

## Cylchlythyr | Circular

# Reaching Wider: *STEM Pathways*

**Date:** 27 September 2013  
**Reference:** W13/30HE  
**To:** Heads of higher education institutions in Wales, Reaching Wider Partnership Chairs, Principals of directly-funded further education colleges in Wales  
**Response by:** 01 November 2013  
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This circular invites Reaching Wider Partnerships to submit funded proposals to develop STEM pathways and pilot models of effective practice in widening and increasing access to Science, Technology, Engineering and Mathematics (STEM) provision in higher education.

If you require this document in an alternative accessible format, please telephone us on (029) 2068 2225 or email [info@hefcw.ac.uk](mailto:info@hefcw.ac.uk).



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**Lywodraeth Cymru**  
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## Introduction

1. This circular invites Reaching Wider (RW) Partnerships to submit funded proposals to develop STEM pathways and pilot models of effective practice in widening and increasing access to Science, Technology, Engineering and Mathematics (STEM) provision in higher education.
2. HEFCW widening access STEM funding is available to Partnerships to pilot new, innovative and collaborative STEM pilot projects. The RW funded projects will build on National Science Academy (NSA) STEM developments in Wales completed in 2012/13 and align with those to be taken forward from 2013.

## Background

3. In March 2012, the Welsh Government published *Science for Wales – A Strategic agenda for science and innovation in Wales*<sup>1</sup> which set out its intention to ‘*build a strong and dynamic science base that supports the economic and national development of Wales*’. *Science for Wales* identified three STEM ‘grand challenge’ priority areas: life sciences and health; low carbon, energy and environment; and advanced engineering’ to be developed through four delivery modes: fundamental research; STEM outreach; the e-infrastructure; and exploitation of intellectual property.
4. The NSA was launched as part of *Science for Wales*, to raise interest in STEM subjects amongst young people and adults. In 2012/13, HEFCW jointly funded, with the NSA, seven projects in higher education institutions (HEIs) in Wales. A list of funded projects and the level of funding provided to each is included as **Annex A**.
5. HEFCW’s 2013-14 remit letter asked us to, ‘*continue to promote subjects of broader importance to Wales, especially STEM and MFL, building upon its successful initiatives of recent years.*’
6. Responding to our remit letter and the aims of *Science for Wales*, to build a strong science base through STEM outreach, we are inviting RW funded proposals to support the development and piloting of innovative, sustainable approaches to widening access to STEM study in HE, through the Reaching Wider Programme.

## Reaching Wider STEM Pathways and delivery models

7. We consider that the Reaching Wider Partnerships are well-placed to develop and pilot STEM delivery models, given their alignment with HE regional strategies, collaborative infrastructure, strategic approaches and existing links with all-age target groups. All Reaching Wider Partnerships

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<sup>1</sup> [Science for Wales](#)

have proven experience of delivering STEM provision collaboratively with FE and HE academic departments and other providers, and HEFCW RW Strategy supplementary guidance has encouraged Partnerships to align their STEM activities with the National HE STEM Programme.<sup>2</sup>

### Submission of proposals

8. Partnerships are invited to submit proposals for funding in 2013/14 which set SMART outcomes for both the delivery model and pilot programme and identify clear deliverables to increase STEM engagement.
9. We recognise that RW strategies are currently funded to July 2014 and we have not yet invited strategies beyond 2014. However, Partnerships can choose to extend proposed STEM activities beyond July 2014, but not beyond 31 July 2015. If funded activities extend beyond July 2014, partner HEIs will need to confirm their commitment to maintaining capacity to deliver the proposals' agreed outcomes, should there be significant funding changes to the Reaching Wider Programme.
10. Reaching Wider Partnerships should also take account of equality implications, including consideration of Welsh language provision and issues of sustainability in developing and delivering proposals. Proposals should set out how they have impact assessed their proposals (see **Annex B**).
11. Further information to support the development and piloting of the delivery models is attached as **Annex B**. The Reaching Wider Partnerships should submit funded proposals to us against the criteria outlined within the annex.
12. Proposals should be submitted using the proforma attached as **Annex C**.

### Funding

13. The total funding available for 'Reaching Wider STEM pathways' in 2013/14 is **£294k**. Each Reaching Wider Partnership is invited to submit a funded proposal. The funding will be available for delivery from January 2014 to July 2015. Partnerships may decide to utilise the allocation in full before the end of the Academic Year 2013/14, or may choose to deliver provision beyond July 2014. All delivery must be completed by July 2015.
14. Within the total funding available, HEFCW reserve the right to vary an allocation by 15% to support innovative or more ambitious proposals. In addition, HEFCW will allocate funding to host an All Wales STEM event which showcases the delivery models in 2014. Indicative funding

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<sup>2</sup> [W11/24HE](#)

allocations are calculated proportionally to the 2013/14 Reaching Wider Partnerships' strategy allocations and are outlined in **Annex D**.

15. We would not expect this funding to be used to appoint additional staff, though we recognise there will be resource implications.
16. If Partnerships choose to deliver beyond July 2014, they should separate their proposed activities and funding into the following periods:
  - The Academic Year (AY) 2013/14 (January 2013-July 2014);
  - The Academic Year (AY) 2014/15 (August 2014-July 2015)

### Timetable

17. The timetable for the submission, confirmation and monitoring of funded proposals is as follows:

<b>Date</b>	<b>Activity</b>
27 September 2013	Circular W13/30HE inviting proposals published
1 November 2013	Submission of RW Partnership proposals
22 November 2013	Confirmation of funding by HEFCW
20 January 2014	First tranche payment
31 March 2014	Submission of interim monitoring report by RW Partnerships
20 June 2014	Final tranche payment (subject to Partnerships' delivery profile)
31 October 2014/31 October 2015 (subject to delivery profile)	Final monitoring against objectives to be included as part of RW annual monitoring processes
November 2014	HEFCW All Wales STEM event showcasing the delivery models or current progress (subject to delivery profile).

### Monitoring

18. We will monitor expenditure and progress against the funded proposals and outcomes through interim reports, final reports and the RW annual monitoring processes.

### **Further information / responses to**

19. Funded proposals should be submitted to Rachel O’Gorman at the HEFCW offices, or [rachel.ogorman@hefcw.ac.uk](mailto:rachel.ogorman@hefcw.ac.uk) by 1 November 2013.
20. For further RW information, contact Rachel O’Gorman; email [rachel.ogorman@hefcw.ac.uk](mailto:rachel.ogorman@hefcw.ac.uk) (029 2068 2227) or for STEM specific information contact Kimberley Meringolo, (029 2068 2258) [kimberley.meringolo@hefcw.ac.uk](mailto:kimberley.meringolo@hefcw.ac.uk)

## Annex A

A summary of HEI projects in Wales 2012/13 funded jointly by HEFCW and the National Science Academy<sup>3</sup>.

Institution	Project title	Total project funding
Cardiff University	Enriching STEM	£35,000
Bangor University	GCSE Science Easter Revision School	£10,000
Swansea University	Maths Apps Roadshow	£24,056
Swansea University	Science Summer School	£43,927
Swansea University	Materials Live	£24,277
Swansea University	Medical STEM	£12,075
Cardiff Metropolitan University	Supporting Innovation	£12,000

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<sup>3</sup> Further information on the jointly funded HEFCW/NSA projects can be founded [here](#)

### Further information to support the development and piloting of STEM Pathways and the delivery models

1. In developing STEM Pathways and piloting delivery models, Partnerships should take account of the *Science for Wales* strategic aims, the National Science Academy project outcomes, funded in 2012/13, and those to be funded in 2013/14. They are invited to submit proposals which:
  - i. provide **new, innovative and effective approaches** to widening and increasing access to STEM study in HE to people of all ages in Communities First cluster areas and looked after children and care leavers;
  - ii. develop **replicable STEM delivery models** enabling them to be used by others beyond the funding period to reach out to a range of groups, including but not exclusively widening access groups;
  - iii. **engage broader audiences**, including academic departments, sector bodies, professional bodies, employers and others to raise awareness of access to the professions, high level skills and the priority sectors;
  - iv. **ensure alignment with HE regional strategies**, existing widening access and Reaching Wider STEM activities, but avoid duplication;
  - v. **support regional progression** to HE-level study and STEM-related careers;
  - vi. work collaboratively with regional RW partners to **align and articulate developments with** existing or planned **regional progression pathways**;
  - vii. develop provision and models which are **sustainable and can be embedded** in HE or other provision beyond the funded period;
  - viii. **align with and build on National HE STEM Programme** developments<sup>4</sup>;
  - ix. take account of **equality and diversity issues** generally and more specifically in relation to science; for example, under-representation of women in certain subjects;
  - x. consider mechanisms for supporting **Welsh language STEM supply and demand**; and
  - xi. take account of the timings of Adult Learners' Week and other lifelong learning events, National Science Week, GCSE choices, A-Level and other study choices for pupils where possible, to **promote the STEM pilot projects and benefit from wider publicity**.
2. STEM Pathways and delivery models should be piloted with RW target group participants with the delivery outcomes informing the final model. Models for continuous engagement might include, for example, a variety of workshops, visits, presentations, road shows, festivals, exhibitions, competitions, challenges, taster and/or placement experiences, award schemes, mentoring, revision events, public lectures/debates, continuous professional development (CPD) for STEM teachers amongst other

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<sup>4</sup> National HE STEM Programme

activities. **Models should not be ‘one-off’ interventions but promote continuous engagement with individuals and/or groups.**

### **Deliverables and outcomes**

3. The pilot outcomes should be clearly articulated models of effective practice which can be used by HE departments and other providers to inspire groups and individuals to engage with STEM activities. Models should contribute to equality of opportunity and the promotion of STEM in HE and the workplace.
4. Funded deliverables should include:
  - a **brief interim report**, using a proforma to be provided, setting out progress against the agreed proposal and expenditure;
  - a **final delivery model report** or the agreed equivalent, setting out the delivery model, aims, objectives, targeting of beneficiaries and engaging employers and others, stakeholder feedback, measurable impact to demonstrate success, case studies, lessons learnt, resources, equality and sustainability implications;
  - a **regional event** to raise the profile of the project outcomes, taking account of wider publicity around events such as National Science Week, Adult Learners’ Week and other lifelong learning events, GCSE, A level and other study choices;
  - contributing to a **HEFCW led Wales-wide seminar** to include Welsh Government, sector, employer and professional bodies to showcase the models, effective practice and lessons learnt.
5. Final delivery model reports might be supplemented by film clips, toolkits, checklists, participant quotations, etc to enhance their effectiveness.

## Annex C

<p>Cyngor Cyllido Addysg Uwch Cymru Higher Education Funding Council for Wales</p> 	<p><b>Reaching Wider STEM Pathways and pilot delivery models</b></p> <p><b>Proposal</b> (Maximum six pages)</p>
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1 Reaching Wider	
<b>Reaching Wider Partnership:</b>	
<b>Lead contact person:</b>	
<b>Address:</b>	
<b>Telephone:</b>	
<b>Email:</b>	

2 Proposed Delivery Model	
<b>Model and pilot activity title:</b>	
<b>Summary of project / activity:</b> Please summarise your proposal including key activities;(Maximum 500 words) ,	
<b>Length of project:</b>	
<b>Proposed start date:</b>	
<b>Proposed end date:</b>	
<b>Estimated total cost of project / activity</b>	
<i>In estimating costs please see total funding available for each Partnership as set out in the covering circular</i>	
<b>2a What are the aims and SMART outcomes (including strategic relevance) of your project / activity? i.e. what do you intend to have achieved by the end of the project / activity? (Maximum 500 words).</b>	
<b>2b List the key strategic/operational objectives, including deliverables of the project / activity, i.e. the main things that will be done to implement the aim of the project / activity. (Please use as many bullet points as you need).</b>	

**2c Define the target groups, ie, including age ranges and the number of beneficiaries, taking account of the needs of Welsh speakers and equality and diversity issues such as gender balance in STEM subjects<sup>5</sup>;**

**2d Outline the key outcomes of the project / activity. Please provide SMART outcomes and quantitative and qualitative outputs.**

**2e What are the final model deliverables? i.e. toolkit, case studies**

**2f Who will the project partners be? Please list the key people involved, their role in delivering the outputs, and the level of input.**

**2g How will the target audience be contacted/know about the activity / project and how will the project be promoted?**

**2h Outline the arrangements for monitoring the project.**

**2i Sustainability- How does the proposal build on, and go beyond, existing activity?  
How will the proposal develop new or creative activity that could not be developed using existing resources?**

**3 Outline budget**

**Please give details of how the funding will be used (including any intended contribution from your own budget or funding sought from other external sources).**

<b>Funding for the project / activity from:</b>	<b>Funding £</b>
January 2014-July 2014	
August 2014-July 2015	
<b>Please provide project cost/forecast projections over the project lifespan. We expect that the majority of funding will be used to support activities rather than additional staff costs.</b>	

**4 Declaration**

I apply on behalf of the above Reaching Wider Partnership for funding as proposed in this application in respect of expenditure to be incurred over the proposed funding period on the activities described above.

I confirm that to the best of my knowledge, the statements made by me in this application are true and the information provided is correct.

<sup>5</sup> Protected characteristics under the Equality Act 2010 are: age; disability; marriage/civil partnership; pregnancy; race; religion and belief; gender; sexual orientation.

<b>Signature</b>	<b>Name</b>
Reaching Wider Partnership Chair	<b>Date</b>
<b>Signatures:<sup>6</sup></b>	Name
Partner HEI Vice Chancellor	Date
<b>Signature</b>	<b>Name</b>
Partner HEI Vice Chancellor	Date
<b>Signature</b>	<b>Name</b>
Partner HEI Vice Chancellor	Date

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<sup>6</sup> If activities are planned beyond July 2014 partner HEIs should confirm their commitment to maintaining capacity to deliver the agreed outcomes beyond July 2014 in the event of significant RW Programme funding changes.

## Indicative Funding breakdown for Reaching Wider: STEM Pathways

<b>Reaching Wider Partnership</b>	<b>Indicative RW Partnership STEM Pathways Funding</b> (based proportionally on RW 2013/14 Strategy allocations) <b>£</b>
South East Wales (First Campus)	124,940
South West Wales	73,060
North and Mid Wales	96,000
<b>Total funding</b>	<b>294,000</b>