



 **STEM**
education to inspire





In **XSTEM** (which adds the X to the STEM acronym for science, technology, engineering and mathematics), we work with the aim of providing access for school-age girls and boys to a quality education that helps them develop the 21st century skills.

Our vision

Reduce the economic, social and gender gap, through the early promotion of skills and competencies that are required for their future, from a STEM approach.

Our Mission

That every children be critical citizens, capable of making responsible decisions for themselves and their environment, and able to build skills of empowerment and agency to take action for a fairer, more inclusive and sustainable world.



STEM Education

¿What is it?

It is an approach that integrates the fields of science, technology, engineering and mathematics into education, in an active learning process for children, which connects their learning, skills and competencies with the resolution of real problems in their communities.

¿Why should we start with young learners?

The lack of STEM professionals to fill the positions generated by the 4th industrial revolution must be addressed at an earlier stage than when choosing a career. The vocation and appealing to STEM disciplines is formed at an early age. To meet this goal, engaging and well-designed educational experiences are required, in school and after-school programs, and at home.



¿How can I support STEM Education?

From XSTEM we consider that STEM education is a path for economic and gender inclusion and the building of a responsible global citizenship through the development of 21st. century skills, for a VUCA* context such as the one we are currently experiencing.

If as an organization you share these principles, we can join forces.

¿How to support?

- **Supporting** a school in your community to implement STEM education.
- **Supporting** the training of STEM educators or professionals to implement STEM education strategies, both in formal and non-formal education spaces.
- **Spreading** STEM education within the community (for example, with STEM workshops for children and young people, with volunteer programs for employees or partners with STEM profiles).
- **Taking part** in national and international events on STEM education that spread the field.
- **Funding** the development of quality STEM curricula content, open for schools, OST programs and families. These STEM contents can be linked to the mission of your organization (for example, power generation, civil engineering or technology).



¿How to implement STEM Education?

If you are an educational organization, you can start this exciting journey of implementing STEM education. This involves a learning process for the team of educators and managers. It includes different approaches and content, connecting our knowledge in a virtuous process of continuous improvement.

Implementation

From XSTEM, we see this process as a cycle that includes:

- Selection of quality and sequenced STEM curricula.
- Professional training for educators.
- Implementation monitoring.
- Observation and assessment to ensure quality, results and impact on students.
- Feedback and action plans.



From XSTEM we support all the steps of this process, with resources designed by international experts, proven evaluation tools and specialists in STEM education.



¿What do we do?

- **We connect the STEM network.** It involves companies, educational organizations, educators, STEM assessment specialists and curriculum developers, STEM professionals, movements, NGOs, and professional chambers, in order to spread STEM education.
- **We support educational organizations to include STEM education** in their offer, with a system that covers all aspects of implementation.
- **We are committed to the STEM educator training process,** for the formal, non-formal and informal environments.
- **We develop and encourage the development of technology and resources** to support the improvement of STEM educational processes and the experience of educators and students.

XSTEM: About us



Mariana Sepiurka

Architect.

More than 20 years of experience in a wide range of architectural works and projects, especially for education. She is passionate about sustainability, design innovation and the potential for change that it brings.



Valeria Viva

Systems Engineer, entrepreneur.

More than 20 years of experience in technological projects.

University professor and reference in gender issues.



Constanza Azzolina

Graduated in communication with a focus on education and science. She has a master's degree in knowledge management and HR. She has been implementing global educational projects for more than 20 years, especially STEM focused. One of them, an Afterschool STEM network in 6 countries, and 3 languages.

"The XSTEM team combines passion for STEM, a vision of a fairer and more sustainable world, with experience in the disciplines and in the educational field."

+ a team of passionate STEM experts



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