

The European ICSE Science Factory Conference

STEM & Open Schooling for digitalization, health, and sustainability

November 8-9, 2025, Istanbul, Türkiye

Call for proposals

Dear Colleague,

We are excited to announce the call for proposals for the European ICSE Science Factory Conference. The [ICSE Science Factory](https://www.stempd.net) is a Horizon Europe Open Schooling project focusing on sustainability, health, and digitalization.

The European ICSE Science Factory Conference will take place on November 8-9, 2025, in Istanbul, as part of the 6th International STEM Education Conference. The conference is organized in collaboration with the International Centre for STEM Education (ICSE) and Hacettepe University as part of the ICSE Science Factory project.

The conference will explore the intersection of sustainability, health, and digitalization in STEM education, emphasizing how emerging technologies, health-related advancements, and sustainable practices can be effectively integrated into teaching and learning. Participants will engage in discussions, workshops, and presentations that address the evolving role of STEM education in shaping a sustainable and technologically advanced future.

The **deadline for** submission of proposals (paper presentations, workshop, materials market) is **30 June 2025**.

To submit your proposal and for regularly updated information about the conference, please visit www.stempd.net

We want to hear what you have to say! We are looking forward to seeing you in Istanbul.

Please help us spread the word on the conference by circulating the call for proposals in your networks. We look forward to your contributions and will happily welcome you to the beautiful city of Istanbul.

Kind regards,

ICSE Science Factory & STEM PD Community of Practice

www.stempd.net

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1. Conference overview

1.1 Aims and dimensions

The European ICSE Science Factory Conference is an international conference on professional development in STEM education that brings together teacher educators, policy makers, teachers and various other stakeholders related to STEM education.

The conference will explore the intersection of **digitalization, health, and sustainability** in STEM education, highlighting how emerging technologies, health-related advancements, and sustainable practices can be effectively integrated into teaching and learning. Participants will have the opportunity to engage in discussions, workshops, and presentations that address the evolving role of STEM education in shaping a sustainable and technologically advanced future.

The conference will provide a platform for sharing innovative approaches, research findings, and best practices related to STEM education, with a special focus on the objectives and outcomes of the ICSE Factory initiative

1.2 Target groups

Teachers, teacher educators and researchers, course leaders and relevant networks, teacher professional development (PD) centers, science and STEM education support centers, presidents and representatives of PD institutions, teacher associations and relevant networks, EU-funded project representatives about Open Schooling, as well as policy makers in the field of STEM Education.

1.3 Conference formats

The conference will use both traditional and innovative formats to help bring out the specific benefit of gathering a circle of participants from research, practice and policy. Vivid exchange and collaborative work will be ensured by spaces for co-creation and for sharing ideas and results:

- **Single Oral Presentation:** this format allows for 20-minute presentations followed by questions and discussion. For the oral presentation, you must submit an extended abstract (200-500 words), including the title and references.
- **Workshops:** This format allows presenters to display, explain, and familiarize users with an innovative approach, a teaching or research tool, a teaching-learning sequence, or some other aspect of research or teaching practice. Workshops are scheduled for 60 minutes.
- **Plenary events:** including key lectures and a round table on STEM education issues that involve various stakeholders and perspectives.
- **STEM Expo & Materials Market** strives to give educational companies a place to showcase their products, services, and knowledge, including STEM-based activities and interactive exhibits. Besides that, allowing participants to exhibit interesting professional development materials, classroom materials, and co-creation templates and learn about other materials. At the European ICSE Science Factory Conference, the STEM Expo section will also host the local fair where the Lighthouse and Open Schooling activities from the ICSE Science Factory project will be shared.

Conference features will be:

- A panel for open schooling aspect in ICSE Science Factory project— **project members** engage in mutual exchange with target groups
- A session for open schooling as a plenary or panel- With the participation of representatives from the Open schooling project funded by the European Union, a wide-ranging session will discuss what open schooling means for education in Europe, its status and its future.

2. Organisational structure of the conference

2.1 Conference chairs

Katja Maaß, ICSE, University of Education, Freiburg, Germany

Gultekin Cakmakci, ICSE Consortium & Hacettepe University, Türkiye

Gokhan Kaya, ICSE Consortium & Hacettepe STEM & Maker Lab, Türkiye

2.2 Program committee

The program committee will support the conference chairs with scientific and conceptual advice when selecting proposals to assure a high relevance and scientific quality of the conference and possible subsequent publication(s). Members of the program committee are:

Prof. Dr. Katja Maaß, University of Education Freiburg, Germany

Prof. Dr. Monica Baptista, University of Lisbon, Portugal

Dr. Oliver Straser, University of Education Freiburg, Germany

Prof. Dr. Gultekin Cakmakci, Hacettepe University, Türkiye

Doç. Dr. Gokhan Kaya, Kastamonu University, Türkiye

Doç. Dr. Matija Bašić, University of Zagreb, Croatia

Prof. Dr. Maria Evagorou, University of Nicosia, Cyprus

2.3 Organisation committee

Prof. Dr. Gultekin Cakmakci, Hacettepe University, Türkiye

Doç. Dr. Gokhan Kaya, Hacettepe STEM & Maker Lab & Kastamonu University, Türkiye

Laura Wanckel, ICSE, Germany

Elena Schafer, ICSE, Germany

Doç. Dr. Metin Sarıdağ, Van Yuzuncu Yıl University, Türkiye

Dr. Mehmet Söğüt, National Ministry of Education, Türkiye

Mustafa Altunel, Ibn Haldun University, Türkiye

Prof. Dr. Buket Akkoyunlu, Çankaya University, Türkiye

Dr. Öğr. Üyesi Tuba Ecevit, Düzce University, Türkiye

2.4 Venue and accommodation

The European ICSE Science Factory Conference will take place at Ibn Haldun University in Istanbul, Türkiye.

Istanbul is well connected by international flights and offers easy access through two major airports: Istanbul Airport (IST) and Sabiha Gökçen Airport (SAW). The conference venue can be reached by taxi, airport shuttles, or public transportation from both airports. Travel time to the university campus varies between 30 to 90 minutes, depending on the airport and traffic conditions.

The conference organizing committee will provide hotel and accommodation recommendations close to the university as well as in central parts of the city. Additionally, shuttle transportation from the historic peninsula (Sultanahmet area) to the conference venue will be arranged to facilitate daily access for participants. A full list of accommodation options and transportation details will be made available on the conference website at the time of the registration deadline: Please note participants are responsible for making and paying for their own travel and accommodation arrangements.

2.5 Registration & fees

You must register to attend the conference. The registration form will be available on October 2025 on the conference website <https://www.stempd.net/registration-page/>

2.6 Important dates

- **Submission timeline:** March 15 - June 30, 2025
- **Feedbacks/Decisions for Submissions:** Until July 2025 (continuously)
- **Registration Start:** July 01, 2025
- **Early Bird Registration Deadline:** July 15, 2025
- **Late Registration Deadline:** 01 October 2025
- **Publishing the Conference program:** October 2025
- **Conference Dates:** November 8-9, 2025

3. Proposal submission information

3.1 Overview on formats with call for submissions

The conference will explore the intersection of **digitalization, health, and sustainability** in STEM education, highlighting how emerging technologies, health-related advancements, and sustainable practices can be effectively integrated into teaching and learning. Participants will have the opportunity to engage in discussions, workshops, and presentations that address the evolving role of STEM education in shaping a sustainable and technologically advanced future.

3.2 Peer Review Process

All submitted proposals will undergo a peer-review process coordinated by the Program Committee. Reviews will be conducted in a **double-blind** manner, ensuring that both authors and reviewers remain anonymous throughout the evaluation process. This guarantees fairness, impartiality, and scientific quality in the selection of presentations, workshops, and materials market contributions.

3.3 Submissions for oral presentations

We welcome oral presentations of research-based papers, as well as practical reports or demonstrations (e.g. a simulation of a professional development situation, demonstration of materials, demonstration of e-learning support platforms).

Proposals should be precise and include sufficient details and references for a critical review. Please keep in mind when planning/writing your proposal that it should also address the purpose of promoting innovative STEM learning and connections with open schooling and conference themes.

The length of the proposal must be **two pages**, including some references. A template is provided at the website <https://www.stempd.net/submission/>

3.4. Submissions for workshops

We welcome proposals for workshops or co-creation spaces which actively involve participants. Workshops provide opportunities for participants to experience already designed classroom or PD materials for teachers or teacher educators.

Emphasize in your proposal the question or problem that participants will work on and the way of working that they will experience. We will try to create much time in the program for these co-creation sessions. Please be aware that during such a session of 60 minutes you will not have time for an extensive presentation.

Proposals should be precise and include sufficient details and references for a critical review. Please keep in mind when planning/writing your proposal that it should also address the purpose of promoting innovative STEM learning and connections with open schooling and conference themes.

The length of the proposal must be **two pages**, including some references. A template is provided at the website <https://www.stempd.net/submission/>

3.5 Submissions for the STEM Expo & Materials Market

STEM Expo & Materials Market strives to give STEM centers, institutions and educational companies a place to showcase their products, services and knowledge including STEM based activities and interactive exhibits. At the European ICSE Science Factory Conference & 6th International STEM Education Conference, the STEM Expo section will also host the local fair where the Lighthouse and Open Schooling activities from the ICSE Science Factory project will be shared. Join us to share your best practices and products: www.stempd.net/submission/

A materials market will allow attendees to look into a broad range of PD materials and classroom materials supporting PD in the area of STEM, Open Schooling and Conference Themes exhibited by European projects, educators and PD course participants.

The materials market will continue as an open exhibition and forum for all conference participants. An accompanying poster exhibition will display current developments in teacher professional development in STEM education.

If you want to participate in this market as an exhibitor, please send in the following information:

- What kind of materials (PD materials and classroom materials supporting PD) you will present (focus, subjects, background, specific features or aims, designer/owner, languages available, etc.) (materials must be primarily in English).

Please also let us know:

- The amount of materials (would you need one or two tables of 100 cm x 60 cm)?

You must prepare a poster (using at minimum 23" x 33"= 59cm x 84cm and at maximum 33" x 47" = 84cm x 119cm) to accompany your exhibit that includes an abstract of the materials (max. of 500 words) and possibly some relevant visuals.

A template will be available on the conference <https://www.stempd.net/submission/>

4. Conference hosts

4.1 Hacettepe University

Hacettepe University is one of the largest universities in Turkey. The Faculty of Education bundles highly qualified staff, international cooperation, openness, extensive STEM experience, and abroad network of different (STEM) stakeholders, all whilst being one of the founding members of CSE. With the implementation of the new Turkish Science Curriculum, the university was able to establish a system where the different achievement levels and the social and emotional skills of students are considered whilst teaching. In the context of the ICSE Science Factory, Hacettepe University oversees the communication, dissemination, and exploitation of all activities, due to a high level of expertise and success in this area.

4.2 ICSE Science Factory

The ICSE Science Factory project, funded by the European Union, is a comprehensive initiative aimed at addressing the shortfall of scientists and citizens versed in science within the European Union. The project leverages a unique combination of measures, each addressing the issue from a different perspective, thereby maximizing its impact.

The project is characterized by the formation of high-capacity cross-sectoral partnerships in five different partner countries: Germany, Portugal, Croatia, Cyprus, Turkey. These partnerships consist of science researchers, science education researchers, and non-formal education providers, supported by schools, enterprises, and community institutions.

The project's overall aim is to foster improved science education for all citizens by creating new networks in local communities between teachers, students, scientists, researchers, innovators, and professionals in enterprises. These Communities of Practice (CoPs) engage learners in real-life problem-solving situations within education, the workplace, and other learning environments,

contributing to a lifelong learning continuum and raising interest in science studies and careers, particularly among women.

The project's innovative approach aims to increase the number of scientists and the level of scientific knowledge within communities. This is achieved by strengthening the partnerships through local conventions, where research findings are shared and applied, and local public fairs to integrate communities into the scientific learning process.

4.3 ICSE & ICSE Consortium

The International Centre for STEM Education (ICSE) is located at the University of Education in Freiburg, Germany and focuses on practice-related research and its transfer into practice. ICSE sustainably links stakeholders from research, practice, policy and industry, nationally as well as internationally through the ICSE consortium.

The aim of ICSE is to help improve STEM education across Europe. That is, to give students insights into authentic features of STEM subjects and their connection to real-life contexts, to raise achievement levels in STEM subjects and to make science literacy accessible to all students, regardless of gender and cultural or socioeconomic backgrounds. Thereby, ICSE intends to promote the interest of young people in STEM careers.

The ICSE Consortium was founded in 2017 and endeavors to lead the field of transfer-oriented research and development in STEM education. It wants to set standards for a high-impact international collaboration of higher education and research institutes. <https://icse.eu/>