

**EEA AND NORWAY GRANTS
FUND FOR BILATERAL RELATIONS**

INITIATIVE PROPOSAL

Title of the initiative:

Knowledge exchange for the development of STEM education and after-school activities.

Implementing entity (beneficiary state entity):

In Estonian: MTÜ Eesti Teadushuvihariduse Liit (later we use shortened name TEAHU). Area of interest is named: Loodus- ja täppisteaduste ning tehnoloogia valdkond and shortened term is LTT.

Estonian STEM* Education Union (NPO in Estonia)

*STEM is an approach to learning and development that integrates the areas of science, technology, engineering and mathematics.

Partner(s) (minimum one donor state entity):

FIRST Scandinavia (foundation in Norway)

Bilateral priority area identified by the JCBF beyond the programmes:

- ☐ promotion of core European values, such as respect for human dignity, freedom, democracy, equality, the rule of law and the respect for human rights for all people, regardless of their racial or ethnic origin, religion or belief, gender, disability, age, sexual orientation or gender identity;
- ✓ E-governance (digitalization)
- ☐ eastern partnership
- ✓ equality and equal treatment
- ☐ competitive business environment, sustainable and adaptive governance (based on “Competitiveness Plan for 2020” approved by the Government of Estonia)

Allocation (total sum)

(A more detailed project budget description in the activity plan):

Altogether 251 000 euros, containing:

- FIRST Scandinavia project management costs 110 160 euros
- Eesti Teadushuvihariduse Liit project management costs 12 550 euros

- FIRST Scandinavia delegation in Estonia 48 550 euros
- Estonian delegation to Norway 79 740 euros

Short description of the initiative:

(background, aim, participants, activity plan, budget outline, communication and dissemination)

Background:

Norway is internationally known for its effective concepts in the field of STEM - especially with the NEWTON centers, launched by the FIRST Scandinavia foundation. The foundation also runs the First Lego League* (FLL) program, which is also widely implemented in teaching robotics in Estonia.

*First Lego League guides youth through STEM learning and exploration at an early age. From exploration to discovery and then challenge, students will understand STEM basics and apply their skills in an exciting competition while developing study habits, confidence and teamwork skills.

FIRST Scandinavia is a private equity-based foundation providing equal access to quality STEM education through Newton Rooms (owned or managed by local authorities). In addition, FIRST Scandinavia has been involved in the implementation and organization of projects and STEM concepts in several countries.

There is currently no unified STEM strategy in Estonia, but the need to develop one has been recognized. There are also initiatives and will to develop the field. There are different forms of research centers, nature houses, and interest groups providers, all of which support the teaching of STEM in formal and non-formal education. Shortcomings show in the provision of STEM education at an equal level in remote areas. The provision of education in the field of STEM, both at the formal and non-formal level, varies from region to region. Several processes are taking place in the field and in the educational landscape (legislation, greater responsibility is moving to local governments, etc.) It is the best time to collect best practices.

Estonian STEM Education Union gathers providers and facilitators of STEM education and is a strategic partner in the field to the Ministry of Education and Science. In order to develop the field in the best and sustainable way, it is important to collect and know the practices used elsewhere and to get acquainted with various possibilities for developing longer-term strategies. Getting to know FIRST Scandinavia and Norway's STEM strategy definitely offers this.

Although it is not likely that we would order the establishment of a Newton center in Estonia through FIRST Scandinavia, we can offer FIRST Scandinavia representatives to establish contacts with specialists in the field who can be clients and also partners in the trainings they organize and in other projects. We can also offer an overview and examples of concepts currently operating in Estonia, which may prove useful in their further work, for example, when introducing concepts in other countries.

Aim:

Exchange and share knowledge, experience and best practice of STEM Education and strategies between the countries of entities with the purpose for STEM field. Both - to start developing a STEM strategy in the future in Estonia and find solutions for better practices that can be used already in the present.

To the project representatives of Estonia it gives an important input for the development of the STEM strategy. Especially since the FIRST Scandinavia team has a broader picture of the STEM strategies of other countries thanks to the introduction of the NEWTON concept to other countries. In addition, exchange of knowledge - and exchange of experience - gives ideas for better/more resourceful use of existing conditions in Estonia. We could also use the knowledge of founding.

For representatives of Norway, getting to know Estonia's concept so far offers ideas and input for further work in introducing their concept to other countries.

Building partnerships and networking between entities or their members for future cooperation in joint projects or attending to courses.

For the Estonian participants, contacts and knowledge exchanged during the project provides opportunities for the development of the field at several levels (ministry, municipality, school administrators, operators of STEM field activities).

For Norwegian participants, the project primarily offers further cooperation contacts in the First Lego League concept for various joint projects and events at both the professional and youth level. But also in the rest of the STEM field to find lecturers and participants for various trainings and learning activities organized by FIRST Scandinavia.

Participants:

Participants from Estonia:

Members of Estonian STEM Education Union, members of the board and employees and policy makers in the field of STEM.

- a) Participants of the foreign visit - 40 people.
- b) Participants of the brainstorming session from various interest groups during the visit of Norwegian representatives. Gathering of 50-100 people interested (policy makers, operators in the field, representatives of local governments, educational institutions and entrepreneurs).
- c) Knowledge from each event will be shared also with the members of the Union (130 organizations and persons)

Participants from Norway:

Representatives of FIRST Scandinavian concepts, implementers of the First Lego League concept. About 22 representatives.

Activity plan:

- Representatives of the Estonian STEM Education Union (including board members and employees, as well as policymakers in the field of STEM), visit FIRST Scandinavia's headquarters in Bodo, Norway. There will be a visit to the activity centers of FIRST Scandinavia. An introduction to the concepts and an overview of Norway's STEM strategy and good examples from elsewhere will be heard. Important topic in the discussions is the operation of the STEM field and development opportunities in rural areas, for children to have equal possibilities developing STEM knowledge.

- The first brainstorming meeting with the trip participants - regarding collected ideas, possibilities applying them to existing conditions or using them in the long-term strategy. Meeting format is encounter (held in Norway).
- Sharing the knowledge gained during the field trip and the ideas generated from it with other members of the union. Meeting format is encounter and/or hybrid (held in Estonia).
- Trip of FIRST Scandinavia representatives to Estonia (opportunity to visit at least two cities). There will be a visit to STEM field centers and providers representing different formats (discovery center, hobby school applying the FLL concept).
- Joint event/ exchange of experience with representatives of the union and FLL concept providers in Estonia.
- Development seminar in the field of STEM with the representatives of FIRST Scandinavia for an extended interest group (including representatives of ministries, representatives of local governments, heads of educational institutions, operators of activities in the field) who have expressed a desire to attend. The topic: practical milestones for developing STEM strategy and inventive ideas for using existing opportunities.

Budget Outline:

Altogether 251 000 euros, containing:

• FIRST Scandinavia project management costs 110 160 euros

Project management and mission cost	3	€12 960,00
Seminar in Estonia (4 days)	22	€71 280,00
Seminar in Norway (4 days)	6	€25 920,00

• Eesti Teadushuvihariduse Liit project management costs 12 550 euros

Project management and mission cost	1	€5 150,00
Seminar in Estonia (3 days)	5	€1 200,00
Seminar in Norway (4 days)	4	€6 200,00

• FIRST Scandinavia delegation in Estonia 48 550 euros

International travel costs	22	€13 200,00
Accommodation cost	22	€6 600,00
Food cost	22	€6 600,00
Local transportation	22	€2 000,00
Attending workshops	22	€1 650,00
Meeting with representatives of TEAHU	30	€1 500,00
Open seminar to everyone in the field (STEM)	100	€15 000,00
Unexpected expenses		€2 000,00

• Estonian delegation to Norway 79 740 euros

International travel costs	40	€21 600,00
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Accommodation cost	40	€28 800,00
Food cost	40	€17 280,00
Local transportation	40	€5 400,00
Attending workshops	40	€4 410,00
Meeting with representatives of FIRST Scandinavia & TEAHU and FLL representatives	40	€900,00
Unexpected expenses		€1 350,00

Communication and dissemination:

- Information about the upcoming project and registration is shared with members of the union through the members mailing list.
- Information about project supporters is shared with each announcement related to the project (advertisement, registration letter, social media posts)
- Updates and pictures about the project will be shared directly on the Union's social media channels.
- Members/and interested parties will be notified of presentations and seminars within the project by letter and/or via social media.
- Communication regarding the joint FIRST Scandinavian representatives meeting with TEAHU led by Norwegian representatives will be done by e-mail and/or through social media channels.

Activity plan:

	Activity	Time	Location	Cost	Participants
	Detailed planning, preparations and project management from Estonian NPO	October 2024 - April 2025	Estonia	12550€	1 (project manager, 4 members of board of the union, who attend as seminar lecturers etc)
	Detailed planning, preparations and project management from the foundation or Norway	October 2024 - April 2025	Norway	110160 €	3 (project managers, seminar lecturers)
	Estonian STEM specialists visit Bodo, Norway	February 2025	Bodo, Norway	78840€	40
	Participants of the visit hold a reflective seminar	February 2025 (last day of visit)	Bodo, Norway	900€ (meeting room rent)	40
	Reflective seminar from the participants to other union members	March 2025	MS Teams	Salary cost for board members attending meeting hour (already in the planning section.)	-130

	FIRST Scandinavia team visits Estonian STEM Union member organizations	April 2025 (first day of the visit)	Tallinn+ other (Estonia)	32050	22
	STEM education (informal and other) development seminar for an extended interest group	April 2025 (second day of the visit)	Tallinn or Tartu	15000 (organizing and rent)	70-100
	Joint event/experience exchange of FLL concept representatives in Estonia.	April 2025 (among the visit)	Estonia	1500€ (room rent)	30
	Collecting feedback, completing reports and publication of summaries	April-July 2025	Estonia, Norway	Cost already included in project management	Project managers from each participant

Planned results¹

OUTPUT	INDICATOR	TARGET
Estonian STEM Union representatives visit to First Scandinavia, Norway	40- representatives: <ul style="list-style-type: none"> - have visited FIRST Scandinavia in Bodo. 	40representatives from Estonia: <ul style="list-style-type: none"> -have knowledge of the existing STEM strategy and best practices used in Norway - have built partnership opportunities for future projects with the representatives the STEM field in Norway.
Estonian STEM Union representatives brainstorming meeting	Estonian STEM Union participants of the field trip: <ul style="list-style-type: none"> - have their first brainstorming meeting for discussing priorities of future STEM strategy in Estonia. 	Estonian STEM Union participants of the field trip (40) <ul style="list-style-type: none"> -have knowledge of each other's viewpoints and values according to the future STEM Strategy in Estonia; -have agreed on the priority points for the STEM field strategy, also using the existing possibilities.

¹ Please refer to the [Results Guideline](#)

Estonian STEM Union members meeting	<p>Estonian STEM Union members:</p> <ul style="list-style-type: none"> - have shared the knowledge and best practices of the STEM field in Norway, also proving STEM on equal levels in smaller areas - have shared the viewpoints for future STEM strategy. 	<p>Estonian STEM Union members (130 organizations and individuals):</p> <ul style="list-style-type: none"> - Have shared knowledge and best practices further on the STEM field activists. - Have discussed viewpoints and priorities for future STEM strategy.
Trip of FIRST Scandinavia representatives to Estonia	<p>FIRST Scandinavia representatives:</p> <ul style="list-style-type: none"> - Have visited STEM field centers and providers in Estonia 	<p>FIRST Scandinavia representatives (20?):</p> <ul style="list-style-type: none"> -have knowledge of the existing projects and practices in Estonia - have built partnership opportunities for future projects with the representatives the STEM field in Estonia.
FIRST Scandinavia representatives hold an event (with representatives of the FLL in Estonia).	<p>FIRST Scandinavia representatives:</p> <ul style="list-style-type: none"> - Have held an encounter event (with TEAHU and representatives of the FLL concept in Estonia.) 	<p>FIRST Scandinavia representatives and Estonian FLL providers and teachers (30-40):</p> <ul style="list-style-type: none"> -have built partnership opportunities for future projects with the representatives the FLL concept in Estonia.
-Development seminar in the field of STEM with the representatives of FIRST Scandinavia for an extended interest group (including representatives of ministries, representatives of local governments, heads of educational institutions, operators of activities in the field) who have expressed a desire to attend.	<p>Discussion seminar meeting in encounter/hybrid format have been held in Estonia on the topic: "Practical milestones for developing an STEM strategy and inventive ideas for using existing opportunities".</p>	<p>Discussion seminar meeting on the STEM development topic has been held for extender interest group from different organizations. Discussion seminar has a broad target group that can have important role in the development of the STEM strategy in Estonia. (wider target group).</p>