GENERALITAT VALENCIANA
Conselleria de Educación, Universidades y Empleo

CONCEPT NOTE

STEAM APPROACH REGIONAL ALLIANCE (SARA)

Context:

The evolving green and digital transitions within society are giving rise to new skill demands. To sustain its economic competitiveness on a global scale, the EU must take proactive measures to facilitate the ongoing development of these necessary skills. The European Commission is actively advocating for the advancement of more tailored STEM and ICT higher education programs, utilizing STEAM principles - Science, Technology, Engineering, Arts, and Mathematics.

STEAM embodies a **holistic educational framework that transcends traditional subject boundaries, fostering connections between STEM and ICT education and the arts, humanities, and social sciences**. This interdisciplinary approach facilitates the exchange of knowledge across diverse fields, enabling a deeper contextualization of STEM subjects within political, environmental, socio-economic, and cultural frameworks.

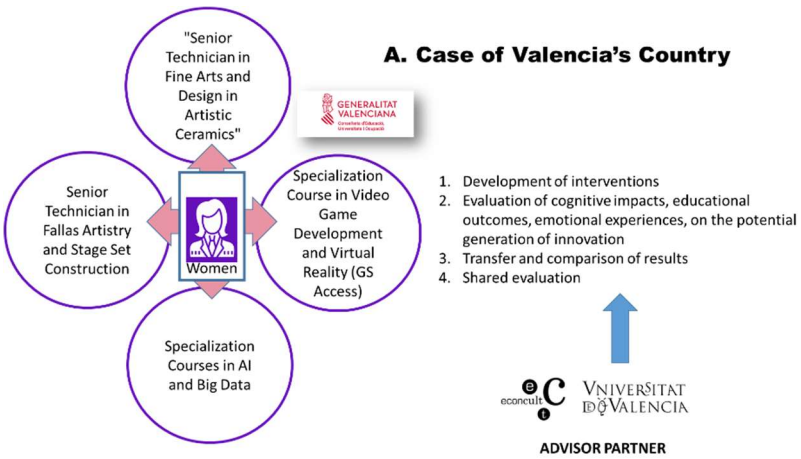
The promotion of STEAM methodologies is spearheaded by initiatives such as the EU STEM Coalition and the strategies delineated in the European Skills Agenda. The EU STEM Coalition operates as a pan-European network dedicated to enhancing STEM (Science, Technology, Engineering, Mathematics) education across the continent, receiving support mainly through the Erasmus+ program.

STEAM education is a teaching approach that fosters the learners' interest in STEAM courses by fostering their individual capabilities of expression, innovation, and aesthetic perception, of which innovation is the most important. Many studies have pointed out that art can help learners to develop their innovation capability by using different kinds of technologies, and that art can also improve the development of their cognitive skills (e.g., listening, thinking, problem solving, and decision making) as well as the capability of self-expression, observation, cooperation, and communication. "But it is also necessary to highlight that artistic disciplines can benefit from the collaboration of technical and scientific skills if practitioners of these disciplines are able to understand the needs and challenges of creative production."

The project

The objective of this Project is to go further and establish a cooperative alliance between regional governments to deepen actions, share results, and assess their impacts. To achieve this, some initiatives within the framework of policies promoting interaction between various STEAM disciplines will be analyzed and developed, and evaluated by the advisory partner of the University of Valencia.

To do this, we establish a team led by the Generalitat Valenciana, which, based on the principles of the call for proposals from the Government of Spain "Classrooms for Equality: STEAM Alliance Awards 2024," will develop an initiative that links artistic-creative training with scientific and technical disciplines, especially those related to artificial intelligence, big data, and virtual reality. Amidst these interactions, we will evaluate the participation, contribution, and involvement of female students. The scheme for the Valencian case, which would be repeated for each partner in different areas, would be as follows:



SMART GREEN CONNECTED SOCIAL CITIZENS GOVERNANCE