



About this Newsletter

This is the third publication in the series of RIPSS updates. In this issue you will find:

- The outcomes of the 2nd Annual monitoring exercise
- An analysis of changes since the first exercise
- Progress on implementing RIPSS recommendations
- Examples of Good Practice

RECAP: The RIPSS Report

It might be useful to start this newsletter with a quick reminder of why the Department for Innovation, Universities and Skills (DIUS) is concerned about Sustainability.

In 2004, the Government published a report "PSREs and the Science Base"¹ ('the RIPSS report') which considered the conditions needed to provide a sustainable future for the research carried out in Public Sector Research Establishments (PSREs). The business of the PSREs varies enormously – from quantum physics to forestry research and human genetics. And the environment needed to sustain these programmes varies just as much – buildings might be farm buildings or Antarctic research stations: equipment might be linear accelerators or centrifuges. One thing they all have in common is the need to plan and provide for the changing needs of their research in a tight funding climate.

The 2004 RIPSS report found that the long-term sustainability of this part of the science base required a number of issues to be tackled including low cost recovery, complex lines of strategic responsibility and low investment in physical infrastructure. Twelve recommendations were made

covering government policy, actions needed by strategic partners and action needed by individual PSREs (these can be seen in full in the report).

What is Sustainability?

We discussed the definition and measurement of sustainability as part of the commentary on the first annual process in 2005. To repeat what was said then, we are really assessing the extent to which PSREs are stewarding their strategic research capacity for the future, in such a way that it can support their mission, or the requirements of their policy customers. To be sustainable, the research activities of the PSREs need either to be able to recover their full long-run economic costs (the FEC), or to have a policy customer who is willing to provide additional support (capital grants etc) to compensate for any "under-recovery" against FEC.

¹ <http://www.berr.gov.uk/files/file14578.pdf>

The 2006 Monitoring Exercise

The monitoring exercise for this second year followed a similar process to the first year – there were some slight amendments to the data requested and some consolidation of categories.

PSREs were asked to make an assessment of their sustainability indicated by traffic lights, following conversations with their relevant strategic partner, against four individual categories:

- Strategic Profile,
- Income Profile,
- Physical Infrastructure and
- Staff.

Additionally, PSREs were asked to provide assessments in two summary categories:

- Current Overall and
- Forward Look – taking into account the expected position in 3 to 5 years time.

As a reminder, the assessments were made with reference to the DIUS traffic light colours which are as follows:

GREEN	GOOD: Achieved <u>or</u> on track. Low risk to overall delivery
AMBER-GREEN	MIXED: Broadly on track. May need some additional action. Medium risk to overall delivery
AMBER-RED	PROBLEMATIC: Going off track. Significant corrective action needed. High risk to overall delivery
RED	HIGHLY PROBLEMATIC: Not achieved <u>or</u> clearly off track. Substantial and/or urgent corrective action needed. Very high risk to overall delivery

What the monitoring showed – the figures

There were 38 responses for the first annual monitoring survey (2005). For this year, 2006, we received 40 responses three of which were from new participants (one PSRE from the 2005 monitoring did not respond this year), which together account for approximately £1bn of UK government strategic research expenditure.

What the monitoring showed – the themes

As for last year, there are a few specific areas where there are well understood problems that are specific to the circumstances of individual PSREs. The incidence of 'Red' and most 'Amber Red' assessments in both overall and individual assessment categories arises from specific issues relating to change of organisational structure or affiliation with strategic partners.

There have been improvements in several areas, but these are particularly notable in the area of the PSRE *relationships with their strategic partner*. There has been work within some of the Research Councils on issues of governance which has contributed to PSREs' reporting positive improvements in understanding and commitments. Also, individual examples of developments in relationships with strategic partners are seen across a number of very different PSREs, and also in PSREs where relationships were previously considered to be good. What appears to be the case, however, is that for progress to be made, the lead has to be taken by the strategic partner – the PSRE is not always in a good position to lead on issues of partnership and governance.

Income remains a problem for many PSREs: either through changing patterns (from 'core' to 'programme' funding) or simply through

reduced opportunities or security. But for an equal number, 3 and 5 year agreements with strategic partners on funding, often through nationally agreed strategies, are providing certainty for planning.

The development and maintenance of the estates and assets for most PSREs is being increasingly linked with long term science strategies, leading to a significant number of PSREs undergoing new builds, disposal and relocations.

The availability and suitability of *human resources* remains a key issues for many PSREs, with the ability to attract and recruit key personal as highlighted issues. All PSREs have human resource strategies, linked in most cases to science strategies. Overall, this area appears as the category in which the sector has the least concern.

Key Points – What is contributing to improving sustainability?



Readers may have seen the 'Good Practice Guide'² we produced at the end of the first monitoring exercise. Although much has happened in 12 months the ideas, examples and experiences reported in that supplement are still as relevant today. That guide also included checklists for PSREs and their partners to use to help identify areas where good ideas might be relevant.

² <http://www.berr.gov.uk/files/file33150.pdf>

This year, PSREs again told us of many activities which they felt were contributing to improving their sustainability and shared some concerns about where barriers still existed or where issues were yet to be addressed. We thought it would be useful to share some of these points publicly, to allow experiences to be shared. We have anonymised quotes, where necessary.

Strategic Profile

In the monitoring exercise, this category covers several issues: governance; relationships with strategic partners; and how well the PSRE's activities 'fit' with government priorities. We had expected that there might have been many comments of 'no change' against last year but the PSREs told us of many activities which they were pursuing which were helping underpin their strategic position.

For some, there has been, or is currently taking place, a major change of direction: either in configuration, in activities or in locations. Key to the success of any of these changes is the part played by the strategic partner. Change of direction involves commitment – of time, funding and policy - by the strategic partner. Major change takes time and needs support through the process. There are several PSREs in our group which are working through some difficult issues which will take some time to resolve.

We were particularly struck by the concerted and continued work on strategic partnerships demonstrated by a couple of PSREs which, in the first round, put forward exemplars of partnership arrangements.

“Since the 2005 exercise, the relationship between (this PSRE) and our strategic partner, the CSA and his advisers has become more open and engaged, with increasing mutual understanding and positioning on strategic issues.”

To maintain best practice on governance and partnerships it may be necessary to challenge and affirm corporate arrangements. Another

PSRE articulated how they had formalised their previous arrangements in a framework documents with their strategic partner, which specified the aims of the partnership:

- **“(the PSRE’s) activities as commissioned by (the partner) lever the best possible impact on achieving (the partner’s) strategy, vision, mission and corporate plans;**
- **(the PSRE’s) capacity is used to the full;**
- **(the PSRE) is able to build a viable business providing high-quality science to both (the partner) and external customers; and**
- **Management overheads are reduced, while simplifying and strengthening planning and performance management”**



The Research Councils have made considerable progress in taking forward their agenda on governance arrangements and this shows through in the returns made by their PSREs expressing a clarity of vision on their futures.

Some PSREs reported the forging of new partnerships with other PSREs, both locally and globally, to take advantage of economies of scale locally and to advance their areas of science. We observed in many PSREs a determination to continue to look for these opportunities.

In the area of 'customer relations' we saw several positive moves. We reported last year on the use by some PSREs of focus groups and customers groups – more this year have taken

steps in either establishing or developing their existing groups. One PSRE reported that they are in the process of establishing an 'advisory group of customers', one step removed from their departmental funders. And another told us of how they were changing their processes in response to their customers' requests:

"In response to feedback from members and attendees (of customer group) there are now informal meetings, without the departmental chair present, as well as the formal quarterly meetings"

Income Profile

One new big theme on income (and expenditure) seems to have emerged this year and that is the difficulty of coping with unexpected changes in year. Some PSREs have seen cuts in funding within the financial year and others have been particularly affected by some key price rises, particularly fuel prices. There can be few organisations which would be able to cope seamlessly with in-year and short notice budget cuts or price rises, and this has been reflected in some challenging bottom lines.

But declining income from a strategic partner does not necessarily mean poorer relationships: PSREs are accepting that partners do change direction in line with policy priorities:

"(This PSRE) is clear about its strategic direction, having agreed a new Development Strategy (2007-13), based on 'smart growth' (in preference to retrenchment), to address an anticipated decline in R&D expenditure by its parent Department. (It) continues to enjoy very strong long-term support from its parent Department, with whom it has collaborated closely in the development of the new Strategy."

Several PSREs are facing a change in the 'style' of funding they receive from their strategic partners: a change from core funding to programme funding in several cases. Some PSREs are in the first year of a new funding arrangement, some are anticipating a change next year. Whilst there is

some concern from some over levels of funding, for most there is now confidence around the certainty and time period of their levels of funding which is an essential aid to planning. Those PSREs expressing the most concern appear to be those for whom their strategic partner's long term plans are not known.

No PSRE underestimates the challenge in maintaining sustainable levels of income. We saw evidence of an increased focus on consideration of income sustainability in this round of monitoring:

"The Board are aware of the need to build up reserves.... The strategy is proving successful thus far but there is still a need for continued focus on the bottom line."

The effects of the implementation of Full Economic Costing (FEC) continue to be welcomed but all recognise that the impact will take a number of years to have full effect. But even with that in mind, some PSREs are concerned that the principles are not always accepted in all quarters.

"In most cases we do not make full cost recovery, often because funders are not prepared to pay or the rules of the income stream do not provide for all overheads to be paid."

and

"However, the shortage of a wider customer base for strategic research that will provide 100% or greater overhead recovery will always put constraints on long term sustainability and investment."

Physical infrastructure

Many PSREs have major plans for investment and refurbishments, relocations and disposals. A very few do not have robust plans but we were convinced by one who expressed the view that until the science strategy is agreed with their partner, an estates plan would be a waste of time. This illustrated to us the key point that all of the PSRE's strategies need to develop



from, and be measured against, an agreed science strategy. Physical infrastructure is a means not an end, and the focus here should be as much about doing the right thing as about doing the thing right!

In general the PSREs thought that progress on estates plans was good. Some are facing month by month management challenges in consolidation strategies and others are considering difficult options. Progress on dealing with investment backlogs is on track for most but the PSREs are aware of the need to 'keep their eye on the ball'.

"The fact that we continue to make in-roads into the backlog is an indication of progress. It is however going to take time to ensure that we are operating a 'virtuous cycle' of investment that will ensure long term sustainability. We are also conscious that we remain susceptible to short term financial pressures which

have the potential to deflect from any potential to make headway on the sustainability agenda."

Staff

The PSREs reported that they have good staff data and are aware of their key concerns. Some continue to face day to day local difficulties in some areas of recruiting support and technical staff and some recognise their vulnerability in attracting their key scientific staff, and this concerns them. For all, the key is to take actions to protect their position, this being just one example of initiatives in place.

"Importantly we have increased the level of management resources that are needed to manage the very substantial changes ahead over the next 4 years. A new Career Track Fellowship scheme has also been initiated to bring on younger research talent from within the Institute and to recruit potential new research group leaders."

Overall Progress

What constitutes progress over the 12 month period since the last monitoring depends very much on the individual PSRE. Doing nothing would probably mean going backwards. Maintaining the current position would be good for a small group of PSREs who were already sustainable (very few could substantiate a score of green throughout). Improving sustainability in one key area would be good progress for most. And it is those who have made good progress, through the actions we've described above, that have scored themselves more highly in their overall conclusion this year than they did last year.

We wanted to share one success story for a PSRE moving from Amber Red to Green this year:

"(The Board) is extremely satisfied with progress over the past twelve months, which include the return to a positive balance sheet at the year end, the successful appointment of many international quality scientists, the award of (an agreed) core strategic programme for 5 years (guaranteed funding for 2 years, followed by assessment of the Spending Review) the completion of the estates refurbishment, and initiation of the (major equipment) replacement strategy."

The reader might contrast this with the assessment of another PSRE, demonstrably pursuing an equally challenging agenda:

"(This organisation) has made substantial progress in many areas in developing systems which improve sustainability. A full economic costing system has been developed, and awaits final validation. Corporate and Business plans are in place, which are supported by departmental strategies and objectives. A review of staffing has been undertaken and structural changes have taken place.

A strategy to renew and replace the estate is currently under review by (our partner) but because there remains uncertainty in this area, and because only now are customers beginning to be charged full economic cost, the overall assessment remains at red."

Although this organisation's 'raw score' in the assessments shows a great deal of concern, it hides the huge progress and optimism behind the front page. Progress for an individual PSRE is just that – individual.



Next Steps

As for the 2005 round of monitoring, the key use of the results for the DIUS is in contributing to its view of the strength of the UK science base, articulated in its July 2007 report on the progress of the Science and Innovation Investment Framework 2004-2014.

The DIUS intends to carry out a third annual monitoring round to be launched in the spring of 2008. The slight lengthening of the interval between rounds is intended to allow for consideration of CSR settlements to have taken place. It is likely that the format of the return requested for the 3rd round will be similar in content to this second round.

Progress Towards Implementing RIPSS Recommendations

These recommendations were made in the 2004 RIPSS report (“PSREs and the Science Base”). See http://www.ost.gov.uk/research/RIPSS_Full_Report.pdf for full text of recommendations. Recommendations 5 to 10 (of 12) are applicable specifically to PSREs and their parent bodies and strategic partners (other recommendations are relevant to government policy).

Issue number 2 (July 2006) of this newsletter provided a view of progress towards implementation by the PSREs contributing to the first monitoring exercise at that time. More progress has been made in the intervening 12 months.

RECOMMENDATION NUMBER AND TEXT		UPDATED PROGRESS TOWARDS ACHIEVEMENT
5	Between a PSRE and its owner/sponsor there should be an unambiguous statement of the allocation of responsibility for adequate capital and recurrent investment in research infrastructure and for bearing risk, and the arrangements for managing that risk.	PSREs and their strategic partners continue to make progress, some more quickly than others. Several long term initiatives by strategic partners have increased the certainty under which some PSREs are working but those PSREs who have not been able to make progress in this area are probably more at risk this year, than last. Whereas a lack of clarity last year was perhaps due to a late start in implementing recommendations by some, an absence of an agreed statement this year is more likely an indication of a strategic mismatch of expectations between the PSRE and the partner.
6	PSREs should increase their level of annual investment in asset maintenance, renewal and replacement towards norms now accepted for the university sector. The norm for buildings renewal and replacement is in the region of 4-5% of current replacement cost.	In the 12 month period since the last report we have seen differing examples of good progress being made: BBSRC and NERC institutes and centres are benefiting from a maintained commitment to invest specific funding for backlog maintenance programmes, which are now showing through in improvements of overall condition reports. Relocations and investment strategies have been agreed for some government agencies, and plans are being submitted for investment in some SEERAD sponsored organisations. However, there remain a few locations where funding constrains the month by month requirements for investment and another few where previous investment is still providing a high quality environment and asset base but where future investment is not yet secured.

RECOMMENDATION NUMBER AND TEXT	UPDATED PROGRESS TOWARDS ACHIEVEMENT
<p>7 PSREs should all have a forward-looking asset management and investment strategy linked to their future scientific strategy, and a plan for financing this. In most cases, financing will come at least partly from the parent and the strategy should be prepared jointly.</p>	<p>All PSREs now have the asset management and capital investment strategies envisaged by the RIPSS report. Issues of funding inevitably remain but no cases of lack of involvement of partners were seen. As this is an area where there needs to be ongoing dialogue between both sides, it is an indication of healthy relationships developing as a matter of course.</p>
<p>8 All PSREs should demonstrably recover full economic costs (FEC) over the whole of their activity (taking one year with another). FEC must include elements for infrastructure renewal and for the cost of capital.</p>	<p>There are now very few, possibly only one, PSRE in the monitoring process which does not have a fully audited and approved FEC methodology – the essential starting point for the implementation of this recommendation. Issues still remain over the ability of PSREs to move towards FEC in the shorter term.</p>
<p>9 It should be Government policy that public sector customers should pay the full economic cost for PSRE services, and should normally only accept proposals, bids and invoices from PSREs priced at full economic cost. Owners/sponsors of PSREs should be responsible for certifying that the method of calculating full economic costs in their PSREs is fair and reasonable. In this they should be accountable to the Treasury.</p>	<p>Since the publication of this original report in 2004 a significant sum has been made available to strategic partners to allow progress towards payment of FEC for research, but this will take several years for the benefits to be fully realised at PSREs.</p>
<p>10 Where funders do not pay full economic costs, the PSRE should make a specific and conscious decision about whether it is justified to subsidise or jointly fund the activity, and whether they have unallocated funds available for this purpose before taking on the work. Public funds should not be used to subsidise work for the private sector.</p>	<p>PSREs continue to develop an awareness of areas of work where recovery is at less than FEC and are increasingly taking decisions, to participate or to decline, on the basis on this knowledge</p>

PSRE – Key Facts and Figures

These few facts and figures help to illustrate the diversity of the group of PSREs covered in our Annual Monitoring. For the purposes of commercial interests, some of the PSREs cannot be named, but the statistics tell their own story

KEY FACT	STATISTIC
<p>Distribution of PSREs across the UK</p> <p>Number of PSREs located in:</p> <ul style="list-style-type: none"> Scotland 15 Northern Ireland 2 Wales 4 England 28 <p>Distribution of PSREs across the Regions</p> <p>Number of PSREs operating from more than one site 13 – at least, not including all small research stations</p> <p>Number of PSREs which work at/in the sea 7</p>	<p>As well as PSREs being distributed across all 4 countries, 8 of the 9 Regional Development Agencies are home to one or more PSRE, with the highest number being located in the East of England</p>
<p>Turnover figures (all sources of income), number of PSREs in group with:</p> <ul style="list-style-type: none"> < £10m 3 £10 - £20m 12 £20m - £40m 12 £40m - £100m 7 > £100 5 <p>Largest turnover £353m</p> <p>Smallest Turnover £6m</p>	
<p>Number of PSREs largely dependent on one source of funding (90% or more)</p>	<p>13 out of the 40 in group.</p>

KEY FACT	STATISTIC
<p>If not from the strategic partner, where else does the funding for research come from?</p>	<p>For a significant minority of the PSREs, strategic research is not the main source of income for the organisation. Some PSREs are also education providers (mostly postgraduate); most provide consultancy services; several are in the business of routine testing and surveillance; one or two receive income from visitors.</p> <p>But for Research funding, where the named strategic partner is not the only source of funding the other sources include: another strategic partner (eg BBSRC and Defra together); another government department or agency (eg the Food Standards Agency); the European Union through Framework Programme Funding; overseas governments (eg the US NIH) and private industry.</p>
<p>Employee figures:</p> <p>Number of employees in PSRE, (all activities), (where available)</p> <p style="padding-left: 40px;">100 – 400 400 – 1000 > 1000</p> <p>Largest number of employees (ftes)</p> <p>Smallest number of employees (ftes)</p>	<p><i>Number of PSREs:</i></p> <p>19 13 5</p> <p>3450</p> <p>118</p>
<p>'Oldest' PSRE in the group</p>	<p>We think that Rothamsted Research can trace its roots back the furthest – to 1843.</p>
<p>'Newest' PSRE in the group</p>	<p>Many of the PSREs have changed their governance through changes in their corporate structure in the last few years and some may appear to be 'new': but all have developed over decades, either as individual research organisations or as a part of a government department which then 'became' a PSRE in its own right.</p>
<p>Partner with the strategic responsibility for the most PSREs (in this group)</p>	<p>The BBSRC is the strategic partner for 7 PSREs in the survey. But, although 4 of the MRC PSREs appear in the list, there are another 20 + MRC Research centres which operate in the same way and with the same arrangements.</p>
<p>Strategic partner providing funding to the most PSREs (in this group)</p>	<p>Defra has a major involvement with the most PSREs: its four own PSREs; 5 of the BBSRC institutes; 1 of the NERC collaborative centres; the Met Office; and 2 of the PSREs in Scotland.</p>

PSREs Included in this 2nd Annual Monitoring

BBSRC Research Institutes

Babraham Institute
Institute for Animal Health
Institute of Food Research
Institute of Grassland and
Environmental Research
John Innes Centre
Roslin Institute
Rothamsted Research

CCLRC Facilities

Rutherford Appleton
Laboratory and
Daresbury Laboratory

NERC Research Institutes and Collaborative Centres

British Antarctic Survey
British Geological Survey
Centre for Ecology
and Hydrology
National Oceanography
Centre, Southampton
Plymouth Marine Laboratory
Proudman
Oceanographic Laboratory
Scottish Association for
Marine Science

Forestry Commission PSREs

Forest Research

MRC Research Institutes

Clinical Sciences Centre
Laboratory of
Molecular Biology
National Institute for
Medical Research (NIMR)
Human Genetics Unit
at Edinburgh

Department for Environment, Food and Rural Affairs Executive Agencies

Central Science Laboratory
Centre for Environment,
Fisheries and
Aquaculture Science
Veterinary
Laboratories Agency
Royal Botanic Gardens, Kew

Department for Innovation, Universities & Skills PSREs

National
Physical Laboratory

Department for Transport PSREs

Transport Research
Laboratory

Home Office PSREs

Forensic Science Service

Department for Business Enterprise & Regulatory Reform PSREs

UKAEA Culham

Health and Safety Executive PSREs

Health and Safety Laboratory

Ministry of Defence PSREs

Defence Science and
Technology Laboratory (Dstl)
Meteorological Office

Scottish Executive PSREs

Fisheries Research Services
Macaulay Land Use
Research Institute
Moredun Research Institute
Rowett Research Institute
Scottish Agricultural
Science Agency
Scottish Crop Research Institute
Scottish Agricultural College
Royal Botanic Gardens,
Edinburgh

Department for Agriculture and Rural Development, Northern Ireland

Agri-Food and
Biosciences Institute

