

STFC's Structural Problems

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Disproportionate impact of poor CSR07 settlement on science for which the STFC are sole custodians...

..cuts lead to negative press coverage of fundamental physics (on an apparent *annual* basis)...

..essential to tweak/overhaul STFC to avoid repeat performance in future. More physicists desperately needed for UK plc.

*Personal opinion, does not necessarily reflect view of Forum

Problems, what problems?

- 1) Exchange rate/NNI changes may inflate int'l subscriptions \Rightarrow squeeze on PPAN exploitation grants (unless bailed out by RCUK/BIS);
- 2) Tensioning of a small subset of UK science programme against national laboratories (RAL, DL) whose user communities are from other Research Councils;
- 3) Confused/conflicted agenda.
 - 1) Conflict of interest between running domestic facilities & subscribing to international facilities
 - 2) Are strategic priorities **S**cientific, **T**echnological or **F**acilities management at STFC?

Tweak STFC

- 1) Clearer distinction required between Facilities and Science Programmes. Risk from Regulatory Impact Assessment of CCLRC/PPARC merger: **“Funding may be diverted away from grants to support facilities management .. Universities could also be disadvantaged in favour of Gov’t facilities ”**

Achieved via division into separate STFC Facilities & Science Boards, following Wakeham Review of Physics recommendation: **“STFC be required at each CSR to bid for & allocate specific funds to former PPARC facilities & grant funding together. This would avoid the undesired tensioning of these grants & facilities support against national facilities & SIC’s ”**

Tweak STFC

- 2) Insulate international subscriptions from changes in exchange rate/NNI. Suggestion from Wakeham Review of Physics: “ **Met centrally from Treasury (analogous to the solution in many other countries) or making the payments in Euros or Swiss Francs out of receipts due to the UK in these currencies.**”

General ESA subscription **shifts** from STFC to new Space Agency. CERN/ESO to **remain** responsibility of STFC, since uniquely relate to PPAN community.

Core ESA Science budget & optional programmes could remain with STFC/NERC, unless of strategic importance to UK plc. Is primary UK involvement in e.g. Aurora for science or industry (EADS Astrium)?

National Laboratories

- 1) Diamond, ISIS, CLF are national facilities, of multi-disciplinary interest. Responsibility for National Laboratories (plus SIC's) could be **transferred** from STFC to RCUK. Costs top-sliced from Research Councils, charged according to recent usage.
- 2) ATC, other technology areas & former CCLRC subscriptions (ESRF, ILL) could **remain** within Science & Technology Research Council.
Decisions about domestic (e.g. DLS) versus international (e.g. ESRF) multi-disciplinary facilities taken by RCUK.

*Name change following example of Windscale ⇒ Sellafield

Science & Technology Research Council

STRC would resemble PPARC except that some (or all) space subscriptions transfer to Space Agency, albeit with technology/computational institutes & Nuclear Physics included.

- **Advantages:** PPAN facilities & grant giving powers administered within same organisation, allowing greater focus on *core science*. No further structural changes for PPAN community.
- **Disadvantages:** Viable? Limited 'clout' since small. Government could squeeze PPAN further, but no longer hide behind Treasury accounting methods (non-cash = depreciation of capital assets).

Astronomy, Physics & Engineering Research Council

Non-space, non-Laboratories components of STFC could be fully merged with EPSRC. APERC would include STFC technology division and control over PPAN-related subs & facilities.

- **Advantages:** Large Research Council, exploitation grants tensioned against physical science & eng. Includes PPAN facilities.
- **Disadvantages:** Lacks focus on core PPAN science in bids to Government. Primarily fixed-term, responsive grants (would need to permit rolling grants for PP experimental & astro instruments). *Another structural change, sigh..*

EPSRC (+ STFC grants)

Exploitation grants *could* be transferred to EPSRC.

- **Advantages:** PPAN exploitation grants not tensioned against facilities or subscriptions (need to ensure volume set at 07/08 levels, not 2010/11)
- **Disadvantages:** Lacks focus on core PPAN science in bids to Government. Separates PPAN science from experiments/instruments. Risks from Regulatory Impact Assessment of CCLRC/PPARC merger incl. **“ would fragment responsibilities for UK research in PP/astro/space.. disadvantage that the management of grants in these areas would be separated from the management of large facilities”** *Another structural change..*