

Learning Science, Technology, Engineering, Arts and Mathematics through Performing Arts (L-STEAM)

The Learning STEAM through performing arts (L-STEAM) is an Erasmus+ funded project designed to enhance Science, Technology, Engineering, Arts, and Mathematics (STEAM) education in primary to secondary schools, running from November 2024 to August 2027. The project will co-design with educators a competence-based framework, the STEAM Idea's Square, and will support them in the implementation of student-centred STEAM performances in their classrooms.

Project's Missions

At the core of L-STEAM is the role of performing arts in challenging society to engage with complex social, political, and scientific questions. By setting a concrete educational framework, the L-STEAM project will test its pedagogical principles in eight schools across Malta, Greece, Portugal, and Cyprus. The project will support educators' professional development through two summer schools (2025 and 2026), which will equip them with design thinking and project management skills, creative pedagogies and science theatre, amongst other competencies. After the training, L-STEAM will support educators to implement these approaches in an integrated performance about STEM disciplines emphasizing transdisciplinary collaboration, inquiry-based science education model and the design thinking methodology.

Project's Objectives

- 1- Develop a competence-based framework, the L-STEAM approach, to empower schools in designing and implementing STEAM activities.
- 2 Develop mechanisms to support the implementation of the L-STEAM approach through specific STEAM activities in schools.
- 3 Develop a series of scenarios of use of the proposed approach and involve schools in a series of STEAM activities.

4 - Implement a systematic strategy to raise awareness of the project's results and outcomes.

L-STEAM Target Audience and Stakeholders

The main target group of L-STEAM includes schoolteachers, school heads, and students (upper primary and secondary education). Teachers are central, implementing innovative STEAM methods in classrooms while enhancing their skills through professional development aligned with EU education goals. School heads oversee the practical application of L-STEAM in schools, ensuring its integration into educational settings. The project will also focus on students, especially underrepresented groups in STEM, such as girls, socio-economically diverse students, and minority groups (e.g., immigrants, LGBTQIA+, and neurodivergent individuals), addressing EU priorities on reducing disparities in STEM education. The project will encourage the involvement of parents, as they play a supportive role in fostering STEAM education at home. HEIs will be engaged through the adoption of L-STEAM in teacher training programs, aligning with EU policies. Finally, local authorities and policymakers can support regional adaptations, while educational and art associations, such as European network for opera, music and dance education (RESEO) and the European Physical Society, will benefit from promoting interdisciplinary learning. NGOs, businesses, and community groups gain through open schooling initiatives, partnerships, and enhanced workforce skills.

L-STEAM is led by Dr Edward Duca from the Department of Mathematics and Science Education, in collaboration with the education NGOs <u>ScienceView</u> (Greece), the <u>Núcleo Interativo de Astronomia e Inovação em Educação</u> (NUCLIO – Portugal), <u>Inquirium Ltd</u> (Cyprus), and two schools—Ellinogermaniki Agogi (Greece) and Dasoupolis Primary School (Cyprus). The project is funded by the Erasmus+ programme (KA2).

Please visit the official website: https://lsteam.eu/
You can follow the project on Instagram (@Isteamproject) and Facebook



















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