POLICY DIGEST #3

Scaling STE(A)M Open Schooling in Europe: Policy Lessons from SLE Pilots

4052 STUDENTS

209 FORMAL EDUCATORS

133 NON-FORMAL EDUCATORS

43 INFORMAL EDUCATORS

58 GOVERNMENTAL ORGANIZATIONS

37 CIVIL SOCIETY ORGANIZATIONS

54 INDUSTRY PARTNERS
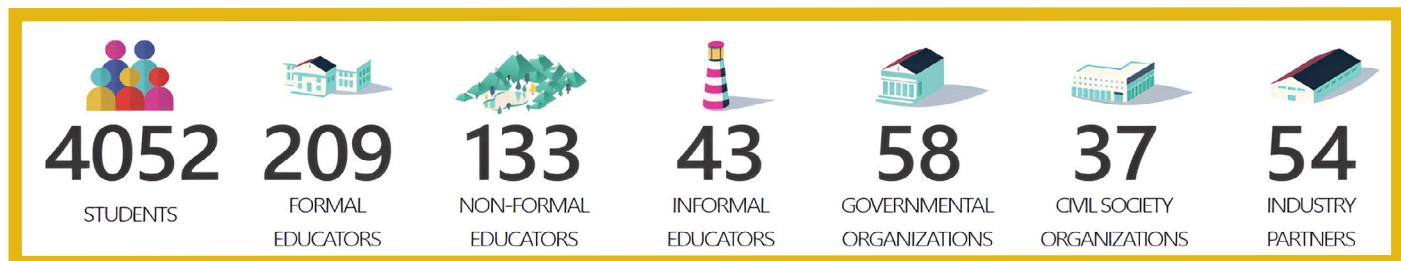
STE(A)M Learning Ecologies (SLEs) is an EU-funded project creating partnerships that promote lifelong learning, collaboration, interdisciplinarity, and the integration of STEM and non-STEM subjects –STE(A)M– into holistic learning experiences.

Between October 2024 and May 2025, SLEs scaled from 13 pilots in the previous year to 109 across 16 countries namely Cyprus, Germany, Greece, Ireland, Spain, Italy, Israel, Malta, Macedonia, Norway, Portugal, Romania, Serbia, Slovakia, Sweden, and Turkey.

The implementation of SLEs across various European and associated countries has revealed a complex landscape of national policies, institutional cultures, and educator agency in relation to open schooling and STE(A)M education.

While many countries possess formal or informal frameworks that support interdisciplinary, community-engaged, and project-based learning, significant challenges persist in mainstreaming these approaches into everyday educational practice.

KEY BLOCKAGES AND CHALLENGES IN IMPLEMENTING SLES

1. Curriculum rigidity and time constraints
Time constraints and curricular overload remain widespread barriers to integrating open schooling into regular school activities. Indeed, across nearly all countries, rigid curricula and dense content requirements were identified as critical barriers.

2. Lack of institutional support and policy priority
In several contexts, Open Schooling is not yet recognized as a policy priority, and institutional support is often absent or inconsistent.

3. Limited financial and material resources
The lack of dedicated funding was a widespread challenge for many pilot projects.

4. Teacher capacity and confidence
The successful integration of SLEs depends heavily on teacher preparedness and subject confidence, particularly for interdisciplinary initiatives.

5. Stakeholder coordination and engagement
Open schooling relies on collaboration among diverse stakeholders.

6. Sustainability and recognition
Even where SLEs were successfully implemented, concerns were raised about sustainability.

Download the full Policy Brief here

POLICY RECOMMENDATIONS

POLICY RECOMMENDATION	LINKED CHALLENGE/ BLOCKAGE	IMPLICATION FOR SCALE UP & SUSTAINABILITY
1. Establish Dedicated Funding streams for Open Schooling	Lack of financial capacity to continue projects; extracurricular status of SLEs; underfunded schools.	Financial support is a precondition for continuity and expansion, especially for materials, coordination roles, and teacher incentives
2. Provide structured but flexible guidance for teachers	Lack of clarity in methodology for some; desire for more tools for co-design.	Teachers want autonomy but also need adaptable guidelines and tools to sustain co-creation and integrate SLEs into curricula.
3. Allocate time and formal recognition for teacher participation	Teachers overstretched; SLEs often treated as "add-ons"; lack of institutional recognition.	Formal time allocation and recognition mechanisms (certificates, CPD credits) are key to making SLEs viable long-term.
4. Build formal coordination structures for school–community partnerships	Partnerships dependent on individuals; lack of sustained engagement mechanisms.	To scale partnerships, schools need templates, role clarity, and support for stakeholder coordination.
5. Develop peer mentoring and cross-school exchange networks	Lack of experienced guidance for newcomers; siloed practices.	Networks of experienced SLE implementers can accelerate uptake and reduce entry barriers for new schools.
6. Support inclusive, gender responsive scenario-based design from the start	Inclusivity often addressed reactively; some students left behind.	Embedding accessibility, gender sensitivity, and identity relevance improves equity and engagement system-wide.
7. Promote dissemination of student outputs in public and civic contexts		Recognizing and showcasing student work boosts motivation, civic engagement, and public support for Open Schooling.
8. Align SLEs with curriculum goals to ensure institutional fit	SLEs seen as extra-curricular or competing with required content.	Anchoring Open Schooling in existing curriculum frameworks improves feasibility and sustainability.
9. Provide ethical guidance and open-source digital tools	Unequal access to technology; unclear standards for AI, data use.	Ensures responsible innovation while maintaining equity and low-cost implementation.
10. Leverage existing networks and innovation cultures to support open schooling uptake	Co-creation and partnership readiness varies; successful pilots often built on pre-existing collaboration structures.	Capitalising on existing EU networks (e.g. eTwinning, Scientix), science centres, and prior project experience helps new implementers and supports scaling up.
11. Foster and support distributed educational leadership for innovation	School or municipal leadership often key to implementation success, even without formal policy	Enabling distributed leadership and recognising local innovation champions builds ownership and momentum at local level.