



Research Technical Professionals Initiative

What are Research Technical Professionals (RTPs)?

BBSRC: “Research technicians and technology and skills specialists [who] have expert knowledge and technical competence in their field.” ...

data scientists, data engineers, archivists, informaticians, statisticians, software developers, audio-visual technologists, technical professional staff and individuals staffing core facilities, across all disciplines.

or alternatively:

“We’re a forgotten group of abused and misused individuals”

**Technology specialists who deliver
and accelerate high level research**



What are Research Technical Professional (RTPs)?

BBSRC identified several issues:

- jobs often blurred between technical and academic
- high skilled, specialist staff
- progression and career pathways ill-defined
- lack of up-to-date job description
- lack of performance related metrics



“technical staff should not remain the unsung heroes of research”

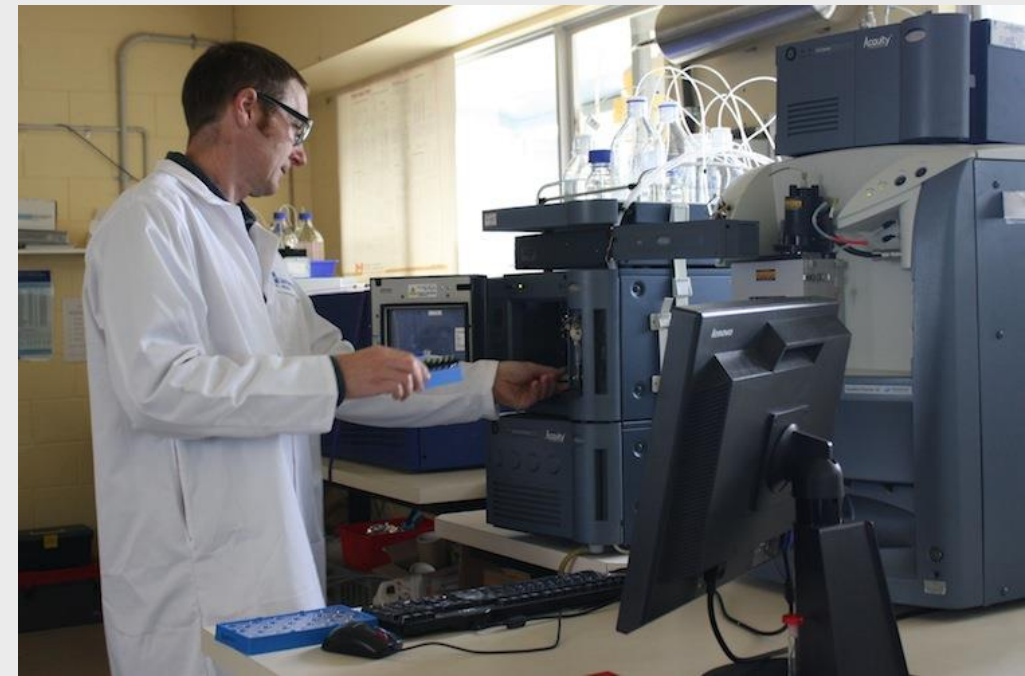
Key issues for RTPs: identity (‘technician’ a contentious term) and recognition

Extremely diverse group of people, with different roles and levels of expertise – no one size fits all

Why do we care?

Without RTPs the equipment/facility is just an expensive box.

They are part of the 'batteries'.



Key issues

The story of Dr. S

- Appointed as Experimental Officer (postdoc equivalent level) in Academic Related job family
- Aged 30 yrs
- 8 years previous experience in the pharmaceutical industry
- 1 year out on maternity leave – cover supplied by PDRA as an addition to their existing research
- Progressed slowly through grade, with no concrete plan for progression
- Regrading attempts failed due to lack of (HERA graded) comparators
- Encouraged to change to Technical and Experimental job family where ‘her contribution would be better recognised’
- Moved across, was then top of the grades, and required line manager to leave before progression possible
- Moved to back industry 7 years later, due to lack of recognition and progression



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The issues:

- No general understanding and recognition of her critical contribution to the research team
- Grouped with technicians which was not appropriate to her level of experience
- Inappropriate metrics to determine success and esteem
- No career progression pathway → impact on long term career prospects
- ‘isolated example’ → limited need for HR to act
→ Loss of key expertise to the HEI

Key issues

1. Identity – where do RTPs fit in?

Where do they fit in the structure re: job families?

Technical? Academic? Research? Academic Related? Professional Services?

(sometimes dependent on original funding model for position → career outcomes can simply depend on how the proposal is structured....)

Where do they fit in the structure re: pay grades and seniority?

Equivalent to teaching technician / Estates electrician?

Postdoc / team manager?

Professor / director?

Expertise and contribution is poorly understood and recognised → no recognition of parity of esteem, and no real job progression



Key issues

Difference between roles in the 'Research' and 'Technical' job families - The story of Institution M:

Research job family:

- Possibility, and expectation, of promotion-in-post
- No real glass ceiling for progression
- Individuals can be included on grant proposals, and thus evidence their contribution/income
- Funds available for conference/meeting attendance
- (Individuals can self certify holiday....)

But.... Some RTPs seen as incomplete academics/researchers

Technical job family:

- Limited possibility of promotion-in-post
- Low glass ceiling for progression
- Individuals generally costed in as 'pool technicians', at a lower grade than may be appropriate
- Very limited/discretionary funds for training, but none for conferences
- (Holidays need to be authorised by line manager)

Some RTPs seen as overqualified and over-aspirational technicians



Key issues

2. Recognition

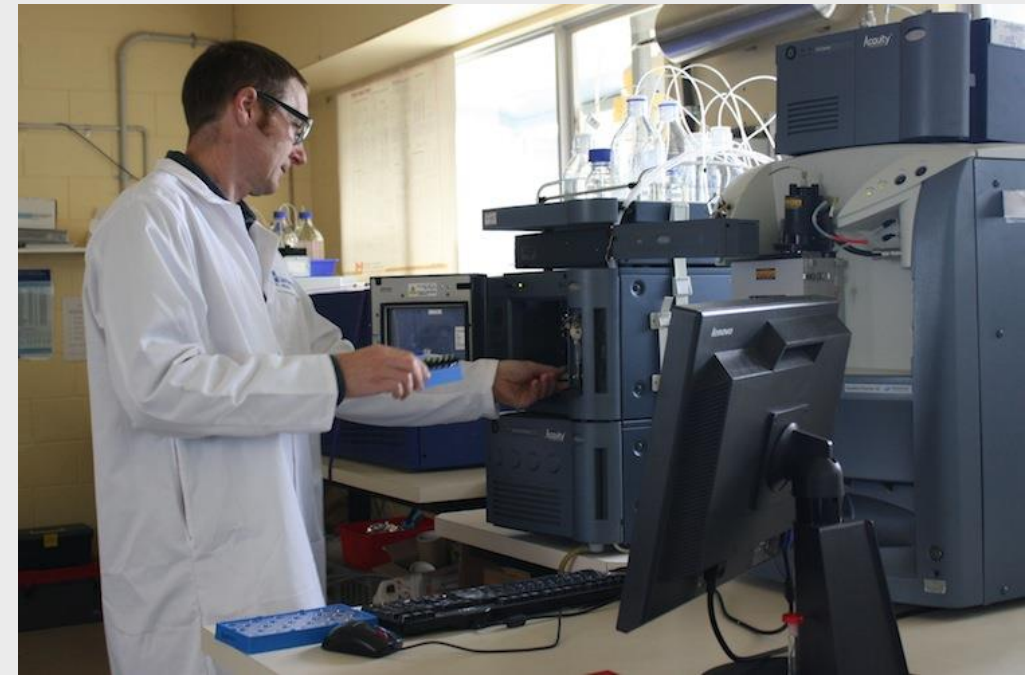
What do RTPs actually do? How are they valued, departmentally, centrally and nationally?

“(RTPs) are critical to operations, I couldn’t do my research without someone who actually knows how get the best out of the equipment”

“Do I really need to add those Pool Technician costs to my grant costings? It is really pushing up the price, and really I could do with some more consumables”

“Why do you want your name on my paper? It makes no difference to you as you could never use publications for promotions or REF anyway. Besides, you’re supposed to help me, it’s part of your job”

“This is a capital-only call, so we’ll just have to make do with existing staff resources if the funding comes in”



Key issues

2. Recognition

Even when RTPs are recognised and valued, what expectations are set for them?

What does 'excellent' look like in these roles?

- Grant income? Name on papers? Named collaborator? Citations?
- Technique specific teaching to undergraduates? Supervision of PhD students? Taking on project students?
- Happy users? % of users autonomously using equipment/facility after effective training?
- Work with industry? ISO accreditation? Impact studies?
- 80% up-time of equipment? Reduced engineering callout for repairs? Low charge out rates?
- Effective outreach activities? Presentations at conferences?
- Involvement in Professional Bodies and external committees?
- Role in instrument/technique development? Involvement with manufacturers?



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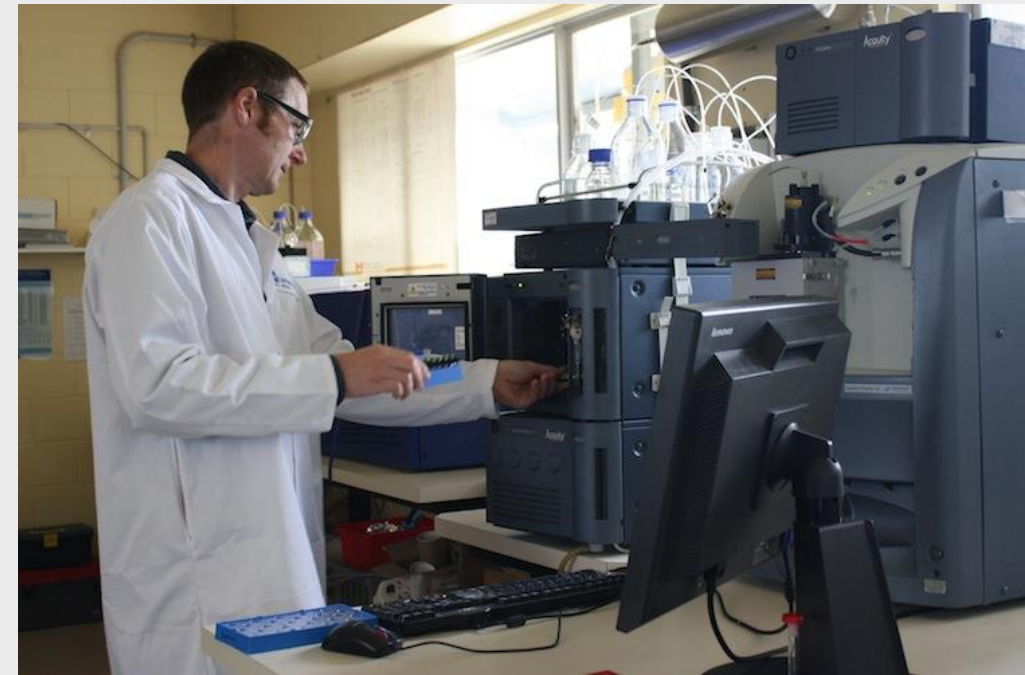
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Lack of recognition, career structure, progression opportunities, and parity of esteem

→

retention issues and skills shortage, particularly for home-grown expertise



Way forward

Need to change perceptions of RTPs

from:

“just the driver”

“just a technician”

“stop gap solution for Postdocs to use some of their skills before moving on”

“failed academics”

to:

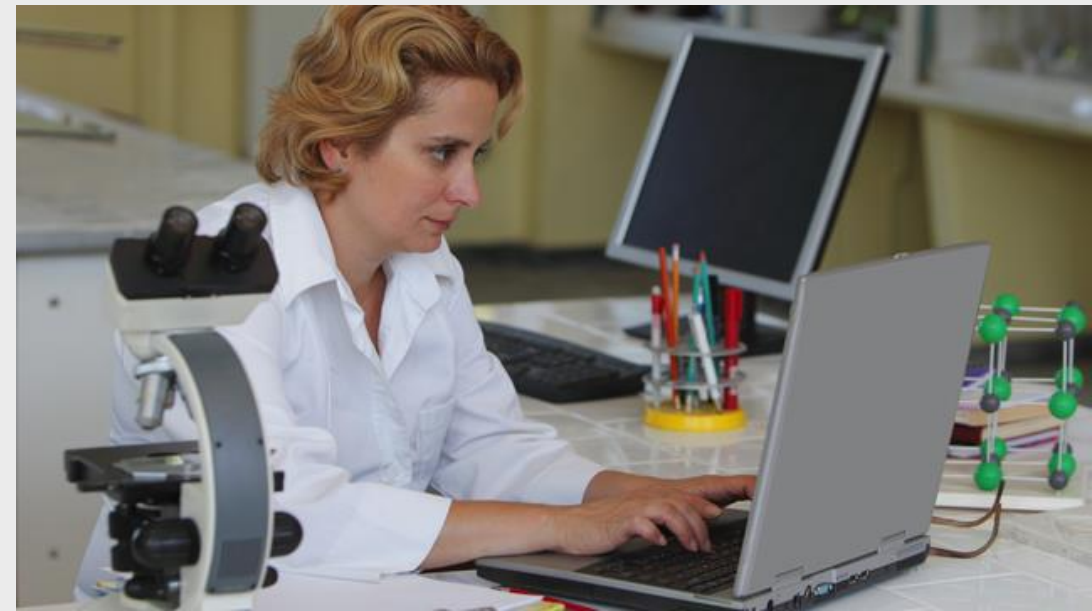
“critical part of the research team” with a parity of status and esteem to that of research staff



Way forward

Why do anything at all?

- Need to reduce decline in UK technical expertise
- Create recognised excellent working environment for retention, and recruitment of international RTPs
- Ensure sustainable management of assets and investments → better return on investments and increased research reputation



Way forward

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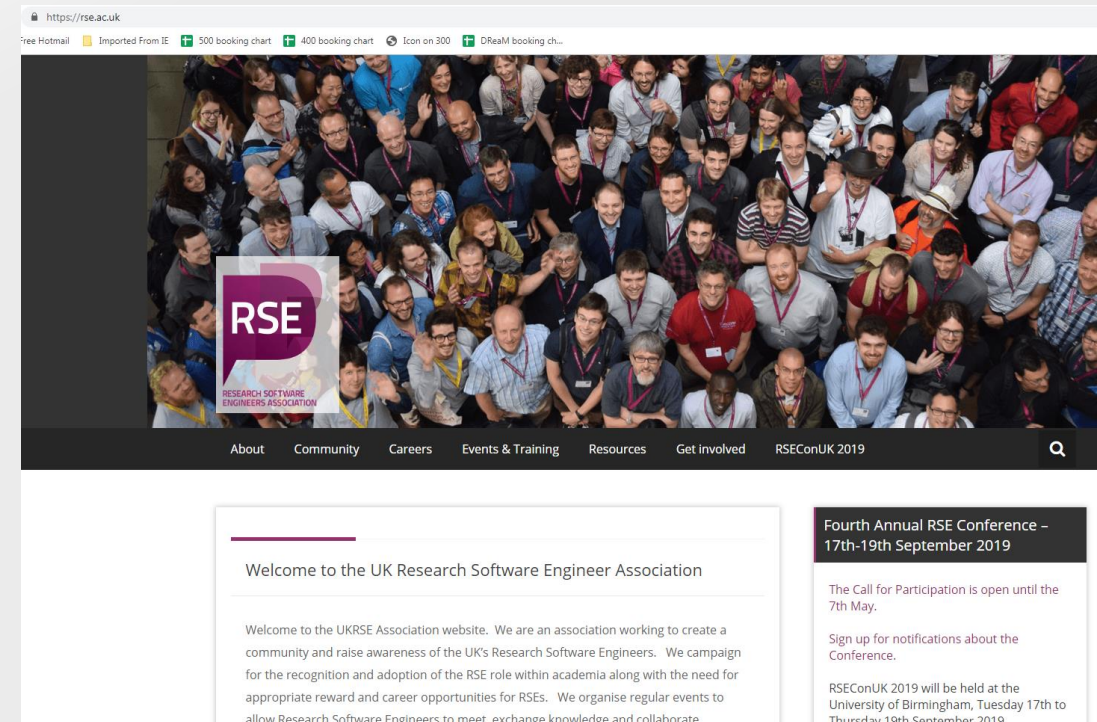
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Are RSEs a good model?

RSE network established in 2015 → improved identity and recognition

BUT – still no career progression structure, and very keen to engage with this discussion

<https://rse.ac.uk/>



The screenshot shows the homepage of the UK Research Software Engineer Association (RSE). The main visual is a large, diverse group of people, many wearing lanyards, representing the community. A purple speech bubble with 'RSE' and 'RESEARCH SOFTWARE ENGINEERS ASSOCIATION' is overlaid on the image. The website has a dark navigation bar with links for 'About', 'Community', 'Careers', 'Events & Training', 'Resources', 'Get involved', and 'RSEConUK 2019'. Below the navigation, there is a main content area with a heading 'Welcome to the UK Research Software Engineer Association' and a paragraph of introductory text. On the right side, there is a sidebar for the 'Fourth Annual RSE Conference - 17th-19th September 2019', which includes a call for participation and information about the event dates and location.

Way forward

Is the Technician Commitment the answer?

- No, very focussed on technician end of the spectrum, with little consideration for instrument experts/specialists
- 'technician' terminology not well received in broader RTP community

Is the BBSRC approach the way to go?

- Lessons can be learnt from their approach
- Recent progress slow
- But - Recent BBSRC equipment funding proposals required inclusivity statements and commitments for RTPs

e.g. **18ALERT** – mid-range equipment initiative

Research technical professionals

BBSRC recognises the value of technical expertise to the UK research workforce, hence provision of arrangements for professional development of technical and support staff will be assessed by the panel and will inform the final score. Applicants should detail how staff roles will support the equipment and detail how they will be supported in their careers. Please refer to the UK Research and Innovation statement of expectations for technology/skills specialists and see our page: Research technicians and technology and skills specialists.



Way forward

UKRI

- Expects universities to
 - recognise and value RTPs
 - establish clear career structures
 - provide transparent reward and recognition frameworks
- Expects research councils to
 - value RTPs
 - provide clear guidance on how to include RTPs in grants
 - ensure proposals are assessed accordingly



Way forward

EPSRC

- Has established an RTP working group to understand the distinction between the roles of RTPs, technicians and academics in the context of effective support for facilities, the Technician's Commitment and career progression, and to help ensure effective use of EPSRC investments in infrastructure through the support of well-qualified and supported RTPs.
- “Long-term ambition” to ensure that “recognition of the essential roles of RTPs and RSEs across all scales of infrastructure becomes business-as-usual in the laboratories we invest in”



Opportunities for change – Suggestions for Cultural change

- Help create a RTP identity and grouping → critical mass and momentum for change. Include a mentoring scheme to reduce the feeling of isolation?
- Acknowledge that different groupings will have different aspirations and needs
- Support and showcase several RTPs during their progression to senior roles, highlighting them as role models and advocates of the unique skill set and expertise they bring
- Work with RTPs wanting to progress to present their contributions appropriately in promotion cases
- Establish parity between value of research and equipment/infrastructure income
- Reverse 'no batteries included' approach to funding



Opportunities for change – Suggestions for Procedural changes

- Help create generic, job family neutral, job descriptions for different levels to enable progression and mobility
- Encourage adoption of good practices in progression for RTPs e.g. at Southampton where RTPs can be promoted to Professor-level as part of Innovation and Enterprise work-stream, or use of 'Professor of Practice' pathways
- Grant costing processes altered centrally and locally to allow (or make it easier) for RTPs above a certain level to be included as PI, Co-I, or named researcher
- Include details of individual RTPs in REF with appropriate metrics, or as critical part of the 'environment' section
- AthenaSwan at Silver level and above now includes all 'support staff' therefore could be used as carrot/stick





Research Technical Professionals

Discussion starters

- Are you aware of the RTP initiative?
- Are you are aware of initiatives to support technical professionals in your institution?
- What would you want to see your institution do to engage?
- What barriers do you see?
- What would represent success for us?

