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Organizacija finala regionalne rukometne lige tijekom pandemije COVID-19: studija slučaja iz perspektive upravljanja projektima

Organization of the regional handball league final during the Covid-19 pandemic: a case study from a project management perspective

Matija Teur[1], Zlatko Barilović[2]

[1]172 Community, Kolodvorska ulica 42, 10290 Zaprešić and University of Applied Science Baltazar Zaprešić, Vladimira Novaka 23, 10290, Zaprešić (student), m.teur@172.hr

[2]University of Applied Science Baltazar Zaprešić, Vladimira Novaka 23, 10290, Zaprešić, zlatko.barilovic@bak.hr

Abstract

This paper presents the organization of the SEHA – Gazprom League Final Tournament under the exceptional circumstances of the COVID-19 pandemic, with a focus on project management, crisis adaptation, and innovative approaches in the execution of sports events. The aim is to demonstrate how high organizational standards, participant safety, and stakeholder satisfaction can be achieved through careful planning and the application of modern technologies, even in the context of a global health crisis. Key project phases are analyzed, with particular emphasis on the initial (start-up) phase, which included strategic planning, risk management, and the definition of operational protocols in accordance with public health guidelines. Special attention is given to the use of digital solutions, most notably the implementation of a virtual audience, which enabled continued viewer engagement and sponsor visibility despite restrictions on in-person attendance. Organizational and logistical challenges involved adapting indoor venues, participant testing, redesigning movement flows, and maintaining communication with local and international authorities. The paper highlights the importance of flexibility, cross-sector collaboration, and the ability to respond swiftly to rapidly changing conditions. In conclusion, the SEHA League Final Tournament project serves as a best-practice example of managing sports events under crisis conditions, offering applicable insights for future initiatives. It also reinforces the broader social significance of handball in the Southeast European region and the role of sport as a unifying and stabilizing factor in uncertain times.

Keywords

project management, event management, crisis management, digital innovation, SEHA regional handball league, pandemic

Introduction

Participation in sport of any form (team or individual) is beneficial for improving mental health and social outcomes amongst adults. Sport plays a key role in today's society, especially in the lives of children and young people. Regular participation in sports activities offers numerous benefits, including the development of motor and functional abilities, cognitive functions, social skills, and emotional well-being (Eime et al, 2023).

Sport and physical activity are particularly important during a pandemic, as they strengthen both physical and mental resilience. The European sports model must be preserved and promoted, as solidarity, fairness, and a values-based approach will be more important than ever for the recovery of the sports sector and the survival of amateur sports.

The COVID-19 pandemic has completely changed the way sports events are planned and executed. Organizing major sporting competitions has required special safety measures, adaptation to timing and logistical challenges, and innovative approaches to address unpredictable issues.

Since signing a sponsorship agreement with Gazprom in 2014, the SEHA League has established itself as one of the most important European club competitions in handball, and certainly as the highest-quality regional league. The league not only connects countries in the region but also contributes to the popularization of handball, which positively influences the development of young talents and the strengthening of sports ties. From 2014 to 2015, the league was named the SEHA – Gazprom South Stream League, after the title of the planned pipeline project of its main sponsor. Following the sponsor's decision to abandon the project, the league changed its name and has since been called the SEHA – Gazprom League.

The aim of this paper is to provide a detailed analysis of the organization of the SEHA – Gazprom League Final Tournament under pandemic conditions, with a focus on safety protocols, logistical preparation, and the use of digital solutions. Through the analysis of the tournament held in 2020 in Zadar, the paper will demonstrate how an international sports event can be successfully organized in challenging times and provide guidance for future sporting events in similar circumstances. The organization of this tournament will serve as a model of good practice and a guideline for future organizers.

1. Entry strategies

Strategic management is increasingly mentioned in modern organizational science practice. To more clearly explain the concept of strategic management, it is first necessary to clarify the terms strategy and management. According to respected domestic experts on foreign words and expressions, the word strategy originates from the Greek word *strategía*, which is defined in some sources as the science of military leadership, the art of warfare, or a book on war tactics. Similar meanings are found in the terms *strategos* and *strategem*, which are closely related to the concept of strategy. There are also broader interpretations in which the term strategy is understood in an economic sense. In that context, one interpretation extends the meaning of strategy to long-term planning of a company's business activities. The terms 'strategic' and 'tactical' are often used interchangeably in the general context of strategy (Matijašević, 2018:9).

"Strategy defines the strategic goals we want to achieve, which we must then convert into purpose-specific and subsequently into objective goals of projects" (Hauc, 2007:122).

As the project was organized in 2020 during the pandemic, and SEHA had previously positioned itself on the market, the entry strategies of this project aligned with SEHA's general strategies, with specific adaptations related to the pandemic. These include:

-S1: Safe organization of the tournament
-S2: Maintaining audience interest
-S3: Preserving the quality of competition
-S4: Promotion of the SEHA League
-S5: Monetization through a new sponsorship agreement

S1 – Strict compliance with all applicable epidemiological guidelines and measures was one of the key strategic goals. As this was the only indoor sports event of its kind in 2020 in the region during the pandemic, health protocols were essential to ensure the safe execution of the event.

S2 – Sustaining public interest in sports in general, and handball in particular, was essential for the survival of the sport as we knew it before the pandemic. Full stadiums and sports halls were replaced by empty stands, and the challenge was to retain audience engagement through innovative and alternative approaches.

S3 – The primary strategic goal of the entire SEHA organization—and this Final Four tournament—is to maintain a high level of competition, enabling clubs to achieve notable sports results. The most successful teams qualify for

the Final Four, which is the pinnacle of the season and one of the most prestigious handball events in Europe.

S4 – This strategic goal is tied to SEHA's positioning as the organizer of the first indoor international sports competition during the pandemic. By executing this goal, SEHA aimed to increase its visibility in the media throughout Southeast Europe, thereby ensuring promotional value through the tournament's media coverage.

S5 – SEHA League and Gazprom generally renew their cooperation every two years. The existing agreement was set to expire at the end of 2020, and the successful organization of this event aimed to strengthen SEHA's negotiating position and secure an extension of the partnership.

2. Project content

"Types of sports events vary – from small-scale events that attract only a handful of participants, possibly even without an audience, to mega-events that are open to thousands and thousands of people from all over the world. Sports events differ in terms of the number of participants, media coverage, sponsorship deal values, total costs, type of management, and the distance traveled by participants" (Valčić and Breslauer, 2024:292).

According to this definition, the Final Four tournament of the regional handball league does not fall into either the small-scale or mega-event category. This final tournament would be classified somewhere between a major and a large-scale event, as it attracts significant interest from the handball community, has strong media coverage with TV broadcasts in several countries, and involves a substantial number of contractors in its organization and execution. Given that it has been held regularly since 2014, it is gradually becoming a tradition for the handball community and stakeholders both in Europe and worldwide. The tournament's importance for handball in Southeast Europe is further evidenced by the consistently full arenas in all host cities over the years. This year, there will be no spectators present in the venue, but the organizer has prepared alternative options for following the tournament.

2.1. Project description

The Final Four tournament of the regional handball league falls under the category of sports events. This event qualifies as an international sports event, as it features clubs and representatives from multiple countries. However, the project of organizing the Final Four tournament of the regional handball league encompasses far more than just the three-day international sports competition—it also includes all preparatory steps and the subsequent analysis and evaluation of the project's success.

The project covers all aspects of organizing the event known as the Final 4 of the SEHA – Gazprom League. This project has been implemented annually since 2014, when the first final tournament of the regional handball league was held, and it has evolved year after year. It is a three-day sporting event, as defined by Valčić and Breslauer (2024), who describe sports events as consisting of games and contributing to the identity formation of individuals or groups, while also ensuring entertainment and spectacle. Van Der Wagen and Carlos (2008:30) describe sports events as major occasions held and organized across various cities and countries around the world, whether amateur or professional in nature.

2.2. Location and timing

For the year 2020, after a series of inspections, the city of Zadar was selected as the host city, which had a dual purpose from the outset. On one hand, the final tournament was being held in the Republic of Croatia, representing "home ground" for participating Croatian teams. On the other hand, it aimed to contribute to the promotion of Zadar as an excellent tourist destination with well-developed sports infrastructure. The final tournament was initially scheduled to take place in April 2020, with Zadar and the Krešimir Ćosić Hall, located within the Višnjik Sports Center, designated as the venue. Following the declaration of the pandemic, the organization of the tournament was postponed to September 2020, when the conditions for holding the event were deemed acceptable.

The project was planned to be executed without the presence of spectators, to maintain the highest possible level of safety for all athletes and organizational participants of the regional handball league's final tournament. This was the first international indoor competition in the Republic of Croatia since the outbreak of the coronavirus pandemic. The motto of the 2020 Final Four tournament and of the entire project was "HANDBALL IS BACK."

2.3. Stakeholder analysis

Stakeholder analysis is the process of identifying all relevant stakeholders, understanding their interests, and assessing the influence they have on a project, organization, or decision – as well as the impact that the given initiative has on them (Freeman, 2010).

The stakeholder analysis highlights the complexity of organizing an international sports event under pandemic conditions. Key stakeholders such as SEHA and Gazprom have a strategic interest in the success of the project due to their roles in financing, planning, and promotion. Their satisfaction is crucial for the sustainability and future development of the event.

Clubs and volunteers directly contribute to the quality of the competition, and their experience depends on organizational efficiency and safety standards. Operational teams, including technical staff, security personnel, and police, ensure logistical execution and safety, which is of paramount importance during a pandemic.

The media, although with limited operational influence, shape public perception and support promotion efforts, while additional sponsors back the project through financing and branding.

Local authorities (City of Zadar) and the national government have an interest in the social and tourism-related benefits of the event, while officials (referees, delegates) and contractors contribute to the operational and infrastructural implementation.

The Civil Protection Headquarters and epidemiologists play a key role in shaping safety measures, with epidemiological guidelines directly influencing the organizational framework of the tournament.

The success of the project depends on effectively aligning the interests of all stakeholders, their cooperation, and their flexibility in responding to the challenges posed by the pandemic.

2.4. SWOT and PEST analysis

SWOT analysis is a strategic planning tool that helps assess and analyze internal and external factors that influence an organization, project, or business venture. It consists of four key elements: strengths, weaknesses, opportunities, and threats.

"The internal environment includes strengths and weaknesses, while the external environment includes opportunities and threats. Strengths refer to the company's resources that can be leveraged to build a competitive advantage, whereas weaknesses represent the lack of such strengths. The external environment consists of opportunities and threats that lie outside the company and are typically beyond the short-term control of management. These variables form the context within which the company operates. Opportunities are external factors that indicate potential for growth and profit, while threats are adverse factors that may endanger a company's growth, development, or survival on the market" (Šarić and Šprem, 2017).

By conducting the SWOT analysis, the strengths, weaknesses, opportunities, and threats of the project were identified.

Strenghts: The project demonstrates resilience due to financial stability through a partnership with Gazprom. SEHA has an experienced organizational team with several successfully executed tournaments. The involvement of Champions League clubs and growing media coverage further enhance the prestige of the event.

Weaknesses: Due to the pandemic, there is no ticket revenue or live audience, which affects the atmosphere and eliminates a source of direct income. Organizing the event indoors involves uncertainties and additional costs related to epidemiological measures.

Opportunities: The use of virtual audiences opens up possibilities to attract a younger demographic. The project can further strengthen the organizational team's expertise and create opportunities for new sponsors or an extension of the Gazprom contract, ensuring greater financial stability.

Threats: The pandemic brings the risk of sudden changes that could result in the cancellation of the tournament. The short timeframe for execution raises the possibility of limited availability of external collaborators.

Francis J. Aguilar, a Harvard professor in 1967, developed the PEST analysis framework in his book *Scanning the Business Environment*, originally named ETPS analysis, to evaluate economic, technical, political and social factors influencing the business environment (Aguilar, 1967).

The PEST analysis shows that Croatia, despite the challenges posed by the pandemic, offers a stable and supportive environment for organizing international sports events. Membership in the European Union provides legal security, access to funding, and infrastructure support. Although the pandemic temporarily slowed economic growth and tourism, the country's political stability and strong sports culture provide a solid foundation for recovery.

Demographic challenges, such as emigration, may affect the labor force and organizational capacity in the long term. However, Croatia's well-developed technological infrastructure, including high-speed internet and process digitalization, makes it attractive for major projects.

The popularity of handball and strong public interest further support the organization of international sports events. With proper planning and adaptation to current conditions, Croatia possesses all the necessary resources to successfully host such events, delivering positive economic and social impact.

3. Project objectives

Project objectives are divided into purpose-specific (strategic) objectives and operational (deliverable) objectives. Operational objectives derive from the purpose-specific ones. "The purpose of a project is defined by its strategic goals, which enable the determination of operational goals. Only based on clearly defined objectives can we develop a complete project plan." (Hauc, 2007:46).

Purpose-specific (strategic) objectives of the project include:

-Safe organization of the tournament under pandemic conditions, minimizing health risks.

-Maintaining audience interest through digital platforms and TV broadcasts.

-Preserving high competition quality despite challenging circumstances.

-Promoting the SEHA League as a reliable and innovative organizer.

-Securing a new sponsorship agreement with Gazprom to ensure financial stability.

Operational (deliverable) objectives include:

-Defining key project aspects and creating a detailed plan.

-Contracting cooperation with partners and service providers.

-Organizing accommodation and recruiting necessary personnel.

-Implementing marketing and media-related activities.

-Preparing the arena and Višnjik Sports Center from a technical standpoint.

-Conducting photo and video production.

-Ensuring compliance with epidemiological measures by all participants.

4. Project tactics

„Tactics are the specific actions taken to carry out strategy, engaging people and resources to ensure implementation of strategic plans on a short-term, concrete level" (Mintzberg et al, 1987).

"The implementation tactics, which are typically approved by the project management, serve as the foundation for developing the project plan. Thus, tactics such as outsourcing specific work instead of using internal resources, the order in which tasks are executed, financing strategies, project completion approaches, etc., all influence the creation of the project plan." (Hauc, 2007:131)

To achieve the project's objective goals, the following key tactics were defined:

-Project Management: Selecting the location, defining the project team, developing the implementation plan, managing communication, and reporting to the management.

-Partner Agreements: Clearly defining requirements and signing contracts with contractors, with emphasis on timely engagement of technical and entertainment providers due to their limited availability.

-Accommodation Capacity: Timely booking of hotels of various categories for all participants, with particular attention to the limited accommodation capacity in Zadar.

-Engagement of External Collaborators: Utilizing student services and existing professional networks to quickly fill staffing needs.

-Marketing and Media: Developing a flexible communication plan that allows for quick adjustments in case of changes in epidemiological conditions.

-Technical Preparation of the Arena: This phase includes installing technical equipment, visual branding, assembling the sports court, and setting up TV production and pyrotechnics, all according to a pre-agreed schedule.

-Photo and Video Production: Conducting professional recording and creating promotional materials for digital channels and TV broadcasts, aimed at both documentation and promotion.

-Epidemiological Measures: Collaborating with national and local authorities to develop guidelines for safe event implementation. These guidelines are distributed to all participants, ensuring the health safety of the tournament.

5. Project plan

"Project planning is certainly among the most important tasks of project management. Above all, it is crucial to gain a clear understanding of which

goals will be achieved and when, up to the final project objective. By analyzing the goals, project management continuously monitors whether all objectives are covered by the execution plan" (Hauc, 2007:234).

The organization plan for the SEHA – Gazprom League Final Tournament covers the period from July 20 to September 18, 2020, lasting a total of 44 working days. The project is structured into multiple phases that partially run in parallel, with clearly defined tasks, timeframes, and responsible parties.

A) Management Phase – Core Project Team: This includes defining the project team, inspecting the location, developing the plan, and conducting final controls. This phase runs throughout the entire project and is responsible for coordinating all activities and overseeing implementation.
B) Collaboration with Partners and Contractors: This phase involves identifying needs, collecting bids, selecting contractors, and signing agreements. The focus is on timely engagement of all key external stakeholders.
C) Accommodation Capacity: Involves visiting hotels, analyzing offers, and booking accommodation for all event participants. Due to limited capacities in Zadar, reservations were made early in the planning process.
D) Human Resources: Covers the recruitment of temporary staff through job postings, interviews, and contracting. This ensures sufficient operational capacity during the project's execution.
E) Media and Marketing: Within a short but intense time frame, a communication plan, strategy, and media team were established, along with the preparation of workflows and promotional activities.
F) Production and Technical Preparation: This is the most extensive operational phase. It includes the production of materials, technical setup and venue preparation, venue branding, installation of entertainment and TV production equipment, as well as final cleaning and setup.
G) Photo and Video Production: Covers identifying requirements, graphic design, equipment testing, and technical rehearsals, with the goal of delivering a high-quality digital presentation of the event.
H) Epidemiological Measures: Running parallel to other phases, protocols were developed in cooperation with relevant authorities, distributed to all participants, and monitored throughout the event to ensure health safety.

6. Risk analysis

Project risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives (PMI, 2021).

During the planning and implementation of the project, key risks were identified that could affect the safety, quality, and success of the Final Tournament. The risks were analysed according to type (external, technical, organizational, and internal), period of occurrence (execution or operation), importance ranking (R), likelihood of occurrence (L), and overall risk (OR), which is calculated as the product of R and L.

The most significant identified risks include:

- Deterioration of the epidemiological situation (OR = 56): A high-impact external risk, addressed through the development of detailed safety protocols and contingency scenarios.
- Satellite transmission failure (OR = 56): A technical risk that directly threatens the event's broadcast, mitigated by implementing backup systems and redundancy measures.
- Participant delays due to traffic (OR = 32): An organizational risk addressed through the planning of time buffers and alternative transport routes.

Technical risks (e.g., malfunctions of LED displays, equipment, or internet outages) pose moderate to high potential impact. These were mitigated through planned technical inspections and the inclusion of spare equipment.

Organizational risks, such as miscalculations in staffing needs, were managed through flexible human resource planning and collaboration with student employment agencies.

In line with the overall risk factors, risks with OR > 50 were treated with moderate to high priority. Less critical risks (OR < 25) were continuously monitored, but without the implementation of special measures.

In conclusion, risk management was a key element of project planning—especially in the context of the pandemic—enabling stable implementation of the event despite increased external uncertainty.

7. Conclusion

The organization of the SEHA League Final Tournament during the COVID-19 pandemic demonstrated that, with high-quality planning, innovation, and effective stakeholder collaboration,

high organizational standards can be achieved even under crisis conditions.

The application of digital technologies and epidemiological measures ensured the safety of participants without compromising the sporting experience, while stable relationships with sponsors—particularly Gazprom—enabled financial sustainability and continuity of the competition.

The project further confirms the importance of sport as a tool for social cohesion and regional cooperation. The experience gained serves as a valuable foundation for future projects and can provide guidance to managers in the sports industry facing similar challenges.

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Jačanje uloge civilnog društva u promicanju STEM-a: modeli i najbolje prakse uspješnih projekata

Enhancing the role of civil society in promoting STEM: models and best practices of successful projects

Verica Mušić[1], Zlatko Barilović[2], Martina Vukašina[3]

[1]University of Applied Science Baltazar Zaprešić (student), Vladimira Novaka 23, 10 290 Zaprešić, verica.music@bak.hr

[2]University of Applied Science Baltazar Zaprešić, Vladimira Novaka 23, 10290, Zaprešić, zlatko.barilovic@bak.hr

[3]University of Applied Science Baltazar Zaprešić, Vladimira Novaka 23, 10290, Zaprešić, mvukasina@bak.hr

Abstract

In today's rapidly evolving technological society, STEM fields (science, technology, engineering, and mathematics) are key drivers of innovation, economic growth, and sustainable development. Despite their importance, various societal and structural barriers continue to hinder access to STEM education and careers, particularly among youth from marginalized, rural, and underrepresented communities. This paper explores the increasingly significant role of civil society organizations (CSOs) in overcoming these barriers and promoting an inclusive approach to STEM through community-based initiatives, advocacy efforts, and cross-sector collaboration implemented through various successful projects. The study analyzes the existing capacities of CSOs to support STEM education, their strategic role in connecting citizens with institutions, and their potential to act as agents of social change. Through a review of secondary sources and case studies of successful initiatives and projects, the paper identifies key models and best practices that have proven effective in raising awareness, increasing participation, and supporting youth retention in STEM education. Special attention is given to initiatives and projects that address gender inequality, regional disparities, and socioeconomic exclusion. The paper concludes with concrete recommendations for strengthening CSO capacities, enhancing collaboration with educational institutions and policymakers, and developing sustainable and scalable strategies to promote STEM through the implementation of targeted projects. This research contributes to a better understanding of the civil sector's role in achieving public policy goals and educational equity, offering practical insights for practitioners, educators, and decision-makers..

Keywords

STEM education, civil society, youth empowerment, community engagement, project management

Introduction

Accelerated technological progress and digital transformation processes place STEM fields (science, technology, engineering and mathematics) at the centre of contemporary social and economic development. According to the definition of the American National Science Board (National Science Board, 2010:9), STEM education prepares students for critical thinking, problem solving, innovation and teamwork in complex contexts. However, despite its recognized importance, access to STEM education remains limited for many young people, especially in rural and vulnerable communities, with Eurostat (2024) indicating low levels of participation among young people from these backgrounds.

Civil society organizations (CSOs) are becoming key actors in overcoming these barriers, offering flexible, creative and accessible forms of STEM education, often outside the formal system (Pavić-Rogošić, 2012). They act as mediators between citizens, institutions and decision-makers, contributing to the development of scientific literacy and the involvement of young people in scientific activities. This professional paper analyses the role of CSOs in the popularization of STEM in Croatia through a case study of the " Forest Explorers II" project, which represents an example of successful cooperation between the civil sector, local self-government and scientific institutions. (Centar Feniks, 2023).

The project "Forest Explorers II" was designed as a continuation of the previous project of the same name, and it focuses on STEM education through forestry engineering and sustainable rural development. The implementation includes education, development of a permanent exhibition of a scientific and educational nature, organization of workshops, and interactive content adapted for children, young people, and the general population. The project is being implemented in the Vukovar-Srijem County, in an extremely rural area that is facing depopulation and development challenges, thus gaining additional significance.

The aim of this paper is to investigate successful models of CSOs' activities in the promotion of STEM, analyse the capacities and challenges they face, and propose guidelines for improving their role. The hypothesis of the paper assumes that CSOs, through well-designed projects and partnerships, can have a strong influence on strengthening interest in STEM among young people, especially in underdeveloped areas. The methodological framework of the paper includes the analysis of secondary sources, including project documentation, legal and strategic documents (NN, 2021; PULJP, 2024), as well as a review of literature relevant to the topic.

In conclusion, the project "Forest Explorers II" shows that CSOs can successfully contribute to the creation of inclusive and sustainable STEM education in local communities. Through the active involvement of young people, the development of interactive educational content and cross-sectoral cooperation, CSOs become bearers of social change and key partners in the implementation of public policies aimed at scientific literacy and educational equity.

1. Entry strategies

To understand the strategic positioning of the "Forest Explorers II" project, it is necessary to first clarify the basic concepts of strategy and project. According to the definition of the Project Management Institute (2017:4), a project is a temporary undertaking with clearly defined objectives and limited resources, aimed at creating a unique product, service, or result. Strategy, according to Mintzberg (1994:9), is not just a plan of action, but a comprehensive concept that includes the way of acting, positioning and perspective of the organization. In the context of project management, the entry strategy represents the fundamental framework that aligns the project with the mission and vision of the project holder, but also with national and EU strategic documents. Kerzner (2017:73) emphasizes that the project management strategy must ensure the alignment of all project activities with the long-term goals of the organization and ensure the creation of measurable value.

The project "Forest Explorers II" is implemented by the Feniks Centre (Centar Feniks), a civil society organization with the mission of strengthening the capacities of local communities through education, volunteering and sustainable development. The Centre has many years of experience in implementing STEM projects and developed partnership relations with stakeholders. Among the partners are: Croatian Forestry Institute (Hrvatski šumarski institut), Croatian Rural Development Network (Hrvatska mreža za ruralni razvoj - HMRR), Local Action Group "Šumanovci" (LAG Šumanovci) and the Town of Županja (Grad Županja). The cooperation of the aforementioned stakeholders is an example of a strategic partnership that unites the scientific, civil, educational and local sectors with the aim of popularizing STEM among young people in rural areas.

The project is based on four entry strategies:

S1 – Organizational development and strengthening of the capacity of CSOs,

S2 – Improving the quality of life and retaining young people in rural areas,

S3 – Sustainable rural development based on natural and cultural heritage,

S4 – Increasing the number of competitive projects at the national and international level.

S1: Organizational development and strengthening of the capacity of CSOs

It recognizes the importance of CSOs in the popularization of science, even though only 1.15% of associations in Croatia are active in this field, and at the same time they use only 0.01% of public funds intended for financing associations (Eurostat, 2024). Therefore, it is crucial to strengthen their capacities, including the provision of financial resources, infrastructure and human resources. This strategy is in line with the specific objective of the ESF+ programme "Promoting equal access to education" (Structural Funds, 2024), which highlights the importance of inclusive education for all, especially for disadvantaged groups

S2: Improving the quality of life and retaining young people in rural areas

It refers to the contribution of the project to improving the quality of life and retaining young families in the area of the Town of Županja. Through the previous phase of the project, the Town provided space for a permanent display of STEM content, which is the beginning of the long-term development of the educational infrastructure. The project contributes to the activation of the civil sector, the creation of space for creative expression and integration of citizens, and thus the strengthening of the local community (Town of Županja, 2024).

S3: Sustainable rural development based on natural and cultural heritage

It has a focus on forestry engineering and sustainable rural development – areas where STEM education connects with local resources and heritage. This strategy is aligned with the Common Agricultural Policy of the Republic of Croatia, especially with the specific objective S08 – promotion of local development and sustainable forestry (Rural development, 2024). The project includes education, knowledge transfer and activities that strengthen social capital and promote the principle of "good governance" through partnerships among local stakeholders.

S4: Increasing the number of competitive projects at the national and international level

It refers to internationalization and strengthening the competitiveness of partners, especially the Croatian Forestry Institute. By participating in the project, the Institute increases its ability to apply for international research projects, strengthens its capacities and achieves deeper cooperation with local communities. The scientific community is thus actively involved in the development of rural areas.

The entry strategies of the project are in accordance with the National Development Strategy of the Republic of Croatia until 2030, especially with the strategic goal 1: "Competitive and innovative economy", within which the importance of science and technology development, digital transformation and strengthening of the innovation system is emphasized (NN, 2021). The project "Forest Explorers II" contributes to the diversification of the local economy, the application of new technologies and the strengthening of scientific excellence.

The project also fully corresponds to the objectives of the Call for Project Proposals under the ESF+ Programme (2021–2027), which aims to strengthen the capacities of CSOs in promoting STEM through cooperation with educational and scientific institutions (ESF+, 2024). The implementation of these activities enables the creation of an inclusive and accessible environment for STEM education and strengthens the resilience of the local community to social and economic challenges in the long term.

2. Content of the project

In the content of the project the results of the previous project as a basis for the implementation of the project ''Forest Explorers II'', the location and method of financing the project, the resources needed for this project and their effectiveness will be analysed. Furthermore, the process of implementing project activities with measurable indicators and results, a plan to encourage stakeholder involvement in further development activities, and horizontal principles to which the project contributes will be presented. At the end of this chapter, the stakeholders related to this project, internal and external factors will be analysed through PESTLE and SWOT and Stakeholder analysis.

2.1. Achieved results of the previous project

The project "Forest Explorers II" continues the activities of the previous project aimed at popularizing the STEM field. The main results of the previous project were achieved through four key elements: strengthening the capacity of civil society organizations to involve children, young people and the wider community in scientific research related to forest protection and rural development; establishing a permanent, innovative and interactive exhibition

"Science and Imagination for Sustainable Forests" in an adapted space; raising awareness of the importance of STEM through local events; and effective promotion through media and public performances.

Through seminars, science fairs, workshops and study trips, the capacities of civil organizations were strengthened. The exhibition was equipped with scientific exhibits, educational content, video materials and manuals, with mentoring support from the Croatian Forestry Institute. Local events and workshops further stimulated interest in STEM, and promotion through radio, TV and web content ensured the visibility of the project. This continuation of the project aims to maintain and increase the reach of STEM popularization, develop the competences of young people for the innovative labor market, and contribute to economic and socioeconomic development through continuous work, education and strengthening of the capacity of CSOs.

2.2. Location and method of financing the project

The project is being implemented in the area of the LAG "Šumanovci" in Vukovar-Srijem County, which includes the town of Županja and the municipalities of Bošnjaci, Štitar, Drenovci, Vrbanja and Gunja. It is an extremely rural area with 22.705 inhabitants (DZS, 2021), known for the Spačva Basin - the largest complex of alkaline forests in Croatia and Europe, included in the Natura 2000 network. The project uses natural resources and protected reserves such as Lože, Radiševo and Virovi for education and research. Vukovar-Srijem County as a macro location has 143.113 inhabitants, with 84 settlements and five towns. The funding is entirely from EU funds under the Efficient Human Resources Programme 2021-2027.

2.3. Resources and efficiency

The project relies on human and technical resources for successful implementation, with human resources being key as it focuses on strengthening capacities in the popularization of STEM. The project team includes experts from LAG Šumanovci, the Croatian Forestry Institute, the Croatian Rural Development Network, the Town of Županja and the Feniks Centre, who possess the necessary knowledge and managerial skills. The technical capacities include office and educational facilities in the Municipalities of Vrbanja, Drenovci and Županja, as well as in the partner premises. Each partner has specific skills and responsibilities, ensuring coordination and efficient implementation of the project.

2.4. Project activities implementation plan and stakeholder involvement

The project is based on three main groups of activities aimed at:

- strengthening the capacities of civil society
- cooperation with educational and scientific institutions and
- popularization of STEM fields among children and young people.

The first group of activities concerns the improvement of the capacities of civil society organizations through international expert seminars and study visits in Sweden and Slovakia, as well as the education of trainers in forest pedagogy, engineering and sustainable rural development. The emphasis is also placed on strengthening soft skills, which are crucial for the successful implementation of STEM among children and young people.

The second group of activities is aimed at strengthening cooperation between civil society organizations, educational, higher education and scientific institutions. For this purpose, a study visit to Portugal is planned, as well as the organization of working meetings with stakeholders to define a joint cooperation plan. Acquisition of additional educational content for the permanent exhibition "Science and Imagination for Sustainable Forests" and education for their application.

The third group of activities is dedicated to the promotion of the STEM field among children, pupils and students. Visits to the Northern Velebit National Park, training on forest fire monitoring, youth camps in Great Britain, development of educational games and workshops for different age groups are planned. A mobile application "Let's Save the Forests!" will also be developed, which will educate about the importance of the forest environment.

In addition to the main activities, horizontal activities will also be carried out, such as the promotion and visibility of the project through the media, the organization of the opening and closing conferences, and the creation of promotional materials. Project management includes regular project team meetings, coordination of tasks, and communication with stakeholders.

The stakeholder involvement plan ensures the continuous engagement of different groups of users through clearly defined steps: creation of a flowchart of activities, definition of target groups, customized invitations for participation and presentation of the project through the school system, media and youth associations. There is a long-standing cooperation with primary and secondary schools in Vukovar-Srijem

County, and young people who are not in the school system are approached through youth clubs and local associations. The involvement of other CSOs is also possible through partner networks. The project promotes awareness of the importance of science, development of critical thinking, active learning and contributes to the sustainable development of the community through STEM education.

2.5. Horizontal principles

"With horizontal issues, it is necessary to describe those related to environmental protection, i.e. what impact does the project have on aspects of environmental protection and what contribution does it make to equal opportunities and good governance" (Vela, 2015:110).

The project ensures gender equality and non-discrimination through the inclusive participation of both sexes (minimum 30%), the use of gender-sensitive language and education about female representation in science. Locations and online content are adapted for people with disabilities using accessible spaces, web standards and simple language. The project encourages sustainable development by using "green" products, recycled materials, local suppliers and avoiding disposable items. It promotes the principles of good governance through mentoring, the involvement of civil society and volunteers, and the establishment of an interest group for sustainable and transparent project implementation.

2.6. PESTLE and SWOT analysis

PESTLE analysis is a tool for assessing the impact of the general environment on an organization through six key factors: political, economic, social, technological, legal and environmental. Political factors play an important role in project implementation because they depend on decisions made by competent authorities, including tendering and administrative procedures. During the election period, there may be changes in political leadership, which potentially causes delays in the work of state institutions and thus slows down the implementation of planned activities. On the economic side, the project is subject to the influence of market trends such as inflation, price growth and salary increases in the public sector, which directly affects the planned budget and total costs. The stability of the financial environment is therefore crucial for successful implementation. Social factors also have a significant impact, especially when it comes to the level of education of the local community, demographic changes and the readiness of the population to accept new STEM solutions. Community involvement and the creation of a favourable social environment are prerequisites for the long-term success and sustainability of the project. Technological aspects indicate the need for quality infrastructure, including access to electricity and stable internet connectivity. Without these foundations, the introduction of innovative solutions and technological advances into the project would not be possible. From a legal perspective, changing legal regulations can be a challenge. Frequent changes in regulations require continuous monitoring and adjustment to ensure the compliance of the project with all relevant laws and regulations. Environmental factors place the project in a positive frame because they encourage sustainable development, the application of green technologies and environmental awareness. Education on nature conservation further contributes to the affirmation of ecological values within the community and ensures long-term benefits for the environment.

SWOT analysis, which considers strengths, weaknesses, opportunities and threats, further helps in strategic planning. The strengths of the project are the wealth of natural resources, existing infrastructure, good communication and previous successes in the STEM field. Weaknesses are related to demographic challenges such as depopulation, aging of the population, high unemployment and limited financial resources for unplanned expenses.

The project's opportunities arise from the availability of technological solutions, examples of good practice from the EU, and the possibility of financing from European Union funds. Threats are related to political instability, changes in legislation and economic fluctuations in the global market.

The analysis highlights that internal factors such as natural potential and cooperation in the project team are strengths, while demographic and financial challenges are significant weaknesses. External factors such as political instability and market changes represent threats that can negatively affect the long-term implementation of the project. Opportunities, especially EU funds and technological progress, provide possibilities for strengthening and developing the project despite the challenges.

Overall, PESTLE and SWOT analysis provide a comprehensive understanding of the environment in which the project is being implemented and help plan strategies for managing risks and exploiting opportunities, ensuring successful and sustainable implementation.

2.7. Stakeholder analysis

Stakeholders are all those who are affected by the project or can influence its outcome, either positively or negatively. Stakeholder analysis is important for identifying key participants, their interests and their impact on the sustainability of the project. The target groups of the project have already been defined, but other stakeholders with different levels of influence and interest are additionally analysed.

Interested project stakeholders include employees of the project holder and partners (project team), children and young people, and the general population of Vukovar-Srijem County (VSŽ), the general public, the media, local self-government units (LSGUs) from the LAG area, suppliers, intermediary bodies, and educational institutions.

Analysis by influence and interest shows:

• The general population, the media and educational institutions have a high influence and interest, which should be "kept satisfied" because their attitude strongly influences the perception and acceptance of the project.

• The project team, children and young people and suppliers have high interest and influence, so they need to be "managed closely" to ensure quality implementation.

• Intermediary bodies have low interest and influence, so it is enough to "follow" them.

• The general public and local self-government units (LSGUs) have low influence, but can have high interest, so they need to be "kept informed" to spread knowledge and ensure the sustainability of the project.

This segmentation helps in directing communication and managing stakeholders to increase the success and sustainability of the project.

3. Project goals

Dedicated project goals must be SMART-oriented, that is, specific, measurable, achievable, realistic and time-bound. "The purpose of the project is determined by dedicated goals, which enable the determination of project goals. Only on the basis of such defined goals can we create a complete project plan" (Hauc, 2007:46).

Dedicated goals:

- DG1: Improve the capacities of three civil society organizations for the implementation of STEM programs. This is planned to be achieved through the organization of professional seminars for employees, education for trainers, study visits and work on the development of soft skills. This strengthens the human resources that can implement high-quality and sustainable STEM programs.
- DG2: Create a cooperation plan between CSOs, educational and scientific institutions, which enables the creation of permanent partnerships in the promotion of STEM and ensures the exchange of knowledge, resources and experiences.
- DG3: Involve 200 children and young people from Vukovar-Srijem County in STEM activities. By participating in education, workshops, study visits and content development (such as games), young people will be actively involved in scientific thinking and practice.
- DG4: Develop additional STEM content within the existing permanent exhibition "Science and Imagination for Sustainable Forests", including a mobile application, thereby increasing the accessibility and attractiveness of the content for a wider audience.

Objective goals:

- OG1: Strengthening the capacity of CSOs through professional education will enable the transfer of natural science literacy within the community. Trained personnel will be able to transfer knowledge, skills and attitudes to children, young people and other members of the local community.
- OG2: Strengthened cooperation between CSOs and educational and scientific institutions will enable better and more structured implementation of science popularization programs. This encourages joint action and the creation of innovative educational content.
- OG3: Creating of a collaboration plan ensures the long-term sustainability of project activities and enables the transfer of scientific principles into educational systems and the community even after the project ends.
- OG4: Placing additional content in the Permanent Exhibition (STEM laboratory, microflora, educational sets) allows children and young people to actively participate in research and problem-based learning.
- OG5: Workshops for the promotion of STEM emphasize the scientific view of the world and develop scientific curiosity and critical thinking in children and young people.
- OG6: The "Save the Forests" mobile application provides children and young people with digital access to scientific content, which further increases their involvement and motivation.

The project thus contributes to the creation of a knowledge-based society, the empowerment of young people and the spread of scientific literacy through sustainable and innovative approaches.

4. Plan and risks

Project scope planning includes all activities that need to be performed to deliver a product, service, or result with specified characteristics and functionality (Buble, 2010:50). The plan breaks down all implementation activities in detail according to structure, costs and time frame. The project will last 18 months, in accordance with the terms of the public call.

An important aspect of project planning is risk management. Project risk is defined as an uncertain event that can positively or negatively affect the achievement of objectives (Wysocki and McGary, 2003). According to Zekić (2010), every risk has three elements: the event itself, the probability of occurrence and the potential impact.

The risk analysis identified key risks such as:

- delays in preparing documentation,
- failure to complete activities on time,
- increase in market prices after budget approval,
- delays in payments from the European Social Fund (ESF).

5. Conclusion

Civil society organizations (CSOs) have significant, but still underutilized, potential in the popularization of STEM in Croatia, especially in rural areas with limited institutional capacities. The project "Forest Explorers II" has shown that systematically planned and content-rich CSO activities can have a positive impact on the interest of young people in science and technology. Nevertheless, challenges such as financial instability, political sensitivity and lack of institutional support point to the need to strengthen the mechanisms of support for the civil sector. The effects of the project confirm the hypothesis about the transformative role of CSOs, but for long-term sustainability, it is necessary to improve financing, partnerships and continuity of the program. Such projects have a wider social significance - not only in strengthening knowledge, but also in encouraging values such as curiosity, critical thinking and active citizenship, which are crucial for the sustainable development and revitalization of communities.

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