RSEs across the world: Now in Australia

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On behalf of:

RSE Interim Steering Committee (https://github.com/rse-aunz/rse-au/)

ardc

RDS ands

nectar

Why Research Software Engineers

- Software is critical for modern research

- Researchers are not trained to write software

- Researchers who code well are rare

- But papers are the primary KPI in research

- Skilled people get stuck in temporary (postdoc) type jobs

- No recognition and no career pathway

History of RSEs ([rse.ac.uk](rse.ac.uk))

Mar 2012

The term **Research Software Engineer** is coined at the Collaborations Workshop.

Late 2012

The new model of Research Software Group is **launched at UCL**.

"The Research Software Engineer" paper published at Digital Research 2012.

Jan 2013

The Software Sustainability Institute begins its **campaign for recognition and reward** of Research Software Engineers.

Aug 2013

"Top Ten Reasons to be a Research Software Engineer" receives **4,000 views** on first day of publication.

Sep 2013

After nine months raising recognition of RSEs, a workshop is organised to bring them together.

A unanimous vote at the workshop leads to the formation of the UK RSE Association.

Early 2014

Launch of the **UK RSE Association**.

160 members of UK RSE Assocation attracted in first three months.

Late 2014

UK RSE Association becomes democratic.

Elections take place at first AGM.

Research Software Group founded at **University of Manchester**.

Jun 2015

The EPSRC's RSE Fellowship attracts **211 applications** for three fellowships on offer.

Late 2015

Research Software Groups founded at **University of Cambridge, University of Southampton** and **Francis Crick Institute.**

440 members of UK RSE Assocation

Early 2016

Research Software Group founded at **University of Sheffield**.

Mid 2016

Invitations to speak about UK's RSE work to Canada and US.

"Top Ten Reasons to be a Research Software Engineer" hits **20,000 views**

Sep 2016

First RSE Conference sells out months in advance and attracts **202 attendees** from **14 countries**.

Election of new committee to run UK RSE Association.

Late 2016

Research Software Group founded at **Alan Turing Institute**.

735 members of UK RSE Assocation.

First survey of RSEs in UK (2016)

State of the Nation Report — https://zenodo.org/record/495360

Research Software Engineers: State of the Nation Report 2017

Most research would be impossible without software, and this reliance is forcing a rethink of the skills needed in a *traditional* research group. With the emergence of software as the pre-eminent research tool used across all disciplines, comes the realisation that a significant majority of results are based, ultimately, on the skill of the experts who design and build that software.

The UK has led the world in supporting a new role in academia: the *Research Software Engineer* (RSE). This report describes the new expert community that has flourished in UK research, details the successes that have been achieved, and the barriers that prevent further progress.

Naming is difficult

- RSE-type roles have existed for a long time

- The name RSE was coined in the UK as umbrella term for a huge diversity of roles

- The unified name served as a catalyst

- Using the term RSE provides the international context

Background: The Australian Context

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Who am I?

- Computational Astrophysicist (postdoc)

- Write lots of code but not nearly enough papers

- Position title now Senior Research Software Scientist

- Initiated the contact with UK RSE in July 2017 (with encouragement from Michelle Barker, ARDC)
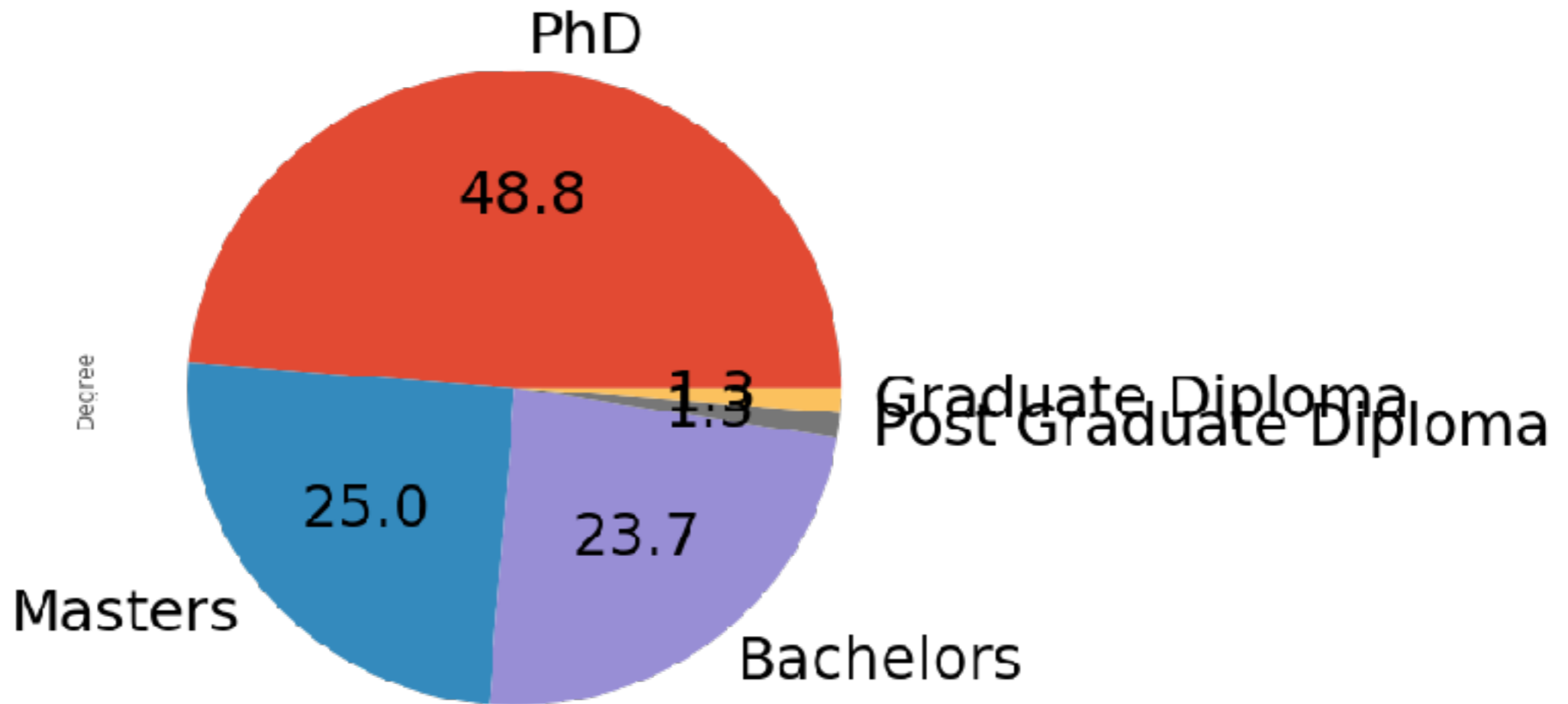
Are you an RSE?

- Are you employed to develop software for research?
- Are you spending more time developing software than conducting research?
- Are you employed as a postdoctoral researcher, even though you predominantly work on software development?
- Are you the person who does computers in your research group?
- Are you sometimes not named on research papers despite playing a fundamental part in developing the software used to create them?
- Do you lack the metrics needed to progress your academic career, like papers and conference presentations, despite having made a significant contribution through software?
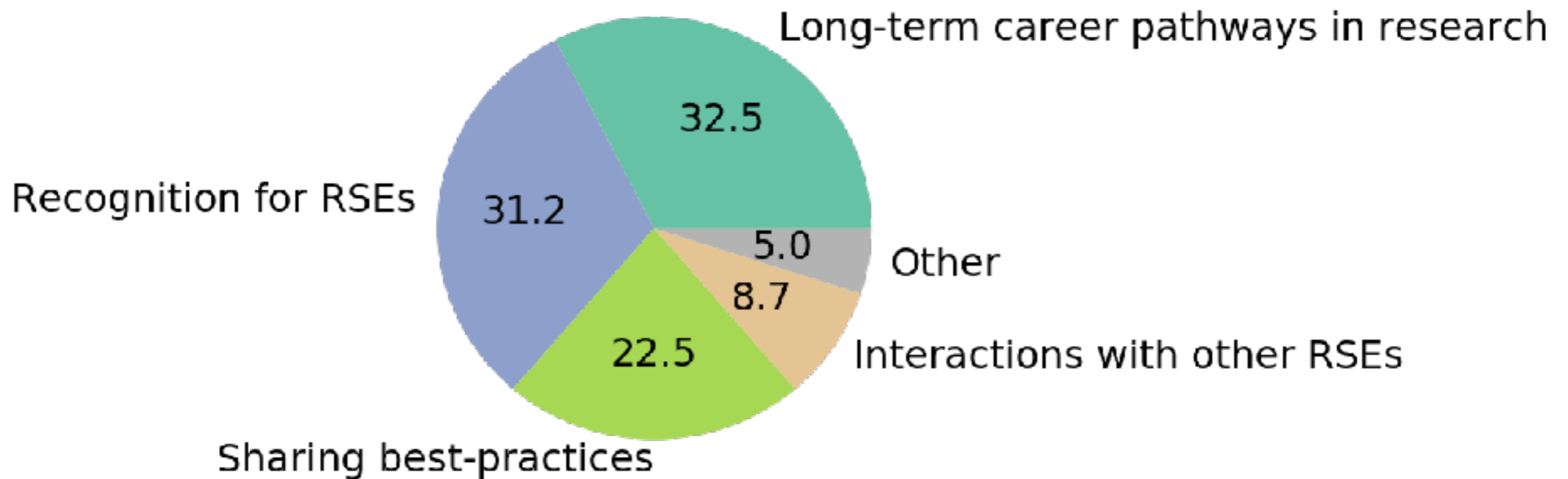
RSE Expression of Interest Survey

- Sent out on NZ and AU e-research mailing lists

- Various email exploders and workshops since

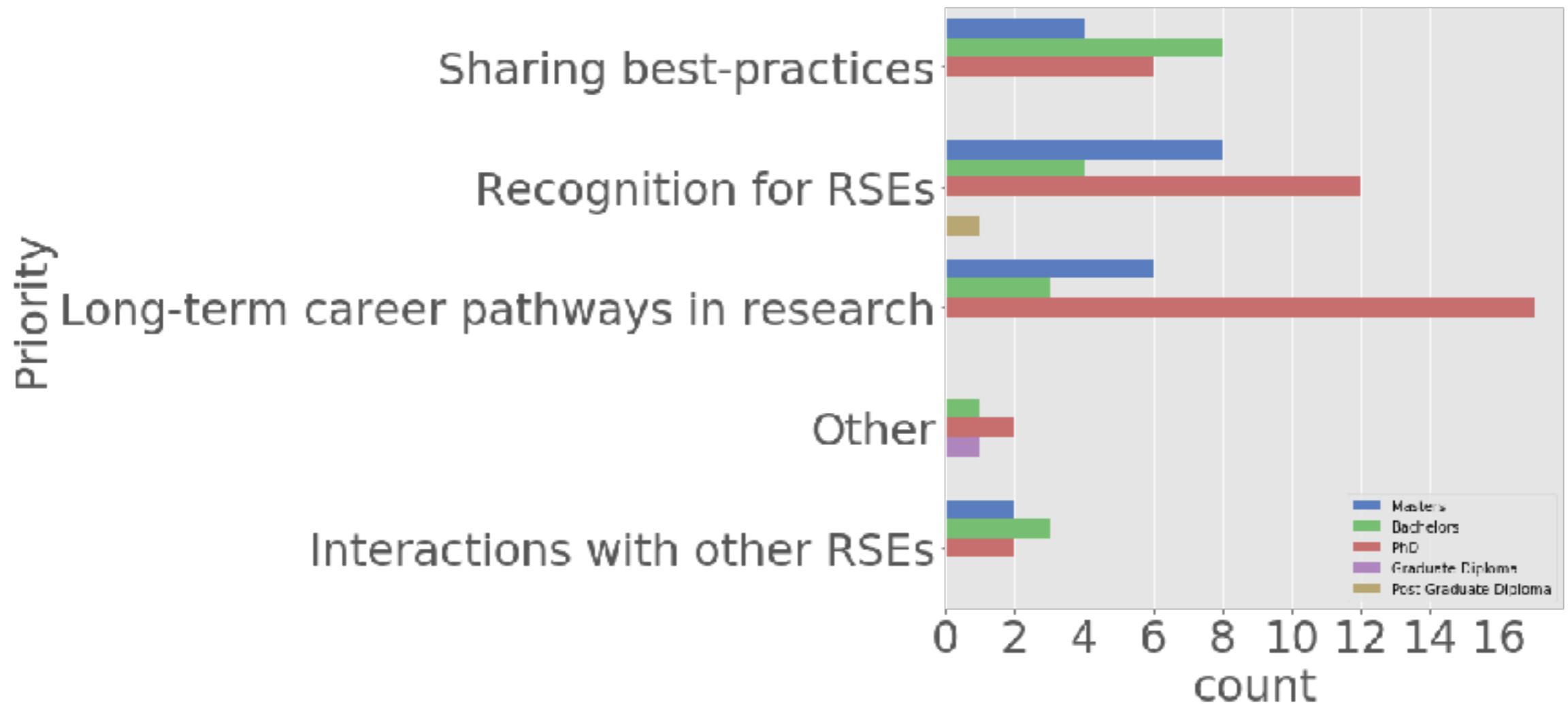- ~80 responses (16 NZ, 49 AU, rest ¯_(ツ)_/¯)

Highest Academic Degree (EOI)

Priority as a Community (EOI)

Priority as a Community and Degree (EOI)

The RSE story: 2017

- Round-table discussion at eRA 2017, WSSSPE 5.2

    - desire for local meetups, RSE events

Dr. Nick Hamilton

The RSE story: 2018

- 1-day workshop at eRA 2018

- Fledgling website: https://rse-aunz.github.io/

- Mailing list: rse-nz-au@googlegroups.com

- Interim RSE Steering Committee to promote and direct RSEs

What we want to achieve

- Build a diverse community of RSEs

- Increase awareness of the RSE role

- Organise RSE focussed events

- Advocate for RSEs

How we are going about our goals?

- Striving for full transparency: github.com/rse-aunz/rse-au

- Have an open conversation (via github issues)

- Goal is to have an elected Steering Committee in the next 6-12 months

- Continue to engage in local and national conversations

Immediate: RSE International Survey

- Run simultaneously across multiple nations (UK, USA, DE, NL, SA, AU, NZ)

- Adapting survey to Australian context (on github)

- Survey goes live on Sep 3, 2018 — please provide feedback

Current Australian Context

Michelle Barker

2018 AU Budget includes $390M for a Research Infrastructure Investment Strategy. ANDS/Nectar/RDS will get $72M over 5 years. Over the next 6 months or so, input will be sought to devise the strategy.

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Getting the RSE voice on the table

The International Context (rse.ac.uk)

- Established RSEs in UK, DE, NL, Nordic

- Efforts underway in USA (URSSI.us)

- International RSEs: http://researchsoftware.org/

- 3rd annual RSE Conference: September 3-4, in Birmingham, UK