

## **STFC Town Meeting City University. 13 Dec 2007**

This is a **rough** transcript of the meeting, based on real-time notes, lightly edited, taken by Norman McCubbin and Mike Green. Whilst we believe the main points made by speakers are captured reasonably accurately, this transcript should NOT be interpreted as a **verbatim** account of what individuals actually said.

14h30 >200 here. 'Panel' at front of room: Andrew Taylor (STFC/RAL), Keith Mason, Peter Warry, Jim Sadlier

### **Peter Warry (PW):**

Welcome to all. A few introductory remarks:

The CSR DID produce new money, but largely taken by fEC uplift and MRC. STFC got, in effect, 'flat cash'. DIUS WERE made aware of upcoming running costs for Diamond and Target Station 2 (TS2). It is the government's prerogative to set priorities.

STFC consultation: the timeline was very tight. Notification of settlement came through mid October, and deadline for submission of Delivery Plan (DP) to DIUS was due on 30 November. In fact the STFC submission was made on 10<sup>th</sup> December. There were 4 Council meetings between the settlement announcement and DP submission and many meetings with DIUS officials. (PW did see Denham+Pearson). So, the consultation was far from ideal, but the schedule was very tight.

There is an arcane but important detail of Government accounting that should be noted: restructuring costs can hit you twice: eg any redundancies planned for 2008/9 would have to be paid for both this year (2007/8) and again in 2008/9. For this, and other reasons, final decisions have not yet been made. Please bear with us.

### **14h37 Keith Mason (KM):**

STFC went public with DP as soon as was possible. However packaged, this settlement is not good news: it will require hard decisions and strong management. This is not the position KM wanted to be in a few months into the life of STFC, but we have to deal with it. There are surely lessons to be learned for future CSRs.

KM will discuss: Why are we in this hole? What we plan to do as far as it's known at this stage. Shape of programme for next 3 years. There will be damage both to the science programme and to careers. KM regrets that information couldn't be shared before now. But, as PW already mentioned, there was lots of hard work 'behind the scenes'. (Council meetings, DIUS etc.)

Why are we in this hole? The CSR was very good for science **as a whole**: 5% pa – cf many other govt. departments which got significantly less. But 5% => constant volume (2.5% inflation, 2.5% to get up to 80% fEC) And the distribution to the RCs favoured MRC rather strongly. Almost inevitable after Cooksey report, and high political and national priority attached to health, and hence every other RC has had a volume decrease. For STFC the settlement is in effect flat cash, after taking out allocations for fEC and SRS closure. No special increase for running costs of Diamond and TS2: these have to be absorbed within the budget. Plus have to absorb fluctuations (up to £6M pa) of intn'l subs. Plus Shared Service Centre (SSC). It all adds up to £80M squeeze on rest of programme.

Council looked hard at all these 'new' costs.

Myths and rumours:

Diamond and TS2 running costs/ overruns? No! Both Diamond and TS2 capital projects have been (or are about to be ) delivered on time and on budget. Operating costs: correct estimates were made in 2003, and have not changed since. And STFC did NOT forget to put these into the bid! SSC: we could opt out of this now, but SSC money would just be taken away. (And SSC is a good thing: it will free up money for science in due course.)

Was cost/impact of this STFC settlement made clear to DIUS: YES! DIUS made decisions in full knowledge of likely impact.

So, we have to live with it. Allocations won't change until next CSR. What would have happened if we were still separate CCLRC and PPARC? Unanswerable, imponderable, etc. KM doesn't want to speculate, though he feels that PPARC and CCLRC would have been presented with roughly similar problems to the one faced now by STFC. KM recalls warning at the time of the previous CSR settlement that another flat cash settlement would mean that the protection of Grants would not be sustainable.

How to respond? Council established 4 principles. KM read them out. (They're in the DP)

- provide access to world class facilities and infrastructure both internationally and nationally which will sustain the UK's scientific competitiveness across the science and engineering base; and provide key underpinning technologies and expertise which will enable advances in science and technology transfer;
- support a healthy and vibrant university community to develop and exploit these facilities and technologies, enable multi-disciplinary programmes and sustain the health of disciplines in the university sector;
- engage with European and global partners in developing shared strategies on how to achieve timely and affordable investment in large scale facilities and hence increase the UK's international impact and credibility;
- contribute to increased economic impact particularly through the development of the Harwell and Daresbury Science and Innovation Campuses. These Campuses will, through public and private sector investment, create an environment and act as hubs for high added value knowledge exchange between universities, industry, and our national laboratories.

Council also agreed to find £120M in total savings in order to have some contingency in a plan that is aggressive and risky, and to allow some headroom for items that are not in the 'core' programme right now and for new ideas.

KM does not anticipate next CSR will be any better. Next time 'flat cash' might be a very good result. It would be foolish to expect lots more next time.

Value added to economy ('economic impact') is a MUST, and must be quantified to Govt. This is the only way we will get extra investment (from Govt).

So, hard choices are inevitable, but must do properly the things that we decide to do. Can't spread jam ever more thinly

In-house (=RAL, Daresbury (DL), ATC) research staff: must be re-structured, and focused on core business and skills. This will have to be done ruthlessly. Criterion must be making a 'real difference', not just a 'useful contribution'. Must attract more private sector investment, into laboratories in particular. In any case diverse sources of funding will be good for science.

Programme priorities: (discussed by Council and STFC advisory structure)

Highest priorities (but not inviolate): Diamond, ISIS, LHC, Central Laser Facility (CLF).

Next highest: ALMA and SCUBA-2.

But will have to stop Gemini (South only, we hope), Solar Terrestrial Physics (STP) (already flagged at last programmatic review/CSR), 4GLS/Sapphire (need a new approach), ILC (not “timely or affordable”).

We will consider bid back against results of Programmatic Review: emphasis will be on future potential. Examples of candidates (not in core and hence candidates for buy-back) UKIRT, Dark Energy survey, Gravitational waves, LHC upgrades,...

Cut on Grants cannot be avoided. Target reduction of ~25% by end of CSR. (Will depend on savings in other areas: could be less, but could be more.)

Restructuring of in-house activities: aggressive programme of savings:

By end of CSR: RAL £12M pa , DL £6.7M pa , ATC £3.7M pa , Swindon Office £0.4M

How to achieve these in-house savings? Combination of redundancy, efficiency savings, ‘external’ (=non-STFC) income. Details need to be worked out.

DL: we are not backing away from DL Campus. DL campus has been a big success and is a big opportunity. Focus on sustaining key technologies: eg computing science, Accelerator R+D,... DL is a model for the future: collaborative ventures with NWDA etc.

Harwell Campus (=RAL): very large opportunity: focus on core facility operations and looking at new Technology Centres for the Campus. Negotiation with Joint Venture company in advanced stage. This is the kind of development that can impress on Treasury how important we are in terms of economic impact.

ATC: need alternative business model.

Swindon Office: look for efficiency savings over and above those that will follow from the SSC.

Several internal processes going on to understand costs, possible synergies, key skills and competencies. MUST reduce capacity in programmes no longer needed. Culture change: no need for us to do things that are done elsewhere. We must add real value.

There are significant risks in this programme. It is very aggressive and on a short timescale. Some savings depend on intn’l negotiations. In-house restructuring: even the feasibility will take some time (months) to establish.

However, action must be taken NOW. Don’t have luxury of delay. Aim is to generate underspend this FY of £20M. Voluntary redundancies (for RAL, DL, ATC, Swindon?) call about to be announced.

Peroration:

Despite all these problems, the overall, big picture is positive. This Govt IS interested in science. Nobody sorer than KM about present situation. We all recognise the damage that will be done. But we have no option. Have to move forward. Deliver etc. The original motivation and vision for STFC still stands... etc.

We have some of the world’s best facilities. Very sound core programme. If you can make a scientific case, this Govt will listen. Note that STFC now underpins the whole range of UK

science. Must broaden approach: think in an interdisciplinary way. There are huge opportunities here.

Need to deliver underpinning technologies: 'pure' science and wealth creation go hand-in-hand. They are not separate or either/or.

Making the campuses work will be a cast-iron demonstration of our enduring economic impact. Experience at DL and internationally is that this approach (attracting inward investment into campuses) works. Govt science priorities are clear. We cannot survive another 'flat cash' situation by time of next CSR: would have to decrease breadth and volume of research.

15h27 Q+A

**Michael Rowan Robinson:** Helpful to have info/picture today. Pain is falling across whole programme. £80M is ~7% (NMcC: of 'resource' funding.) Cut of 25% in Grants looks startling and disproportionate. How is this consistent with maintaining effective use of intn'l subscriptions? To community it looks like paying for Diamond is coming out of Grants.

**PW:** not sure about questioner's arithmetic.

**KM:** also NNI variation of intn'l subs. KM feels this is something we should ask Wakeham review to look at. In general we should stop complaining and work with Wakeham. Intn'l subscriptions is an example of a 'structural problem': UK economy improves, but we do less science! Similarly, Large Facilities Capital Fund (LFCF) is a great mechanism, and we get special long-term dispensation from treasury in how to use it. BUT there's another structural problem because there's no mechanism for ensuring running costs. Wakeham may be chance to input on this.

**PW:** Grants was most difficult for Council. Looked at very hard. Proposal is 'least bad' option.

**Someone (Leicester):** How we manage depends on phasing. Will there be retrospective cuts on existing Grants?

**KM:** There is a 25% cut on those grants being considered now. Will withdraw grants from activities we pull out of.

**George Estafthiou.** (Institute Astronomy, Cambridge)

Have already had problems with very late grant announcements: universities have had to provide bridging funds. This hurts projects. Eg Planck: launch next year: we should be building up staff strength, and are not doing so. Thinks STFC mechanism for processing grants was bad even before latest crisis.

**KM:** have huge sympathy with problem... has suffered himself. There have been technical hiccups, new systems, software etc. But also delays caused because the money required has not always been available immediately. Remember: grants have been protected so far.

**Roger Davies (Oxford):** This is a grave situation. How does this Delivery Plan improve our intn'l credibility? It completely undermines STFC position in several ways.

Surely operation of Diamond should be a top priority. So why would Govt not fund this, without devastating PP and A?? How does DIUS make this kind of decision? How can we influence DIUS?

**KM :** Can't speak for DIUS...but some 'best guess' comments: It's a difficult process for DIUS too. DISU has to make difficult decisions against priorities. DIUS doesn't want to spread jam too thinly.. they've made the tough decisions. Eg that we (STFC) must absorb running costs.

As for influence: we have to come top of priority/pecking order. MRC came top this time.

Answer (for us) is economic impact. Need to articulate our economic impact case very clearly.

**Ken Long (Imperial):** There is much talk in DP and other documents of opportunities. In its Science and Innovation Framework 2004-2014 document Govt states wish for UK to host intn'l

facility. STFC expresses this hope too. What are examples of the sort of facility we can hope to host?

**KM:** HYPER

**Andrew Taylor :** On operating costs: we must crack this ‘structural’ problem.

**KM:** If this problem isn’t solved, KM won’t agree start any new capital project.

**Ken Long:** we need to establish a track record, credibility, make UK ‘obvious place’ to invest.

**KM:** Yes, absolutely. We need hard-nosed numbers (that Treasury will believe) for benefits of hosting intn’l facility.

**Fletcher (Glasgow):** 25% cuts will be decided on new priorities? Will STFC allow some flexibility... (didn’t quite get this...)

**KM:** Yes.. will try to make this as smooth as possible.

**Peter Watkins (Birmingham):** How was peer review process used to make the scientific decisions in the DP?

**KM:** we used the advisory structure as much as we could, as openly as possible, etc etc

**Francesco Diego (UCL):** Stepping back a little: there is a real problem of a lack of proper ‘outreach’ in its most general sense, particularly to Govt. This is a major fault of the past and a key lesson for the future. Public supports blue-skies research, but Govt seems not to. We should talk more about the cultural value of science.

**KM:** 100% agrees. STFC aim is to increase public understanding, but this also relies very much on efforts made by the community.

**Mike Green (RHUL):** For rather a long time there was not much in the way of hard facts, and so inevitably there were lots of rumours and stories. You said DIUS officials were fully informed. But were Ministers? Eg Denham? Some very late changes took place, eg. Wakeham review. Also: KM says allocations to RCs are not going to change. But there was a story of 5M pa from LFCF?? So there is something still to play for.

**PW:** We can’t comment on what ministers might or might not have known; improper etc

**KM:** extra 5M: only partially true. DIUS work very closely with us. DIUS were very clear there’s no more money, but it is true DIUS did find a possible way to change 5M from STFC Capital to Resource. The allocation is reprofiled over the CSR to help with redundancies.

**Mike Green:** Why give up?

**KM:** we’re not... there’s still high risk and detail etc to be worked out. But, we can’t expect a large extra cheque.

**Jon Butterworth (UCL):** To clarify PAPAN’s role: PAPAN was consulted very quickly on a series of ‘catastrophic’ options. It was definitively not a full, proper scientific assessment of those options. Why do scientific decisions have to be made for announcement in the Delivery Plan?

**KM:** Well along with all other pressures, there is also the need to get grants announced. On Gemini: there was a constraint imposed by the need to give notice in time for a Gemini meeting. The ILC: was discussed by Science Board. Couldn’t make any other decision.

**David Miller (UCL):** Having worked for many years on ILC, I’m puzzled by the phrase lack of ‘practical path’ for ILC? What does this mean? Detector problems?

**KM:** It’s a combination of the 13B cost; Orbach comments, and the plan and timescales being worked to are not credible in any way, financial, political,... This is also the view from Council, and other international partners.

**Taj Panesor IoP:** Will 80% fEC cover facility costs?

**KM:** will need to look at this.

**Andrew Taylor** said something, but I didn't get it down....

**Ian Halliday (SUPA, former CE PPARC):** A Research Council is more than just money. Universities need to be able to plan with some confidence in long-term stability. For example, the UK ILC strategy was agreed (by PPARC Council, you, and Peter Warry) for long-term investment, planning. Where does this kind of policy jump leave the universities?? IanH is very worried about instabilities in universities that this might cause?? You are playing with fire! Note also that the ILC strategy was done in a very formal, organised way. It was a clear and deliberate attempt to place UK in position to lead. It was agreed at UK Minister level. The damage that will be caused by the ILC decision is therefore very real. Despite concerns about ILC costs and timescales, in Japan and US there is a presumption that the ILC will happen. IanH also very nervous about the 'tone' of the Delivery Plan. It's slash and burn. There's ~60M on the table in Scotland; IanH worried that this Delivery Plan will make that kind of additional funding less likely. (applause)

**KM:** Can't disagree with much of that... But very difficult situation etc.

(At which point NMCC had to leave to chair a (phone) meeting. Mike Green's notes takes over..)

**IanH:** ..Wakeham review is about physics, not STFC.

**KM:** It will also look at structural issues.

**Monica Grady (OU+Science Board):** 25% grants cut will be very painful. Will Fellowship Programme be protected? It provides future leaders.

**KM:** If we protect fellowships then grants will have to be hit harder. Advice to date is to protect studentships rather than fellowships. But will consult.

**Philip Lucas (Herts, UKIRT, I think):** On consultation, you need to rebuild the confidence of the community through the engagement of the communities, as in USA. For example, there is no advisory group on telescopes.

**KM:** The Programmatic Review is potentially the way to do this, under auspices of PPARC/PALS. That review takes input from user communities, but it could no doubt be improved.

**Keith McEwan (KCL):** Pleased to see facilities at top of priority list, but concerned that there may be a reduction in availability. Also concerned at withdrawal of facilities development grants, plus cuts in RAL staff and consequent impact on university users. Why was decision to close SRS early not implemented?

**KM:** hope is not to have to restrict access to ISIS, but nothing can be immune in this situation.

**PW:** On SRS, ministers were not minded to change the announced closure date.

**Someone from Antarctic Survey:** Not clear that the proposals to address environmental issues are the ones that will make an impact.

**KM:** Have to have discussion with NERC etc to make a joined-up programme.

**Phil Burrows (Oxford):** There seems to be a difference between the views of the advisory bodies and KM's views. Also there is a strong feeling that community has not been consulted adequately and decisions have been taken contrary to international views. Why do you feel you know better?

**KM:** Rejects this analysis. ILC decision has been brewing for 18 months, and Science Board has been consulted. KM regrets that people will be seriously affected, but that's life and KM is not backing away from this decision.

**PW:** Council took the ILC decision on the advice of Science Board.

**Jim Hough (Glasgow):** What will happen with studentships? Seen by Council as a very high priority.

**KM:** I haven't decided yet what to do about studentships, and I welcome your views.

**Jonas Rademaker (Bristol):** What is timescale for sacking PDRAs?

**KM:** That's a very practical question, and I don't know. Will look into it over the next few weeks and will talk to those involved.

**OU person (ISIS):** Maintaining and operating facilities must be at the front line.

**KM:** Agree, and will try to minimise effect of cuts, but there will still be some pain in high strategic areas.

**Neil Tapper (Leicester):** fEC: are there plans to discuss with Universities how they should use this money?

**KM:** fEC is a very good thing and there is now a lot of extra money going to universities. STFC will want to take account in the future of how this money is used: eg if fEC supports astronomy then STFC should ensure appropriate support for the corresponding facilities. It may be that fEC could support PDRAs whose jobs might otherwise be lost.

**Someone (Imperial):** Need to emphasise the long-term aspects of the economic impact of physics research. Govt. interest seems to be very short-term.

**KM** Broadly agree and we try to make this case. John Denham does appreciate it.

**Mark Lester (Leicester):** Why is Solar Terrestrial Physics (STP) being shut down?

**KM:** Note that it is only the ground-based facilities that are being closed. This is a decision actually taken some time ago, and nothing has changed. "I was bound to take the advice I was given."

**Tim Greenshaw (Liverpool):** How can we avoid this mess next time? The Govt supports physics. The Minister was apparently surprised at some of the decisions. Has there been a breakdown in communication between STFC and ministers?

**KM:** Ministers don't always see all the detail and there are sometimes unintended consequences of their decisions. STFC strives to keep ministers informed and has a very good relationship with DIUS officials. All this happened at the wrong time (???). They (DIUS) are an exceptionally good team and there has been a lot of dialogue.

**Mark Lancaster (UCL)** STFC was very near the bottom of the settlement league. So why did we do so badly if community is so good?

**KM:** The raw settlement numbers are misleading because of fEC. In one way of looking at it STFC did much better than others, except for MRC.

**Tom Marsh (Warwick):** Lots of decisions seem to have been made at last minute. Will we be consulted earlier next time?

**KM:** Can't reveal hand too early in CSR negotiations. Have to plan on basis of flat cash for future but will also bid for new things. Advisory structure will continue to be involved. You have to trust the people on the panels. They are admirable people, working hard.

On Gemini: the leak came from US. But who can defend Gemini South given our other facilities in the south? (At this point several hands shot up around the room.)

**Roger Davies (Oxford, angry):** How can you defend getting out of Gemini but sending robots to the moon?

**KM:** ... we did all we could do wrt Gemini.

**PW:** Thanks to all for coming etc etc.

17h10 END