

The STEMiL project journey

Since its launch in 2022, the Erasmus+ [STEMSiL: STEM Methodologies in Sign Languages" \(2022-1-DE-03-KA2020-SCH-000087039\)](#) project aimed at transforming the landscape of STEM education by making it more inclusive and diverse, accessible, and equitable. Over a two-year journey, the project united partners from across Europe in a shared mission: to empower teachers with tools and strategies to support **deaf and hard-of-hearing students** and other learners with fewer opportunities in science, technology, engineering, and mathematics (STEM).

The STEMSiL project was born from a clear need: despite advances in technology and pedagogy, **STEM education still presents barriers** for many students, especially those with disabilities or from underrepresented backgrounds. Deaf students, in particular, face a lack of accessible resources and trained teachers in STEM fields.

To address these challenges, STEMSiL brought together a multidisciplinary consortium of educational institutions, NGOs, and educators from Germany, Greece, Italy, Spain, Portugal, and France. Let's see the phases of the project journey:

1. Research and needs assessment

The project began with a thorough assessment of existing practices in inclusive STEM education across partner countries. Through interviews, focus groups, STEM concepts collection, research in classrooms and lexicon analysis, the STEMSiL team gathered data on:

- The availability of accessible STEM resources
- Teachers methods
- Student experiences
- STEM glossary used

These insights formed the foundation for the handbook and the ten recommendations produced by the consortium to spread the new methodology through which teach STEM subjects to deaf learners.

2. Development of the STEMSiL online platform

At the heart of the project is the [STEMSiL online platform](#), a comprehensive and multilingual resource designed to equip educators, teachers and Sign Language interpreters with practical guidance and materials. It includes:



- [Glossary](#): Clear definitions of STEM concepts in the Sign Languages of all the project partners
- [STEM experts interviews](#): Personal stories and insights from STEM experts of each partner country, which become role models for future generations
- The **handbook**, with the inclusive and diverse teaching strategies
- Information about the **Co-Labs** implemented in all the project countries, through which deaf students realized STEM projects using STEM kits

All these resources are available on the project website at the following link: www.stemsil.eu

3. Co-Labs activities

Throughout the STEMSiL project, partners organized a series of **Co-Labs (Collaborative Laboratories)**, bringing together **teachers, STEM experts, Sign Language interpreters, and students** to collaboratively create projects using STEM kits.

Rooted in collaborative and project-based learning, these labs empowered deaf students to lead the learning process while developing transversal skills like critical thinking, communication, and STEM literacy. Co-Labs followed a structured process—from preparation and stakeholder engagement, through practical activities and project creation, to reflection and feedback. Activities such as innovation challenges, experiments, and team-building tasks were tailored to be accessible through visual and tactile communication.

4. Community engagement

Throughout the project, partners actively spread the project objectives and outcomes through events, conferences, articles, social media and newsletters, raising awareness about the community of each country.

A major highlight of the STEMSiL project was the **Teaching Training Activity held in Madrid, Spain**. This intensive, week-long training brought together teachers and Sign Language interpreters from across Europe for a collaborative and immersive learning experience. Participants had the opportunity to work directly with the STEMSiL resources, various STEM kits, discuss strategies in classroom scenarios, and engage in meaningful dialogue about best practices for accessible STEM education. Beyond deepening subject knowledge, the training emphasizes collaborative teaching, the use of visual and multimodal learning techniques, and the representation of deaf role models in STEM.

The STEMSiL journey will culminate on June 30, 2025, but its celebration was the Final Conference held on May 23, 2025, by Hu-Berlin University in Berlin. The event featured inspiring keynotes from experts, who shared insights into STEM education tailored for deaf students. Besides, attendees participated in a **panel discussion on inclusive STEM education** and explored pathways of teaching innovative strategies.



To summarize, the STEMSiL Project highlights how innovation, collaboration, and inclusion can transform STEM education. Through its activities and outcomes, it enhanced the experiences of deaf learners, involving teachers, educators and Sign Language interpreters, delivering based-learning tools. While the project is reaching a conclusion, its vision for an inclusive, diverse and empowering STEM learning environment will keep staying active.

In fact, the project deeply valued the contribution of **deaf communities**, whose cultural and linguistic perspectives informed the development of the **STEM visual glossary**, the **STEM concepts**, and the **innovative Handbook**. Deaf professionals and STEM experts featured in project materials, serving as **role models** to inspire students and demonstrate real-world applications of STEM knowledge within and beyond deaf culture.

Besides, far from being passive recipients, **deaf students** and Sign Language interpreters played an **active, central role** in the project. Through **Co-Creation Labs** and STEM challenges, they helped design and test inclusive teaching strategies, provided feedback on visual and linguistic accessibility, and led real-life STEM projects. Their involvement not only enhanced the relevance of the tools developed but also promoted **confidence, autonomy, and collaboration** among participants.

The journey doesn't end here—follow the STEMSiL project on social media to keep up with the latest updates, resources, and stories from the STEMSiL community. Join the conversation, share your experiences, and help us continue building a more inclusive future in STEM!

Follow the project [Facebook](#), [Instagram](#), [X](#), [TikTok](#) channels and visit its [website](#)!

Links Social Accounts:

Facebook: www.facebook.com/stemsilproject

Instagram: www.instagram.com/stemsil_project

X: https://x.com/STEMSiL_project

TikTok: www.tiktok.com/@stemsil_project

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