REPORT ON THE EVALUATION OF THE PROJECT

Adriatic RZC STEM; Adriatic Regional Science Centre for Skills Development in the Field of STEM, ICT, Entrepreneurship and Active Citizenship

Contract number:	04-UBS-S-0618/22-17						
Project title:	Adriatic RSC STEM; Adriatic Regional Science Centre for Skills Development in the Field of STEM, ICT, Entrepreneurship and Active Citizenship						
Project promoter:	Split-Dalmatia County						
Project partners:	Lika – Senj County The Town of Gospic Split-Dalmatia County Centre of excellence Cluster for eco-social innovation and development CEDRA Split International Development Norway (IDN) Faculty of Science and Mathematics in Split University Algebra Kostrena Elementary School National Centre for External Evaluation of Education Public institution development agency of Lika-Senj County Lira						
Eligible amount:	2.757.868,03 EUR						
Start / End date of the Project:	DD	MM	YYYY	to	DD	MM	YYYY
	01	08	2022		30	01	2025

1. Were all project activities implemented in line with the Annex I. of the Project contract?

All project activities were implemented in alignment with Annex I of the Project Contract, but with certain adjustments that were agreed upon with the Programme Operator , who approved them. The adjustments were mostly defined in Addendum I (the location of the premises for the RSC was moved from the Primary School in Solin to Ruđera Boškovića 20 in Split, and the target value of indicator 2.1.1 was changed from 3 to 2) and in Addendum II to the Project Contract and in the Notifications of minor changes (nine in total, with a note that OMI 5 is missing from the available documentation).

The Notifications of minor changes were used to make adjustments in accordance with the actual needs of the beneficiaries and ongoing changes within the partner organisations. During the implementation of the project, the needs of the target groups were taken into account, which led to modifications of certain project sub-activities (for example, the introduction of the DroneLab programme).

The Regional Science Centre for Skills Development in the Field of STEM, ICT, Entrepreneurship and Active Citizenship was successfully established in Split (Split-Dalmatia County), with branch offices strategically positioned in Gospić (Lika-Senj County) and Kostrena (Primorje-Gorski Kotar County). All facilities were equipped with state-of-the-art STEM tools, providing a stimulating and advanced environment for interdisciplinary learning and skills development.

All seven project activities were successfully implemented in full alignment with Annex I of the Project Contract, Addendum I and Addendum II, the Notifications of minor changes, as well as through the effective use of the flexible measure (which was requested and duly approved on three occasions). These activities include:

1. Establishment and Operation of the Adriatic Regional Science Centre (RZC) for STEM

Following the signing of Addendum II, this activity was successfully implemented with certain modifications, including changes in the composition of the working group, the location, and the study visit within Croatia.

Due to the change of location during project implementation, the Project Promotor proactively collected all the necessary documentation for the relocation of the RSC premises, which temporarily impacted the project timeline. Upon approval of the Notification of Project Contract Modification, on 27 March 2023, an Addendum to the Project Contract was signed, formally regulating the approved change concerning the new investment site for the establishment of the Adriatic RSC STEM.

Faced with unforeseen construction challenges at the RSZC site in Split-Dalmatia County (such as water ingress, stormwater issues, etc.), the project team efficiently addressed these obstacles by successfully applying for and receiving approval for the use of the flexible measure on three occasions, ultimately extending the deadline to 30 January 2025.

In the period following the official completion of the project (30 April 2024) and until the end of the flexible measure period, the final activities were effectively completed, resulting in the successful furnishing and full operational setup of the RSC premises.

The study visit to an example of good practice in Croatia was postponed due to scheduling conflicts with the host organisations. Nevertheless, the activities aimed at ensuring the sustainable development of the RSC were thoughtfully organised after the completion of the majority of project activities, enabling stakeholders to prepare high-quality and meaningful project concepts for the future development and sustainability of the RSC.

2. Adaptation, Renovation, and Equipment of the Adriatic RSC STEM Premises

Several key changes occurred in relation to this activity, which influenced the implementation of the project, specifically its timeline, location, and the structure of activities, involving both the Project Promotor and Split-Dalmatia County, as well as Project Partner 1, Lika-Senj County.

- With the change of the investment location, the Project Contract was accordingly amended through Addendum I. Instead of the originally planned site at Don Lovre Katić Primary School in Solin, founded by Split-Dalmatia County, the investment for the establishment of the RSC in Split-Dalmatia County was successfully relocated to Ruđera Boškovića 20 and Ruđera Boškovića 18, properties utilised by Split-Dalmatia County.
- Based on the Usage Agreement (No. 340-03/2022), Split-Dalmatia County was granted the right to use a business premises of 1,605.83 m² by the Republic of Croatia, as the property owner. The premises are located on cadastral plots no. 13979/4 and 13979/3, Cadastral Municipality Split, within the properties recorded as land registry entries no. ZGR 5355/3,

RESIDENTIAL-BUSINESS BUILDING, Ruđera Boškovića 20, and no. 5355/4, RESIDENTIAL-BUSINESS BUILDING, Ruđera Boškovića 18, both entered under land registry file no. 15443, Cadastral Municipality Split, at the Land Registry Department of the Municipal Court in Split. The premises were designated for the activities of the Split-Dalmatia County Health Centre, the Centre of Excellence of Split-Dalmatia County, and the Regional Science Centre, thereby ensuring a sustainable and strategically significant location for the RSC's operations.

- At the new location, approximately 471 m² of space was successfully adapted, housing six fully equipped rooms dedicated to the RSC: RoboLab, TeslaLab 1, TeslaLab 2, VRLab, the PAG classroom, and a training classroom for teachers. Since the users of these premises and equipment include all target groups of the project, as well as, beyond the project's completion, other interested and relevant end-users of the Regional Science Centre, the relocation of the premises was essential to achieving the project's goals and results.
  The primary users of the space and equipment are, of course, teachers and other educational professionals who participated in the training sessions and subsequently engaged in the preparation and implementation of programmes and activities in the fields of STEM, ICT, entrepreneurship, and active citizenship. Furthermore, students participating in these programmes and activities, as well as other relevant stakeholders in STEM, ICT, entrepreneurship, and active citizenship initiatives — including STEM mentors, scientists and researchers, innovators, entrepreneurs, and representatives of relevant public and private institutions, associations, and organisations — will significantly benefit from the Centre.
  One of the major advantages of the new location is that having the RSC headquarters in Split ensures that the Adriatic RSC's programmes are geographically more accessible to a larger number of potential users while also providing greater visibility for this important investment. The relocation from Location A to Location B has a direct positive impact on the sustainability of the Regional Science Centre, which, in line with the Strategic Plan of the Ministry of Science and Education of the Republic of Croatia, aims to become a globally competitive, high-quality, accessible, inclusive, and sustainable education system based on excellence and aligned with economic and societal needs. It is a system in which children, pupils, and students acquire essential knowledge and skills, develop entrepreneurial spirit, responsibility, and innovation in their work, where educational professionals enjoy appropriate status, strong professional and motivational roles, and significant autonomy and responsibility in their work, and where parents are more actively involved in the educational process — all contributing to a scientific system that drives economic and social growth and development.

- Delays in the procurement process for the adaptation of the RSC premises in Split-Dalmatia County impacted the implementation of other project activities, as well as the execution of other planned procurements within the project. Consequently, the renovation works for the RSC premises in Split-Dalmatia County experienced delays, which necessitated the activation of Plan B for the implementation of project activities.
  Due to these delays in the adaptation works, the flexible measure was requested on three separate occasions, effectively extending the final deadline of the flexible measure period. The first request for the flexible measure was submitted on 10 April 2024 and was approved by the Programme Operator on 2 May 2024. The second request was made on 19 August 2024 and approved on 27 August 2024. The third and final request was submitted on 18 December 2024 and received approval on 20 December 2024.
  These extensions were necessitated by unforeseen challenges at the construction site, which affected the timeline of the adaptation works, including:

- Water ingress into the premises, requiring remediation of the terrace located above the targeted space;
- Deteriorated condition of the reinforced concrete beam intended to support the new steel structure for the gallery extension, necessitating urgent structural intervention;
- Water leakage from the building's vertical (wastewater) pipe, which required immediate repair.

  Despite these challenges, the project team demonstrated resilience and proactive management, successfully securing the necessary approvals to ensure the timely and quality completion of the works, thereby safeguarding the project's objectives and long-term impact.

- The partner, Lika-Senj County, also experienced delays in the procurement procedure for the "Furnishing of the RSC in Lika-Senj County – Furniture." Due to the unplanned extension of the procurement process, it was not possible to acquire the complete set of furniture as initially envisaged, and the expenditure item was accordingly reduced by the total value of the equipment not procured.

  However, the funds were successfully reallocated to other project components, resulting in the procurement of high-value specialised equipment, including:
  - Specialised drone equipment (drones with accompanying accessories, workstations, and software);
  - Specialised robotics equipment (robotics kits for constructing and programming robotic systems, kits with sensors and electronic components, and sets for exercises in motion transmission and electrical circuits);
  - Specialised ICT and multimedia equipment (interactive screens and workstations for 3D modelling);
  - System integration to ensure full operational functionality of the procured equipment;
  - Licences and office software packages.

  This strategic reallocation of resources enabled the project to enhance its technological capacity, equip the Centre with cutting-edge tools, and further strengthen the implementation of educational programmes in the fields of STEM, ICT, and robotics, ensuring long-term benefits for all target groups.

The procurement of furniture and equipment for equipping the RSC in Split-Dalmatia County experienced delays, with delivery and installation completed by the end of 2023. In the interim period, while awaiting the delivery of the new equipment, project activities were successfully carried out using the existing equipment of the Split-Dalmatia County Centre of Excellence and partner schools.

To mitigate the risk of delays in the implementation of specific project activities involving teachers and students, Plan B was effectively activated. The premises of the Split-Dalmatia County Centre of Excellence were adapted and financed from own resources, ensuring continuity in project implementation. Activities with teachers and students were successfully delivered in these adapted spaces, allowing the project to maintain momentum and achieve its objectives despite procurement delays.

All indicators have been achieved. A branch was not established at the Primary School in Pakoštane, but this did not affect the achievement of the project results. It is recommended that, in the next period, a third branch be established, preferably through cooperation with an organisation in Zadar

County or another neighbouring county, in order to put the procured equipment to use and to multiply and expand the reach of the project's positive results and impact. This recommendation is also aligned with the Strategic Development Plan of the Adriatic Regional Science Centre.

3. Development of a Learning and Practical Work Model for Classroom, Extracurricular, and/or Out-of-School Activities in STEM, ICT, Entrepreneurship, and Active Citizenship

The activity was successfully implemented with minor adjustments, such as the replacement of some team members originally planned for the delivery of project activities. However, these changes did not significantly affect the implementation of the project or the achievement of the planned outcomes and project flow.

Given that certain activities were extended within the framework of the flexible measure, it was not possible to conduct the analytical survey prior to the completion of all activities. Due to the large number of participants involved in the project activities and the complexity of the process required to analyse the collected survey data and prepare the final report, it was essential to allocate additional time. This ensured that the collection and processing of evaluation questionnaires, as well as the preparation of evaluation reports, were carried out thoroughly and to a high standard of quality.

4. Professional Development Activities for Primary School Teachers and Other Educational Staff in ICT, Entrepreneurship, and Active Citizenship

Part of the activities under A4 was implemented during the period of the flexible measures, as it was necessary to procure specialised equipment for the delivery of these activities (drones), as well as to engage external experts and coordinate with organisations outside the project partnership for the implementation of specific trainings and workshops. These included collaboration with the Science Centre and the NTNU University in Trondheim, as well as external STEM specialists.

- The training sessions on "Integrated Interdisciplinary Project-Based Learning in STEM Fields for Blue and Green Economy and Innovation" were held in August 2024, as the activities were delivered by external STEM experts who were unavailable to conduct the sessions prior to the application of the flexible measure.
- The Summer STEM School was postponed due to the high accommodation costs during the tourist season and was successfully held in April 2024.
- The study visit to Norway took place in April 2024. The visit was rescheduled to April following coordination of dates and programme details with the Norwegian partner, IDN, and in alignment with the availability of the Science Centre Vitensenteret and the Norwegian University of Science and Technology (NTNU).
- During project implementation and work with the target groups, the importance and strong interest of stakeholders in the field of unmanned aerial vehicles (drones) became evident. In response, new sub-activities were successfully introduced, which is particularly noteworthy. The DroneLab programme was developed, DroneLab workshops were delivered, and the Drone Exhibition event was organised. These activities could not be conducted until the specialised equipment was procured, which was successfully acquired towards the end of the project implementation period (April 2024).

5. Professional Development Activities for Primary School Teachers and Other Educational Staff in ICT, Entrepreneurship, and Active Citizenship

To bring eco-social entrepreneurship closer to educational staff and students, an e-pub manual titled "Eco-Social Entrepreneurial and Project-Based Learning: A Practical Guide for Educational Professionals and Practice" was developed.

Due to high accommodation costs during the tourist season, the Summer School (Summer ICT and Active Citizenship Programme) was postponed and successfully delivered via the Edux platform at the end of 2024. Additional time was required to prepare the online video materials and instructions, ensuring a high-quality digital learning experience for all participants.

6. Activities for the Development and Enhancement of STEM Skills among Primary School Students

Part of the activities under A6 was implemented during the period of the flexible measures, as it was necessary to procure specialised equipment (drones) to enable the successful delivery of these activities.

- The animation workshops were not organised as standalone activities but were instead delivered by educational staff together with students during regular class hours (in subjects such as mathematics, physics, chemistry, and/or biology) and during homeroom sessions. These workshops were completed by the end of December 2023. The implementation of these activities, in close cooperation with the educational staff, demonstrated that students were more engaged and more willing to participate in the workshops when presented by familiar teachers, which proved to be an effective approach.
- Due to delays in the procurement of equipment, the student workshops began in November 2023. While awaiting the full delivery of the new equipment, existing equipment from the Split-Dalmatia County Centre of Excellence and partner schools was effectively utilised to ensure continuity in the delivery of activities.
- Owing to better organisational opportunities and greater interest from target groups in Split-Dalmatia County, the robotics showcase and competition were successfully held in Split-Dalmatia County, as part of the Festival of Excellence 2024.
- During project implementation and engagement with target groups, the importance of and strong interest in unmanned aerial vehicles (drones) among stakeholders became increasingly evident. In response, new sub-activities were successfully introduced. The DroneLab programme was developed, DroneLab workshops were delivered, and the Drone Exhibition event was organised. These activities could only be launched after the procurement of the specialised equipment, which was successfully completed towards the end of the project implementation period (April 2024).

7. Development and Implementation of Educational Programmes and Extracurricular and/or Out-of-School Activities for Primary School Students in ICT, Entrepreneurship, and Active Citizenship

All activities under Activity 7 were successfully implemented, with only minor delays and/or deviations.

Thanks to better organisational opportunities and heightened interest from target groups in Split-Dalmatia County, the student project and work fair and showcase was successfully held in Split-Dalmatia County, as part of the Festival of Excellence 2024. This ensured greater visibility for students' work and further strengthened engagement across all target groups.

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

The project successfully achieved almost all of its planned results within the implementation period.

Result 1: A sustainable regional, national, and international partnership was established with at least 11 stakeholders involved in the creation of the regional science centre and in the design of programmes and activities aimed at developing skills and fostering a system of excellence in STEM, ICT, entrepreneurship, and active citizenship.

Result 1 was fully achieved. Throughout the project, 11 international partners actively contributed to the development of innovative models, programmes, and projects aimed at creating the foundations for sustainable and regenerative social and economic development for stakeholders and local communities. The project led to the development of new programmes, as well as models for learning and working in classroom settings in the fields of STEM, ICT, and active citizenship. A comprehensive set of workshops, training sessions, and events in these fields was delivered for educational staff and students.

Programmes for students: CIM (mathematics), CIP (natural sciences), CII (informatics), CINTI (new technologies), CIBA (heritage guardians), CIPO (local souvenir creation), CIMAJ (multimedia and languages), RAST, Mother Earth, RoboStart, and DroneLab.

Programmes for educational staff: STEM MENTOR, Advanced Training Programme for Working with Gifted Students, DroneLab, ICT MENTOR, Active Citizenship MENTOR, Robostart, CIMAJ, Heritage Guardians, RAST, and Local Souvenir Creation.

These initiatives significantly strengthened the capacities of all stakeholders, enabling them to recognise and further develop their potential, and ensuring a synergistic effect throughout the entire project.

Result 2: Improved infrastructure and capacities of primary schools to promote skills and excellence in the fields of STEM, ICT, entrepreneurship, and active citizenship in Adriatic Croatia.

Unlike Result 1, Result 2 was not fully achieved, as per the indicator 2.1.1., *Number of primary schools that have modernised and/or equipped STEM classrooms* — only one school was equipped, compared to the three schools originally targeted in the project application, even though this target was later adjusted to two schools in Addendum I of the Project Contract.

Nevertheless, significant progress was made:
A total of six classrooms and auxiliary spaces, covering an area of 485 m², were successfully adapted and equipped at the Adriatic RSC in Split (Split-Dalmatia County). Additionally, one conference hall of 177 m² and four rooms totalling 127 m² were adapted and equipped at the Cultural and Information Centre in Gospić (Lika-Senj County).

Procurement included six sets of equipment and furniture and one set of consumables for the effective functioning and delivery of STEM education programmes for students and educational staff at the Adriatic RSC. Furthermore, one set of equipment and furniture was procured for the conference hall, three sets of equipment and furniture for additional rooms, and one set of consumables to support the smooth delivery of education programmes at the Gospić RSC branch in the KIC Gospić.

Additionally, one set of equipment and furniture was delivered for a STEM classroom at the RSC branch in Primorje-Gorski Kotar County (Primary School Kostrena).

Basic and specialised equipment was also procured to support workshops and training sessions in STEM and ICT fields, along with consumable materials and essential equipment. The equipment package included: basic ICT and multimedia equipment sets (computers, laptops and accessories,

printers and scanners, interactive screens, projectors), robotics sets, VR lab kits, electronics kits, additional sets with sensors and electronics accessories, motor and sensor sets, building elements for robotics practice, 3D modelling kits, and drone sets (including drones, workstations, and simulators).

The adapted and modernised infrastructure and equipment stimulated creativity, innovation, collaboration, and sustainable joint action among all project partners and engaged stakeholders from the public, private, and civil sectors. The project also successfully organised a series of **"creathons"** (creative hackathons) to further engage additional stakeholders and support the continuous development and improvement of the RSC.

The creathons were held from May to August 2024 in the following locations: Duga Resa (13 May), Kostrena (4 June), Pula (5 June), Brela (10 June), Murter (13 June), Zadar (19 June), and two in Split (29 August). These events were organised in collaboration with project partners and relevant stakeholders, focusing on mapping their interests, opportunities, needs, resources, and potential contributions to ensure the sustainability and future growth, expansion, branding, marketing, and promotion of the RSC's programmes and activities. The objective was to bring stakeholders together, form dedicated teams, and develop proposals for strategic programmes and projects in preparation for priority funding calls, with an emphasis on securing long-term financing.

Following the creathons, the document *"Concepts for Strategic and Standard Projects for Excellence and for a Smart, Inclusive, Balanced, and Green Transition of Education, Society, and the Economy in the Republic of Croatia and the European Union"* was prepared, laying the groundwork for future project development and strategic planning.

Result 3: Initiated programmes, projects, and activities that contribute to the competitiveness of human resources — teachers, educational staff, students, primary schools, as well as local and regional communities and their economies.

In line with the project plan, this result was fully achieved, as new programmes for both educational staff and students, as outlined under Result 1, were successfully launched. These initiatives have enhanced the competencies of both educational staff and students, significantly contributing to the competitiveness of human resources.

By participating in these programmes, both students and educational staff have strengthened their skills and competencies, thereby not only increasing their own potential but also enhancing the capacities of their organisations and the broader local and regional communities.

Project activities maintained a strong focus on building teachers' capacities in STEM education, with a key emphasis on fostering synergy throughout the process. At the same time, students developed critical and divergent thinking, creativity, originality, initiative, problem-solving skills, and scientific awareness.

Programmes, projects, and activities that are essential for the success and sustainability of the RZC were successfully initiated, as these are crucial for the quality of delivery, positive learning outcomes, satisfaction among students, parents, teachers, and educational staff, and thus for the long-term success and sustainability of STEM education itself.

This was particularly evident through the implementation of STEM, ICT, and active citizenship programmes for educational staff and students, as well as through the organisation of study visits showcasing good practices, and the delivery of festivals, fairs, and conferences that facilitated experience-sharing and the promotion of various initiatives and projects.

3. Was the planned contribution to the Programme results achieved within the project implementation period?

The project made significant contributions to the Programme results by addressing key educational gaps in the region. Its focus on building STEM competencies was fully aligned with the Programme's objectives, fostering both innovation and educational excellence.

Programme Result 2: Improved STEM Skills

The planned contribution to this Programme result was fully achieved. Through the implementation of infrastructural investments (investment in the RSC and its branches, procurement of furniture and equipment), educational activities (workshops, experience-sharing initiatives, etc.), organisational efforts (establishment of expert groups, platforms, partnerships), and especially through practical activities (projects and programmes in STEM, ICT, entrepreneurship, and active citizenship), both educational staff and students significantly enhanced their STEM skills.

Moreover, these skills were effectively connected with other key competencies — such as ICT, entrepreneurship, active citizenship, creativity, innovation, project-based learning, financing, and management — tailored to the specific needs, opportunities, and interests of students, educational staff, schools, and, notably, the targeted local communities, local and regional economies, as well as regional specialisations (S3 strategies), and the objectives of local development strategies (local and regional self-government units), the Republic of Croatia, and the EU/EEA.

As a result, students, educational staff, and other stakeholders have improved their professional development prospects, career advancement opportunities, and their capacity to positively impact their personal, educational, and current or future work environments. This is particularly evident from the positive responses in surveys completed by students and educational staff, which confirm improvements in their knowledge and skills in the areas of STEM, ICT, and active citizenship.

A total of **320 educational staff** participated in the project, alongside **1,268 students**. The project successfully developed **10 programmes for educational staff** and **11 programmes for students**. Programmes, workshops, training sessions, and events were delivered across Split-Dalmatia County, Lika-Senj County, Zadar County, and Primorje-Gorski Kotar County.

Key events included **3 ENTER conferences**, **2 Festivals of Excellence**, a **Robotics Fair**, and the **DroneLab showcase**. The implementation of programmes such as STEM Mentor, ICT and Active Citizenship Mentor, Teacher for teacher (Independent Scientific Work), and the Integrated Interdisciplinary Project-Based Learning in STEM Fields for the Blue and Green Economy and Innovation significantly strengthened the capacities of educational staff in the STEM field.

Through the delivery of STEM programmes for students — including STEM, ICT, and active citizenship workshops, and programmes such as CIM (Centre of Excellence in Mathematics), CIP (Centre of Excellence in Natural Sciences), CII (Centre of Excellence in Informatics), CINTI (Centre of Excellence in New Technologies), Robostart, DroneLab, CIPO (Local Souvenir Creation), CIBA (Centre of Excellence – Heritage Guardians), Mother Earth, RAST, and CIMAJ (Centre of Excellence in Multimedia and Languages) — students have successfully developed and strengthened their STEM competencies.

Programme Result 2.2: Established Regional Scientific Centres

The planned contribution to this Programme result was fully achieved, despite certain deviations from the original plan. Specifically, the investment site was changed, and the RSC in Split-Dalmatia County was successfully established at its new premises, with a physical headquarters at Ruđera Boškovića 18 and 20 in Split, instead of the originally planned location at Don Lovre Katić Primary School.

This change in the investment location led to delays in the procurement process for the adaptation of the new premises, requiring an extension of the project timeline through the application of the flexible measure. Additionally, the partner, Lika-Senj County, also experienced delays in the procurement process for the "Furnishing of the RSC in Lika-Senj County – Furniture." Due to the unplanned extension of this procurement, it was not possible to complete the acquisition of all planned equipment, and this cost item was consequently reduced by the value of the unprocured equipment.

However, with the conclusion of the flexible measure period, all works were successfully completed, and the project established a fully functional **Regional Science Centre**, with its main hub in Split-Dalmatia County and branch offices in Lika-Senj County (Gospić) and Primorje-Gorski Kotar County (Kostrena). Existing premises were adapted and equipped with furniture, technology (ICT and computing equipment, specialised robotics equipment, drone lab and VR lab equipment, laptops, servers, a full set of equipment for the conference hall), and materials for the delivery of activities in STEM, ICT, entrepreneurship, and active citizenship (including educational and consumable materials for trainings).

The establishment of a fully operational RSC has created a multifunctional, smart, and sustainably managed educational, advisory-support, RDI (Research, Development and Innovation), and interactive collaborative infrastructure. This has resulted in the creation of an integrated regional and national network of adaptable spaces and centres of excellence for communication, interaction, co-creative learning, and cross-sectoral project and programme collaboration among educational staff, students, parents, external collaborators and partners, businesses, local authorities, civil society organisations, and other institutions (for example, in the fields of science, RDI, entrepreneurship, environmental protection, cultural heritage, etc.).

The Centre was established with two, rather than three, branches as originally planned. A branch was not established at the Primary School in Pakoštane, but this did not affect the achievement of the project results, all have been met. It is recommended that, in the next period, a third branch be established, preferably through cooperation with an organisation in Zadar County or another neighbouring county, in order to put the procured equipment to use and to multiply and expand the reach of the project's positive results and impact. According to the Strategic Development Plan of the Adriatic Regional Science Centre, the establishment of new branches is planned for the future.

2.3. Improved STEM Skills of Teachers and Other Educational Staff in Primary Schools

The planned contribution to this result was successfully achieved through a combination of educational, support, programme, and project activities that included the exchange of best practices across Croatia, donor countries, the EU, and globally. Through collaborative work on the design, implementation, monitoring, and evaluation of the outcomes of programmes in the fields of STEM, ICT, entrepreneurship, and active citizenship — as well as through the establishment of an encouraging system of recognition and professional advancement for teachers and educational staff — the project ensured significant progress not only in the enhancement of STEM skills but also in their positive impact on educational staff, primary schools, students, parents, and the broader local and regional community and economy.

The establishment of expert working groups, along with the creation of sustainable models of cooperation with local communities and the business sector, as well as with progressive individuals, innovators, companies, institutions, and associations, provided a framework for continuous, effective, and stakeholder-relevant advancement in the development and application of knowledge and skills. This also ensured the sustainable recognition and rewarding of achievements in STEM and other project areas.

Through the implementation of programmes such as **STEM Mentor**, **ICT and Active Citizenship Mentor**, **NZN – Teacher for Teacher**, and the **Integrated Interdisciplinary Project-Based Learning in STEM Fields for the Blue and Green Economy and Innovation**, the capacities of educational staff in the field of STEM were significantly strengthened.

Programme Result B.1: Supported Bilateral Cooperation

The planned contribution to this result was fully achieved. Given that the project partner **IDN from Norway** operates in the fields of entrepreneurship, innovation, and the development of STEM skills, programmes, and projects, their experience-sharing and strengthening of cooperation significantly contributed to the project's overall success.

IDN is a company with extensive experience in implementing projects funded through public calls and the EEA and Norway Grants, and in developing, implementing, and scaling the results of bilateral cooperation. Throughout the project, the company provided advisory support across relevant project areas, connected partners with stakeholders in Norway, shared experiences and insights on best practices from Norway and beyond, and supported the development of models for long-term sustainable cooperation between project stakeholders in Croatia and Norway.

The partner actively participated in the establishment of support systems, exchange of experiences, evaluation, and continuous improvement of strategies, programmes, and models for teaching, learning, and practical classroom work. Notably, the Norwegian partner developed the document *"STEM Education in Norway – Formal Education and Other Initiatives [Review of Teaching, Learning Methods and Competence Development in Norwegian STEM Education]"* and contributed to the preparation of the document *"Working with Gifted Students: Theoretical Justification, Legal Framework, and a Comparison of the Situation in Croatia and Norway."* Furthermore, the partner provided advisory input during the development of programmes for students and educational staff.

As one of the key project activities, a study visit to Norway was organised (22–25 April 2024) to IDN in Trondheim, the Trondheim Science Centre, and the **Norwegian University of Science and Technology (NTNU)**. At the Science Centre, participants were introduced to the exhibits and educational content, and learned about effective methods for engaging students in STEM fields. The centre's activities and programmes for visitors and students were presented, alongside an exchange of ideas on how similar initiatives could be adapted and implemented at the Adriatic RZC.

At NTNU, a series of STEM workshops were delivered (covering biology and chemistry — microplastics and bioplastics, physics, robotics and electronics, and biology — DNA). Experts presented their methodologies, objectives, and expected outcomes for both teachers and students.

Participants of the study visit gained valuable insights into the operation of the Science Centre, acquired new knowledge through workshop participation, discovered innovative approaches to working with students, and explored strategies to increase student engagement in STEM fields.

International collaboration proved to be one of the project's greatest strengths. By integrating insights from Norwegian pedagogical practices, the project enhanced the quality of local STEM education, ensuring long-term benefits for both educators and students.

4. Are all perquisites for the sustainability of project ensured in line with Annex I. of the Project contract, as well as Article 8.14 of the Regulation?

This project ensured the sustainability of its results even prior to implementation, as it is part of an already ongoing initiative to establish a system of local Centres of Excellence as regional science centres for gifted education, integrated within the national system of excellence and the strategic national project Izvrsna.hr — aimed at establishing a system of excellence and Education 5.0 for Society

and Economy 5.0, with announced support from the Ministry of Regional Development and EU Funds (MRRFEU) and the Ministry of Science and Education (MZO).

Therefore, the project enjoys strong support at the level of Split-Dalmatia County and Lika-Senj County, as well as at the macro-regional and national levels. The sustainability of the project results has been secured through the Agreement on the Establishment of the RSC, signed by all partner institutions involved in the project. Through this agreement, the partners not only guarantee full compliance with all sustainability conditions but also commit to the continuation and further expansion of all programmes and activities initiated by the project, beyond the expected minimum period of five years.

Indeed, this project forms part of the strategic interest of Split-Dalmatia County, Lika-Senj County, and the entire Adriatic Croatia region, as well as numerous other stakeholders engaged in the development of this system across the public, civil, and private sectors.

Sustainability is ensured through the following documents:

- Agreement on the Establishment of the Regional Science Centre of Adriatic Croatia (Adriatic RSC HR), signed by all ten Croatian partners
- Model for Participation in the Activities of the Regional Science Centre of Adriatic Croatia
- Concepts for Strategic and Standard Projects for Excellence in Education, Society, and the Economy, and for the Sustainability of the RSC System
- Strategic Development Plan of the Regional Science Centre of Adriatic Croatia (Adriatic RSC HR)
- Financing and Sustainability Plan for the Regional Science Centre of Adriatic Croatia (Adriatic RSC HR)
- Management Plan for the Regional Science Centre
- Statute of the Public Institution “Centre of Excellence of Split-Dalmatia County” for Adult Education
- Decision on the Appointment of the Head of the Gospić Branch of the Regional Science Centre of Adriatic Croatia (RSC)
- Decision on the Appointment of the Head of the Kostrena Branch of the Regional Science Centre of Adriatic Croatia (RSC)
- Rules of Procedure for the Lika Branch

5. Are all mandatory requirements involving ownership of project results met, in line with the Project contract, Partnership agreement(s), as well as the provisions of the Article 8.3. of the Regulation?

Ownership of project assets, including the Regional Science Centre of Adriatic Croatia and STEM laboratories, has been clearly defined in accordance with Article 8.3 of the Regulation. Formal agreements between stakeholders guarantee the exclusive educational use of these resources.

The committed support of Split-Dalmatia and Lika-Senj Counties, along with Primary School Kostrena, ensures the long-term maintenance and sustainability of these assets. Regular audits and monitoring activities confirm the alignment of asset use with the project’s objectives, thereby safeguarding the results for future generations. A comprehensive insurance policy covering the spaces and equipment has been concluded.

The premises and equipment of the Regional Science Centre of Adriatic Croatia at the Gospić branch and Primary School Kostrena will continue to be insured through the financial resources of Split-Dalmatia, Lika-Senj and Primorje-Gorski Kotar (which insures the entire school premises). Moreover, all equipment procured under the project and owned by the respective counties has been incorporated into the relevant insurance policies.

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

Good Governance

The project team demonstrated solid practices in project management, including procedural transparency, regular communication with all stakeholders, and timely reporting to the Programme Manager. Three on-site inspections further confirmed the effectiveness of the project's management.

Sustainable Development

Through the establishment and operation of the Regional Science Centre, and the implementation of programmes specifically designed for long-term use, the project made a strong contribution to the sustainable development of local communities. Particular emphasis was placed on the utilisation of resources that will continue to be used beyond the completion of the project.

Long-term Economic Growth

The project contributes to long-term economic growth by building the capacities of educational staff, students, and other stakeholders to connect STEM, ICT, entrepreneurship, and active citizenship with the needs and goals of sustainable growth. It strengthens capacities for creating a more competitive workforce and economy, and supports the development of dynamic sectors such as the health industry, eco-friendly food and pharmaceuticals, sustainable tourism, and sustainable entrepreneurial and socio-economic development initiatives led by schools, student cooperatives, local authorities, tourist boards, associations, and SMEs.

Social Cohesion

By selecting a partnership of local and regional authorities (L(R)GUs) from different levels of development, the project has directly contributed to social cohesion. The largest investments and the greatest number of activities were focused on L(R)GUs with lower levels of development. Project activities also included students with special educational needs, encompassing both gifted children and those with learning difficulties. In this way, the project promoted the principles of equality, social justice, and diversified approaches to education, ensuring inclusivity and contributing to the creation of a society of equal opportunities.

Through the integration of eco-social entrepreneurship and active citizenship projects into project activities, the initiative further strengthened social cohesion by fostering a sense of community, responsibility, and cooperation among young people, while reinforcing bonds within local communities.

These approaches not only contribute to economic resilience but also to the strengthening of social cohesion, by fostering sustainable and socially responsible initiatives that engage all stakeholders — from educational institutions to local authorities, associations, and entrepreneurs.

Environmental Protection

Programmes such as "DroneLab" included education on the responsible use of technology, while the activities carried out promoted environmental awareness, including the use of environmentally friendly materials and sustainable working methods.

7. Recommendations for the potential continuation of funding for the Centre's activities in the next financial period.

The project resulted in a document developed through a series of creative workshops – Creathons – involving a large number of initiators, stakeholders, and experts from the Regional Science Centre, as well as other participants from the education, social, and economic sectors, including more than 200 contributors. Some of the proposed projects can be adapted to meet the funding conditions of the Norwegian Financial Mechanism, which is also recommended as a direction for financing new activities of the Centre in the future, especially the series of mutually connected innovative integrated strategic projects that link the goals of education, society, and the economy for excellence and the green transition of the Republic of Croatia. Below is a brief overview of the potential projects:

WiseBioSfera4EU-LIFE

This project integrates education, citizen science, advanced technologies, and regenerative economy to support the mapping, protection, restoration, and sustainable use of nature and biodiversity in Croatia and the EU. Led by a consortium of public and private partners, the project envisions the establishment of regional STEM education and innovation hubs in protected areas, promoting ecological awareness and high-value eco-tourism. It aims to mobilize stakeholders across sectors and regions through collaborative action, capacity building, and cutting-edge monitoring systems using drones, AI, and IoT.

WiseCircles

This initiative aims to implement national and regional circular economy action plans through innovative, community-driven systems. WiseCircles focuses on stakeholder empowerment, the co-creation of circular economy products and services, and ecosystem regeneration using STEAM education, citizen science, and gamified digital tools. It will pilot integrated circular economy models in Croatia and partner EU regions, involving educational institutions, municipalities, NGOs, and business partners to scale sustainable practices and policies.

Wise BioSfera ES4ES

Wise BioSfera ES4ES focuses on creating interconnected educational, scientific, and socio-economic ecosystems to support the protection and regeneration of Natura 2000 habitats and biodiversity. It includes pilot projects across Croatian regions involving schools, research hubs, and protected areas. The initiative utilizes citizen science, remote sensing, and AI to monitor and manage ecological sites, while also fostering regenerative tourism and agriculture. It proposes scalable models for LIFE and Interreg funding, targeting transformative conservation and eco-social innovation.

8. Conclusion and recommendation

The project was successfully brought to completion (instead of ending on 30 April 2024, it concluded on 30 January 2025) despite numerous challenges, from changes in location and construction site issues to delays in public procurement procedures. This success is primarily due to the excellent cooperation and mutual understanding between the Programme Operator, the project partners, and the Project Promotor, as well as the competent and determined project management demonstrated at all levels and by all partners involved.

Despite all potential challenges, the project remained firmly focused on achieving its targeted results, which deserves special recognition. Among the project's significant achievements, it is important to highlight the effective stakeholder collaboration, the high-quality development of infrastructure, and the innovative training programmes, all of which were delivered with precision and creativity.

Equally commendable is the establishment of bilateral cooperation with the project partner IDN from Norway, whose areas of expertise — entrepreneurship, innovation, and the development of STEM skills, programmes, and projects — greatly contributed to the exchange of experiences and the strengthening of international cooperation.

The Regional Scientific Centre of Adriatic Croatia project demonstrated a strong alignment with its objectives, delivering significant outcomes.

The following achievements needs to be highlighted:

- ✓ Exceptional pupils' participation, exceeding initial projections and accompanied by outstanding feedback.
- ✓ Higher-than-anticipated teacher engagement, also receiving excellent feedback.
- ✓ Developed, recognised, and supported innovations in the field of STEM, including two educational manuals ("AI Tools for Teachers: A Guide to Modern Teaching" and a set of e-books "Imersal, Lino, Plickers, and Socrative") as well as the AI+TI Youth Conference for students.
- ✓ A Model for Participation in the Activities of the Regional Science Centre of Adriatic Croatia and sustainable cooperation among RSC stakeholders from the public, private, and civil sectors, based on principles of innovation.

The Regional Science Centre of Adriatic Croatia can serve as a model for innovation and collaboration, offering valuable lessons for similar regional initiatives.

Recommendations for potential continuation of the centre's activities in the next financial period support the financing of the strategic goals of the Adriatic Croatia RSC:

- Promoting Excellence: Raising awareness about the importance of investing in excellence and establishing a system of excellence at all levels.
- Knowledge and Innovation Exchange: Encouraging the sharing of best practices, research, and development to improve existing models and create new models of excellence in education, society, and the economy.
- Sustainable Cooperation and Partnerships: Engaging stakeholders and establishing lasting models of collaboration to promote excellence.
- Excellence Ecosystem: Creating a network of local, regional, and national centres of excellence as hubs for knowledge, innovation, and strategic projects.
- Programs for Experts: Developing and evaluating programs for educational staff, professional associates, and policymakers.
- Programs for Participants: Developing and evaluating excellence programs for children, youth, and adult learners.
- Early Identification and Support: Establishing a system for identifying, supporting, and tracking the progress of gifted, motivated children, and children with special needs, including those with disabilities.

In conclusion, the "Adriatic RSC STEM" project deserves the highest accolades for its contribution to the development of local communities, strengthening the capacities of the education system, and its alignment with programme objectives. It is recommended that the activities of the RSC be further expanded and strengthened in future development and educational strategies at both the national and European levels.

BORIS POČUČA