REDACTED MINUTES OF THE 66TH MEETING OF STFC COUNCIL HELD AT
11:00 HRS ON 24 MARCH 2015, WALTON ROOMS,
THE COCKROFT INSTITUTE, DARESBURY LABORATORY, WARRINGTON

Council Members present: Sir Michael Sterling (Chair)
John Womersley (CEO)
Martin Barstow
Brian Bowsher
Gerard Connell
Marshall Davies
James Stirling
Ian Taylor
Richard Worswick

Apologies: Gill Ball
Dame Julia Goodfellow
David Price
Gordon Stewart (Executive Secretary to Council & Executive Director Corporate Services),

In Attendance: Rebecca Endean, (Director Research Base, Department for Business, Innovation & Skills (BIS)) – item 6 only, via telephone
Alison Davenport (Chair, Science Board)

Executive: Tim Bestwick (Executive Director Business & Innovation) – items 10-23
Grahame Blair (Executive Director Programmes)
Sharon Cosgrove (Executive Director Strategy, Performance & Communications),
Neil Phimister (Executive Director Finance)
Andrew Taylor (Executive Director National Laboratories),
Zena Davis (Minute Secretary)
INTRODUCTION

1. WELCOME AND OPENING COMMENTS

1.1 The Chair welcomed everyone to the meeting which was held at the Daresbury Laboratory.

2. INTRODUCTION

2.1 The Chair noted that this would be the last Council meeting for Martin Barstow, Marshall Davies and James Stirling. Their terms as members of STFC Council will come to an end on 31 March 2015.

2.2 The Chair informed Council that following the recent Council members’ recruitment exercise, there had been two successful candidates: Professor Carole Mundell (Astronomy) and Professor Jordan Nash (Particle Physics). Their membership of Council began 23 March 2015 and their first meeting will be 19 May 2015. Another recruitment exercise will be held within the next few months to fill the high performance computing Council vacancy.

2.3 Apologies were received from Gill Ball, Julia Goodfellow, David Price, Sharon Ellis and Gordon Stewart.

3. CONFLICT OF INTEREST

3.1 The Chair asked Council members to declare any conflicts of interest and reminded members to keep the Executive Secretary informed of any changes to their personal register of interests.

ITEMS FOR DISCUSSION

4. CEO REPORT - STFC(2015)1

TEXT FROM OF THIS SECTION HAS BEEN REDACTED: OFFICIAL SENSITIVE

John Womersley reported on STFC activities since the last meeting of Council in January 2015.

4.1 **GHOST (GreenHouse Observations of the Stratosphere and Troposphere) Instrument**

The GHOST instrument, designed and built at the UK ATC, successfully completed its first science flight mounted on an unmanned NASA Global Hawk aircraft on 26 February. The six hour engineering test flight took it over the Mohave Desert and Sequoia National Park in California. The first science flights were successfully completed in early March.

4.2 **Space Instrumentation**

The new Sea and Land Surface Temperature Radiometer (SLSTR) has arrived at RAL for thermal vacuum and radiometric testing prior to its launch this autumn. This is the first of four instruments that collect operational, highly accurate sea surface temperature measurements for the EU until post 2025. It is also the first in a series of Copernicus and MetOP SG sensors to be calibrated at RAL.
4.3 **Scientific Computing**
The Collaborative Computational Project 4 (CCP4) is going strong after 35 years. Version 6.5 of the software suite for macromolecular crystallography was released in December 2014 and a CCP4 Study Weekend on ‘Advances in Experimental Phasing’, was held in Nottingham in January, attracting 391 delegates.

4.4 **AIDA (Advanced Implantation Detector Array)**
AIDA, a state-of-the-art detector system for nuclear physics experiments, was developed to be a key instrument for NUSTAR at the FAIR Facility. The system was fully commissioned at Daresbury Laboratory. AIDA was first installed at the RIKEN facility in Japan in April 2014. By February 2015, all the electronics channels operated very stably and the synchronisation of the AIDA data acquisition system has since been tested and found to work well with the data acquisition systems, AIDA is now considered ready for commissioning experiments and the team are confident that their first experiment will be scheduled sometime this year.

4.5 **New medical training facility at Daresbury Laboratory**
A unique medical training facility, the Medical Training and Research Laboratory, was opened on 2nd February by Graham Evans MP. The facility is a partnership between STFC, the University of Liverpool and the Royal Liverpool University Hospital. It is set to give hundreds of trainee medical physicists' hands-on experience with state-of-the-art medical scanners, resulting in better diagnostic services to patients.

4.6 **VELA (Versatile Electron Linear Accelerator)**
Greg Clark, Universities, Science and Cities Minister visited Daresbury Laboratory 26 February 2015 where he saw how recent investment in science is enabling STFC to work directly with industry and businesses to develop new products, stimulate growth and create jobs. As part of his visit, the Minister saw STFC’s newest accelerator technology, VELA, designed to enable industry to speed up the development of prototypes into market ready products.

4.7 **ISIS: “Secrets of India’s master sword-makers revealed”**
The skilled craftsmanship that produced pure, strong steel for Indian swords has been revealed in new tests carried out at ISIS. Scientists and conservationists from the UK and Italy teamed up to examine a 75cm-long, curved single-edged Indian sword that is more than 200 years old. The ISIS instruments were able to study the metal without needing to damage the sword.

4.8 **Organisational and Project News**

4.8.1 **Light Touch Review**
The work to identify those tasks that will transfer as part of the review to the Strategy, Planning and Communications (SPC) Directorate has taken longer than anticipated but the next phase is expected to progress quickly. The next phase aims to get the right people with the right skills in place and will involve the transfer of a small number of posts and the creation of some additional posts within both SPC and Programmes. Advertisements for the new posts will be appearing shortly and the staff affected by this will be contacted soon. This will ensure that SPC is properly resourced and ready to take up its new responsibilities on 1 June 2015.
4.9 Nurse Review

4.9.1 Council discussed the Nurse Review at its last meeting in January. The aim of the review is to ensure that the UK continues to support world-leading science, and invests public money in best way and explore how Research Councils can support research most effectively. Sir Paul Nurse is chairing an Advisory Group of eight leaders who bring expertise from research, academia and industry. The group met last week for the first time and has issued a call for evidence. A Reflections Group will provide input and context; this group has 17 members, including Nobel Laureates, International scientists, innovators and government advisers. Brian Bowsher noted that the review was also considering the potential eligibility for Research Council funding for organisations other than academia, such as government laboratories like NPL (of which he is Managing Director).

4.9.2 STFC is to input to a joint submission with other Councils via RCUK which will go to the Review Panel. Science Board has agreed to submit a response and has sought input from Advisory Panel Chairs, who may also put in submissions. STFC is also prepared to provide individual input if requested. The Review panel is beginning to ask for meetings with key Research Council contacts. Ian Taylor said that he will arrange for submission of input from the board of the Rainbow Seed Fund.

5. SCIENCE BOARD PRESENTATION & REPORT - STFC(2015)12

5.1 Alison Davenport gave a presentation to Council on recent STFC Science Highlights which focussed on the measurements of neutron-rich nuclei which give insight into astrophysical reaction processes - an experiment performed at the Radioactive Ion Beam Factory at RIKEN, Japan.

5.2 Science Board report
Alison reported on the most recent meeting of Science Board which took place 26-27 February 2015 at Daresbury Laboratory:

I. Deputy Chair – Science Board
Science Board congratulated Professor Dan Tovey, the Deputy Chair of Science Board, on his election as ATLAS Deputy Physics Coordinator with effect from 1st October 2015.

II. Project Peer Review Panel Reports
Science Board received reports from the Projects Peer Review Panel (PPRP). Science Board made a recommendation to the STFC Executive to fund the following projects: LUX-ZEPLIN Dark Matter Search; Large Synoptic Survey Telescope (LSST); UK Programme for the European Extremely Large Telescope (E-ELT).

III. Statement of Interest: ATLAS Upgrade
Science Board considered a Statement of Interest for Upgrading the ATLAS Experiment for the Luminosity Frontier at the LHC. Science Board noted that the upgrade was essential and invited submission of a full proposal for consideration by the PPRP.
IV. Facility Advisory Panel Chairs
As part of Science Board’s annual series of meetings with the chairs of its Advisory Panels, the Chairs of the Physical Sciences and Engineering Advisory Panel and the Life Sciences & Soft Materials Advisory Panel joined the meeting to discuss recent activities. Science Board welcomed the involvement of the two advisory panels in the development of the STFC’s Free Electron Laser (FELs) strategy, which was currently ongoing.

V. UKSA (UK Space Agency)
In order to assess the importance of continuing support for long-term operations, UKSA has asked STFC to provide a scientific evaluation and ranking of six missions. An expert sub-group of Science Board will be established to undertake the review of proposals.

VI. Large Facilities Steering Group and Large Facilities Funding Model (LFSG & LFFM)
Science Board received an update from the Chair of the LFSG relating to the Science Requirements report. Science Board expressed its thanks to LFSG and its working groups for the report, which provided a balanced view across its communities. Science Board agreed that an expert sub-group of Science Board will evaluate options (with financial scenarios) that will be provided by the STFC Executive.

6. BIS UPDATE - Verbal

6.1 Rebecca Endean joined the meeting via telephone and updated Council on the following items:

i. Hartree Phase 3
   Work is on-going to finalise agreements with IBM in the hope that there can be an announcement before Purdah. Council agreed that thorough due diligence checks need to be made before there is any announcement, recognising that this may not allow an announcement to be made before Purdah. Rebecca explained that BIS is aware of this and fully accepts it.

ii. Pay – freedom and flexibility
   Part of the Chancellor of the Exchequer’s final Budget before May's general was a package of measures designed to improve flexibility for Research Council ‘institutes’ in relation to government restrictions on pay and commercial revenue, and an exemption from government spending controls for scientific computing. For STFC, the announcement mentions Harwell and Daresbury, and STFC has been told the measures apply to STFC science sites in general – including UK ATC.

iii. LFSG
   Implementation of the outcomes of the review of LFSG will be carried out by Hilary Reynolds, the new RCUK Executive Director.

iv. Comprehensive Spending Review (CSR)
   There is huge uncertainty about the timing of the next CSR because of the upcoming general election. BIS is meeting regularly with the Research Councils’ Chief Executives to discuss this.
v.  Nurse Review
   BIS had noted the call for evidence for input to the Nurse Review, but
   Rebecca said that she was unaware of the instruction that input from
   Research Councils was to be a joint response via RCUK.

7.  FINANCE UPDATE - - STFC(2015)13

TEXT FROM THIS SECTION HAS BEEN REDACTED: OFFICIAL SENSITIVE

7.1 Neil Phimister introduced the regular Finance update which outlined the
   2014/15 Financial Performance to 28th February, the 2014/15 Outturn
   Forecast, ISIS resourcing, a pay remit issue and the proposed new structure
   for the Large Facilities Steering Group (LFSG).

7.2 2014/15 Financial Performance
   The February position on actuals against budget is an overspend of £6.9M
   (2%) on Resource and an underspend of £5.5M (4%) on capital. The
   difference in Resource is largely accounted for by spend occurring earlier in
   the year than had been expected, rather than being due to unbudgeted
   costs. The capital variance arises partly from timing differences i.e. from
   expenditure occurring later than had been expected and partly due to the
   revised profiling into later years of part of the Higgs Building project

7.3 2014/15 Outturn Forecast
   Prior to the completion of the latest forecast round, an underspend of
   £3.0M, due to savings on Internationals, was declared to BIS. In order to
   achieve that forecast, the STFC Executive Board has recently approved
   additional expenditure of £0.6M, which will benefit the delivery of the STFC
   scientific programme.

7.4 ISIS resourcing
   In November 2014, Council approved the first tranche of proposed
   recruitment for ISIS to take the facility headcount to 395 Full Time
   Equivalent staff (FTEs). Any recruitment beyond this level was to be the
   subject of a further review in March 2015. The current ISIS headcount is
   366 which is short of the 395 intermediate target, therefore there is no
   immediate requirement to request that Council approve recruitment beyond
   this level. Future requests to increase headcount above the 395 FTE level
   will be presented to Council Finance Committee as the need arises.

7.6 Proposed new structure for LFSG
   Neil updated Council on the BIS proposals for altering the structure of the
   LFSG. The BIS Review recommends a two tier structure with a high level
   Large Facilities Advisory Board (Research Council CEO level or
   representatives with full delegation) to provide strategic advice and a Large
   Facilities Implementation Group (LFIG) to oversee the activities and budgets
   of the facilities. Council noted the proposal for management of the
   Facilities partition; whilst this would permit some welcome flexibility to
   STFC’s in-year financial management it may imply a higher degree of risk to
   the funding of the rest of STFC’s programmes. STFC plans to develop
   procedures for appropriate oversight of these revised partition
   arrangements with the new Council Finance Committee (see min.8). There
   will be a LFSG/LFIG transition meeting on 25th March 2015.

8.1 Council previously discussed and agreed that a Finance Committee be established as an advisory group reporting to Council. Marshall Davies presented Council with the proposed Terms of Reference for this committee. The committee is to consider proposals that carry financial exposure and risk and are subject to Council approval, including reviewing large project proposals and scrutinising productivity of the facilities.

8.2 Council agreed that the committee will not act in an executive capacity or be a decision-making body in its own right, nor will it assume responsibility on behalf of Council for financial assurance. The committee will provide advice and guidance to Council, but Council remains responsible as a whole for discharging its oversight responsibilities.

8.3 Council approved the Terms of Reference and agreed the membership as follows: Brian Bowsher (chair), Gill Ball, Gerard Connell and Marshall Davies as an independent member. There will also be one co-opted academic member from Council, that person to be agreed. Council agreed that the committee should begin work immediately.

[Minutes’ Secretary note: administrative support for the Finance Committee will be provided by the Council Secretariat]

9. WELCOME BACK AND OPENING COMMENTS

9.1 The Chair welcomed everyone back for the afternoon’s proceedings and thanked Peter Ratoff, Director Cockroft Institute, and Susan Smith, Head of Daresbury Laboratory for the lunchtime science poster display and presentations.

ITEMS FOR DECISION

10. i. MINUTES OF THE LAST MEETING - STFC(2015)15
    ii. MATTERS ARISING - STFC(2015)16

10.1 Council agreed that the minutes of the meeting held 27th January 2015 were a true record of that meeting. Council approved the redacted minutes for publication on the STFC website.

10.2 Council noted the matters arising and the progress recorded against each action.

11. LARGE SYNOPTIC SURVEY TELESCOPE (LSST) - STFC(2015)17

11.1 Grahame Blair introduced this item explaining that LSST is a US-led project to build a dedicated large survey telescope in Chile. The LSST is seeking international partners to fund operations in exchange for data rights, and a consortium from the UK community is asking STFC to lead such a partnership. Support is requested for a programme of work to enable UK participation in the LSST.

11.2 STFC need to sign a Memorandum of Agreement (MoA) with the LSST Corporation in the next months or risk losing the opportunity to other countries, who are also keen to join this world-leading facility. Science Board agreed with the recommendation that preparatory work should be funded and recommended that the LSST proposal be funded at a level of £17.7M, over ten years from 2015/16 including inflation and
contingency. Science Board also recommended that approval be given to negotiate a Memorandum of Agreement with the LSST Corporation.

11.3 Council approved STFC participation in LSST.

ITEMS FOR DISCUSSION (CONTINUED)

12. HARTREE PHASE 3

12.1 Tim Bestwick tabled a briefing paper outlining the background and current status of the Hartree Phase 3 project. He also tabled the BIS Business Case for the project.

12.2 There are two key activities relating to phase 3 of this project: the development and agreement of the collaborating agreement with IBM and the completion of a standard HMT business case for BIS. The business case has been developed and accepted by BIS, the collaboration agreement remains to be agreed.

12.3 Three of the key issues and risks for STFC are the ongoing liability, possible changes in strategic direction by IBM or STFC and possible changes in Government policy. Council asked if the investment of £115M was specifically ear-marked for this project and whether there was any possibility that the funding may be clawed back by a future Government. Tim said he would ask BIS this question.

Action: Tim Bestwick to enquire whether the Government funding for this project is guaranteed.

12.5 Council welcomed the aim of the collaboration and considered the Business Case presented to it for the collaboration and noted that negotiations of the collaboration agreement were well advanced. Council supported the proposal subject to contract and due diligence being completed, and authorised STFC management to oversee conclusion of the negotiation of the collaboration agreement and the due diligence review in relation to it. Council asked its Finance Committee to review the final version of the collaboration agreement and due diligence when ready, and to make a recommendation to Council regarding approval which, given the urgency conveyed by BIS and IBM, Council agreed may be done by correspondence.

Action: Council Finance Committee to review the final version of the collaboration agreement

13. CAPITAL INITIATIVES:

i. EUROPEAN X-RAY FREE ELECTRON LASER (XFEL) - STFC(2015)18

ii. UK-ESS BUSINESS CASE - STFC(2015)19

iii. ROSALIND FRANKLIN INSTITUTE - Verbal

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13.1 European X-Ray Free Electron Laser (XFEL) Council was given an update on the XFEL project. Grahame Blair introduced this item reminding Council that as part of the capital consultation exercise last year, the Government chose to re-engage with the European XFEL project as a way of providing access to a FEL and developing the community
in advance of a UK based FEL user facility. In November 2014 BIS requested a Business Case for the proposed re-engagement and in December 2014, the Government announced that it planned to invest up to £30M to become a full member of the European XFEL. STFC has had some informal discussions with the European XFEL management and their Council has invited the UK to be observers at their next Council meeting while negotiations continue.

13.3 **UK-ESS Business Case**
Andrew Taylor updated Council on the UK-ESS Business Case submission to BIS reminding Council that following the announcement by David Willetts in March 2014 that the UK would invest in the construction of the European Spallation Source (ESS) in Sweden, STFC was invited to prepare the business case for a £165M contribution. The original version of the business case went through Gateway review (Nov 2014), and BIS then requested re-formatting into a significantly shorter document.

13.4 Council noted the key risks associated with the project: total project cost over-run, which is a common risk for such large international projects and STFC has only limited control. However, the UK financial contribution will be strictly limited to £165M. There is also the risk of failing to recruit and retain sufficient skilled staff due to uncompetitive salaries within STFC.

13.5 A UK-ESS project board has been set up to oversee the selection and delivery of UK in-kind contributions. Andrew Taylor is chair of the board and membership includes Neil Phimister and representatives from BIS, STFC Science Board and the University sector.

13.6 **Rosalind Franklin Institute**
At the last meeting in January 2015, Council was informed of the proposal to establish a flagship National Institute focused on applying physics, chemistry and engineering to scientific challenges in Life Sciences at the Harwell Campus. BIS wrote to Oxford University asking for a Science Case to be developed and Professor Sir John Bell, Regius Professor of Medicine at Oxford University, met with Council in January where outlined the vision for this Institute. John Womersley updated Council on progress since the January Council meeting.

13.7 The proposed institute has been named as the **Rosalind Franklin Institute.** BIS has carried out a science review and has requested that a Business Case be drafted. STFC will assist in the drafting of this Business Case.

13.8 The institute will be an independent legal entity and will be based at the Harwell Campus. STFC hopes to have a seat on the institute’s board.

13.9 Further activities on the development of this institute are on hold until after the General Election in May.

14. **CORPORATE SERVICES DIVISION (CSD) CHANGE PROGRAMME: UPDATE**

14.1 Marshall Davies updated Council on the progress with the CSD Change Programme and reported that the new organisation structure for Estates is live and sections are starting to operate against the revised section remits. Work is progressing to develop the estates strategies, but due to resource availability this will not be complete by April 2015 as originally planned.
Much progress has been made recently to fill a number of senior vacancies under the new structure and the key post of change manager remains unfilled due to competitive market pressures which STFC has difficulty addressing under public sector constraints.

14.2 Council noted the slow progress and issues relating to Estates and asked for a list of progress-to-date (from the beginning of the programme) to be brought to Council.

Action: Gordon Stewart to provide a list of progress to date on changes to Estates


15.1 Tim Bestwick introduced this item explaining that Council was being asked to approve STFC’s participation in the option for the Harwell JV partnership to enter into a promotion/conditional purchase agreement for potential residential land with The Hendred Estate.

15.2 Harwell Oxford Management Ltd, as the Partnership's managers, are proposing that either the Partnership (HSIC) or Harwell Oxford Development (HOD), the private sector partner, should enter into a promotional / conditional purchase agreement with The Hendred Estate relating to the proposed residential land allocation to the north of the Harwell Campus. This issue was discussed at a meeting with BIS and with the Board of UKAEA and it was concluded that HSIC should be the contracting party.

15.3 STFC would acquire a right to participate in the planned future land development via HSIC should it choose to do so, for no cost to itself. Council agreed STFC should consent to the proposed arrangement, noting that STFC participation, along with that of UKAEA, ensures PubSP and HOD's financial incentives remain aligned.


16.1 Grahame Blair introduced the annual review of international subscriptions. Council was presented with Project Assurance Reports (PAR), a graphical representation of historical subscriptions and information on industrial return from CERN and ESO.

16.2 Council noted that a common issue is the difficulty being experienced by some European partners in continuing to pay their contributions in the current economic climate. STFC continues to work with the delegations of the other member states to limit such increases and maintain downward pressure on subscription costs. Council agreed that the report was very informative and helpful.

ITEMS FOR NOTING

17. AUDIT COMMITTEE REPORT - STFC(2015)23

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17.1 Marshall Davies gave a report of the 15th January 2015 Audit Committee meeting.
17.2 The key items of discussion included SHE Health & Safety, funding for new projects and the formation of the Finance Committee; the ILL Accounts; UK SBS assurance and the draft Internal Audit Plan 2015-16.

18. REMCO TERMS OF REFERENCE UPDATE - STFC(2015)24

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18.1 Marshall Davies introduced the revised Terms of Reference and associated delegations for the Remuneration Committee (RemCo). The revisions had been made following a recent senior staff case which highlighted the need for clearer guidance on the senior remuneration and grading issues on which RemCo approval is needed and on those aspects which could appropriately be delegated to the STFC CEO.

18.3 Council approved the revised RemCo Terms of Reference


19.1 The Chair introduced this item explaining that three members of Council are to step down as of 1st April 2015 (see min.2.1) and this will have an impact on the membership of the Audit Committee, the CSR Sub Group, the Change Programme Board and RemCo. As a result, Council was being asked for its approval for the proposed new membership for these committees.

19.2 Council approved the following membership for each Committee:

- **Audit Committee** - Gill Ball (Chair), Gerard Connell, David Noble and Angela Marshall.
- **CSD Change Programme Board** - Gerard Connell (Chair), Marshall Davies
- **Council CSR Sub Group** - David Price (Chair), Marshall Davies (Deputy Chair), Julia Goodfellow and Brian Bowsher
- **RemCo** - Gerard Connell (Chair), Gill Ball and Marshall Davies

Marshall Davies will become an independent member of the CSD Change Programme Board, the CSR sub-group and RemCo after he steps down from Council on 31st March 2015.

20. SHE Q3 REPORT - STFC(2015)26

20.1 Marshall Davies introduced the Q3 SHE report and Council noted that at the three quarter year mark, all injury performance is consistent with STFC’s previous best performance.

20.2 Council said that it would like to see data on the numbers of SHE incidents benchmarked against other similar organisations, or, figures on number of hours worked against the number of SHE incidents.

*Action: Gordon Stewart to investigate the possibility of providing additional comparative data.*

21 ANY OTHER BUSINESS (AOB)

22.1 Neil Phimister informed Council that each public sector organisation is required to establish governance arrangements appropriate to its business, scale and culture and this structure should combine efficient decision making with accountability and transparency. STFC has developed and will keep up to date a Scheme of Delegation which covers financial and non-financial responsibilities and provides clarity as to where decisions can be taken.

22.2 Council noted and approved the Scheme of Delegation.

23. **MEETING CLOSE**

23.1 The Chair and Council members thanked Martin Barstow, Marshall Davies and James Stirling for their excellent contribution to STFC Council and wished them well for the future.

23.2 Chairman thanked everyone for their contributions to the meeting and reminded members that the next Council meeting will take place at RAL on 19th May 2015.

23.3 Chairman brought the meeting to a close.