REPORT ON THE EVALUATION OF THE PROJECT
Regional Science Center - RaSTEM

Contract number:	04-UBS-Š-0617/22-15						
Project title:	Regional Science Center - RaSTEM						
Project promoter:	City of Šibenik						
Project partners:	1. University of Zagreb; Faculty of Electrical Engineering and Computing 2. Meterize Elementary School 3. Brodarica Elementary School 4. Juraj Dalmatinac Elementary School 5. Croatian robotics association HROBOS 6. Oslo Metropolitan University 7. Skradin Elementary School 8. Murterski škoji Elementary School 9. Vrpolje Elementary School 10. Šižgorić Elementary School						
Eligible amount:	2,042,449.12 EUR						
Start / End date of the Project:	DD	MM	YYYY	to	DD	MM	YYYY
	01	07	2022		30	04	2024

1. Were all project activities implemented in accordance with the Grant Agreement?

The implementation of project activities was predominantly in line with the provisions outlined in Annex I of the Grant Agreement.

Key Activities were:

- Activity 1: Teacher education Martin Sekulić
- Activity 2: Education of pupils - New Nikola Tesla
- Activity 3: Establishing and equipping the Regional Scientific Center - RaSTEM
- Activity 4: Teacher education on the topic of entrepreneurship
- Activity 5: Education of pupils on the subject of entrepreneurship

Minor adjustments were necessary due to procurement delays and budgetary constraints for specific activities. For example, the construction and equipping of the STEM classroom at Juraj Dalmatinac Elementary School required additional funding, secured by the City of Šibenik, to cover unforeseen costs. Similarly, the procurement for the STEM garden at Robert Visiani School had to be repeated due to a lack of initial bids.

These delays prompted a formal extension of the project. Addendum II to the Agreement extended the project's duration by one~~three~~ month~~s~~, from July 1, 2022, to April 30, 2024.

Additionally, changes in supplier availability for certain equipment caused a shift in timelines for deliveries, requiring project managers to adapt schedules accordingly. Despite these delays, the project team demonstrated strong organizational skills, ensuring all activities were completed within the extended timeframe.

It is worth highlighting that the communication channels established with stakeholders, including local schools and municipal representatives, facilitated the resolution of challenges promptly. Regular progress updates and collaborative problem-solving significantly contributed to maintaining the overall integrity of the project plan.

2. Were all planned project results achieved within the implementation period?

All planned results were successfully achieved, as follows:

- Result 1: Created educational programs - STEM area and thematic areas of entrepreneurship
- Result 2: Improved skills of 15 teachers and 205 pupils in elementary schools ŠKŽ: Elementary School Meterize, Elementary School Brodarica, Elementary School Juraj Dalmatinac, Elementary School Juraj Šižgorić, Elementary School Skradin, Elementary School Murter, Elementary School Vrpolje
- Result 3: Modernized infrastructure of the City of Šibenik Incubator, Elementary School Meterize and Elementary School Juraj Dalmatinac, and equipped 7 schools of Šibenik-Knin County to conduct STEM activities.

Deliverables included the development of new, modern and relevant STEM programs, teacher training, and the construction of specialized educational infrastructure. Notable achievements included the introduction of curricula focusing on robotics, climate change, and entrepreneurship, alongside the training of 15 teachers in these areas. These educators participated in a prominent "training of trainers" program and presented their outcomes at a recognized conference.

Furthermore, the STEM classroom and garden were not only completed but also actively integrated into the school curriculum. Teachers reported increased pupil engagement in STEM subjects,

particularly in practical and project-based learning activities. This indicates the project's positive influence on educational practices within the schools involved.

To ensure sustainability, the project team also developed a digital repository of educational materials, making them accessible to a wider audience of teachers and pupils. This repository includes lesson plans, interactive content, and evaluation tools that can be continuously updated, maximizing the project's long-term impact.

All planned project results were achieved within the extended project duration, from July 1, 2022, to April 30, 2024. The extension did not affect the quality of activity implementation, and the results were fully realized.

3. Was the planned contribution to the Program results achieved during the implementation period?

The project significantly contributed to the overarching goals of the Program by fostering innovation and enhancing STEM education within the region. Its alignment with Program objectives, such as improving educational standards and strengthening international cooperation, was evident in following outcomes and outputs:

- Outcome B.1. Supported bilateral cooperation
- Outcome 2. Improved STEM skills
- Output 2.3. Improved STEM skills of teachers and other educational workers in primary schools
- Output 2.2. Established Regional Scientific Centers.

In addition to enhancing educational content, the project played a great role in creating partnerships between schools, municipal authorities, and international institutions. The collaboration with Oslo Metropolitan University brought valuable expertise to curriculum development and established a framework for future joint initiatives.

4. Were all prerequisites for the sustainability of the project ensured in accordance with the Grant Agreement and Article 8.14 of the Regulation?

An Agreement on the Establishment of the Regional Science Center signed on April 26, 2024, between the City of Šibenik and the New Technology Incubator Trokut d.o.o. was concluded, with an obligation for it to operate for at least 5 years after the completion of the project, along with a Framework for the Establishment of the Regional Science Center, which also includes the prerequisites for the sustainability of the RaSTEM Center.

The project team ensured sustainability measures were embedded in its design and implementation. Key prerequisites, such as stakeholder engagement, capacity-building initiatives, and infrastructure durability, were addressed comprehensively.

For instance, partnerships with local and regional stakeholders ensured that the newly developed STEM curricula would remain relevant and adaptable to future needs. The involvement of municipal representatives in the planning phase further cemented long-term institutional support for project outcomes.

Moreover, training sessions for teachers emphasized not only technical skills but also pedagogical approaches, ensuring educators felt confident in delivering STEM content. Feedback mechanisms were established to allow teachers to share insights and continuously improve their teaching strategies, further contributing to the project's sustainability.

5. Were all mandatory requirements regarding ownership of project results met in accordance with the Grant Agreement, partnership agreements, and Article 8.3 of the Regulation?

Within the Agreement on the Establishment of the RaSTEM Regional Science Center, an obligation was defined to maintain the equipment for 5 years after the project's completion.

The Project Promoter and Partners are the owners of the assets acquired within the Project and Promoters of other rights related to the results of the Project, including intellectual property rights, in accordance with Annex I of the Special Terms and Conditions. All property rights and intellectual property rights (industrial property rights, copyright) over the results of the Project and/or related to the results of the Project and/or with financing in the execution of this Agreement shall not be transferred by the Project Promoter and Partners to third parties without the prior written consent of the Program Manager in for a period of 5 years from the approval of the final report by the Program Manager.

6. Did the project achieve the planned contributions to horizontal principles (good governance, sustainable development, long-term economic growth, social cohesion, and environmental protection) in accordance with the Agreement?

Good Governance

The project demonstrated strong adherence to good governance principles by ensuring transparent decision-making processes, active stakeholder involvement, and accountability at all levels of implementation. Regular consultations with partners, including local schools and international collaborators, ensured that project objectives aligned with community needs and expectations. Transparent procurement procedures and consistent communication between the project team and stakeholders further emphasized the project’s commitment to good governance.

Sustainable Development

Sustainability was a core focus of the project, with measures integrated at every stage of implementation. The construction of the STEM center and procurement of equipment utilized energy-efficient materials and processes to minimize environmental impact. Furthermore, the project introduced educational content centered on sustainable practices, such as renewable energy and resource management, equipping pupils with knowledge essential for addressing future sustainability challenges.

Long-Term Economic Growth

The project significantly contributed to long-term economic growth by enhancing the skills of teachers and pupils in STEM fields, which are critical for fostering innovation and competitiveness in the labor market. Teachers trained through the project gained advanced competencies, enabling them to better prepare pupils for careers in high-demand STEM industries. Additionally, pupils acquired practical, market-relevant skills, improving their employability and ability to contribute to the local and regional economy.

Social Cohesion

Social cohesion was promoted through inclusive education initiatives that addressed the needs of diverse pupil groups, including those from disadvantaged backgrounds and pupils with special educational needs. By ensuring equal access to STEM programs and resources, the project reduced barriers to education and promoted a sense of community among participants. Collaborative activities, such as joint workshops and events, strengthened relationships among schools, families, and local organizations.

Environmental Protection

The project prioritized environmental protection by incorporating eco-friendly practices and principles into both its activities and infrastructure. The STEM garden, for instance, serves as a practical learning environment where pupils can explore concepts related to biodiversity, conservation, and climate change. Additionally, the project emphasized the use of digital materials and a "paperless office" approach to minimize waste and promote sustainable operational practices.

7. Conclusion and Recommendations

The project demonstrated strong compliance with its objectives and contractual obligations, overcoming minor operational challenges to achieve significant results. The development of innovative educational programs, and a sustainable framework for STEM education underscores its success.

The Regional Science Center – RaSTEM project has significantly improved STEM education capacities in Šibenik and the surrounding region. By addressing infrastructure, skill development, and sustainability, the project sets a benchmark for similar initiatives in Croatia.

Given the success of the RaSTEM project, there is a potential for expanding the project's geographical reach to other regions of Croatia, ensuring equitable access to STEM resources.

Recommendations for the project promoter and partners:

- Enhance risk assessment mechanisms to anticipate procurement challenges and budgetary adjustments in future projects.
- Promote further international collaboration to expand the scope of STEM programs and share best practices.
- Conduct periodic reviews of the implemented curricula to ensure they remain aligned with technological and educational advancements.
- Develop additional partnerships with private sector organizations to secure funding for scaling similar initiatives in other regions.
- Improve visibility, regular updates and news are needed, on a web, but even more important, on social media

Given the evident need for continued investment in STEM education, this project demonstrates the potential to inspire future generations, foster innovation, and contribute to regional and national development. Expanding activities and securing additional funding will ensure the long-term success and scalability of this impactful initiative.

Recommendations for the possible continuation of funding of the center's activities in the next financial period:

- ✓ To organize training for teachers from other schools in area and from the other counties in Republic of Croatia.
- ✓ To develop teaching and learning material, interactive, multimedia and with free online access for teachers and pupils.
- ✓ To establish programs and content for new professions and professions of the future
- ✓ To establish an organizational structure for transformation into a center of excellence.

Boris Počuča, prof.