

**Invitation for expressions of interest to complete a two-phase impact evaluation of the Young STEM Leader (YSL) Programme.**

**About the YSL Programme**

In its Strategy for STEM Education and Training (2017), the Scottish Government has committed to ‘establish a new YSL Programme to stimulate and strengthen the development of peer mentoring and inspiration in STEM for young people by young people.’

​
The key aim of the YSL Programme is to facilitate the development of peer STEM role models to inspire more young people to develop an interest in STEM.

The Scottish government-funded Programme is being led by SSERC and a range of partners, including the four Scottish Science Centres, three Scottish STEM Ambassador Hubs, Science Festivals, YouthLink Scotland, Young Scot, Science Skills Academy, Education Scotland and the Scottish Mentoring Network.

The YSL Programme is available at CfE Second, Third and Fourth Levels, underpinned by a framework that identifies the skills, knowledge and behaviours expected of a YSL at each curricular level.

At SCQF levels 4, 5 and 6 it is a formally accredited and certificated award, underpinned by learning outcomes and performance criteria for each level.

More information on the YSL Programme is available on request by emailing ysl@sserc.scot

A training programme will be delivered to create a national network of Tutor Assessors who will then deliver the programme in their respective centres.

Learning and teaching will take place during the programme to equip young people with the skills and knowledge to go on and deliver their own activities, events and interactions as Young STEM Leaders.

**Aspirations and Overriding Principles of the YSL Programme**

*[The following excerpt is taken from: Scottish Government Strategy for STEM Education and Training 2017, Section 8, Inspiration]*

**Aim 1**: mobilising the enthusiasm of young people themselves will help grow the number of role model and mentoring opportunities for other young people;

**Aim 2**: being a Young STEM Leader could, in turn, help motivate that young person to follow STEM study or careers and to become a STEM Ambassador in the future. It will also help them develop ‘soft’ skills that are in demand from employers.

**Aim 3**: In doing so, we will make sure that Young STEM Leaders help to address stereotypes that act as barriers to participation in STEM. This will include making sure that there is a good gender balance amongst the Young STEM Leaders.

*[The following excerpt is taken from: Young STEM Leader Programme Support Notes, CfE Second Level, Section 10, page 12]*

The YSL Programme allows young people to develop their personal skill and qualities in a STEM context. Through delivering STEM activities, events and interactions in their schools, communities and beyond, a YSL consolidates their existing knowledge and understanding of the STEM concepts being delivered, as well as:

1. **Aim 4**: developing skills for the 21st century;
2. **Aim 5**: building confidence through a leadership role;
3. **Aim 6**: developing employability and career-management skills;
4. **Aim 7**: increasing STEM literacy, awareness and appreciation;
5. **Aim 8**: preparing young people for the ever-changing world.

YSLs can deliver events individually or as part of a group and can also offer one-to-one support to their peers. The activities, events and interactions delivered by YSLs should be varied and participants of the events need not always be younger in age than the YSL.

By engaging with their peers, a YSL will have a positive impact on the participants’ STEM capital (STEM-related knowledge, skills, attitudes, experiences and social contacts).

*[The following excerpt is taken from: Young STEM Leader Programme, Proposal of Services, CfE Second Level, Section 9]*

**EXPECTED RESULTS**

We expect our proposed solution to The Scottish Government (Learning Directorate) requirements to provide the following results:

**Aim 9.1.1:** By 2020 (end of)

· 121 school and community clusters have participated in Young STEM Ambassador programme

· Involving 6050 young people (average 50 learners per school and community cluster)

· 121 training opportunities undertaken (1 train the trainer programme per cluster) allowing for wider learner training opportunities

· With a geographical spread across the three STEM Ambassador Hub geographic areas.

**Aim 9.1.2:** By 2022 (end of)

· 365 school and community clusters have participated in Young STEM Ambassador programme

· Involving 18250 young people (average 50 learners per school and community cluster)

· 730 training opportunities undertaken (minimum 2 train the trainer programmes per cluster) allowing for wider learner training opportunities

· All local authorities have YSL activity.

**Pilot Objectives**

**Obj1**: Develop CfE Second Level and SCQF Level 6 frameworks which deliver the aims of the Young STEM Leader Programme

**Obj2**: Recruit between 50 – 70 pilot centres across Scotland to trial the CfE Second Level, SCQF level 6 or both frameworks

**Obj3**: Use partnership working to create and deliver the YSL Programme

**Obj4**: Create and deliver and robust training programme for tutor Assessors to confidently deliver the programme in their respective centres.

**Evaluation Overview**

The Young STEM Leader Programme will undergo a two-phase evaluation of:

* The pilot session which runs across academic year 2019/20 with phase one evaluation report complete and submitted to SSERC by 30th June 2020
* The first year of full national launch which runs across academic year 2020/21 with phase two evaluation report complete and submitted to SSERC by April 2022

**Evaluation Purpose**

The Young STEM Leader Programme is designed to address a series of challenges in STEM education in Scotland as set out in the Scottish Government’s STEM Strategy for Education and Training (2017). It is essential that the evaluation yields a range of complex and detailed findings to fully explore the impact the programme makes.

**The overarching question(s) for this evaluation**

How successful was the implementation, delivery and impact of the Young STEM Leader Programme relation to the listed aims (1-9) and objectives (1-4) above?

The impact should be considered in terms of the following groups:

* Young STEM leaders
* Participants of the activities, events and interactions which Young STEM Leaders deliver
* YSL Programme delivering centre staff

**Who will complete the evaluation?**

The Young STEM Leader Programme evaluation will be carried out by an organisation who have a proven track record of, and expertise in, the analysis of educational initiatives.

**Who will liaise with the evaluating organisation?**

Frequent liaison will be with the CEO of SSERC and YSL Project Manager. This information will be shared with Senior Management at SSERC, the Project Steering Group and Scottish Government.

**Selection process**

Interested organisations should respond directly to the Project Manager by submitting a proposal.

* Evaluation brief shared with prospective evaluators
* Invite prospective evaluators to submit a proposal (see criteria below)
* Short leet produced with invitation for a proposal discussion at SSERC with CEO, PM and other relevant members of SSERC/YSL partnership

**Selection criteria**

Proposals must demonstrate the following:

1. Evidence of a clear understanding of the task.
2. Evidence of a clear methodology outlining key milestones; timelines including when SSERC/YSL/Partners will be involved and dates for draft reports.
3. Evidence of the skills and experience of the evaluator including recent examples of similar work.
4. Evidence of knowledge and understanding of the policy context in relation to this project.
5. Evidence to clearly show that monitoring and evaluation of this project will be within the budget and the stated timescales.
6. Evidence to support flexibility and responsiveness; communication and reaction to problems.
7. Evidence of innovation and added value.

Price: 35%

Quality: 65%

On appointment of the chosen evaluator, an initial scoping meeting will be carried out to finalise the details and requirements of the evaluation.

**Timescales**

(See Evaluation Overview)

Two-part delivery:

* phase one evaluation report submitted to SSERC by 30th June 2020
* phase two evaluation report submitted to SSERC by April 2022

**Budget**

The expectation is that evaluators will submit proposals within the range £15k-25k

**Who may be asked to provide information to the evaluation team?**

* Young STEM leaders
* Participants of the activities, events and interactions which Young STEM Leaders deliver
* YSL Programme delivering centre staff
* YSL Youth Steering Group members
* YSL Steering Group members
* YSL Project Team
* SSERC SMT and SSERC CEO

**Ethical Approval**

It is expected that ethical approval will be granted to the evaluators before any data is gathered.

**Reporting Requirements**

The scoping meeting held between he appointed evaluator will set out in more detail the following

* Progress report frequency
* Update meetings
* Dissemination event for each report

**Content of the Evaluation**

Key areas/questions the evaluation will explore.

Quantitative

|  |
| --- |
| Participation* How many centres in total took part?
* What was the distribution across each level of the programme?
* What was the distribution among Secondary, Primary, Youth Groups/Initiatives?
* What was the geographical spread of participation across Scotland in terms of RICs and LAs?
* What was the representation among certain protected characteristics such as age, disability, race and sex?
 |
| Attainment v Deprivation* What was the spread across SIMD deciles for all centres?
* What was the spread across SIMD deciles per centre?
 |
| Completion* How many (and percentage) YSLs per centre who started and completed the programme?
* What was the drop-out rate and what were the main factors for this?
 |
| Delivery* What type of activities, events and interactions did YSLs lead and who to?
* Type of group YSL led to
* Age difference between YSLs and participants
* Type of event led, timescale and frequency
 |
| Targets from Proposal of Services Document* Have the targets in the above for end of 2022 been met?
* Are we on track to meet the end of 2022 target?
 |

Qualitative

|  |
| --- |
| Attainment v Deprivation* Is there any evidence pointing towards the YSL Programme raising participation in STEM for lower decile learners?
 |
| Completion* For non-formal, what is the impact and value of each element?
* For formal, what is the impact and value of each learning outcome?
* For those who gained the SCQF Level 6 award, where does it compare in comparison to other qualifications and awards held by the young person in terms of level, difficulty, enjoyment, other. For example, is the SCQF Level 6 Award the lowest or highest level held by the young person compared to other qualifications.
 |
| Materials* How supportive and impactful are the programme documents?
 |
| ImpactWhat are YSLs, those they delivered to and staff saying about the programme?* Would the above recommend the programme to others?
* Have YSLs developed in line with?
* Are the participants more aware and engaged in STEM having worked with a YSL or group of YSLs?
* Are the participants now more likely to choses STEM subjects or even career pathways due to the work with YSLs?
 |
| ContextHas the context of STEM been suitably widened by a range of STEM activities, events and interactions being delivered?* What were the traditional examples of delivery?
* What more unusual examples were delivered?
 |
| YSL website and online experience (Only after full national launch)* How useful is the website in general?
* How effective is the user experience for tutor assessors to register their centre and sign up for training?
* How would new Tutor Assessors describe the online training experience?
* How would new Tutor Assessors describe the face-to-face training experience?
* For YSLs, how effective is the online experience for recording their data.
 |
| Branding and marketing* What is the overall impact and impression from the YSL brand?
* Has any of the social media presence for YSL been effective?
 |

**Submission of proposals**

All proposals must be submitted electronically to Alastair MacGregor CEO, Ian Woodley Director Finance, Helen Winton Head of STEM Engagement and Graeme Rough YSL Project Manager by 5pm on Monday 4th November 2019.

alastair.macgregor@sserc.scot

helen.winton@sserc.scot

ian.woodley@sserc.scot

graeme.rough@sserc.scot

**Clarification**

Interested parties are able to seek clarification on any matter above. Where the clarification is linked to aspects which are deemed by SSERC to be non-commercials, they will be made available to other potential interested parties.

Specific details relating to this will be provided in due course.