



STE(A)M IT project: Call for Teachers

European Schoolnet is looking for four teams of primary school teachers (teaching students aged 6-11 years) and seven teams of secondary school teachers (teaching the same students aged 12-16) to join the STE(A)M-IT project (January 2020 – July 2021). The teams are expected to contribute in the tasks listed below:

- Support the project by leading the creation and development of Learning Scenarios on teaching Science, Technology, Engineering and Mathematics (STEM) in an integrated (interdisciplinary) way between them as well as with other non-STEM subjects, following the structure and rationale of the "master" Learning Scenario, which will be produced exclusively for this project.
- Participate in face-to-face workshops in Brussels. Each team member will attend individually one workshop. The workshops are scheduled to take place during winter and summer (27-29 February 2020, 2-4 July 2020, and June 2021, exact dates to be confirmed).
- Test and continuously improve these learning scenarios by implementing them in the classroom in order to support the measurement of the impact of the implementation. All teachers involved will test their own Learning Scenario as well as one created by another team of teachers, adapting the content to their students' needs and provide feedback.
- Support the creation of two online massive courses (MOOCs) to help other teachers address various STEM topics and critical thinking in their classes (one for primary school teachers and one for secondary school teachers).
- Promote the adoption of these learning scenarios at the national level.
- Help disseminate the project through delivering webinars, promoting in social media, and producing content for newsletters.



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ABOUT STE(A)M IT

The term STEM (Science, Technology, Engineering and Mathematics) is used in very different ways in education. From a simple acronym referencing the four discrete fields, to a way of indicating these fields have common aims, methodologies and problematics (e.g. the decrease in students going into STEM degrees and careers). Recently, the term STEM has been expanded to include A, representing Arts, as a way of highlighting the importance of creativity in STEM education, or even with A as a reference to All, i.e. highlighting the importance of connecting STEM to all other disciplines.

But in secondary education in general in Europe, STEM disciplines continue to be taught in an isolated way. There are no STEM classes, in general, there are S classes, T classes, E classes, M classes. And not even the S is “one”. There are Physics classes, Chemistry classes, Biology classes, etc.

In order to really get students to see the interest of STEM degrees and careers, and even more importantly, show students, and society at large, the key role that STEM plays in improving our lives and their need for our future, we need STEM to be taught in an integrated way. We need all the components of S to work together. All the letters in STEM to work together. And even better, for all the subjects to work together STE(A)M.



We need to apply measures to teach the different disciplines in an integrated way, connected to real life issues. We need “to steam education”. If we “STE(A)M IT”, we can ensure future citizens will be ready to tackle any issues in society, in a collaborative, critical and efficient way.

In order to achieve this, the STE(A)M IT project aims to (1) create and test of a conceptual framework of reference for integrated STE(A)M education; (2) develop a capacity building programme for primary schools teachers and secondary STEM teachers, based on this framework, with a particular focus on the contextualization of STEM teaching , especially through industry-education cooperation, and (3) further ensure the contextualization of the integrated STEM teaching by establishing a network of guidance counsellors/career advisors in schools promoting the attractiveness of STEM jobs to their classes.

This first European integrated STEM framework of reference will comprise of:

- A Master Learning Scenario guiding teachers how to teach in an integrated way.
- 7 Example Learning Scenarios for Secondary education (12 – 16 years old) and 4 for Primary education (6 to 11 years old) with real case scenarios, based on the Master Learning Scenario.
- A Capacity Building Programme for Secondary and Primary School teachers on teaching in an integrated way.
- A network of teachers to exchange on integrated STE(A)M teaching.
- A report on the development and use of this teaching methodology in real case scenarios, including tips and guidelines for integration at Ministries of Education level as well as by schools.

The project is coordinated by [European Schoolnet](#) (Belgium) in partnership with [Istituto Nazionale di Documentazione, Innovazione e Ricerca](#) (Italy), [Italian University Line](#) (Italy), [Ministry Of Science And Education Of The Republic Of Croatia](#) (Croatia), [Ministério da Educação – Direção-Geral da Educação \(DGE\)](#) (Portugal) and the [University Of Cyprus](#). Furthermore, STE(A)M IT will work closely with the Ministries of Education STEM representatives Working Group representing 23 Ministries of Education, coordinated by Scientix, the community for Science education in Europe funded under the European Union’s H2020 research and innovation programme, as well as the STEM Alliance, a school – industry strategic initiative, led by 16 mayor companies including Airbus, Amgen, Cisco, Dell Technologies, EPCA, IBM, Lego education, Lenovo, Shell, Transport Malta, Dassault Systems, GSMA, Johnson-Johnson, Microsoft, SISSA Medialab and Texas Instruments.



CALL FOR TEAMS OF TEACHERS

For secondary school teachers' teams

We are looking for 7 teams of teachers from any EU or Associated country. Each team of teachers will consist of three teachers from a same school teaching the same 12 – 16 years old during the 2019 – 2020 academic year. Additionally:

- The Lead Teacher – with whom EUN will sign a contract, will be responsible for the delivery of the team's work. This teacher will receive a remuneration of up to 900 euros (for up to 9 working days) and will attend the first workshop (Brussels, 27-29 February 2020). This teacher must be actively teaching any Science (Physics, Chemistry, Biology, Geology), Technology, Engineering or Mathematics subject.
- Support Teacher 1 – A teacher actively teaching any Science (Physics, Chemistry, Biology, Geology), Technology, Engineering or Mathematics subject, different to the subject taught by the Lead Teacher. This teacher is expected to participate in the second or third workshop, representing the team (Brussels, 2-4 July 2020 or June 2021, exact dates to be confirmed).
- Support Teacher 2 – A teacher actively teaching any STEM subject OR any other subject (including, but not limited to, Music, Languages, Arts, History, Sports, etc.) different to the subjects taught by the Lead Teacher and the Support Teacher 1. This teacher is expected to participate in the second or third workshop, representing the team (Brussels, 2-4 July 2020 or June 2021, exact dates to be confirmed).
- Additional teachers may join the team, on a voluntary basis.

For primary school teachers' teams

We are looking for one team of teachers from each of the following countries: Cyprus, Italy, Portugal and Croatia. Each team of teachers will consist of three members from the same or different schools, teaching students aged 6-11 years, during the 2019 – 2020 academic year. Additionally:

- The Lead Teacher – with whom EUN will sign a contract, will be responsible for the delivery of the team's work. This teacher will receive a remuneration of up to 900 euros (for up to 9 working days) and will attend the first workshop (Brussels, 27-29 February 2020). This teacher must be actively teaching any Science (Physics, Chemistry, Biology, Geology), Technology, Engineering or Mathematics subject or "all subjects" if in lower primary.
- Support Teacher 1 – A teacher actively teaching any Science (Physics, Chemistry, Biology, Geology), Technology, Engineering or Mathematics subject, different to the subject taught by the Lead Teacher or all subjects if in lower primary. This teacher is expected to



participate in the second or third workshop, representing the team (Brussels, 2-4 July 2020 or June 2021, exact dates to be confirmed).

- Support Teacher 2 – A teacher actively teaching any STEM subject OR any other subject (including, but not limited to, Music, Languages, Arts, History, Sports, etc.) different to the subjects taught by the Lead Teacher and the Support Teacher 1, or all subjects if in lower primary. This teacher is expected to participate in the second or third workshop, representing the team (Brussels, 2-4 July 2020 or June 2021, exact dates to be confirmed).
- Additional teachers may join the team, on a voluntary basis.

TASKS

Each team of teachers is expected to:

- Create one Learning Scenario on teaching in an integrated (interdisciplinary) way between at least three subjects (at least 2 STEM ones) following the structure and rationale of the "master" Learning Scenario, which will be produced exclusively for this project. The work will start in February 2020 and the complete Learning Scenario is expected by the end March 2020.
- Participate in face-to-face workshops in Brussels. Each team member will attend individually one workshop. The workshops are scheduled to take place during winter and summer in Brussels (Thu 27 – Sat 29 February 2020, Thu 2 – Sat 4 July 2020, and June 2021, exact dates to be confirmed).
- Test and continuously improve these learning scenarios by implementing them in the classroom in order to support the measurement of the impact of the implementation. All teachers involved will test their own Learning Scenario during April 2020, as well as one created by another team of teachers, during May 2020, adapting the content to their students' needs and provide feedback. The testing will include providing feedback from the students as well (and might include questionnaires or sharing of the products developed by the students).
- Support the creation of two online massive courses (MOOCs) to help other teachers address various STEM topics and critical thinking in their classes (one for primary school teachers and one for secondary school teachers), between June and August 2020.
- Promote the adoption of these learning scenarios at the national level from September 2020 onward.
- Help disseminate the project through delivering webinars, promoting in social media, and producing content for newsletters from September 2020 onward.



BENEFITS FOR TEACHERS

As mentioned above, each team of teachers will consist of three teachers.

Depending on role within team

- The Lead Teacher will receive a remuneration of 900 euros (for 9 working days) and will attend the first workshop (with flights, meals and accommodation organised and covered by European Schoolnet). Note that the Lead Teacher will be expected to supply European Schoolnet with a detailed timesheet, in the format and at the periods required.
- The second and third teacher of each team will be invited to one workshop each (with flights, meals and accommodation organised and covered by European Schoolnet).

For all teachers

- Opportunity to be part of the selected network of this European project.
- Chance to participate in co-creative workshops with industry and Ministries of Education representatives.
- Training provided in the Future Classroom Lab.
- Co-authorship acknowledged in the projects' publication.
- Certificate of work done at the end of the project.

SELECTION CRITERIA FOR TEAMS OF TEACHERS

Team members teach different subjects: the teams of teachers should consist of members who teach different subjects across the school curriculum, ranging from STEM to non-STEM subjects, teaching the same students.

Actively teaching in primary school (age 6 – 11) and secondary school (12-16): teachers will implement learning scenarios in their own practice; therefore, they should be active teachers during the period January 2020 to June 2020. Since the age of students for Primary and Secondary school varies from country to country, the age of students is indicated above.

Eager for video production: the online courses will include some videos featuring teachers. Therefore, teachers should be comfortable speaking on a video about their learning scenario implementation as well as eager to film their own classroom (if the getting approval from the students' parents is possible).

Experience in producing learning/training resources: teachers will be required to have proven experience in developing pedagogical material for students.



Proficient knowledge of English (understanding, writing, reading and listening): teachers should feel comfortable to communicate in English in order to attend the workshops, and be able to facilitate the development of additional Learning Scenarios, and collaborate online with the teachers from the other countries.

Availability to participate in the face-to-face workshops: in order to fulfil their tasks, teachers need to attend one Science Projects Workshop each at the Future Classroom Lab in Brussels (EUN premises).

- The Lead Teacher is required to attend the workshop scheduled to take place between 27-29 February 2020
- The second teacher will be required to attend the second or third workshop.
- The third teacher will be required to attend the remaining workshop.

Proactive mindset and flexibility in terms of adapting their teaching to include innovative learning materials and methodologies: teachers will be asked through the application form to confirm that they will be including the Learning Scenarios developed during this project, and more specifically during the period March – June 2020, in their classroom. We will require written confirmation in order to avoid last moment developments of administrative nature that prevent teachers from implementing the Learning Scenarios in their class. In addition, we emphasize once more that in order to address the lack of an integrated STEM framework, the materials that will be developed will be interdisciplinary and innovative, therefore the willingness of the involved teachers to test, give feedback on and improve them is a pre-requisite.

Genuine interest in career guidance: The lack of student interest in STEM subjects is reflected in the shortage of STEM-related careers that is evident and needs to be faced the soonest possible in order to counter face economic and societal challenges. For this reason, teachers will need to link STEM subjects with career paths giving realistic examples from the industry sector, in order to trigger student interest.

Interest in learning and sharing experiences and good practices: teachers will also be asked to demonstrate their interest in collaborative activities and learning as well as an ability to disseminate STE(A)M-IT among their peers.

Very good community organisational skills: teachers should have previous experience in facilitating and participating to (online) communities.

Very good authoring/digital skills: teachers should have experience in using a range of digital tools for content creation and feel comfortable with maintaining and updating web sites, blogging, photography, videography, online commentary, the maintenance of social media accounts, and editing and distribution of digital media.



Good internet connection at home both in terms of stability and available bandwidth as well as frequent access to technical infrastructure (i.e., PC's) since teachers need to be able to regularly connect online for their work.

Availability throughout the core part of the project: in order to carry out their tasks, teachers will have to be able to participate in the project from February 2020 to summer 2021.

HOW TO APPLY

- The teams of teachers are invited to apply to participate in the STE(A)M-IT project by filling in this [application form](#) by the **10th of January 2020**. Due to time constraints, applications might be reviewed as they are received.
- The selected teachers will be officially informed by email on their selection by the **24th of January 2020, latest**.

MORE INFORMATION

The final selection of teachers will be validated by the Ministries of Education in the corresponding countries. EUN will not enter into discussion or exchanges with any applicant as to why their application was not successful.

In order to carry out the activities between February 2020 and June 2021, the selected Lead teachers will be requested to sign an agreement with EUN by the first workshop in February 2020.

ANY DOUBTS? PLEASE CONTACT US

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