



European Schoolnet's programme to improve Science, Technology Engineering and Mathematics (STEM) teaching and learning in formal education follows the priorities set by our Ministries of Education STEM representatives Working Group.

- **Priority 1: Improving STEM teaching in early childhood education, primary and secondary.** E.g. Increasing the content knowledge of and confidence in of each of the STEM disciplines of primary school teachers and supporting secondary school teachers with integrated STEM teaching and learning with a special focus on transversal themes.
- **Priority 2: Connecting STEM education with Global challenges.** This includes for example sustainability.
- **Priority 3: Expanding access to STEM Careers.** This includes, for example, addressing gender role stereotypes.
- **Priority 4: Facilitating STEM educators exchange & peer learning.** Through, validation, and piloting of initiatives, practices, and solutions; sharing of best practices and results from projects; etc.

European Schoolnet's core initiative on STEM education

Community: Ministries of Education (MoE STEM WG); Industry ([STEM Alliance](#)); Associated Partners; Partner Projects; Educators (Scientix Ambassadors); Schools...

Campaigns: [Scientix Awards](#), [STEM Discovery Campaign](#)...



Information: [News](#), [ScientixTV](#)...

Resources:

- **Professional development:** [STEM School Label](#); [MOOCs](#); Webinars; Workshops...
- **Networking:** [Blog](#); Interest Groups; Conferences; Seminars...
- **Knowledge:** [Papers](#); [Teaching Materials](#); [Job Profiles](#); [Projects](#)...

Addressing Ministries of Education priorities, and under the umbrella of Scientix, European Schoolnet runs projects covering

INTEGRATED STEM:
connecting STEM subjects

CONTEXTUALISING STEM:
Environmental Sustainability

EMERGING TECHNOLOGIES:
EdTechs and Innovation

CONTEXTUALISING STEM:
Culture and Society

EXPLORATORY ACTIONS:
Beyond STEM

European Schoolnet's STEM activities involve

Pilot testing and validation, e.g.

- (2020) Gras-Velázquez, A. et al. [Nature Based Solutions in education - Validation report](#)
- (2024) European Schoolnet [Coding with VinciBot, MatataStudio-VinciBot pilot programme](#)

Research e.g.

- (2019) Boiko, A., et al. [The attractiveness of STEM subjects. Results from five countries](#)
- (2023) Mossuti G., et al. [Teaching immigrant students: challenges, needs and available solutions](#)

Policy exchange e.g.

- (2023) [LIFE values in STEM education](#) - Discussion and Results
- (2023) [Enhancing STE\(A\)M Education and Inclusivity](#) - Discussion and Results

Communications and mainstreaming, e.g.

- [STEM Discovery Campaign](#), joint annual (Feb – Apr) international initiative, inviting everybody to celebrate STEM. In 2023 showcased over 2,200 activities and had 360,000 participants.
- [ScientixTV](#), addressing different topics on STEM education

Supporting schools and professional development of teachers, e.g.

- [The Scientix STEM School Label](#), helping schools self-assess their STEM strategies and identify areas of development, training and resources to improve their STEM activities at the school level.
- (2024) Grand-Meyer, E. et al. [COOLSCHOOLS Guidelines \[...\] turn your schoolyard into a nature-based climate shelter](#)

More information

The Science Education Department has 25 colleagues with experience in STEM education, analysis, research, pedagogy, communications, teaching and management.

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