

**RCUK PUBLIC ENGAGEMENT WITH RESEARCH:
SCHOOL-UNIVERSITY PARTNERSHIPS INITIATIVE (SUPI)**

FINAL REPORT - CARDIFF UNIVERSITY

SUPI PROJECT NAME: CARDIFF UNIVERSITY SCHOOLS PARTNERSHIP

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1: THE 'STORY' OF YOUR SUPI PROJECT

a) Please provide a narrative summary that describes the journey your SUPI project has taken from beginning to end and covering all the key developments in between.

The 'story' of the Cardiff University Schools Partnership (the Partnership) is one of a significant infrastructure and support programme that delivered 59 separate projects - engaging with 763 teachers and c3,600 school pupils- and led to the creation of Cardiff University's first strategic framework for Schools Engagement. It facilitated a major transition for the University from academic and researcher schools engagement activities that were mostly ad-hoc, unsupported, research-led and individual, to a sustainable, coordinated, centrally-supported programme of activities led by schools' educational needs, built on collaborative working and delivered within a strategic context.

The main focus in Year 1 was to establish a baseline. In order to understand what schools engagement activities were taking place, the Partnership undertook audits of schools engagement across the 26 academic Schools that make up the University's three academic Colleges. These audits identified 115 separate activities, 80% of which were in STEM subjects. It also generated a database from which it was planned to produce a teacher-focussed web page so that schools could more easily access information about schools engagement in one place. This became the Curriculum Support website (<http://sites.cardiff.ac.uk/curriculumsupport/>).

To gain a clear understanding of teacher needs, the Partnership ran five Teacher Panels (consultative meetings involving academics and researchers with multiple teachers). These identified 57 new ideas for schools engagement and captured information about issues faced by schools and University staff/students when undertaking engagement work. They provided the Partnership's model for co-development, which was named Teacher Advisory Panels (TAPs) and became a conditional requirement for all projects supported by the Partnership. One of the new ideas resulted in a one-day STEM conference for Year 12 pupils. This established a group-working model for major events that was used to design, deliver and evaluate a programme of 9 Major Events throughout the four years of RCUK funding.

Year 1 introduced a structured project funding mechanism – Enriching Secondary Schools Engagement (ESSE), which in its first cycle supported 4 completed projects involving 50 teachers. Through ESSE, the Partnership awarded individual projects c. £1.5k to consult with teachers through a TAP and develop and deliver pilot activities. TAPs were made a condition of ESSE to ensure project leads obtained teachers' input, thus guaranteeing activities were shaped directly by the needs of teachers and their pupils.

Initial contacts were made with significant external partners. The funding bid to RCUK anticipated the University would work with organisations involved in education policy, such as Welsh Government, WJEC (exam board) and school improvement services. Before funding was awarded there was a significant change in the way the latter were delivered in Wales which meant the Partnership was unable to work strategically with its local improvement service (Central South Consortium) as quickly as planned.

In Year 2, the Partnership gained momentum. It continued to broker relationships between university staff/students and teachers and to support schools engagement informed by stakeholder needs. External

evaluators were appointed who developed a Theory of Change framework and conducted a baseline evaluation from which progress could be tracked. A second cycle of ESSE funding supported 11 completed projects and the Curriculum Support website was launched listing 131 activities. School-specific engagement training was considered in the University's review of its public engagement training provision and the Partnership became the University's central contact point for schools engagement advice and support via its Schools Partnership Network, which comprised 87 members.

Strategic partnerships with external organisations took a major step forward in Year 2. These identified key issues for secondary schools to which the Partnership became aligned. It worked with WJEC and Welsh Government to develop activities that addressed changes in the curriculum, including the Welsh Baccalaureate (Welsh Bacc) which now required teachers to teach research skills as part of the Individual Investigation module. The Partnership also aligned with the Central South Consortium's identified priorities of literacy, numeracy and tackling the poverty attainment gap. These relationships resulted in formation of the Partnership's first Thematic Advisory Groups, which brought University researchers and other staff together with external organisations to link the work of all partners in order to maximise the relevance, efficiency and effectiveness of schools engagement work on strategically important topics.

Year 3 saw further growth and expansion. The number of activities on the Curriculum Support website reached 267 and membership of the Schools Partnership Network grew to over 200. A third cycle of ESSE funding supported 21 completed projects that engaged 389 teachers and involved 470 University staff/students. It also introduced themed strands matched to strategic priorities, e.g. for RCUK – a Researcher strand, and for Wales – a Welsh Baccalaureate strand. The number of Thematic Advisory Groups grew to 5 and they met bi-annually. The Major Events programme expanded and coordinated 4 events including the first Welsh Baccalaureate Teacher Conference, attended by 80 teachers. A further audit showed links with over 600 schools and mapped connections between schools and activities. Work started to engage young people at risk of becoming not in education, employment and training (NEET) and the Partnership supported a project aimed at Year 10 pupils in this category. An interim evaluation reviewed progress, identified learning and made recommendations to sustain the work of the Partnership beyond RCUK funding.

In a significant strategic development in Year 3, responsibility for the Partnership transferred to the Marketing and Communication Division and came under the leadership of the Pro Vice-Chancellor for Student Experience & Academic Standards, who oversaw the development of the University's first Strategic Framework for schools engagement. This transfer also raised the profile of the Partnership's work and facilitated closer alignment between schools engagement undertaken in academic Schools and centrally-led schools outreach.

In Year 4, the Partnership continued to deliver against its aims with 23 completed ESSE projects, ongoing updating of the Curriculum Support website, meetings held of all 5 Thematic Advisory Groups and coordination of 4 more major events. Management focus shifted from creating support infrastructures and mechanisms to embedding sustainable models for ongoing delivery. Partnership outputs were used to inform and structure the Strategic Framework, which was approved by the University Executive Board in August 2016. The Framework is being implemented in 2017 under Pro Vice-Chancellor leadership and is being overseen by a senior level Steering Group, which is evidence of its importance to the University. Operational resource is provided in the form of the newly-created permanent, full-time post of Schools Partnership Officer. The creation of this post is further evidence of the University's commitment to sustaining and building on the work, learning points and outcomes delivered by the Partnership. A final evaluation was conducted and the findings will be reported to the Steering Group at their first meeting.

To sum up, the Partnership created firm foundations for long-term impact within the University, its partner organisations and for individual teachers and pupils. Within the funding period it also delivered significant and relevant immediate impacts for all internal and external stakeholder groups and established a professional and cohesive vision of the benefits of needs-led schools engagement for a research intensive university and its strategic partners. This vision continues to be upheld within Cardiff University's strategic planning and ongoing support and delivery of schools engagement across all disciplines.

2: KEY FINDINGS, LEARNING POINTS AND ENGAGEMENT ACTIVITIES

a) Please list the key findings from your SUPI project

SIGNIFICANT ACHIEVEMENTS

The Partnership's main achievements were both strategic and operational in nature.

Strategic level achievements were internal and external:

Internally, the work and findings of the Partnership led to the **establishment of a Schools Engagement Strategy Project Group** in 2016. Partnership outputs were used to inform the work of this Group, including baseline and interim evaluation reports, issue and risk logs, and ESSE reports and case studies. The Group was led by the Pro-Vice Chancellor for Student Experience & Academic Standards and was responsible for developing **Cardiff University's first Strategic Framework for schools engagement**. This ensured the work of the Partnership leaves a meaningful legacy for Cardiff University and would be sustained beyond the RCUK funding. The Strategic Framework is being implemented in 2017 under the leadership of the Pro Vice-Chancellor for Student Experience & Academic Standards and is being overseen by a senior level Steering Group, which is evidence of its importance to the University.

The framework is important because it gives individuals and academics across the university an acknowledgement that their work with schools fits somewhere, is part of something bigger. It is important for their confidence and commitment.. (internal interview)

Externally, the Partnership formed **strategic connections with key decision makers, policy leaders and funders** in schools education, such as the Welsh Government, WJEC (exam board) and educational consortia that support schools improvement across Wales, particularly the Central South Consortium, which covers Cardiff and four neighbouring local authorities. The Thematic Advisory Groups were particularly important as a mechanism for developing cohesive and collaborative interventions aligned to strategic priorities and in creating new contact networks within the University for partners.

The way we work with Cardiff University now is different because we have a framework now. [The Partnership] is the centre of this framework and it all really hinges on the relationships [the Project Officer] developed. It's the clarity with which they understand the developments that we're trying to achieve, and it's that they understand our ethos makes them a very, very easy partner to work with. (external interview)

The main **operational achievements** were:

The Partnership created a **central point of contact and coordinated support for all forms of schools engagement**. This central point of contact undertook a facilitation and brokerage role and was important for both internal staff (academic, professional services and research staff) and external stakeholders in developing and presenting a cohesive schools engagement programme, which encompassed the complete spectrum of engagement opportunities that can be offered to schools audiences and education partners. The central function was also able to identify any risks or issues and escalate them to senior staff as appropriate, thus ensuring challenges or barriers were addressed as they arose. Having a centralised and coordinated approach was appreciated and valued internally and externally as a key strength of the Partnership.

Traditionally it is difficult to identify who to speak to in universities to get a picture of all that might be relevant. [The Partnership] changed that as I now know I can go to [the Project Officer] and find out what schools work is going on across Cardiff University. (external interview)

It was so important for the University to support schools engagement from the centre. It not only meant you could find out everything you needed to know in one place, it also meant that schools engagement had a higher profile centrally, which can only be good for those of us who work with schools. (internal interview)

The Partnership also established **University-wide structures and processes to support and record collaborative working between University staff/students and teachers**. This resulted in **59 completed projects**, which delivered engagement activities and are described in full in section 2c). The Partnership structures and processes not only facilitated collaborative working, they also sought to reduce duplication of offerings to schools and supported sharing of good practice, resources and capacity

building ideas in existing and new schools engagement activities. For example, through the development of ambassador schemes to reduce the limits placed on delivery capacity by staff availability. The approach taken by the Project Officer to actively manage and facilitate partnership working and sharing, through mechanisms such as the Schools Partnership Network, was highlighted as a notable success factor.

It was most useful that the various partnerships and collaborations were actively and visibly managed by [the Project Officer]. This ensured they kept going and links were maintained over time. (survey response internal)

EXTENT TO WHICH PROJECT AIMS WERE MET

A Theory of Change model was used to evaluate the Partnership. It defined four specific aims, all of which were met. Each aim was underpinned by a series of intended outcomes and related outputs, which are all addressed in the appended final evaluation report. Progress against the outcomes for each aim are reviewed and **highlighted in bold** here. The evaluation found evidence that intended outcomes were achieved in full, with a single exception of pupil attainment, which can only be measured by schools themselves and extends beyond the funding period.

Aim 1: To ensure Cardiff University's schools engagement programme meets the needs of teachers and pupils.

The Partnership fully **optimised the effectiveness and delivery of Cardiff University's schools engagement activity**. Through collaborative working mechanisms it had positive impacts on the quality and relevance of all types of schools engagement activities and improved University staff/student and teacher understanding of challenges and opportunities in specific subject areas and in relation to university engagement with schools generally. The coordination work ensured activities were not duplicated and collaboration among University staff and students was facilitated, which resulted in improved delivery and relevance of schools engagement outputs.

Through the ESSE projects, the Partnership **developed holistic curricula and interventions involving secondary schools and the University that facilitated progression for both teachers and young people**. It can be argued that this outcome was exceeded as the Partnership facilitated appropriate engagement with primary as well as secondary schools, in response to teacher demand and in line with ASPIRES¹ report findings, which recommend that efforts to broaden pupils' aspirations, particularly in relation to STEM, need to begin at primary school. The fact that 59 separate engagement projects were completed is evidence of the extent of this outcome, which was achieved across a range of subjects in STEM, arts and humanities and social sciences. Most supported interventions were holistic in that they had impacts on teachers' and pupils' perceptions about universities, as well as on their subject knowledge.

The TAP model ensured the Partnership **established effective and sustainable collaborations between teachers and University academics and researchers**. It meant it was conditional for University staff/students and teachers to collaborate and share their experiences when developing activities. Teachers and University staff anticipated that many collaborations established during the funded period would continue in the future and a few, where necessary, have sought external funding to help them further develop. Although there were some concerns that an absence of funding to cover teachers' time after the end of RCUK funding could be a barrier to establishing new co-development collaborations, the Strategic Framework makes provision to ensure that support to identify and secure external funding will be ongoing.

In response to demand from teachers, the Partnership **delivered themed activities for schools in the form of STEM-themed major events that were run for Year 8/9 and Year 12 pupils**. Furthermore, Thematic Advisory Groups were established which can identify on an ongoing basis opportunities for themed interventions in other subject areas, should the need arise. The involvement of educational policy makers

¹ ASPIRES report: <http://www.kcl.ac.uk/sspp/departments/education/research/aspire/aspire-final-report-december-2013.pdf>

and experts in these Groups should ensure any identified opportunities are relevant to current needs and strategic priorities.

Aim 2: To improve levels of motivation and understanding in relation to university study and research among young people (pupils, students and NEETs age 14 to 19)

The Partnership **increased young people' awareness about the range of research that takes place in universities and how it relates to their school curricula**. As described in section 3a) the main impact on young people was to increase their awareness of universities and university opportunities. Activities supported by the Partnership covered a broad range of research subjects from across Cardiff University's three academic Colleges (College of Arts, Humanities and Social Sciences; College of Biomedical and Life Sciences; College of Physical Sciences and Engineering), meaning all school subjects were encompassed in supported activities. Teachers and/or pupils in all supported activities had first-hand encounters with academics or researchers and, in some, also experienced University research and teaching environments. Some activities included information about University recruitment and selection processes. Teachers' input to design of all activities ensured they linked to school curricula as much as possible.

The Partnership **sought to increase attainment of young people through greater knowledge and context of university research from their engagement**. This is an extremely difficult outcome to assess as attainment is measured by schools and the Partnership did not have sufficient resources to obtain attainment statistics from schools, also it unlikely that schools would disclose such information for individual pupils. However, feedback about ESSE project activities indicated that they enhanced young people's subject knowledge and improved attitudes towards and understanding about university. It should also be noted that attainment impacts relating to university entry would require long-term monitoring of individuals who participated in ESSE projects, which is beyond the Partnership's remit and capacity.

The Partnership **challenged poverty of aspiration through working with schools in socially deprived areas and young people who were at risk of becoming NEET** (not in education, employment or training). One-fifth of the Welsh schools that connected through ESSE projects were located in an area included in the Welsh Government's programme to tackle poverty or had more than 30% of pupils eligible for Free School Meals. The Partnership also supported Cardiff University's flagship projects to promote social and educational inclusion within specific communities. The reference to young people who are NEET was at odds with Partnership's primary aim of engaging young people through formal school education. However, it did support a successful pilot project which explored how the University could best engage young people in school who are at risk of being excluded.

Aim 3: To increase the skills, understanding and confidence of University staff and students to undertake school engagement

The Partnership **increased staff/student understanding of what schools engagement means and its relevance to university teaching**. It supported staff and students who had varying levels of prior experience in schools engagement and all reported that they developed a greater understanding of schools engagement and the current schools educational system. Many staff with teaching responsibilities commented on how their work with the Partnership had developed their understanding of potential and current students' expectations and requirements, which were influencing their own teaching or student recruitment processes. The Partnership also supported activities that involved University students as ambassadors, which enhanced the university experience, transferable skills and general learning for these students.

Although the Partnership was not directly responsible for Cardiff University's engagement training, **it did provide specific training that improved specific relevant skills and knowledge where there were gaps in existing provision**. The Partnership provided and funded experiences which enhanced University staff and student understanding of the teaching and learning methods that are used in schools. Enhanced

communication and project management skills were widely reported outcomes from ESSE projects for university staff and students at all levels. Recipients of ESSE funding noted that these skills were transferable, including to other areas of engagement and could also benefit University staff and students in other aspects of their careers, including teaching and communication of their research.

The Partnership **increased and provided more-varied opportunities for academics and researchers to take part in schools engagement**. 70% of the 59 completed ESSE projects delivered activities that were entirely new, indicating that these opportunities to engage with schools had not been offered before. The Major Events programme facilitated involvement of large numbers of University staff/students around key themes, with between 7 and 80 University people being involved in delivering each event.

Aim 4: To improve support and infrastructure for Cardiff University's engagement with schools

This aim was a major area of achievement for the Partnership. It **established and embedded mechanisms and processes for consistent planning, delivery and monitoring of schools engagement activities** and it is anticipated that many of these will be taken forward through the Strategic Framework. In addition, the Partnership Project Officer has been appointed to the role of Schools Partnership Officer on an on-going basis and will contribute to the Strategic Framework's implementation, optimising the likelihood of ongoing continuity and consistency.

A major achievement was the Partnership's **coordination of engagement work taking place in academic Schools, Colleges and the central University**. The coordination and networking initiatives led by the Partnership were highly praised by all internal and external stakeholder groups. The Schools Partnership Network supported individual collaborations between University staff from different academic Schools and Colleges. In addition the Major Event Groups brought together staff from across Colleges to deliver themed events.

Where there was demand, the Partnership developed cross-curricula collaborations to deliver themed schools activities. For example, it facilitated major events on themes such as STEM and Welsh Baccalaureate. It was anticipated that the Thematic Advisory Groups would identify new opportunities for more themed activities in the future.

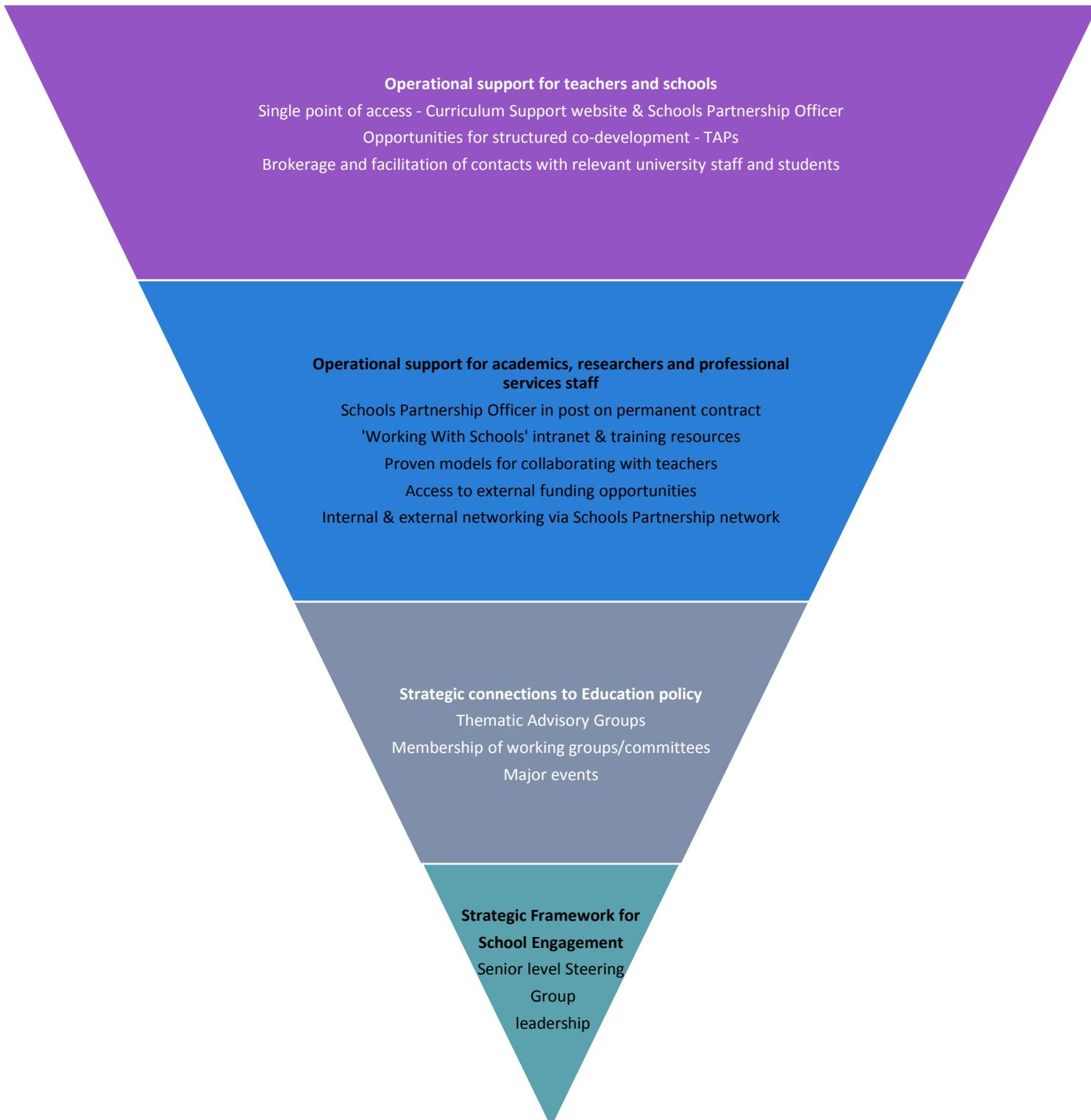
The Partnership **aligned schools engagement work with the widening participation strategies of the University and Welsh Government**. Through ESSE, it supported 4 projects that were led by members of the University's Widening Participation team. It also exchanged information about individual schools and their needs with this team. Externally, the Partnership was proactive in working with relevant sections of the Welsh Government, e.g. involving them in appropriate Thematic Advisory Groups and Major Events.

Through the Curriculum Support website the Partnership, achieved its intended outcome to **provide consistent access pathways for teachers to University engagement provision**. The website formed a single access point for information about University-wide schools engagement activities. The planned enhancements to the site at the time of writing should ensure this access is maintained. External stakeholders praised the fact that the Partnership provided a single point of contact on schools engagement in the form of the Partnership Project Officer, who answered queries promptly and sign-posted enquirers to other parts of the University when relevant. This sign-posting service was widely appreciated.

TAKING THE PROJECT FORWARD

The introduction of the new **Strategic Framework** has created a **platform to sustain the impacts and outcomes from the Partnership**. The allocation of a senior level Steering Group to oversee the Framework's implementation and the appointment of the Partnership Project Officer on a permanent contract means there are strategic and operational resources to ensure sustainability, using the lessons and learning from the Partnership. There is evidence that external funding has been secured to ensure individual projects and activities will grow and continue to deliver. The final evaluation identified a model for the Partnership's sustainability, which takes the form of an inverted pyramid built on the Strategic Framework for schools engagement and which identifies the resources and mechanisms that have been put in place at every level to embed the Partnership.

Model of sustainability for the Cardiff University Schools Partnership



b) Please list the most important learning points from your SUPI project

The evaluation identified a number of learning points about the processes and other factors that shaped the delivery of Cardiff University Schools Partnership, which are being used to inform the implementation of the Strategic Framework, which was one of the Partnership's main outcomes. They will also be useful to other practitioners.

- Distributing funds through a structured system, accompanied by systemised processes for coordination, brokerage and facilitation, is an effective way to deliver central University support for schools engagement, which is widely appreciated by academic and professional services staff.
- The Partnership's models and processes can be adapted for local use within the University's individual academic Schools and Colleges. For example the College of Physical Science and Engineering based its STEM network on the Schools Partnership Network.
- Funding to pay for supply cover helps teachers to participate as fully as possible in co-development of schools engagement activities and the TAP model provides a structure for their involvement.
With the money available from the ESSE project, we were able to hold a Teacher Advisory Panel on teacher professional development; the funds from the ESSE project enabled us to pay for cover for teachers to attend. The teachers were able to give in-depth and reflective examples of continued professional development in their schools, their experience of working with trained mentors, and they gave a critical evaluation of [our] draft courses. (ESSE case study)
- Even with financial support and a structure for their engagement, considerable planning and lead-times are needed to ensure teachers participate in co-development of activities.
- Appointing an individual with specialist knowledge of the schools education system to coordinate schools engagement support enhances the range and quality of support that can be given to University academics and researchers.
And it was fairly fragmented before,... But it's one person who's pulled you together as a group. So, yeah, her dynamism. But I think also [the Project Officer's] understanding of the education sector, I don't think we should forget this is someone who understands schools and how they function too. (internal interview)
- Implementing mechanisms to encourage partnership working at strategic, managerial and operational levels maximises the potential benefits that collaborative working has on schools engagement.
- Creating forums that are non-hierarchical in structure optimises levels of participation and collaboration and ensures maximum value is created from the input of all partners, particularly external partners who want to access the most appropriate expertise and are unconcerned by individual status.
The discussions have been very open and everyone is working towards the same shared goal rather than their own particular interests. And another thing has been the mix of people – you have professors sat alongside relatively junior staff on an equal basis. They are involved because of their area of expertise not their status. (internal interview)
- Large scale, university-wide project projects benefit from having sufficient staff resources to maximise their reach across universities and to allow management time to focus on strategic aspects.
- Positioning schools engagement within a function that is responsible for central schools outreach can help to raise the central profile of schools engagement undertaken by academics and researchers and lead to greater coordination between central activities and those taking place within academic Schools and Colleges.
- Schools engagement covers a wide range of activities that have societal impacts or teaching/research impacts as well as outreach/recruitment impacts. Strategies and processes should support this complete spectrum of activities if a university is to maximise the full range of benefits from working with schools.
- Detailed, structured reporting systems enable good practice and lessons to be captured. The level of detail should be balanced with simplicity and accessibility to optimise participation and minimise the administrative burden for those who receive and who award funding.
- Reporting at the ESSE project level can be streamlined if external funders are explicit from the outset about the types of information and data they will require.

- Additional resourcing is needed to support individual ESSE projects if each is to be evaluated in detail using consistent approaches.

c) Please list all engagement activities that were developed and run during your SUPI project

ACTIVITIES FOR DIRECT ENGAGEMENT WITH TEACHERS AND SCHOOL STUDENTS

Through 4 cycles of ESSE, the Partnership funded and supported 59 completed teacher/pupil engagement projects, some of which included more than 1 type of activity. They engaged a total of 763 teachers and c.3600 school students and involved 881 Cardiff University staff/students, of which 46% were researchers (inc. academics and postgraduate research students). Each project is listed here (with the target Key Stage (KS) indicated, where appropriate) followed by a table of the types of activities supported in each cycle.

Completed in ESSE tranche 1

1. Enhancing Numeracy & Literacy through exploring Social Science topics
2. SHARE with Schools history/archaeology activities- KS3
3. Apothecary bees, the honey bee as a drug discovery tool– Teacher CPD
4. Year 12 STEM Conference #1– KS5

Completed in ESSE tranche 2

1. Computational Chemistry workshops-KS5&4
2. PCR Loan Box resource- KS5
3. Count on Success numeracy programme- KS4
4. Raspberry Pi programing activities/resources- KS4&5
5. Grammar through Writing workshops- KS3
6. Mathematics Ambassadors scheme- KS5
7. Astronomy Apps classroom resources- KS4&5
8. CPD for teachers - evidence based practise
9. Pilot in Social Analytics level 3 qualification- KS5
10. Operation Man resource for STEM events- All KSs
11. Sci-screen –science films & discussion- KS4&5

Completed in ESSE tranche 3

1. Portugal in World War One field trip- KS3,4 &5
2. Primary Numeracy ambassador programme- KS2
3. Embedding Literacy and Digital Literacy for teachers
4. SHARE with Schools digital evaluation tool
5. Bilingual Science Club- KS2
6. Bilingual aquatic biology workshops- KS5
7. Geography case studies videos- KS5
8. Geography case studies evaluation tool
9. Chemistry in the third dimension workshops and ambassador scheme- KS4
10. Year 12 "Where can you go with business" event #1- KS5
11. Apothecary bee workshops for young people- all KSs
12. Year 12 STEM Conference #2- KS5
13. Doctors in Wales video & curriculum pack- KS5
14. Enhancing teachers' interaction with the School Health Research Network
15. STEM Live! Years 8 & 9 event#1- KS3
16. Developing an ambassador programme for Computer Sciences
17. Count on success ambassadors- KS4
18. HE Roadshow Year 9 interactive classroom session- KS3
19. First bites research skills workshops and resources for teachers and students- KS3-5
20. Welsh Bacc Teacher Conference #1
21. Architecture resource packs for in class and online use in Welsh Bacc- All KSs

Completed in ESSE tranche 4

1. Bi-lingual Skills Programme- All KSs
2. On-line resource for Global Citizenship- KS5

3. Welsh Language Year 12 Global Citizenship Event- KS5
4. Proposals for Welsh Bacc Individual Investigation- KS3,4&5
5. Sociological Data sets for Welsh Bacc- KS3,4&5
6. On-line Historical Research Skills- KS4&5
7. HE Roadshow Welsh Bacc session- KS4
8. Welsh Bacc Teacher Conference #2
9. Primary School Research Project- KS2
10. Welsh Language Primary Science Festival- KS2
11. Science in a Box- KS1&2
12. Young people with Autism- KS4&5
13. Chemistry Ambassador programme- KS3,4&5
14. STEM Live! Years 8 &9 Event#2- KS3
15. Computer Science School Engagement Programme- KS3,4&5
16. PCR Loan Boxes expansion- KS5
17. Year 12 STEM Conference #3– KS5
18. Islam online resource- K3,4&5
19. Mentor Hub for teacher development
20. Year 12 "Where can you go with business" event #2- KS5
21. Step –up Widening Participation- KS5
22. Apothecary bees in schools- All KSs
23. CAER Young Peoples’ Opportunities- KS3&4

These projects delivered a total of **63 different activities** as this table shows (N.B. some of the 59 projects comprised more than 1 activity, e.g. resources + CPD or workshops + ambassadors). Miscellaneous includes film screenings, trips etc.

ESSE Tranche	Conference	Online resource	Physical resource	Teacher CPD	Workshop	Misc.	Mentor/ Ambasad or scheme	Welsh language
1	2			1	2	1	1	
2		1	2	2	4	2	2	1
3	1	2	1		4	1	3	2
4	4	4	2	3	3	6	2	4
Totals	7	7	5	6	13	10	8	7

ACTIVITIES FOR DIRECT ENGAGEMENT WITH EDUCATION POLICY MAKERS / INFORMAL EDUCATION PROVIDERS

The Partnership formed 5 Thematic Advisory Groups to engage with policy makers on topics identified as priorities within the Welsh education system, namely:

- Welsh Baccalaureate
- STEM
- Numeracy
- Computer Science, IT & Digital Competence
- Literacy

Thematic Advisory Groups met regularly from 2015 onwards with minutes and actions recorded and disseminated by the Partnership. They have become established as a means of supporting themed joint-working between the University and significant organisations, notably the Welsh Government, Central South Consortium and WJEC, and were acknowledged as a best practice model by Welsh Government.

ACTIVITIES FOR ENGAGEMENT WITH INTERNAL AND EXTERNAL STAKEHOLDERS

The Curriculum Support website (<http://sites.cardiff.ac.uk/curriculumsupport/>) developed by the Partnership provides teachers with a single source of online information about all curriculum-linked schools engagement activities undertaken by Cardiff University. It was designed so that activities can be searched by curriculum subject, Key Stage, type of activity, academic School and programme. At the end of 2016, the site listed 177 activities and was receiving 1300 visits per month. As well as providing teachers with a single source of information, the site is used by University staff/students to identify other activities that could complement or link to their own work with schools.

Over the four years, a Schools Partnership Network of 262 University contacts and 78 external partners, plus a mailing list of 763 teachers were established. These provide effective channels for disseminating information about schools engagement opportunities, activities and events. The Schools Partnership Network also acts as forum where good practice and learning can be shared. The Partnership worked closely with the University's Engagement team to promote the latter's engagement training to staff and students who were part of the Schools Partnership Network. In addition, it supported bespoke evaluation advice and piloted three 'Partnership Working Workshops', which were attended by 43 members of the Schools Partnership Network and aimed to develop participants' understanding of organisations involved in supporting and delivering schools education.

SUSTAINING ACTIVITIES

Almost all of the ESSE project activities are continuing to run in some way and the Thematic Advisory Groups are continuing beyond the RCUK funding period. In addition, plans have been implemented to sustain and combine the Curriculum Support Website, the Schools Partnership Network and training into an integrated online 'Working With Schools' portal where contacts, activities and guidance tools will all be linked to support more effective and efficient collaboration, contact management and reporting. The Strategic Framework is providing the context and structure within which activities are being sustained and the Schools Partnership Officer is providing ongoing operational support and resource.

3: THE IMPACT AND INFLUENCE OF YOUR SUPI PROJECT

a) Please summarise the impact(s) of your SUPI project across its lifetime

The main focus of the Partnership was to put in place an infrastructure to coordinate and support schools engagement, which was designed to deliver impacts over the long term. Therefore, the most significant impacts during the funding period were internal, although there were also important impacts in this timeframe for external strategic partners as well as teachers and pupils who were engaged via individual activities and ESSE projects. Institutional impacts are reported in 3b).

Impacts for University staff and students

Academics, researchers, postgraduate students and professional services staff from academic Schools and Colleges reported a wide range of personal impacts and outcomes in interviews with the evaluators and in case studies they submitted to the evaluation.

1. Greater understanding of the benefits of collaborative working

Benefits of collaborative working were acknowledged at three levels: with individual teachers through TAPs; with University colleagues through the Partnership Network and Major Event Groups; and with key partners through Thematic Advisory Groups.

The TAP collaborative working model ensured staff learned from teachers about the types of activities and topics that were most important for particular pupils and teaching curricular, which resulted in higher quality schools engagement resources and events, and new and deeper connections with individual schools and teachers, including staff with extensive prior experience of schools engagement.

I think before the Schools Partnership Project started I would start from the researcher's point of view and what research we had to disseminate, that sort of thing. And come up with fairly complete things first without talking to the teachers, and then going out to schools and say "This is what we've got." Whereas after going through a TAP

myself and seeing the benefits of that, I generally do that instead now. That's been a big impact - that co-production of materials from the outset. (internal interview)

Staff and students also benefited from collaborating with one another through meetings of the Schools Partnership Network and Major Event Groups. They shared information about logistical aspects of schools engagement, such as health and safety and how best to approach schools and teachers. They also discussed ways of resourcing engagement and expanding work with schools, such as ambassador schemes. A few established interdisciplinary collaborations.

I was majorly involved in our Schools Partnership funded project was the STEM conference. Again, there was a lot learning I got out of doing that role, and a lot of learning and also a lot of relationships with other people. (internal interview)

Working with key external partners introduced University staff to education policy priorities, which enhanced the quality and relevance of schools engagement activities and provided opportunities for them to share their ideas and thinking with policy makers on a reciprocal basis, thus raising the profiles externally of both individual staff and the nature of their work with schools.

It was great for us [University staff and students] to meet [Welsh Government adviser] to highlight the school engagement work that Cardiff University undertake and to share with him ideas about developing resources to support the Welsh Baccalaureate Qualification. (ESSE case study)

2. Knowledge which is advancing university teaching and the student experience

Many staff who led ESSE project described cases where their experiences within the Partnership structure developed their understanding of school pupils' expectations and experiences, which they were applying to enhance their teaching and the student experience at Cardiff University. In some cases these impacts extended to changes in University teaching content and resources to improve the quality of undergraduate teaching.

The [academic] School has introduced a third year undergraduate module on education which will target more schools and involve engagement in Welsh and English. There is a lot of student interest in this as it gives great career skills and experiences. (internal interview)

Researchers also suggested that the Partnership had created a platform and connections that would enable the University to learn from teachers about practical aspects of teaching and educational processes which could be particularly relevant to the Teaching Excellence Framework (TEF).

I'm sure there will be some sort of capacity in which the schools engagement could have input into our educational advancement, particularly the working with teachers, I mean they do it day to day and they're obviously experts in pedagogy, teaching, so if there's some way that that could link in to a strategy for TEF it could have real impact. (internal interview)

In other examples, a main benefit of the Partnership was the practical experiences and opportunities to develop transferable skills for University students. Sometimes these were deemed sufficiently important that changes were made to timetables to allow students to participate in engagement or ambassador schemes. It was also noted that the Partnership encouraged formal acknowledgement of student involvement in engagement work.

Through launch of the [academic School] ambassador programme undergraduate and postgraduate students benefit from the skills they will gain in delivering this activity in the future and will have a formal record of all outreach participated in. (internal interview)

3. Contributing to academic research

An unexpected impact was the Partnership projects contributing directly to academic research in some cases. Whilst these cases were not numerous, they are worthy of note in a research-intensive University for demonstrating the potential for schools engagement to impact on research.

An unexpected impact has been the new direction that my research has taken through the project, and I now intend to focus on an area highlighted by the project and in many one-to-one conversations with pupils and teacher. (ESSE case study)

There were also examples where ESSE projects were being considered as evidence of research impact, including for submissions to the next REF.

As part of what I'm doing in the schools engagement and it's something that I am developing and probably will be able to submit and I'll be REF-able. I think it's quite good that I could potentially be able to put what I'm doing forward as a REF-able set of items, from somebody that wouldn't expect to do that. (internal interview)

4. Developing transferable skills

The Partnership's ESSE project structure a useful framework for staff and students who were starting out in schools engagement, particularly early career researchers. However, staff and students at all experience levels reported new skills gained in project management, reflective practice and evaluation, and communication skills, with the latter being applied in their teaching and wider public engagement work.

As an early career researcher this project was my first experience of project management and leadership. The skills I have gained from this opportunity have proven invaluable in gaining the skillset I require to advance my career. I am more confident in time and financial management. I have gained substantial experience in coaching and developing the skills of others and will apply these skills to any future career. (ESSE case study)

In a particularly notable example, an early career researcher's line manager recognised the communications skills developed through an ESSE project as having a positive impact on the researcher's ability to present and communicate their research to all types of audiences.

My confidence in asking [name of researcher] to undertake these high profile research seminars has been enhanced knowing that the communication and presentational skills that he has built up through his schools work are also important to hold the attention of an audience at the research level. (ESSE case study)

5. Increased opportunities for career development and progression

Individual staff members provided examples of how their involvement in the Partnership resulted in greater recognition within their academic Schools and by their supervisors /line managers, including formal recognition through having engagement made a part of their work-load model or being allocated a specific role or responsibility, where schools engagement experience was deemed valuable.

Through this project my engagement has been recognised with time being allocated in my workload for engagement and being given the role of Head of Community engagement for my academic School. (ESSE case study)

I'm pretty sure that a lot of the work that I've done has led me to being asked to be an admissions tutor because of that fact, because of I've been so closely working with schools and colleges and I'm best placed because I know a lot of what they do. So that's really helped me in my role, what I do now, on a personal level. (internal interview)

Other progression opportunities came through working with external partners. These included involvement in collaborative funding bids and participation on Welsh Government and WJEC working groups and committees.

I recently was appointed to a national network in excellence in mathematics board for Wales. We've got a budget of a million pounds now so we can specifically build teacher capacity, leadership, in mathematics and I'm conscious that probably a large part of that was tying in with the schools partnership work in helping to link people in to be part of that strategic board. (internal interview)

Impacts for representatives of partner organisations

In interview with the evaluators, representatives of key partner organisations, such as the Central South Consortium and WJEC, described the main impacts as a central point of contact and clear structures for interaction with Cardiff University.

1. Access to a single link to all of the University's activities and expertise related to schools education.

Centralised access to the University enabled partners to engage with the types of expertise and specific topics that were most appropriate for their particular needs.

Because of these connections now we've got going across the whole university there is a much better understanding in the university of what Welsh Bacc's actually all about. I think that wouldn't have happened without what [the Partnership] has actually put on and how we've been able to work with them. (external interview)

2. Access to new, relevant contacts and networks

New contacts included relevant individuals within the University as well as new contacts in other partner organisations. For example, new contacts were made between the National Museum of Wales

and Welsh Government as a result of both parties being represented on the Numeracy Thematic Advisory Group.

Most of the relationships I had were built with individual departments, so it was more or less the obvious cohort. But through [the Project Officer] these have been widened out and are much more useful. (external interview)

Impacts for teachers and young people who were engaged via ESSE projects

Feedback from teachers and pupils was collected at the individual ESSE project level and reported to the Partnership through ESSE case studies and Major Event reports. Naturally most of this feedback referred to specific activities, resources or content. However, the evaluators' analysis of available feedback identified three broad themes of impact on teachers and young people.

1. Pupils being inspired about further study and university.

Pupils reported these impacts as a result of their direct interaction with University staff and students and their involvement in successful activities that were linked to their needs and prior experiences. In cases where activities took place at the University, such as STEM and Business events, pupils were also inspired by first-hand experiences of University environments.

I know now there are a lot of pathways after high school. In addition, there are more options in university than I had thought. (pupil quote in case study)

Made me consider University more as an option. (pupil quote in case study)

What I liked most about the researchers' involvement was the ability of students to picture themselves as researchers in a few years. (teacher quote in case study)

2. Teachers' and pupils' increased knowledge and understanding of particular subjects and topics.

These impacts resulted from activities that addressed specific curriculum needs or education policy developments. For example, pupils learnt through practical experience and teachers learned about new approaches to teaching a variety of subjects.

I have learnt to debug my code and understand what I can do to spot what I have done wrong. (pupil quote in case study)

I particularly enjoyed the chemistry Practical, due to it being interactive and covering topics we had never discussed in class. (pupil quote in case study)

Further developed my knowledge of [the Welsh Baccalaureate] Individual Project and its requirement for good questions. (teacher quote in event report)

I gained a realisation that I should encourage pupils to solve their own programming problems, either individually or as a group. (teacher quote in case study)

The workshops have resulted in upskilling for me in relation to learning how to conduct particular experiments e.g. dissection. (teacher quote in case study)

3. Teachers having access to new teaching resources and materials.

Teachers co-developed new teaching resources and materials with University experts through the TAP model meaning these resources and materials were relevant and appropriate for them to use in the classroom. Examples included Astronomy Apps, a PCR Loan Box and materials for use in teaching the Welsh Baccalaureate, including history and architecture resources. The Partnership Project Officer led an activity to collate project proposal ideas, creating another resource for the Welsh Baccalaureate Individual Investigation module.

Excellent range of hands-on & digital learning resources which in addition to keeping young students engaged will introduce digital learning at a young age. (teacher quote in case study)

Accessible material that can be used with students. Relevant and focused material. (teacher quote in case study)

This is a really useful resource, so long as the revised Investigation Project is similar to the current model. (teacher quote in case study)

b) Please summarise any influence your SUPI project has had on your institution, its culture, or that of any other institutions, cultures and projects/initiatives.

Impacts for Cardiff University at an institutional level

1. As described in 2a), the most notable institutional impact was the University's **first Strategic Framework for schools engagement**. It was widely welcomed by staff and seen to represent significant progress in achieving recognition of the strategic importance of schools engagement for the University. The true impact of this outcome will only be felt once the Strategic Framework is implemented.
2. The Partnership **increased University understanding of the full extent of its schools engagement activity and its strategic potential**. It brought together two strands of schools engagement work that were previously separate: researcher engagement with schools, covering a wide variety of engagement provision, and central activities, with a focus on recruitment and widening participation. Increased awareness and greater understanding of the variety of its different relationships with schools encouraged the University to review its strategic thinking around schools engagement and has informed planning in this area.
3. The internal awareness raising work of the Partnership resulted in **Cardiff University fully appreciating its role and responsibilities in relation to schools education throughout Wales**. The Partnership also established new relationships with Welsh Government and created, in the form of Thematic Advisory Groups, a forum where the University's role in schools education could be discussed with policy makers. In some cases the relationships established through the Thematic Advisory Groups led to University staff being invited to join Welsh Government working groups and committees.
4. The Partnership led to **the University at an institutional level recognising the full extent of the benefits of schools engagement for all its academic Schools and Colleges**. By asking ESSE project leads to record outcomes from their projects, the Partnership encouraged academics and researchers to reflect on the purpose of their work with schools. It also documented and drew attention to the full range of impacts that schools engagement can have for individual academics and researchers (see below). In some cases, the impact potential of schools engagement had been discussed with academic Schools and Colleges impact managers, with the intention of capturing impacts and exploring their possible submissions to the next REF.
5. The Partnership **developed effective, sustainable structures and processes for stimulating, coordinating, monitoring and promoting schools engagement**, particularly the TAP model, which enabled teacher engagement with the University in a planned way, and the ESSE application process which encouraged individuals to reflect on the purpose and outcomes of schools engagement work, leading to better quality and more meaningful interventions. Also important was the Curriculum Support website for collating and presenting schools engagement in one place, acting both as a promotional tool and a recording mechanism.
6. The Partnership **identified opportunities to fund new developments and sustain schools engagement work**. Specific examples were recorded despite levered funding not being anticipated at the outset of the Partnership and therefore was not monitored in detail.

Impacts for education policy makers and leaders

Partners were able to develop initiatives and programmes that addressed issues of strategic significance to them. For example, the Welsh Government and WJEC are working in partnership with the University in a systematic way to enhance an important aspect of the Welsh Baccalaureate, namely the teaching and application of research methods. The Central South Consortium is working with University academics and researchers to support educational improvement programmes around the priority areas of STEM, Numeracy and Digital competence.

Impacts for other SUPI projects

At least one other SUPI project reported that its sustainability plans have been informed by the commitment made by Cardiff University to create the permanent post of Schools Partnership Officer.

4: PUBLICATIONS AND PRODUCTS

a) Please list any publications that have resulted from your SUPI project

The Partnership was run within the University's central professional services and did not seek any formal publications, furthermore the Partnership was not itself the subject of a media and communications campaign. However the ESSE projects generated 15 press releases in 2015/16, which resulted in coverage of specific activities in Cardiff University News and were in some cases, picked up in regional media, e.g. Western Mail and educational publications, e.g. Qualifications Wales. They are listed here:

Topic	Content	Link
War and peace	An exciting new initiative which aims to complement schools' Welsh Baccaalaureate studies on global citizenship has been piloted by the University	http://www.cardiff.ac.uk/news/view/231209-war,-peace-and-the-welsh-baccaalaureate
STEM Live AS 2016	Over 200 high-school children from across South Wales have descended on the University to take part in a day of exciting and immersive practical activities in the fields of science, technology, engineering and maths (STEM).	http://www.cardiff.ac.uk/news/view/378890-stem-live!
Welsh Bacc Conference 2015		http://www.cardiff.ac.uk/news/view/118026-supporting-new-welsh-bacc
Welsh Bacc Conference 2016		http://www.cardiff.ac.uk/news/view/377713-welsh-baccaalaureate-teacher-conference
Teacher Advisory panels		http://www.cardiff.ac.uk/news/view/214512-teacher-knows-best
Science Fair (English)	Welsh language science club and the celebration family fair event.	http://www..ac.uk/news/view/216942-family-fair
Science Fair (Cymraeg)	Welsh language science club and the celebration family fair event.	https://www.britishtscienceweek.org/event/ffair-wyddoniaeth-gymraeg-welsh-language-science-ffair/
Support of Women in STEM		http://sites.cardiff.ac.uk/university-executive-board/2016/03/14/talented-women-for-a-successful-wales/
Ambassador Programme	Enhancing the student experience.	http://www.cs.cf.ac.uk/newsandevents/stemambassadors.html
STEM Conference 2015	Inspiring the next generation of scientists and engineers.	http://www.cardiff.ac.uk/news/view/114110-inspiring-the-next-generation-of-scientists-and-engineers
Social Analytics	Launch event	http://sites.cardiff.ac.uk/gstep/events/launch-of-the-level-3-pilot-scheme-in-social-analytics-24-september-2014/
STEM LIVE Year 8 2015	Over 200 high-school children have taken up the role of undercover agents as part of a Marvel-themed outreach event at the University	http://www.cardiff.ac.uk/news/view/140470-students-become-secret-agents-at-science-event

STEM events/TAPs		https://sites.cardiff.ac.uk/university-executive-board/2015/06/29/ueb-29-june-2015/
Real-life research shapes Welsh Baccalaureate teaching	Schools Partnership Project links WISERD research with sixth form teachers	www.cardiff.ac.uk/news/view/471903-real-life-research-shapes-welsh-baccalaureate-teaching .
Inspiring young people	Schools Partnership Project gives youngsters chance to design own work placement	http://www.cardiff.ac.uk/news/view/473346-inspiring-young-people

b) Please list any products e.g. artistic, creative or educational material outputs that have resulted from your SUPI project.

All ESSE projects created materials for use in engaging teachers or pupils, including event formats, workshop programmes etc. However, we have restricted this section to educational resources and materials created specifically for teachers to use in their own teaching. There were 11 specific examples:

1. PCR Loan Box resource- KS5
2. Astronomy Apps classroom resources- KS4&5
3. Geography case studies videos- KS5
4. Doctors in Wales video & curriculum pack- KS5
5. First bites research skills workshops and resources for teachers and students- KS3-5
6. Architecture resource packs for in class and online use in Welsh Bacc- All KSs
7. On-line resource for Global Citizenship- KS5
8. Proposals for Welsh Bacc Individual Investigation- KS3,4&5
9. Sociological Data sets for Welsh Bacc- KS3,4&5
10. On-line Historical Research Skills resource- KS4&5
11. Islam online resource- K3,4&5

5: AWARDS AND RECOGNITION

Please list any awards or recognition associated with your SUPI project (this could include either those received, or those put in place)

The Partnership received 2 nominations in the University Outstanding Contribution Awards in 2015:

1. Sue Diment, the Partnership Project Officer, was nominated for the Best Support Staff Award.
2. Helen Phillips, a lecturer in the School of Computer Science and Informatics, was nominated in the Rising Star category for recognition the development of her school engagement programme for her academic school.

In May 2015, the Partnership was presented by Welsh Government as a best practice model for partnership working at the launch of its Curriculum Reform Network.

6: COLLABORATIONS AND PARTNERSHIP

Please provide details of any significant collaborations and partnerships that have resulted from your SUPI project

At the ESSE project level significant collaborations were established between leads for all 59 projects and the teachers with whom they collaborated. However, our answers to this section focus on partnerships and collaborations at the University level.

Partnerships around major events:

9 major events funded through ESSE (3 x Yr 12 STEM Conferences, 2 x STEM Live! Yrs 8&9 events, 2 x Where can you Go with Business? Yr 12 events and 2 x Welsh Baccalaureate Teacher Conferences) funded through ESSE were designated Major Events and developed and managed using a common set of

protocols and procedures and a group-working model, in which the Partnership Project Officer brought together a dedicated group to oversee the planning of each event. These groups comprised relevant researchers, academics, professional service staff and advisory teachers/educational experts, with the latter meaning each event addressed the needs of teachers and pupils. The model ensured all major events supported by the Partnership adopted the same infrastructure and processes, including project management, health and safety, branding, PR and evaluation and enabled best practice to be shared between event groups. The Partnership collated reports for each event to ensure all lessons learnt, resources and feedback were captured and shared to inform future activities. These events also resulted in further collaborative working opportunities. For example, as a result of the Welsh Bacc Teachers Conference, Qualifications Wales invited the Partnership to join its own Welsh Bacc Advisory Group for external partner organisations, expressed interest in supporting the University's Welsh Bacc work and met with Welsh Government to discuss how they could fund aspects of the Partnership's work after the RCUK funding ended.

Collaboration **resulting from Thematic Advisory Groups:**

The Welsh Government has a nominated representative participating in each Thematic Advisory Group. Structured collaborative working in these Groups has resulted in Cardiff University, through the Partnership, being invited to join other schools education partnerships and networks. For example, following a Numeracy Advisory Group meeting, it was invited to join the Central South Consortium's Strategy Board, which is developing a 'self-improving' school system (<http://www.cscjes.org.uk/Central-South-Wales-Challenge.aspx#sthash.4tMaTfmm.dpuf>) and following a meeting of a STEM Advisory Group was invited to join the National Museums of Wales School Engagement programme.

Partnerships with the **education improvement consortia:**

In addition to the ongoing partnership with the Central South Consortium, the Partnership established collaborative working arrangements with education improvement consortia covering other areas of Wales. For example, with the Education Achievement Service for South East Wales (EAS), which covers the five local authorities of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen, the Partnership agreed Thematic Advisory Group representation and linked the EAS Excellence in Teaching Programme with relevant Cardiff University Research Institutes.

Collaborative **funding bids:**

Cardiff University is a partner, with Welsh Government, the Institute of Physics and two other universities, in a bid to the Wales European funding Office (WEFO) for a £5m project enabling a STEM enrichment programme with in schools in the Valleys and West Wales.

7: FURTHER FUNDING

Please list all further funding that your SUPI project has leveraged across its lifetime

Levered funding was not anticipated at the outset of the Partnership and therefore was not monitored in detail. However by December 2016 a number of ESSE projects were seeking or had secured funding from external sources to continue to develop and deliver activities. One ESSE project alone – Apothecary Bees – has leveraged £60.5k to develop engagement work using bees as an educational tool and resource:

- £9.5k from the Wellcome Trust to support local schools in integrating bees and biodiversity into their teaching, an approach that could be extended to the entire city and the rest of the UK

- £20k to develop a bee-friendly green roof covering to enrich the urban environment

- £12k to work with historian colleagues to explore ancient honey based wound dressing as a source of modern drugs

- £5k from Santander to support Spot a Bee, a citizen science project creating a map of Cardiff showing which plants have been visited by local bees and where they are located

- £14k from the Welsh Government to support Tetto Verde creating green spaces in urban areas.

Another project - Count On Us – which provides additional numeracy support to secondary school pupils across the entire secondary age range utilising the skills and knowledge of Cardiff University students, is

being financially supported by the Central South Consortium, which has also agreed to support the Welsh Bacalaureate Teacher Conference in future years.

The value of in-kind contributions were not reported by individual projects. However, the average time contribution of each project lead to an ESSE project was estimated to be three weeks, which can be valued at £2.6k per project, based on an average annual salary of £40k and a 46-week working year, which equates to a total of £154k for the 59 completed projects. When added to the University's £150k financial investment this more than doubles the value of the University's input to the Partnership. It should be noted that this estimate does not include the value of the time contributions made by other University staff and students involved in ESSE projects, which would be substantially more, particularly for some of the larger projects. For example, one major event alone – a Year 12 STEM conference - involved 80 individuals.

8: SKILLS AND PEOPLE

a) Please list any skills related developments that have taken place as part of, or as a result of your SUPI project

As described in our response under 3a), the Partnership facilitated skills development for project leads and other internal participants. Most significantly these addressed project management and communication skills, but also skills in planning, reflective practice and working in partnership with internal and external collaborators. All these skills are relevant to wider engagement work and can be applied in the future to other engagement projects and research projects. In addition, the Partnership Project Officer developed her skills in managing a university-wide project and understanding the University's specific systems and structures for management and reporting.

b) Please list any secondments placements and internships to or from other organisations associated with your SUPI project

The original funding bid to RCUK anticipated placements where teachers would be seconded into the University. However, during Year 1 of the Partnership, Estyn (the Inspectorate for Education and Training in Wales) informed schools that teacher absence from the classroom leads to lower attainment in exams. As a consequence, it was deemed inappropriate for the Partnership to encourage teachers to be out of school for an extended period of time and the anticipated placements were not pursued.

9: OTHER

Please state here any other information associated with your SUPI project that you would like RCUK to know as part of final reporting.

We have also submitted the external evaluators' final evaluation report.