



ARCHER CSE Service Quarterly Report

Quarter 1 2017



1. Executive Summary

This report covers the period: 1 January 2017 to 31 March 2017 inclusive.

- Centralised CSE Team:
 - A white paper comparing the performance of different parallel file systems in production has been published on the ARCHER website. This provides a valuable resource for users wishing to know the performance they can expect and for centres procuring HPC systems.
 - 16 reports comparing the performance of applications on the ARCHER KNL system to that on standard ARCHER compute nodes have been published on the ARCHER website along with a summary produced by the CSE team. Users can use these reports to extrapolate how their application may perform on KNL.
 - We have published initial results from the updated ARCHER benchmarking suite applications on the ARCHER website. These representative benchmarks can now be used as the basis of technology comparisons.
 - Users can now query their memory and energy usage through the SAFE allowing them to better understand how their applications behave on ARCHER and plan their use of HPC resources.
- Training:
 - We delivered 13 days (224 student-days) of face-to-face training in the quarter at 4 different locations, with an average feedback score better than “Very Good”.
 - 17 people successfully completed the Driving Test in Q1; 14 of these have subsequently applied for and received a user account.
 - A paper on “Novel approaches to HPC user engagement” has been accepted for the 2017 Cray User Group meeting. The paper includes various aspects of ARCHER training such as the driving test, user survey and online courses.
 - The five-week “Supercomputing” MOOC, developed as part of PRACE and hosted by FutureLearn, was launched in March. ARCHER is used as an example of a real system, and Wee ARCHIE is used to explain supercomputer architectures. More than 3,000 people registered for the course.
- ARCHER Outreach Project:
 - Our booth at the Big Bang Fair was very successful, with very large numbers of school children participating on the booth. In particular, most attendees were school groups within the target audience of 11-14 year olds, which allowed the service to encourage and help students who are considering course choices.
 - Nick Brown and Wee Archie represented the ARCHER service on the RCUK AAAS stand in Boston. This allowed Wee Archie to be shown to a wider international audience as well as showcasing HPC to RCUK.
 - The third ARCHER Champions Workshop took place in Leeds in February. This helped to establish closer collaboration between Tier 1 and Tier 2 Champions.
 - All material for the “Best Use of ARCHER” competition is ready to go live when the competition is launched at the Tier 2 launch on the 30 March.
- eCSE:
 - Of 78 projects from the first 10 eCSE calls, 69 have started and 55 have now completed. The remaining 9 projects are due to start within the next few months.
 - The eCSE10 call opened on 6 December 2016 and closed on 31 January 2017 receiving 13 proposals. At the Panel meeting on 24 March, 6 projects were selected for funding, awarding a total of 65 person months.
 - A call for Early Career Researcher Panel Observers was opened on 16 December 2016 and closed on 17 January 2017. At a selection meeting on 22 March 2017, 7 candidates were chosen by the eCSE Panel to attend the remaining eCSE Panel meetings taking place during 2017.

2. Collaborations and Outputs Summary

- Presentations:
 - Andy Turner, Parallel I/O Performance, HPC-SIG Meeting, 7 February 2017, University of Leeds
 - Alan Gray, A Lightweight Approach to Performance Portability with targetDP, 22 February 2017, University of Oxford
 - Toni Collis, Diversity on HPC, EPSRC Tier-2 Launch, 30 March 2017, Birmingham
- Meetings:
 - Adrian Jackson, Cyclops Grand Challenge Workshop, 20-21 March 2017, Centre for Healthcare Technologies, Nottingham
 - Various, EPSRC Tier-2 Launch, 30 March 2017, Birmingham
- Posters:
 - Nick Johnson, Using firedrake efficiently on large computers, Firedrake'17, 27-28 March 2017, Imperial College

3. Forward Look

- Benchmarking and Applications
 - We will run the KNL and ARCHER benchmarks across the new EPSRC Tier-2 HPC systems as they become available to get a broader overview of the performance differences between different hardware.
 - The new ARCHER benchmark applications will be added to the CI server testbed to run at regular intervals to evaluate the performance variability on a production HPC system, so that users know what performance range to expect.
- Parallel I/O
 - We will update the Parallel I/O performance white paper with results for the file-per-process parallel I/O model and add performance data for the Cirrus EPSRC Tier-2 HPC system at EPCC and the COSMA6 system in Durham. Both systems use a DDN Lustre parallel file system.
 - We will update the *benchio* application to benchmark read performance as well as write performance.
- ARCHER Scientific Consortia
 - We will work with the research councils to update the scientific consortia sections of the ARCHER website with case studies and other useful information.
- Training:
 - We will repeat the successful 2015 course on “Scientific Computing” which is delivered face-to-face in Edinburgh but also webcast live and recorded for the web for later study. This takes place on 4 successive Wednesday afternoons starting in late May. Remote students will be fully supported and given accounts on ARCHER for the duration to undertake practical exercises.
 - Two courses will be delivered for the first time in Q2: an extended 2-day version of the existing KNL course, and a new “Data Analytics with HPC” course.
 - A new question was included in the annual training follow-up survey, which asked users what new courses they would like to be developed. The most popular suggestion was C++ for HPC and we are currently looking at the feasibility of developing such a course.
 - We are already investigating how to coordinate our training programme with the new Tier-2 centres. Current plans include a Molecular Dynamics course in UCL, and a GPU course in Oxford.
 - The fourth training impact survey will be analysed and the report circulated to the training panel and EPSRC.
- Outreach
 - Wee Archie will be demonstrated at the Edinburgh International Science Festival. EISF is a good opportunity to explain to young people and their families as to why Supercomputing is important and relevant to them.
 - We have a booth at New Scientist Live in London in September. This is another good opportunity to engage with young people making career choices and to explain to the public why Supercomputing matters to them.
 - We have spent the term collaborating with a school in Stirling developing material for the Teacher’s pack and plan to focus on developing this pack based on essential input and feedback from the school.
 - The Best Use of ARCHER competition will launch shortly and future work will focus on ensuring a successful and well publicised call. One aim will be to showcase the range of science of the winners.
 - Third Hands-on Porting and Optimisation Workshop” is planned for the 4 April in Birmingham. The key to this event is that attendees focus on their own codes and work closely with ARCHER staff to optimise their code on ARCHER, to maximise their science output.
- eCSE
 - We are planning for there to be 2 more eCSE calls (including the recently open 11th call), unless there is a further extension. We are expecting to be able to provide at least an extra 40 person months in addition to the 840 person months already committed, i.e., a total of at least 880 PMs.

4. Contractual Performance Report

This is the contractual performance report for the ARCHER CSE Service for the Reporting Periods: January 2017, February 2017 and March 2017.

The metrics were specified by EPSRC in Schedule 2.2 of the CSE Service Contract.

CSE Query Metrics

- **QE1:** The percentage of all queries notified to the Contractor by the Help Desk in a Quarter that the Contractor responds to, and agrees a work plan with, the relevant End User within 3 working hours of receiving the notification from the Help Desk. *Service Threshold: 97%; Operating Service Level: 98%.*
- **QE2:** The percentage of all queries notified by the Help Desk to the Contractor that have been satisfactorily resolved or otherwise completed by the Contractor within a 4-month period from the date it was first notified to the Contractor. *Service Threshold: 80%; Operating Service Level: 90%.*
- **TA1:** The percentage of all technical assessments of software proposals provided to the Contractor by the Help Desk in any Service Period that are successfully completed by the Contractor within 10 days of the technical assessment being provided to the Contractor by the Help Desk. *Service Threshold: 85%; Operating Service Level: 90%.*
- **FB1:** The percentage of End User satisfaction surveys for CSE queries carried out in accordance with the Performance Monitoring System by the Contractor showing the level of End User satisfaction to be “satisfactory”, “good” or “excellent”. *Service Threshold: 30%; Operating Service Level: 50%.*

Period	Jan-17		Feb-17		Mar-17		Q1 2017	
	Perf.	SP	Perf.	SP	Perf.	SP	Perf.	Total
QE1	100%	-2	100%	-2	100%	-2	100%	-6
QE2	100%	-2	100%	-2	100%	-2	100%	-6
TA1	100%	-1	100%	-1	100%	-1	100%	-3
FB1	100%	-2			100%	-2	100%	-4
Total		-7		-5		-7		-19

*Pink – Below Service Threshold
Yellow – Below Operating Service Level
Green – At or above Operating Service Level*

Training Metrics

- FB2:** The percentage of all training satisfaction surveys carried out in accordance with the Performance Monitoring System by the Contractor) in each Quarter that are rated “good”, “very good” or “excellent”. *Service Threshold: 70%; Operating Service Level: 80%.*

Period	Jan-17		Feb-17		Mar-17		Q1 2017	
	Perf.	SP	Perf.	SP	Perf.	SP	Perf.	Total
FB2	100%	-1	100%	-1	100%	-1	100%	-3
Total		-1		-1		-1		-3

Pink – Below Service Threshold
Yellow – Below Operating Service Level
Green – At or above Operating Service Level

Service Credits

Period	Jan-17	Feb-17	Mar-17
Total Service Points	-8	-6	-8

5. CSE Queries

Queries Resolved in Reporting Period

Metric Descriptions

In-Depth	All technical queries passed to ARCHER CSE team
Course Registration	Requests for registration on ARCHER training courses or enquiries about registration
Technical Assessment: <Category>	Request for Technical Assessments of applications for ARCHER time
eCSE Application	Queries relating to eCSE applications

A total of 360 queries were resolved by the CSE service in the reporting period.

Metric	Jan-17	Feb-17	Mar-17	Total	% Total
Course Registration	58	54	150	262	73%
In-Depth	13	9	4	26	7%
eCSE Application	2	10	13	25	7%
Technical Assessment: Grant	4	3	5	12	3%
Course Enquiry	9	7	7	23	6%
Technical Assessment: Instant	0	3	8	11	3%
Technical Assessment: RAP	1	0	1	1	0%

5 query feedback responses were received on In-depth queries in the reporting period. This represents a 19% return rate for feedback forms. 4 responses registered a score of "Excellent" and 1 registered a score of "Good".

Resolved In-Depth queries fell into the following categories:

Category	Number of Queries	% Queries
3rd Party Software	19	73%
User programs	2	8%
Performance and scaling	2	4%
Batch system and queues	1	4%
Porting	1	4%
Other	2	4%

In-Depth Query Highlights

A small number of In-Depth queries have been selected to illustrate the work of the centralised CSE team over the reporting period.

Q849917: Cray profiling and src instrumentation

An ARCHER user was seeing poor performance with their program within ScaLAPACK routines. They wanted to use a profiling tool on ARCHER to help understand what the issue is. CSE team provided them with advice on how to use the Allinea MAP profiling tool to profile their application along with information on how to get past incompatibilities between the tool and older versions on GCC (required by the Intel compilers for C++ 11 applications). Finally, we also provided advice and sample source code to help the user improve their application build system by using the CMake tool.

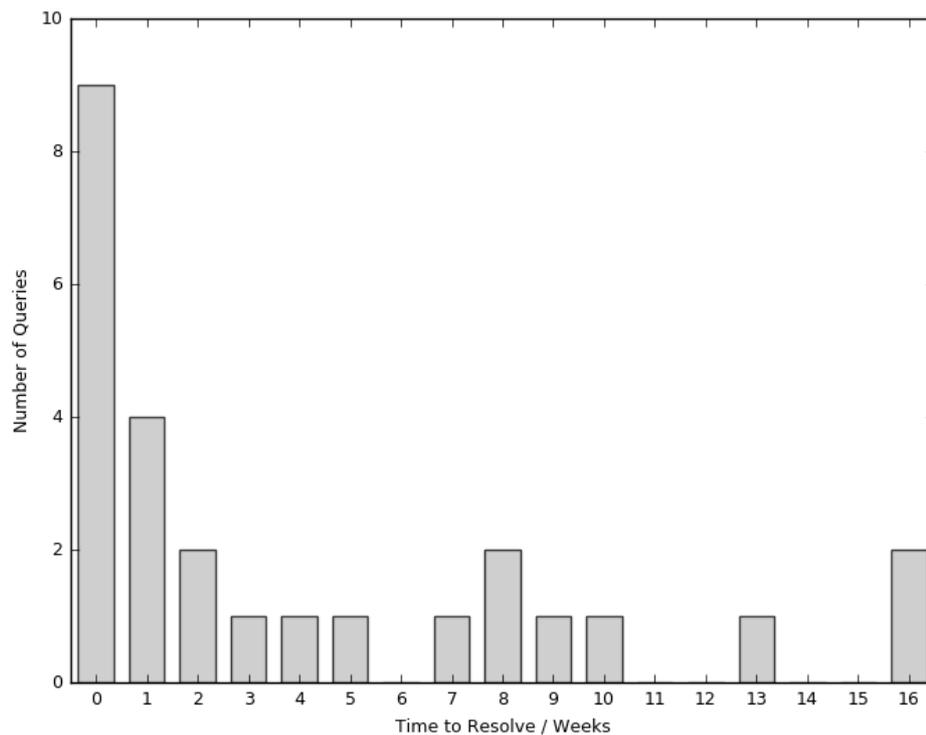
Q806157: issues with running GAMESS US batch jobs

This query initially dealt with a problem for a user running multiple copies of GAMESS-US in a single PBS job. Once the CSE team had helped the user with this issue by restructuring their job submission script, it became clear that there was an issue with memory allocation within the GAMESS-US program. The CSE team worked with the Cray Centre of Excellence to debug this

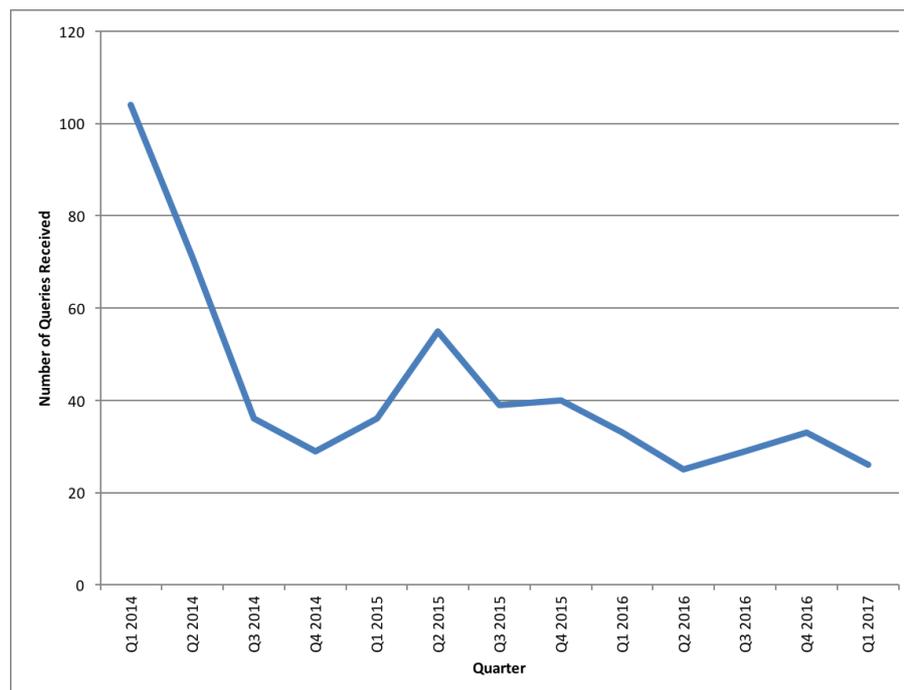
issue and deployed an updated version of the software. This means that the user's jobs can now make use of all the cores on an ARCHER compute node and so get the most efficient use of their ARCHER resources.

In-Depth Query Analysis

The histogram below shows the time to resolution for In-Depth queries in the current reporting period. The median resolution time during this period is 2 weeks (median resolution time since 1 Jan 2014 is 2 weeks).

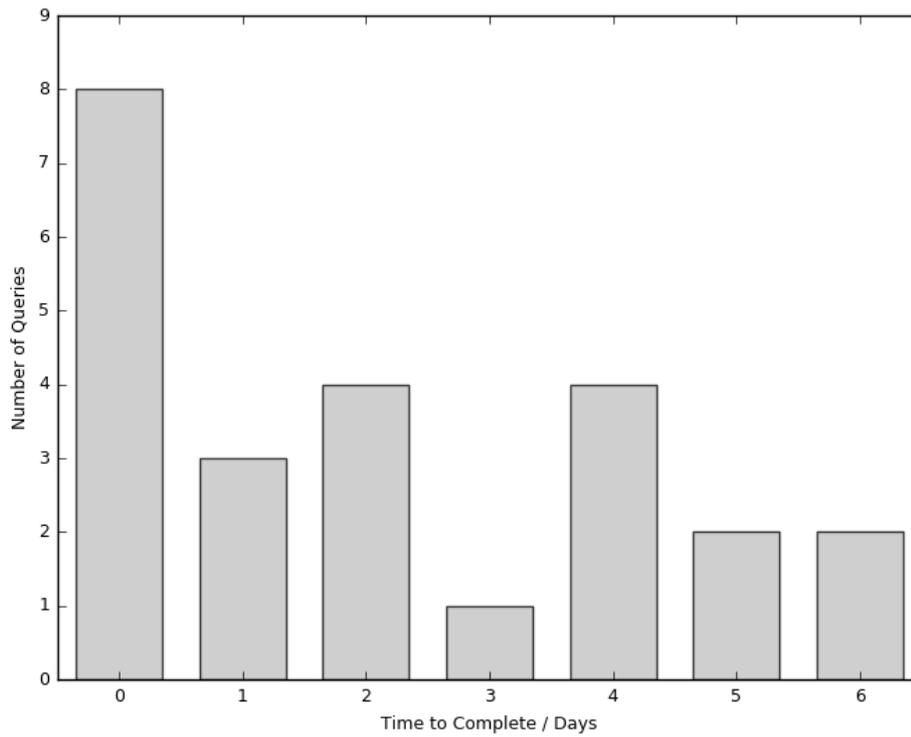


Plot of numbers of In Depth queries received per quarter:

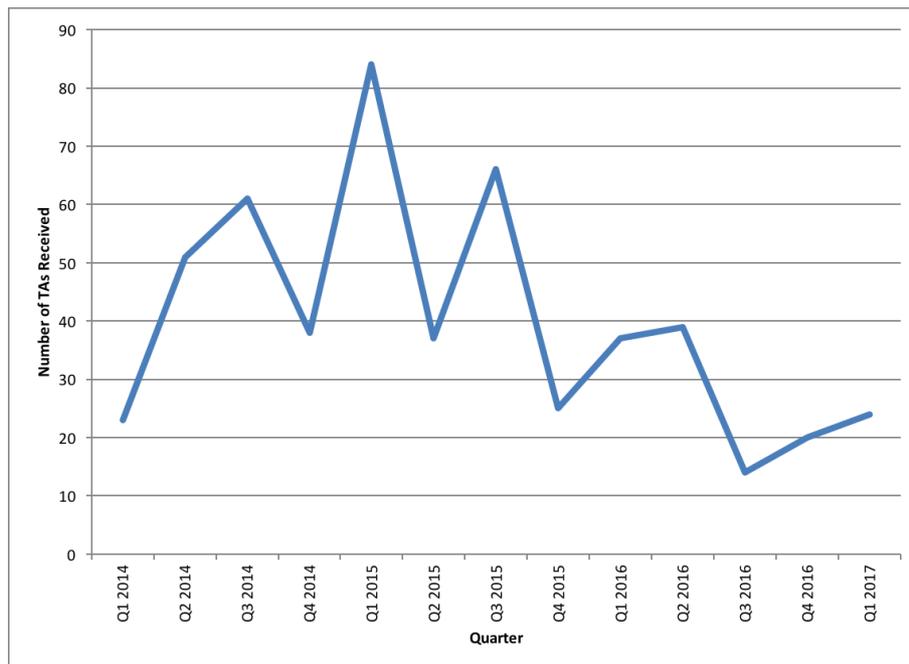


Technical Assessment Analysis

A histogram of the time to completion for Technical Assessments (see below) reveals that the median completion time for this quarter was 2 days (median completion time since 1 Jan 2014 is 2 days).



Plot of numbers of Technical Assessments received per quarter:



6. Centralised CSE Team: Strategic Priorities Progress

In collaboration with user groups and the other Service partners, the CSE service identified several priority areas to invest technical effort from the centralised CSE team. This section summarises progress in the reporting period in these areas.

Future Technologies

Work in Q1 2017 has focussed on having the tools available to be able to assess the impact of different HPC components and architectures on the computational work that runs on UK national HPC services.

ARCHER Benchmarks

Following on from the UK national HPC benchmark proposal paper produced by the CSE team in consultation with major user groups, we have gathered the majority of the benchmark cases from the users and have collected initial baseline performance data on ARCHER. This data has been published on the ARCHER website:

<http://www.archer.ac.uk/community/benchmarks/archer/>

In the next quarter, we plan to start running these benchmarks periodically on the system to assess the variation in performance that users can expect to see in production on ARCHER. We will also run the benchmarks on the Cirrus (<http://www.cirrus.ac.uk>) EPSRC Tier-2 HPC system to compare the performance to ARCHER. Finally, we will open discussions with the other EPSRC Tier-2 centres to try and run the benchmarks across as many different architectures as possible. These large-scale benchmarks will allow us to assess the parallel scaling performance of different HPC architectures for real applications of interest to users.

ARCHER KNL Performance Reports

We contacted the users of the ARCHER KNL system to ask for their input into a series of reports comparing performance on KNL to performance on standard ARCHER nodes for a range of applications used on the system. Along with contributions from the CSE team, we have an initial set of 16 reports covering 14 applications from a range of disciplines available on the ARCHER website. The CSE team has also produced a summary of the performance differences between the two different architectures. Both the summary and the reports can be found on the ARCHER website at:

<http://www.archer.ac.uk/community/benchmarks/archer-ctl/>

We plan to extend this work by collaborating with the new EPSRC Tier-2 HPC centres to run these application benchmarks across as many different architectures as possible to assess the differences and their impact on the computational science workload across the UK. In contrast to the large-scale benchmarks above, these smaller benchmarks allow us to compare different compute node architectures in terms of their compute and memory performance.

7. Training

In the reporting period, the CSE Service has provided a total of 13 days (224 student-days) of face-to-face training across four different locations and 2.5 days of interactive online tutorials (average attendance 15 per tutorial).

Month	Dates	Course	Location	Days	Attendees
Jan 2017	11	Modern Fortran	Online	0.5	
	18	eCSE Tutorial	Online	0.5	
Feb 2017	8	Parallel IO on ARCHER	Online	0.5	
	8-10	Performance Analysis Workshop	Southampton	3	14
	15-17	Message-Passing Programming with MPI	London	3	16
Mar 2017	22	Optimisation of LESsCOAL	Online	0.5	
	27-28	Single-Sided PGAS Communications Libraries	Warwick	2	5
	28-29	Parallel IO on ARCHER	Durham	2	8
	29-31	Shared-Memory Programming with OpenMP	Southampton	3	36
	29	Open source exascale multi-scale framework	Online	0.5	

On the feedback for face-to-face courses, attendees rate the course on a scale of 1-5 (“Very bad”, “Bad”, “Good”, “Very good” and “Excellent”). The average feedback using this metric was 4.4, i.e. better than “Very Good”. Users provided 34 feedback forms, a response rate of 43%.



21 days of face-to-face training are planned for the second quarter of 2017, plus 1.5 days online.

Month	Dates	Course	Location	Days	Attendees
Apr 2017	3-4	Programming the Manycore Knights Landing Processor	Leeds	2	
	12	The Mysticism of Make	Online	0.5	
	19-21	Message-Passing Programming with MPI	Southampton	3	
	24-25	Introduction to Scientific Programming with Python	Swansea	2	
May 2017	9-10	Software Carpentry	Edinburgh	2	
	10	TBC	Online	0.5	
	11-12	Data Carpentry	Edinburgh	2	
	TBC	Shared-Memory Programming with OpenMP	London	2	
	31 May - 21 Jun	Scientific Computing	Edinburgh and Online	2	
Jun 2016	TBC	Introduction to Scientific Programming with Python	Edinburgh	2	
	14 Jun	TBC	Online	0.5	
	TBC	Data Carpentry	Belfast	2	
	29-30	Data Analytics with HPC	Portsmouth	2	

8. Outreach Project

Outreach

Big Bang Fair: Once again we attended the Big Bang Fair in Birmingham in March. With over 70,000 children across 4 days, this is one of the biggest science outreach events in the UK. Three days involved visits from schools with a target audience of 11-14 year olds; the final day was open to the general public. We are still collating and analysing data, but one of the three activities had 1202 people directly participating in it. More information on this will follow as it becomes available. In practice, every activity was at maximum capacity and watched by larger numbers.

Teacher's pack: We are working with a school in Stirling to develop and obtain feedback on the teachers pack.

Wee Archlet: The "Cluster Setup Instructions" for Wee Archlet are instructions on how to build their own clustered Raspberry Pi system. They have been beta tested and have undergone QA. Final corrections are being made before making these public.

AAAS in Boston: Wee Archie was used as a demo on the RCUK AAAS stand. The public could come along, design a wing, then simulate this on Wee Archie and see how a 757 with their wing would have flown (whether it would have taken off & the range). Nick Brown was there to demo Wee Archie. This was constantly busy throughout the 3 days and was a mixture of conference attendees (scientists, engineers, media etc) from around the world and also families (as the Sat & Sun were family days.) Irrespective of the individual, Wee Archie was universally popular and drove discussions around UK science & HPC with conference attendees and more general science discussions with families. Nick Brown also gave a 15 minute booth talk on the Sunday (attended by both families and scientists) about what HPC is, what we use it for and how the UK is one of the countries leading HPC.

SC BoF: We organised and ran an Outreach BoF at SC16, it was lead by EPCC with help from a couple of individuals from other centres in the US. We split this into 4 sessions: discussion about outreach targeted at school children; outreach targeted at university students/adults; diversity with outreach; and an interactive demos session, where Wee Archie, Wee Archlet, the SC App, ball sorting and PRACE's shooting stars demos were available for participants to try out. These demos helped drive discussions around demos, the development of demos and making these available to other people. There were between 25-40 people at the BoF, and session consisted of around 75-80% audience participation (discussions or playing with the demos.) Since then we have been in contact with a number of people who want help building their own Wee Archie or other outreach discussions. From this it is clear that we are currently leading the way in HPC outreach, both in terms of demos but also the general understanding of how to organise and pull it off.

Wee Archie at SC16: Wee Archie was one of the main attractions on the EPCC SC16 stand and was very popular. We ran both an early version of the wing designer demo and also our weather demo. It drove plenty of discussion from conference attendees and significant interest in HPC in the UK.

Future plans include demonstrating Wee Archie and Wee Archlet at the Tier 2 launch and at the Edinburgh International Science Festival. In September we will be taking a booth to New Scientist Live in London.

Impact

Case studies: One new case study, *Discovering dinosaur footprints*, completed and printed for Tier-2 launch (end March 2017). New postcards of last 3 case studies produced and printed for the Tier-2 launch.

Future work will involve work on a proposed case study on a biomeolecular simulation project. The plan is to continue to develop new case studies to ensure the case study series is fresh and representative of the science and impact on ARCHER.

Project highlights: There are now 39 eCSE project highlights on the website:

<http://www.archer.ac.uk/community/eCSE/> Additional consortium highlights are available eg: <https://www.archer.ac.uk/community/consortia/ukcp/> and <http://www.archer.ac.uk/community/consortia/ukctrf/>

Best Use of ARCHER Competition (US/UK Collaboration): All material for this competition is now complete and ready to go on-line when the competition is announced at the Tier 2 launch.

Engagement

Following the success of the two previous “Hands-on Porting and Optimisation Workshops”, a third workshop is planned for the 4th April in Birmingham. Titled “Hands-on Porting and Optimisation Workshop: Making the most of ARCHER” this event involves ARCHER staff working closely with attendees to port and optimise their own codes on ARCHER.

The third ARCHER Champions Workshop took place in Leeds (thanks to Leeds ARC) in February and was a full one day meeting. This event was co-located with HPC-SIG and had 32 attendees. The main focus was on the Tier-2 sites and each site provided an overview of their system. Time for discussion sessions was included and also for lightning talks provided by Champions. This was a very successful meeting with closer collaboration between Tier-1 and Tier-2 Champions being a clear outcome. The next Champions event is to be held at the Hartree Centre (Daresbury) on the 26-27 June.

Diversity

The Diversity in HPC website (www.hpc-diversity.ac.uk): This continues to develop and grow, with 15 interviews and 13 historical biographies available online.

Annual Women in HPC event: Our third event will take place on Wednesday 5th April at the University of Leeds. This will be a full day event on ‘Addressing diversity in the HPC community’ and although focusing on gender based diversity will discuss topics relevant to all areas of under-representation.

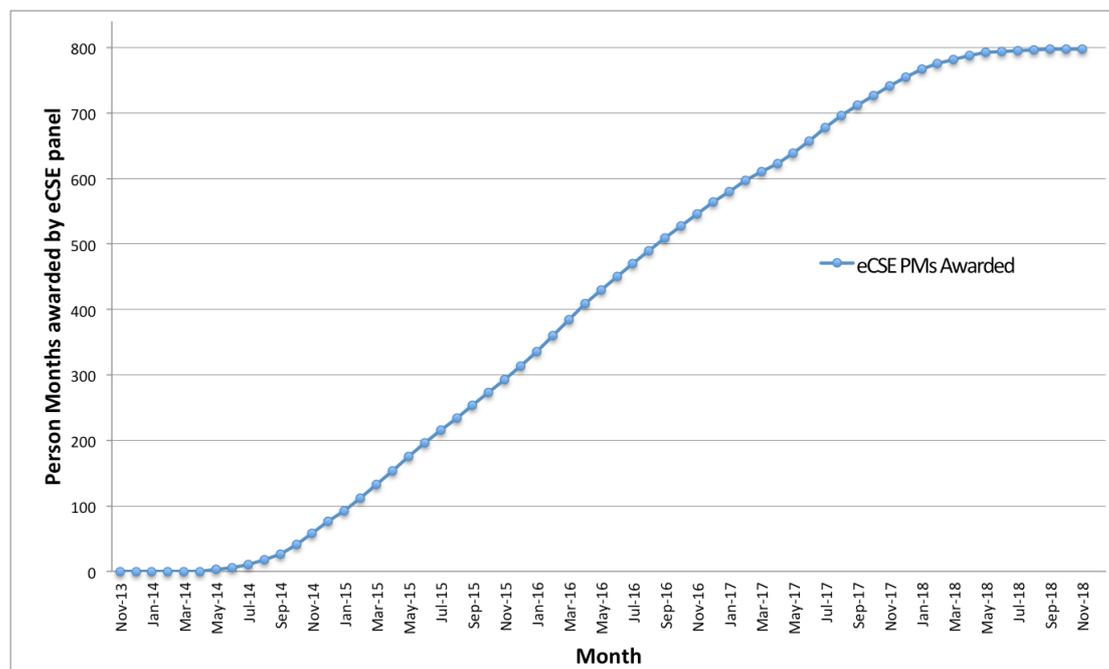
ISC17: Women in HPC has an ISC workshop accepted for the third year running. The workshop will be a half-day session on Thursday 22nd June, at the end of the ISC conference in Frankfurt, Germany. A BoF has also been accepted and will be on “Diversifying the HPC workforce”. Although organised by Women in HPC, this event will discuss all aspects of under-representation and minority groups.

SC17: We have submitted an application for a full day workshop at SC17 (Denver, November 2017) and we are awaiting the decision.

Based on the feedback we received from participants of the Women in HPC events at ISC16 and SC16 we will continue focusing on two topics. Firstly, providing early career women with the opportunity to present their work and network. The second topic aims to engage leaders and decision makers in the necessity for diversity, the benefits of diversifying the workforce and discussions on how to successfully drive change within an organisation.

9. Embedded CSE (eCSE)

Overview of eCSE Effort



- The eCSE person months awarded up to and including the 10th eCSE call are shown in blue.
- 797 person months have been awarded so far over 78 awarded eCSE projects
- At least 840 person months will be awarded by the end of the project (14 FTEs for 5 years). In addition we expect to be able to award at least another 40 person months. i.e., at total of at least 880 PMs.

eCSE Call 1 – Call 10

eCSE call	No. proposals	No. projects awarded	No. person months awarded	No. projects started	No. projects completed	No. final reports received	Notes
eCSE01	19	14	132	14	14	14	
eCSE02	17	9	82	9	9	9	
eCSE03	16	10	96	10	9	9	
eCSE04	16	8	82	8	8	7	1 late final report is being pursued.
eCSE05	14	8	94	8	8	6	The final report for the completed projects are not due yet.
eCSE06	9	5	47	5	4	2	The final report for the completed

							project is not due yet.
eCSE07	16	5	49	5	2	0	
eCSE08	21	8	88	8	1	0	
eCSE09	19	5	62	2	0	0	
eCSE10	13	6	65	0	0	0	
Total	160	78	797	69	55	47	

- A risk analysis identified all projects as being of either low or very low risk apart from the following:
 - eCSE04-4 which was identified as being of medium risk as the person named to do the technical work was offered a position elsewhere
 - The member of staff originally named on the contract completed 1.5 of the 12 months of work before leaving to take up another post. With approval from the PI and eCSE Panel chair, we identified a new member of staff within the ARCHER CSE team who took on the work from 01/10/15. This project is now complete and the final report has been received and is under review.
 - eCSE04-10 which was identified as being of medium risk as the PI indicated that the person named to do the technical work may not be available
 - This project will go ahead with the original staffing. There was a short delay to the start of the project which started on 01/01/16. The project is now complete and we are awaiting the final report.
 - eCSE08-9 was identified as being of medium risk due to a change of staffing
 - the new staff member has been approved by the panel chair and the project is awaiting the signing of the contract. We will monitor this to ensure the project gets underway and progresses successfully.
 - eCSE08-10 was identified as being of medium risk due to issues raised by Cambridge University involving the IP and the relationship with the CASTEP group
 - these issues appear to have been resolved and a contract has been signed but we will monitor this as the project progresses.
 - eCSE09-8 was identified as being of medium risk due to having been awarded 19 person months. This is a higher level of effort than awarded for other eCSE projects where 15 person months is the highest level of effort awarded so far
 - of the 19 months awarded for this project, 7 are for a member of the ARCHER CSE team and the work will be monitored through EPCC's standard project monitoring processes. The remaining 12 are for an external member of staff at the PI's institution and will be monitored via regular contact with the PI.
- An eCSE tutorial was given as a webinar on 18 January 2017 giving an overview of the eCSE submission process, including material focussing on applications to use the new XC40 Xeon Phi System.
- The following ARCHER webinars were given on completed eCSE projects:
 - 22 March 2017 - eCSE05-13 – “Optimisation of LESsCOAL for large-scale high-fidelity simulation of coal pyrolysis and combustion”, *Kaidi Wan, Zhejiang University, and Jun Xia, Brunel University*
 - 29 March 2017 - eCSE05-5 – “Open source exascale multi-scale framework for the UK solid mechanics community”, *Anton Shterenlikht, University of Bristol, Luis Cebamanos, EPCC and Lee Margetts, University of Manchester*

Open and Future eCSE Calls

- eCSE calls are run to a regular schedule. The future/open calls are:
 - eCSE11: opened 28 March, 2017 and closes at 4pm on Tuesday 9 May, 2017
 - eCSE12: opens 1 August, 2017 and closes at 4pm on Tuesday 12 September, 2017

10. Appendix: Summary Report for ARCHER Champions Workshop

Josephine Beech-Brandt February 2017

The third ARCHER Champions Workshop took place in Leeds (thanks to Leeds ARC) in February and was a full one-day meeting, including an evening meal and was co-located with HPC-SIG. There were 32 attendees, 18 of whom had attended a previous Champions workshop, and 2 bursaries were awarded to cover reasonable travel and accommodation costs. The newly-funded Tier 2 sites were the main focus of the workshop and each site provided an overview of their system. Time for discussion sessions was included and for lightning talks provided by Champions.

Topics Covered:

- Collaboration between Tier-1/ Tier-2 Champions
- Tier 2 Centres: Each Centre gave a brief presentation (machine, RSE Support, training, access mechanisms) followed by Tier 2 Champions Scheme
- SAFE for Tier-2
- Training across Tier-1 and Tier-2
- Discussion groups focusing on RSE Support, Training, Access Mechanisms and SAFE
- Lightning talks were provided by five Champions

Outcomes:

- Combine subsequent events into Tier-1/ Tier-2 Champions
- Combine a single website to host all information for Tier-1/Tier-2 Champions
- Next Champions events to be held at Hartree Centre (Daresbury) in June (who will host one of the Tier 2 systems).
- Email list and Slack channel continue to be available for ARCHER advice
- Network feeling more established
- All material covered is available on Champions website