts were primarily realised through infrastructural developments, the involvement of local service providers, and the generation of local consumption. On the technological side, the most significant lasting outcome was the mobile application developed specifically for the event. The social impacts included the enhancement of institutional image, the accumulation of organisational know-how, and the social benefits derived from the implemented infrastructure developments. From an environmental perspective, sustainability initiatives were integrated into the organisation of the event and had a positive awareness-raising effect.

### *Success of the Event*

The success of the event was first assessed using Görög's (2003) hierarchical model. When evaluating the primary project objectives, the actual values of the individual parameters were compared to their revised (updated) targets. Accordingly, the analysis considered the reduced technical content adopted in 2023 (the organisation of 18 sports instead of 21) and the financial structure and framework established under the revised task allocation in March 2024. Based on these parameters, it was concluded that the project management team successfully delivered the event within the approved budget, in full compliance with EUSA's requirements, and in several cases even exceeding expectations, thereby achieving high-quality implementation. The time parameter was fixed due to the nature of the project.

The project-owning organisations included EUSA, MEFS, the University of Debrecen, and the University of Miskolc. According to the in-depth interviews, the leaders responsible for the strategic management of the event within all four organisations considered it to be successful. In addition, satisfaction surveys conducted among the leaders of MEFS and the two universities provided a more objective indication of the event's alignment with their respective strategic objectives.

Among the stakeholder groups, the most important were the participants (athletes and officials), as they were the primary users of the project outcomes. Two surveys—one general and one focused on services—were used to measure participant satisfaction. Although neither survey was statistically representative, both indicated that participants were generally satisfied with the event, particularly in terms of the services received and the overall experience. Based on the in-depth interviews, it can be stated that the EUSA, MEFS, University of Debrecen, and University of Miskolc were all fully satisfied with the project; several interviewees made specific comments emphasising this. The FISU also benefited indirectly from the event's success, as the achievement of its continental organisation (EUSA) further strengthened the university sports movement in Europe. From the perspective of NRÜ, the government's event management agency, the project fulfilled its statutory responsibilities. For Debrecen and Miskolc, the event generated tangible local benefits, including revenues from service utilisation and local taxes (e.g. business and tourism tax), as well as the enhanced visibility and reputation of both cities. The university sports clubs of the two host institutions and the national sports federations of the sports involved were directly affected, both during the implementation process and in the

project outcomes. The event provided domestic competition opportunities for university athletes and representatives of the sports disciplines concerned, while also serving as an excellent platform for development and promotion within these sports. The sports and other infrastructural developments achieved through the project had positive effects on students, residents, and local sports clubs alike. The organisers paid special attention to the recruitment and training of volunteers, and many students from both universities participated as athletes, volunteers, or supporters, gaining valuable experiential learning opportunities.

The evaluation of success was also carried out according to Kerzner's multidimensional model. Table 3 systematically applies Kerzner's success criteria, interpreting each one in the context of the event. The results demonstrate that, according to this framework, the 2024 European Universities Games can likewise be regarded as successful, both in terms of primary and secondary success criteria.

Table 3. Evaluation of the Event's Success Based on Kerzner's (2022) Model

|                                                                |                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Primary Success Criteria:</b>                               |                                                                                                                                                                                                                                                                               |
| Completion within the set timeframe                            | The event date was fixed, and implementation was carried out according to the planned schedule.                                                                                                                                                                               |
| Adherence to budgetary constraints                             | The revised project budget was adhered to throughout implementation.                                                                                                                                                                                                          |
| Fulfilment of quality requirements                             | The EUSA's regulations and standards were fully met, and in some organisational areas even exceeded.                                                                                                                                                                          |
| Client acceptance and approval                                 | In this context, the clients were the EUSA, MEFS, the University of Debrecen, and the University of Miskolc. Based on the in-depth interviews and satisfaction surveys, the project was accepted by all of them, and the reports were approved.                               |
| <b>Secondary Success Criteria</b>                              |                                                                                                                                                                                                                                                                               |
| Further assignments from the same client                       | The successful implementation of the event increases the likelihood of future bids and hosting opportunities, both nationally and internationally. The EUSA Secretary General explicitly indicated that he would be pleased to see the event return to Hungary in the future. |
| Use of the client's name as a reference in corporate materials | The EUSA – and likewise the FISU – acknowledged the event, which can serve as a positive reference in future bids and professional communications.                                                                                                                            |
| Commercial exploitation of the project outcome                 | The nature of the project does not allow for commercial utilisation of its outcomes. However, the event generated direct economic impacts through the organising committee's expenditure, participant consumption, and related investments.                                   |
| Minimal or mutually agreed changes in project scope            | The reduction in the number of sports and the redistribution of tasks were made by mutual agreement and did not cause conflict among the partners.                                                                                                                            |
| Without disrupting the organisation's core activities          | The implementation of the event did not hinder the organisational operations of the MEFS or the two universities; on the contrary, it stimulated several developments.                                                                                                        |
| Without altering corporate culture                             | The event did not result in changes to organisational culture, although it did contribute to an increased willingness to cooperate.                                                                                                                                           |
| Without violating safety regulations                           | The approved safety plan was fully observed throughout the event, and no safety incidents occurred.                                                                                                                                                                           |
| Ensuring operational efficiency and effectiveness              | Despite crisis situations caused by resource shortages and organisational restructuring, tasks were completed efficiently with the active involvement of local stakeholders.                                                                                                  |

|                                                                   |                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compliance with occupational safety and environmental regulations | No breaches of occupational safety or environmental regulations were reported. The organisers implemented several measures to reduce the environmental impact of the event.                                                                                                                    |
| Maintaining ethical conduct                                       | No ethical irregularities were identified during the organisation; transparency and cooperation characterised the processes.                                                                                                                                                                   |
| Ensuring strategic alignment                                      | Strategic alignment was achieved among the project-initiating organisations, as confirmed by in-depth interviews and satisfaction surveys.                                                                                                                                                     |
| Maintaining corporate reputation                                  | Not only was reputation preserved, but it was also strengthened for the EUSA, MEFS, and the two universities. The organisation received positive professional feedback; participants expressed satisfaction, and the event's media coverage contributed to image building and value promotion. |
| Maintaining good relations with regulatory authorities            | Legal compliance was ensured throughout the project cycle. Financial reporting of resource use was completed satisfactorily, and cooperation with the Government and various authorities during implementation was appropriate.                                                                |

*Source: author's compilation*

## 6. Conclusions and Recommendations

Based on the reviewed literature, the comparative analysis, the case study, and the evaluation of impacts and success, I synthesised a set of methodological conclusions that can be effectively applied to event-type megaprojects.

### *Methodological Framework Model*

In the first step, I formulated the requirements that the model must meet. These are built on three pillars: the characteristics of megaprojects, the methodologies most applicable to megaprojects, and the requirements derived from the empirical findings of the research. In the next step, I identified the main activity groups and defined their content.

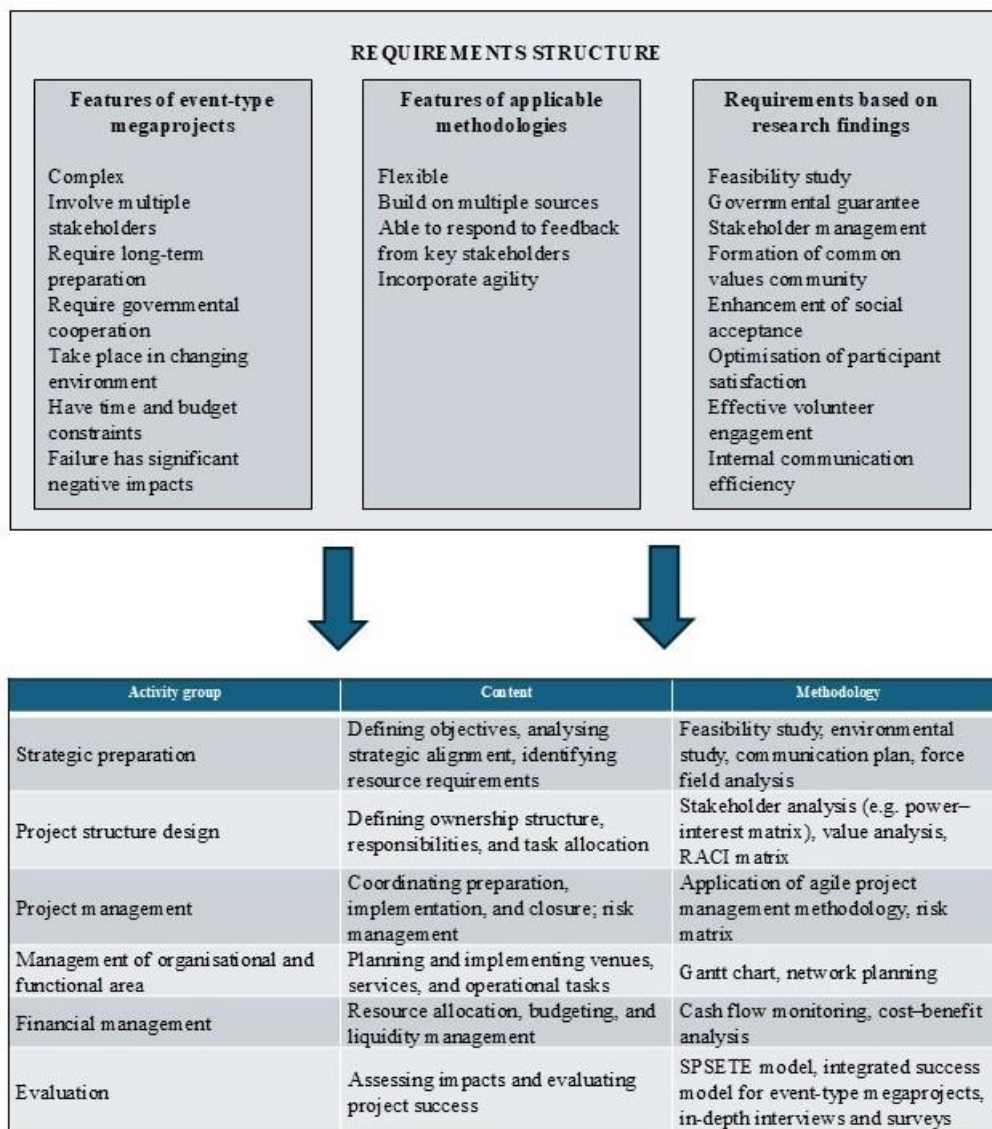


Figure 4. Methodological framework model for the implementation of event-type megaprojects

*Source: author's compilation*

In the next step, I defined the activity groups and their corresponding content areas. The activity groups of the developed framework model are as follows: strategic preparation, establishment of the project structure, project management, management of organisational and functional areas, financial management, and evaluation.

Finally, I identified the methodological tools required within each activity group to ensure the successful implementation of an event-type megaproject. The methodologies corresponding to each activity group are as follows:

- Strategic preparation: feasibility study, environmental analysis, communication plan, force field analysis.
- Establishment of the project structure: stakeholder analysis (e.g. power–interest matrix), value assessment, RACI matrix.
- Project management: application of agile project management methodologies, risk matrix.
- Management of organisational and functional areas: GANTT chart, network planning.
- Financial management: cash-flow monitoring, cost–benefit analysis.
- Evaluation: SPSETE model, integrated success model for event-type megaprojects, in-depth interviews, and surveys.

A key insight of the research was the effective application of agility across the different methodological approaches. The proposed framework model is illustrated in Figure 4.

### *Success Model*

The strength of Kerzner's (2022) multidimensional model lies in the fact that it interprets project success also in terms of the internal performance of the implementing organisation. However, its applicability to event-type megaprojects is limited. Firstly, the model does not account for participants, as its notion of clients refers to the project owners or commissioning organisations. Participants, by contrast, are external stakeholders who do not take part in commissioning the project or in shaping its organisational structure. Secondly, the model assumes that the project is implemented within a single organisation, and therefore does not consider a situation that is typical for event-type megaprojects—namely, when one or more owners establish a separate organisation specifically for project delivery. For these reasons, while Kerzner's success criteria can be interpreted and applied to certain dimensions of the 2024 European Universities Games, they do not encompass the full scope of the event's evaluation.

Görög's (2003) model, on the other hand, conceptualises project success on three levels: implementers, owners, and beneficiaries. This framework is well suited to the analysis of event-type megaprojects, yet it also requires adaptation. The model's assumption that success at a higher level presupposes success at lower levels is not necessarily valid between the second and third tiers. In the case of events, the participants constitute the most significant stakeholder group; their satisfaction is essential but does not automatically determine that of the project owners. Unless an extreme situation arises – such as serious organisational failures leading to widespread dissatisfaction among participants – moderately negative feedback (e.g. regarding service quality) is unlikely to reach the project owners or attract public attention. Moreover, it does not necessarily affect participation rates in subsequent events: if the event forms part of an official competition system, participants will still be registered for future editions by their respective national sports federations, regardless of their previous experience.

I agreed that the fulfilment of the primary project objectives represents an essential success criterion; however, the time factor need not be examined in the case of event-type megaprojects, as it is inherently fixed. If a sporting event does not take place at its designated time, it simply does not occur — and therefore its success cannot be assessed. According to Görög's (2003) interpretation, the achievement of the budgetary target should be assessed based on the revised (updated) budget. However, it is also necessary to explore the reasons behind such modifications. From a success perspective, it makes a significant difference whether changes to the budget (and the provision of additional state or own funding) were caused by unforeseen external circumstances, by a deliberate expansion of project quality or scope, or by negligence on the part of the organising committee or project management.

Görög (2003) evaluates owner satisfaction in relation to the organisations that initiated the project. In the case of the 2024 European Universities Games, if the NRÜ had implemented the event in line with governmental intent and legislative changes – thus acting as the project organisation rather than subcontracting the organisational tasks to the MEFS and the host universities through a cooperation agreement – then assessing acceptance and strategic alignment from the NRÜ's perspective would have been essential in determining project success. Therefore, the success evaluation must also include the owner of the project organisation, in addition to the initiating organisations. In many cases these coincide, but not always.

It is important to distinguish whether a project was developed within an existing organisation, or whether it was implemented by a separate entity established specifically for the project. Accordingly, Kerzner's (2022) secondary success criteria should be examined either:

- with reference to the organisation within which the project was developed, or
- with reference to the project-owning organisations that established the project organisation.

For example, if the MEFS and the two universities had jointly established a project company to deliver the 2024 European Universities Games and had allocated resources to it, the key question would not have been whether the project influenced the day-to-day operation of the project organisation, but rather whether it disrupted the operations of MEFS and the two universities themselves. In practice, significant human resources were reallocated from the sports units and university sports clubs of MEFS and the two universities to support the event's implementation. Nonetheless, MEFS and both universities had to continue fulfilling their core sport-related responsibilities in parallel with organising the event.

The stakeholder groups should be classified as follows:

- those who exert a strong influence on the project outcome and participate in its implementation
- those who exert a strong influence but do not participate directly in implementation
- those who participate in implementation but have limited influence on the project outcome
- and those who are mere beneficiaries of the project outcome.

From the perspective of success evaluation, it is not essential to assess the groups that only have the potential to support or hinder the project during implementation (e.g. various authorities issuing permits). Such groups should instead be addressed as part of stakeholder management activities throughout the project life cycle.

Neither Görög's (2003) nor Kerzner's (2022) model accounts for the role of public perception, which is a crucial factor in the case of megaprojects. In the 2024 European Universities Games, several social impacts were identified – all of them positive – yet the event did not attract broad public attention, largely due to the absence of a nationwide media campaign.

By contrast, events such as the Olympic Games or the World Athletics Championships receive significant public attention, and their social acceptance is often a key determinant of their perceived success. Therefore, any general success model for event-type megaprojects must also include the evaluation of public perception.

When analysing the success of the 2024 European Universities Games, and taking into account both Görög's hierarchical model (2003) and Kerzner's multidimensional model (2022), as well as the insights gained during my research, I developed a model-based proposal for interpreting the success of event-type megaprojects. The proposed model interprets success along five analytical dimensions. The dimensions, their focus areas, and the evaluation criteria associated with each dimension are presented in Table 4.

Table 4. Success model for event-type megaprojects

| Dimension                | Subject of analysis                                                                                                                                                      | Evaluation aspects                                                                                                                                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project outcome          | Budget and quality.                                                                                                                                                      | Was the project completed within the approved budget?<br>Did the project meet the defined quality requirements?                                                                                                                                       |
| Owners                   | Strategic alignment for both the project-initiating organisations and the owner of the project organisation.                                                             | Was the project accepted by the owners?<br>Did the project meet the strategic objectives of the owners?<br>Can the project outcome serve as a reference in the future, and did it enhance the owners' reputation?                                     |
| Organisational operation | Impact of the project on the functioning of the project organisation. In the case of a specially established project organisation, impact on the founding organisations. | If there were changes in the project scope, were they proportionate and mutually agreed?<br>Did the project hinder the organisation's daily operations?<br>Did the project alter the organisational culture?<br>Were any safety regulations violated? |
| Stakeholder group        | Stakeholder satisfaction and perceptions.                                                                                                                                | Was the project accepted by the various stakeholder groups?                                                                                                                                                                                           |
| Public opinion           | Societal impacts and perception.                                                                                                                                         | What is the social perception of the project?                                                                                                                                                                                                         |

*Source: author's compilation*

By integrating the two models and incorporating the new aspects identified during the research, the success of event-type megaprojects can be interpreted along the following five dimensions:

- *Project outcomes*: Whether the project deliverables meet the required quality standards. Whether the project remained within the approved budgetary framework. In the case of budget modifications, it is essential to determine whether these resulted from unforeseen

external factors, from a deliberate improvement or expansion in quality or scope, or from organisational shortcomings.

- *Owners*: The satisfaction of the initiating organisations and the owners of the project organisation. In particular, whether the project achieved strategic alignment with their organisational objectives.
- *Organisational efficiency*: The extent to which the project affected the operations of the organisation within which it was developed, and/or the organisations that established the project entity.
- *Stakeholders*: The degree of acceptance of the project among different stakeholder groups. Stakeholders should be weighted according to their influence on project outcomes, their involvement in implementation, and their role as beneficiaries or consumers of the project.
- *Public perception*: The level of public acceptance and the overall societal perception of the project.

## **7. New and Novel Findings (Theses)**

T1: In the dissertation, I introduced the concept of the event-type project, referring to one-off, time-bound, and complex events implemented in a project-based manner. I also defined the category of event-type megaprojects, which includes event-type projects that meet the criteria of megaprojects, such as large-scale international sporting events. This new categorisation facilitates the analysis of large-scale international sporting events within the framework of project management theory.

T2: I constructed the European pyramid of university sport, which, by analogy with the European sports pyramid, illustrates the organisational levels of the system. I identified the connections between the two pyramids, thereby providing a conceptual framework for understanding the European system of university sport.

T3: I demonstrated that the 2024 European Universities Games meets the criteria of a megaproject – including large scale, long-term preparation, high complexity, significant impacts, and an extensive network of stakeholders. The case study confirmed that large-scale international sporting events can be interpreted as megaprojects from a project management perspective.

T4: Through a benchmark comparative analysis, I demonstrated that the evaluation of major international sporting events currently lacks a unified framework: the indicators used and the interpretation of data differ considerably across cases.

T5: The organisation of large-scale international sporting events requires government-level decision-making. The case of the 2024 European Universities Games confirmed that the formal integration of government into the organisational process – through regulatory frameworks, financial guarantees, and institutional coordination – can effectively support the implementation of event-type megaprojects.

T6: The analysis revealed that the structural transformation of the University of Debrecen and the University of Miskolc – the transition from direct state maintenance to foundation-based governance – had a direct and positive impact on the organisation of the 2024 European Universities Games. The transformation resulted in new decision-making mechanisms, resource allocation and operational conditions, and greater autonomy in management. The foundation-based governance model provides a more efficient framework than the state-run model for implementing event-type megaprojects.

T7: The analysis of the 2024 European Universities Games confirmed that the impacts of large-scale international sporting events can be identified across multiple dimensions – professional, sport policy, economic, social, technological, and environmental. A novel finding is that these impact dimensions do not manifest uniformly, but vary in extent, form, and timing across different stakeholder groups, which necessitates a differentiated stakeholder approach in impact assessments.

T8: The evaluation of the 2024 European Universities Games demonstrated that the event can be regarded as successful according to both Görög's hierarchical model and Kerzner's multidimensional model. The analysis confirmed that interpreting project success along multiple dimensions supports the conclusion of overall event success.

T9: I developed a methodological framework model for the implementation of event-type megaprojects. The model defines five activity groups – strategic preparation, project structure design, project management, management of organisational and functional areas, financial management, and evaluation – and specifies the methodologies essential for the implementation of large-scale sporting events and other event-type megaprojects. A key finding is that integrating agile approaches into project implementation enhances the success of event-type megaprojects.

T10: I found that the models commonly used in the domestic and international literature are not fully applicable for evaluating the success of event-type megaprojects. Therefore, I developed a new five-dimensional framework for interpreting success in such projects. Project success can be identified in terms of project outcomes, achievement of owners' objectives, organisational efficiency, stakeholder satisfaction, and public perception. The model can be applied not only for the ex-post evaluation of event-type megaprojects but also for defining success criteria to be set during the planning and implementation phases.

## 8. Summary

In my research, I examined the management challenges, impacts, and success of large-scale international sporting events. The strategy of my study was based on a case study analysis of the 2024 European Universities Games, which I identified as an event-type megaproject. This event provided an excellent foundation for my research, as it incorporated several innovations compared with previous international sporting events hosted in Hungary: it was the largest international sporting event ever organised in the country; it was closely linked to higher education; and the number of participants and guest nights was almost evenly distributed between two host cities – posing a range of management challenges.

The domestic literature has so far lacked empirical analyses of large-scale sporting events with a higher education dimension, while the international literature contains only case-specific impact studies. My research, however, went beyond a single case: I formulated theoretical recommendations that can be generalised to event-type megaprojects.

To answer the four research questions, I reviewed and interpreted the relevant literature (primarily in sport management and project management), conducted a comparative analysis of four deliberately selected benchmark events, and compiled the case study. In the case study, I relied on both primary data – as I was directly involved throughout the entire life cycle of the event – and secondary data. Data were collected using qualitative methods (document analysis, in-depth interviews) and quantitative methods (surveys). For the two survey-based analyses forming part of the quantitative case study, I formulated two hypotheses each, of which one was accepted and one rejected in both cases. The new or novel results of the research were summarised in ten theses.

In relation to the 2024 European Universities Games, I identified professional, sport policy, technological, economic, social, and environmental impacts. The event proved to be successful according to Görög's hierarchical model (at all three levels), Kerzner's multidimensional model (primary and secondary success criteria), and the success model I developed specifically for event-type megaprojects. I also concluded that the structural transformation of Hungarian universities (the so-called “model change”) had a clearly positive effect on the organisation of the event.

In my dissertation, I developed a methodological framework model for the implementation of event-type megaprojects. The model defines the methodologies essential for the realisation of large-scale sporting events and other event-type megaprojects, grouped into five activity areas: strategic preparation, project structure design, project management, management of organisational and functional areas, and financial management and evaluation. A key finding of the research is that integrating agile approaches into project implementation enhances the success of event-type megaprojects.

Furthermore, I developed a new five-dimensional framework for evaluating the success of event-type megaprojects. This model identifies project success in terms of project outcomes, the achievement of owners' objectives, organisational efficiency, stakeholder satisfaction, and public perception. Importantly, the model can be applied not only for the ex post evaluation of success but also for defining the success criteria to be set during project planning and implementation.

As future research directions, I proposed the validation and further development of the methodological framework model and the success model through empirical studies and practical applications in other event-type megaprojects; the extension of the methodological framework model with different leadership approaches; and the advancement of the success model into a success criteria model.

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