eCSE Overview

Lorna Smith, Chris Johnson and Xu Guo EPCC
Overview

• Programme provides funding to the ARCHER user community to develop software in a sustainable manner for ARCHER

• Objectives
  • To sustain key codes for the UK computational science community
  • To facilitate efficient use of ARCHER resources through enhanced code performance/functionality
  • To offer a not-for-profit service that provides value for money to the HPC user community and beyond

• Also
  • Develop and sustain codes and communities from new areas
  • Support and encourage early career researchers
Scope - examples

- Implementation of algorithmic improvements within an existing code
- Improving the scalability of software on higher core counts
- Improvements to code which allows new science to be carried out
- Porting and optimising a code to run efficiently on ARCHER
- Adding new functionalities to existing codes
- Code development to take a code from a Tier-2 (Regional) to Tier-1 (National) level bringing new communities onto Archer

- Funding cannot be used for scientific research
New Communities

• Funding is available for
  • established ARCHER communities
    • proposals from these communities are encouraged.
  • However, proposals from new scientific communities are also encouraged.

• New scientific communities
  • communities from scientific areas not currently exploiting the ARCHER system.
  • likely to have a scientific need for ARCHER and a need for greater computational power than available at a regional level.

• New codes to ARCHER are not necessarily new scientific communities
  • New codes / users from existing communities can apply as an established community
  • Encouraged to contact / join existing appropriate consortia

• Panel will assess whether a project is from a new community based on the information provided
  • if not a new community, this will automatically be considered as an existing community proposal
Embedded CSE (eCSE)

- 3 regular calls per year
  - Current (6th) call closes 4pm on Tuesday 15th September 2015
  - Most projects between 3 and 12 months
- Funding can be requested for
  - staff located at the institution of the PI
  - third parties
  - staff from the centralised CSE support team
  - or a mixture of the above
- Ability of technical staff to complete the work is assessed
  - Considered together with PI/Co-I expertise and training plan
- Not-for-profit
  - Committed to average of 14 FTE per year. Additional money will be put into further eCSE PMs
eCSE process

- Guidance provided
- Call opens
- TRs carried out, request sent to applicants
- Call closes
- Response to TR received
- Panel reviews carried out
- Panel meeting, ranked list created
- Results and feedback
eCSE Applications

- After calls open, proposals should be submitted via SAFE using the eCSE Funding Calls pages:
  - [https://www.archer.ac.uk/safe/](https://www.archer.ac.uk/safe/)
  - Please register first if you are not a registered user in SAFE

- Information and guidelines for applying can be found at:
  - [https://www.archer.ac.uk/community/eCSE/](https://www.archer.ac.uk/community/eCSE/)

- Applicants can request guidance from the centralised CSE team before submission:
  - Please contact ARCHER helpdesk: support@archer.ac.uk
eCSE Applications (Cont.)

• Technical effort level
  • Effort should be specified in Person Months (PMs)

• Costs
  • 100% fEC should be provided for each proposed candidate
    • We pay 80% fEC for successful projects
    • no need to specify costs for ARCHER CSE team member (i.e. EPCC staff)
  • Details about any existing funding for the proposed technical candidates should be provided

• CPU time
  • Each project is provided with CPU hours: 50 kAUs/staff month
  • Exceptional requests for more time can be made, but only for time needed to complete the project objectives
  • Additional CPU time will not be provided for scientific studies
  • Other routes exist to request CPU time e.g. the RAP panel
eCSE Applications (Cont.)

• Travel funding can be requested for the technical members of staff
  • Not available for PIs and Co-Is
  • Can fund travel within the UK to meet the objectives of the project – i.e. for meetings between partners or relevant training
  • Does not fund impact related activities such as workshops, conferences, etc
  • Usually fund 1 trip every 3-4 months
  • Please provide a breakdown of the travel costs – by individual and by trip

• Previous project and proposals
  • Details of previous proposals, previous eCSE projects and related projects are requested
Reviewing eCSE Applications

• Two stage reviews for all eCSE applications
  • Technical Reviews (TRs)
  • Panel Reviews
Technical Review (TR)

- Administrative checks will be applied for all submissions before TRs
- Applications will be reviewed by technical advisors and the ARCHER centralised CSE team
  - Majority carried out by the centralised team
  - If conflicts of interest, proposal reviewed by external advisors
TR request for further information

- Any requests for further information will be sent to applicants after the admin check and TRs
- Applicants will be given the opportunity to respond
  - Original proposal will not be updated, only additional response can be submitted via SAFE
  - All information supplied to the panel
  - Can also choose to withdraw and submit to a later panel
Panel Reviews & Panel Meetings

- Each application will be reviewed by two panel members independently prior to the panel meeting
  - Based on the Assessment Criteria
- Panel Meeting will take place within around 8 weeks after the call closed
- For each application, Panel can decide to fund, not fund or if needed fund in part
- Panel can fund with requirements e.g. propose improvements
- Robust conflict of interest and confidentiality process in place
- A small number of early career researchers may be present as observers
Assessment criteria

- **Applicants**
  - Track record of applicants, including all team members, demonstrate project can be completed
- **New Communities Justification**
  - Enough detail to justify application is from New Community
- **Technical context**
  - Sufficient technical information provided
- **Benefits**
  - Why it is needed, what are the expected benefits
  - Scientific, computational and to ARCHER community
- **Pathway to impact**
  - Impact activities to ensure potential benefits are achieved
- **Work plan**
  - Appropriate plan for management, technical work and resources
- **Overall**
  - Overall quality and objectives
Points to remember

- Specific Benefit to the ARCHER community
  - Availability of code on ARCHER
  - Who will utilise the improvements and for what activity
- Objectives are important
  - Where possible should be measurable and quantifiable
- Travel
  - Only fund travel for the technical staff members within the UK
  - Do not fund travel to conferences, workshops, etc.
- Technical staffing experience and profile considered by the panel
  - Experience of PIs/Co-Is relevant as is training plan and/or additional support
- Existing funding
  - Looking to ensure the work is not supposed to be carried out under a different project
Final Decisions and Feedback

• Final decisions will be sent to applicants together with feedback from the panel
  • Within around 2 weeks after the panel meeting

• Unsuccessful applications
  • Will be provided with constructive feedback
  • If appropriate will be encouraged to contact the CSE team for further advice and support in the preparation for the resubmission to the future call
  • Any resubmission will be treated in the same way as new submissions
Overview

• What happens if your project is accepted?
  • Contracts set up
  • ARCHER project set up and CPU-hours awarded
  • Contact point established
  • Engagement with ARCHER community expected
• Reporting
  • Quarterly reports
  • Final report
  • [https://www.archer.ac.uk/community/eCSE/eCSE-reports.php](https://www.archer.ac.uk/community/eCSE/eCSE-reports.php)
• ARCHER webinar presented
• All projects are showcased on the ARCHER website
  • Subset of projects chosen for case studies
Questions?