

STEAM in Youth Work



Invitation to tender

Independent evaluation of the STEAM in Youth Work Project

Issued by:

National Youth Council of Ireland, 3 Montague Street, Dublin 2, D02 V327

Deadline for proposal submission:

14th May 2019, 12.00pm

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1. Introduction and background

The National Youth Council of Ireland (NYCI) invites tenders from individuals/organisations with the expertise needed to design, develop and implement a robust project learning and evaluation system for STEAM in Youth Work.

1.1 About NYCI

The National Youth Council of Ireland (NYCI) is a membership led umbrella organisation that represents and supports the interests of voluntary youth organisations working with over 380,000 young people in Ireland. We use our collective experience to act on issues that impact on young people. We provide a comprehensive range of advice, information and training programmes nationally. Additionally, we undertake advocacy with policy makers, legislators and funders on behalf of our membership to secure an appropriate political, legal and operational environment for youth work in Ireland. NYCI delivers a range of training and support programmes for youth work organisations, including: youth health, child protection, international, development education, youth arts, and equalities and intercultural programmes.

1.2 About STEAM in Youth Work

STEAM in Youth Work is a two-year project that will transform the capacity of the youth sector by enabling youth organisations and workers to:

- use STEAM (science, technology, engineering, art and maths) to support the achievement of youth work outcomes, and
- deliver inspiring, experiential STEAM education and engagement projects.

Through training, residential, 'scientist in youth work residency' grants, resources and equipment grants, youth workers will be enabled to communicate STEAM concepts covering light, energy, electricity and environmental science. They will develop their youth work repertoire to include scientific method and design thinking. They will develop innovative learning models based on 'physics through art', 'development education & environmental science through gaming' and the 'maker movement'. 212 youth workers will be engaged through these various activities and, as a result, 10,000 young people will have access to enhanced STEAM engagement opportunities across Ireland.

Further details about the different workstreams and what success would look like for the project are included in Appendix 1.

Robust learning and evaluation mechanisms, including an Independent Evaluator, scientific advisors and an expert advisory group (see appendix 2), have been built into the project framework to help ensure:

- the project is a model of best practice.
- the project builds on existing relevant work.
- evidence generated about innovative youth work and STEAM education and engagement models are transferable and have influence on the wider youth work, STEAM education ecosystem and funding sectors.

NYCI has received €300,000 from the Science Foundation of Ireland to deliver this project over two years (01.03.19 - 28.02.21) through NYCI's Youth Arts and Development Education programmes. It builds on learning from the NYCI TechSpace STEM in Youth Work project (2017/2018) which provided training, support and equipment grants to enable 320 youth workers to deliver inclusive STEM engagement activities with diverse groups of young people.

2. Details of tender

NYCI is seeking an Independent Evaluator, on a consultancy basis from May 2019 until March 2021, to design, implement and report on a comprehensive learning and evaluation framework for NYCI's STEAM in Youth Work project with support from the project team. In addition to learning how well the project achieves its intended outcomes, the evaluation will generate learning around how partnership working within NYCI between its STEAM in Youth Work project and its Arts and Development Education Programmes adds values to their respective aims. More specifically, NYCI envisages that the Independent Evaluator will undertake the following tasks:

Establishing the learning and evaluation framework

1. Review and develop, as needed, the project results framework, logic model, work plan and logframe.
2. Develop an evaluation and learning methodology for the project, and associated tools for data collection, storage and analysis; ensure the framework and tools are aligned with NYCI's organisational monitoring and evaluation system.

3. Train 3 - 4 staff members on the evaluation and learning methodology for the project, and on the use of the data collection tools.

Ongoing support

4. Respond to any learning and evaluation issues that arise during the implementation of the learning and evaluation framework.
5. Support the project team to produce periodic evaluation reports (where samples of data are pulled, analyzed and a report is produced for the expert advisory group's four remaining meetings).

Final evaluation report

6. Undertake data analysis and complete final learning and evaluation report.

3. Time-frame

- NYCI's STEAM in Youth Work project began on 1 March 2019.
- Services will begin in June 2019.
- The Expert Advisory Group met for the first time in April 2019.
- Services will conclude by November 2020, and project reporting will conclude by February 2021.

The Independent Evaluator would start work on the project in May 2019 until the final learning and evaluation report is produced in February 2021.

4. Budget and finances

The total budget for the work of the Independent Evaluator is €20,000 inclusive of VAT. This sum should cover all costs including the Independent Evaluator's time and reasonable, receipted expenses related to the execution of the above tasks. The successful applicant will need to submit a Tax Clearance Certificate annually.

5. Your tender submission and selection criteria

Tender submissions should include:

- An outline of the approach the applicant would take with this piece of work.
- A statement outlining relevant knowledge and skills demonstrated with examples of roles played in comparable projects.
- A CV.
- Costs for entire piece of work (including daily rates and anticipated expenses).
- Two referees (including telephone numbers and email addresses).
- Details of any other relevant information that the applicant considers appropriate.
- Tax Clearance Certificate.
- Disclosures of any conflict of interest.
- Contact information.

An assessment panel will examine all tenders received. The panel will have to be satisfied that the contracted consultant is suitably qualified and has the knowledge, experience and skills needed to successfully design, deliver and report on the learning and evaluation framework for the project, within the timeframe and budget outlined above. The Assessment Panel will determine eligibility for this service in accordance with the following criteria:

- A clear understanding of the brief and the context within which the STEAM in Youth Work project operates.
- Skills and knowledge required to deliver the service successfully.
- Experience of successful delivery on comparable projects.
- Alignment between the outlined approach and the evaluation and learning needs of the STEAM in Youth work project.
- Capacity and resources to deliver the services required within the available budget and timeline for the project.
- Overall costs (NYCI does not commit itself to accepting the lowest of any tender. Once the tender has been accepted, any price increases during the term of contract will not be accepted).

All proposals must be emailed to Barbara@nyci.ie by 14th May, 12pm.

6. Queries

Please contact Barbara Nea on 01 478 4122 or email barbara@nyci.ie.

Appendix 1: Further information about NYCI's STEAM in Youth Work project

STEAM in Youth Work includes five, interlinked strands:

Engaging the youth work sector in the Maker Movement

This strand will build the capacity of the youth sector to engage in and benefit from the growing Maker Movement in Ireland. 90 youth workers will receive one-day of training where they will: gain STEAM knowledge and communication skills; develop their youth facilitation repertoire to include scientific method; learn how to deliver projects which provide young people with experiential Maker opportunities; and receive equipment grants. Thirty-two youth workers will take part in further upskilling training, where they will advance their skills.

Growing evidence indicates that Maker education is an effective method for engaging learners in creative, higher-order problem-solving while experiencing STEAM. Emerging learning from STEAM in Youth Work 1 corroborates this and further finds that young people's engagement in STEAM & Maker projects in youth work settings leads to development in their perceptions of STEAM, STEAM professionals and the impact of STEAM on their lives.

Scientist in residency scheme

Six grants of €5,000 will be provided to collaborations between six scientists and youth organisations to deliver STEAM projects/exhibitions of relevance to local young people. This bottom-up approach will add value to training approaches by encouraging the wider application of skills gained, nurturing innovation and stimulating interest and debate in STEAM among wider local communities. 'Scientist in youth work residency' scheme will be delivered alongside NYCI's successful 'Artist in youth work residency' scheme. Its annual evaluation indicates the scheme will have significant long-term impacts on the practices of participating organisations (e.g. policies developed, staff upskilled, leveraging in funding for follow-up STEAM projects).

Three-day summer residential with follow-up booster

30 youth workers will develop the skills necessary to lead projects which explore:

- a. Creation of pop-up paper and perspex books/sculptures that incorporate circuits to generate light, sound and movement to enhance storytelling.

- b. Photography through building pinhole cameras.

Youth workers will be supported to use scientific methods with design processes to learn about: electricity, energy, sound, movement and light and to use scientific understanding to achieve particular artistic effects.

These modules, which fuse Science and Art to enhance learning outcomes, build on work of experienced public engagement artists.

Story building for technology

Three trainings will be delivered to 45 youth workers to enhance the storytelling within their existing STEAM projects (e.g. developing compelling characters in game design). By including storytelling, youth workers will be able to broaden participation in their STEAM projects to include young people who feel unconfident around science.

Engaging in environmental science, development education and sustainable development through gaming

This strand will train 10 youth workers to develop and use games to engage 100 young people in solutions to environmental science and development education challenges. Young people will develop understanding of some key concepts within environmental science and a range of technical and 21st century skills - creativity, collaboration, problem solving and critical thinking. A resource will be created and disseminated to support youth workers to use gaming on a wider basis.

What will success look like for the NYCI STEAM in Youth Work Maker project

- 90 youth workers who participate in 10 introductory STEM in Youth Work & Maker training and 32 youth workers who participate in further upskilling opportunities report improved STEM communication skills, enhanced youth facilitation skills that include scientific method, and improved abilities to deliver engaging, experiential and inspiring STEM education and engagement opportunities. 122 youth workers go on to implement enhanced practice with 6,100 young people, most of whom, are from backgrounds/groups that are underrepresented in STEM.
- Through the 'scientist in youth work residency scheme' strong collaborations are developed between scientists and youth organisations in six localities.
- Participants in summer residential develop six local STEAM exhibitions within their youth work organisations that engage 600 members of the general public.

- 30 youth workers attend three-day summer residential and follow up booster and report improved physics communication skills, enhanced youth facilitation skills that include scientific method, and enhanced abilities to deliver engaging, experiential and inspiring STEM education and engagement opportunities. 30 youth workers go on to implement enhanced practice with 1,500 young people, most of whom, are from backgrounds/groups that are underrepresented in STEM.
- 45 youth workers take part in story-building training and report enhanced ability to include story-building within their existing STEM projects. 45 youth workers go on to implement enhanced practice, which effectively broadens participation in STEM due to the addition of storytelling, with 2,250 young people.
- 10 youth workers receive training and support to engage 60 young people from six different localities in developing and producing games about solutions to challenges in environmental science and development education. Youth workers report improved understanding of environmental science and enhanced youth facilitation skills that include digital technology and gaming.
- 300 young people and 30 youth workers report improved awareness about how to use STEAM to address challenge in environmental science and development education.
- 100 youth workers, young people and policymakers report improved understanding of the value of the youth sector in delivering innovative STEAM educational and engagement opportunities through a national showcase of work projects.

Appendix 2: The Expert Advisory Group

The role of the Expert Advisory Group is to provide advice that enables the project team to:

- develop the project methodology
- improve project delivery and develop best practice
- generate robust learning
- enhance impact
- ensure the complementarity of the project to other STEAM engagement initiatives targeting disadvantaged young people around the country
- position the project appropriately within Ireland's wider STEAM ecosystem
- build on existing best practice in the field.

The Expert Advisory Group forms an important part of the project's learning and evaluation systems. Part of the work done by members will involve supporting the project team to answer key questions arising from emerging evaluation findings, and in identifying actions that can be taken to improve delivery. The Expert Advisory Group does not have a management role.

The Expert Advisory Group includes representatives from non-formal and formal education, STEAM industries and academia with expertise covering: STEAM communication; science; technology; art; engineering and maths; learning and education in formal and non-formal settings, and; youth work.

