MINUTES OF THE EIGHTH MEETING OF STFC COUNCIL HELD ON
16 JULY 2019 AT DARESBURY LABORATORY

Attendees

Council Members:
Mark Thomson (Executive Chair) - MAT
Richard Kenway (Senior Independent member) - RK
Isabelle Baraffe – IB
Mike Dunne- MD
Dick Elsy - DE
Karen Holford - KH
Anu Ojha - AO
Sheila Rowan - SR
David Rugg – DR
Tony Ryan-TR
Frances Saunders-FS

Apologies:
Isabelle Baraffe

In Attendance:
Ruth Elliot- RE, Finance & Commercial Director, UKRI
Jayne Lawrence- Chair, STFC Science Board
Alison Kennedy-AK and Kate Ronayne- KR (Item 5)
Dave Newbold- DN (Item 6)
Peter Noble- PN and Mark Affonso-MA (Item 7)
Janice Masone, Minutes Secretary
# INTRODUCTION

Chair, Mark Thomson

## i. Welcome and opening comments

| 1.1 | MAT welcomed everyone to the eighth meeting of STFC Council which was held at Daresbury Laboratory |
| 1.2 | Apologies were received from Isabelle Baraffe. It was noted that TR would step out of the Council meeting for part of the morning and that JL would join the meeting after the lunch-time session. |
| 1.3 | MAT reminded Council members that they are required to keep the Secretary informed of any changes to their personal register of interests as they arise. AO reported that his spouse works for MACE which has some involvement in the construction of NSTF. |

## 2. Minutes and Actions from 07 May 2019 – STFC (UKRI) 19/16

| 2.1 | Council approved the minutes from 07 May 2019. |
| 2.2 | The actions from the previous meeting are complete. |

## Chair, Richard Kenway

### 3. Report from Executive Chair – Presentation and discussion

MAT reported on STFC related activities since the last meeting of Council in May 2019.

#### 3.1 STFC Executive Team

| i. | MAT thanked Council members for working with the recruitment agency to identify a strong selection of candidates for the STFC Executive Director, Large Scale Facilities post. |
| ii. | Interviews were held in June and two potential candidates have emerged from that exercise. Recognising the importance of this role and the need for proper consideration of any appointment to it, follow up visits to RAL have been arranged for both. The aim is to fill this last vacancy on STFC’s Executive Board by autumn. |

#### 3.2 Management

| i. | Council noted the progress taking place in moving STFC from transformation to a steady state of continuous improvement and endorsed the plan to hold an EB Away Day wholly focused on the scope and goals of a continuous improvement plan for STFC. |

#### 3.3 STFC Delivery Plan 2019
i. MAT highlighted the publication of STFC’s Delivery Plan alongside those of the other eight councils of UKRI and the cross-UKRI Delivery Plan. The Delivery Plan combines a forward look over the next 5-10 years and a number of near-term actions which are being propagated to senior staff annual objectives. The Executive Board plans to hold a full day session on this subject.

ii. Council agreed that the STFC Finance and Governance Committee, a sub-committee of Council, will monitor performance against Delivery Plan goals.

3.4 UK Honours: Nominations

i. MAT sought input from Council in developing a longlist of quality nominations for UK Honours, particularly at Kt/DBE level, to contribute to the creation of a deeper pipeline of quality nominations being coordinated by UKRI on behalf of the UK Research Councils.

ii. Council members agreed to send JM details of any nominations from their own sectors/areas of interest and made further suggestions such as using Science Board and STFC middle management as a source of nominations.

Action: Council members to send details of any nominations for UK Honours to JM asap

3.5 UKRI Infrastructure Roadmap

i. Having been cleared by UKRI ExCo and Board, the UKRI Infrastructure Roadmap First Edition report is currently with designers and the aim is to publish in October once it has been approved by Minister/SoS.

ii. Council members agreed that the roadmap is an important document, which will signpost options for investment and serve as a source for identifying CSR opportunities in the future. In discussion, Council members advised further exploring and utilising the relationship between UKRI RI Roadmap and the ESFRI roadmap.

iii. The next stage will be developing guidance for decision making at ExCo and also a process to update and maintain this important document.

3.6 Funding Update

i. Council members received an update on the latest activities for STFC bids to the new UKRI funding streams and discussed SPF, FIC and SIPF in particular.

ii. MAT highlighted some of the actions being undertaken to develop a more coordinated approach to cross-cutting funding with other BEIS/UKRI Partner Organisations, particularly EPSRC and UKSA. Council members were encouraged to hear that a joint EPSRC/STFC workshop is planned to begin to explore this opportunity in more depth.

iii. STFC is also keen for Council members to help catalyse new ideas for
getting the most from cross-cutting funds, this will be a key part of the joint Exec Board/Council Strategy session planned for September.

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<th>3.7</th>
<th><strong>UKRI Transformation</strong></th>
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<tr>
<td>i.</td>
<td>With several new faces in the senior leadership team, UKRI is reviewing elements of the direction of travel established by Quartz in the initial phases of the transformation process. STFC continues to challenge UKRI to ensure that its specific requirements are met in any new systems or processes that are put into place.</td>
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<td>ii.</td>
<td>Council was very encouraged to hear that the steps taken by UKRI to strengthen STFC Human Resources function had resulted in real improvement on the delivery side and welcomed the news that there had been some improvement in staffing of the Finance function. However, Council shared their ongoing concern that the continued expansion of the central team does come with consequences, including distancing the decision-making from the science delivery. Council would welcome the opportunity to discuss this issue further with the UKRI Chair and/or CEO when they next attend an STFC Council meeting.</td>
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<td>iii.</td>
<td>Council felt that moving away from the original intent to create a lightweight, overarching structure is likely to result in additional complexity and reduced agility in some areas. Council was particularly concerned about the impact this has had on STFC’s operations and staff morale, especially in Swindon office. Council agreed to hold a meeting in Swindon in January 2020 and hold a lunchtime drop in session with staff to better appreciate their concerns. Action: Hold Council meeting in Swindon, January 2020, to include open lunchtime session for staff</td>
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<th><strong>Recent Events and Highlights</strong></th>
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<td>i.</td>
<td>MAT gave an overview of some of his activities and meetings since the last Council meeting. This included the recent visit to CERN by members of the UKRI Board. The visit was very successful and helped to convey the scope and scale of one of STFC’s major scientific investments. Over dinner there was a good opportunity to discuss the wider skills agenda.</td>
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<td>ii.</td>
<td>Council was delighted to hear of the excellent work STFC colleagues are doing, most notably the success of the UK instrument programme for the ESO Extremely Large Telescope (ELT); attracting exciting new tech startup companies to the Higgs Innovation Centre; and a record breaking 24 hour average beam current at ISIS.</td>
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<th><strong>CSR Update</strong></th>
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<td>i.</td>
<td>Although there isn’t complete clarity on the timing or scope of the CSR, UKRI will be making the case for a longer settlement. STFC’s priorities are Core Science and Skills with some uplift for the Science Estate, Innovation and Technology.</td>
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<td>ii.</td>
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### 3.10 International Sustainability

**i.** ESS-remains a critical issue for STFC, UKRI and BEIS, and negotiations continue at a high level. Partner nations also meet regularly to discuss and agree their position. As at the last meeting, Council advised MAT to continue to be cautious of the long term impact of any decisions to provide additional funding.

**ii.** TEXT FROM THIS SECTION HAS BEEN REDACTED: OFFICIAL SENSITIVE

**iii.** ELI- the UK’s preferred position is to remain engaged, possibly joining as a “Founding Observer” which does not have financial implications but may require some management of expectations.

**iv.** MAT alerted Council that these situations may result in some difficult decisions in the near future. Council noted with concern that STFC is exposed to the risk of displacing existing activities with investments in areas which are not the highest scientific priority.

### 3.11 STFC and Harwell

**i.** At the last meeting MAT explained the growing concern around the sustainability of funding for a number of successful multidisciplinary facilities, which provide enhanced capability and access to the large national facilities co-located on the campus. They have vibrant user communities and independent reviews continue to highlight their significant value.

**ii.** The majority of these facilities were set up using initial funding through grants which run for five years, as these grants come to an end, UKRI faces the challenge of sustaining these facilities and continuing to grow and develop the campus infrastructure around them.

**iii.** Council welcomed the action taken by MAT in convening a meeting of facility directors and Executive Chairs from BBSRC, EPSRC and MRC to raise the profile of this issue and to develop a plan for the future.

### 3.12 National Quantum Computing Centre (NQCC)

**i.** The NQCC is a new joint STFC/EPSRC initiative to develop a UK quantum computing capability. It will require £77m funding for 5 years to identify best technology for building a quantum computer in the UK.

**ii.** Current feeling among senior STFC managers is that the business case is complicated by lack of detailed requirements, it is considered a high risk/high gain initiative. Executive Board has expressed some concerns around governance, technical leadership and STFC’s responsibilities, particularly in the longer term. A working group has
been convened to try and bottom out some of these issues.

iii. Council concurred with the concerns raised by the Executive Board and requested a more detailed discussion of the NQCC Business Case at the September meeting.  
*Action: Invite Jason Green and Neil Geddes to discuss NQCC at the September Council meeting*

### 3.13 E-Infrastructure

i. Using the Infrastructure Roadmap as a starting point, MAT is the UKRI lead working to develop a joined up strategy for e-infrastructure across the whole organisation and the wider BEIS/GO-Science community. The relationship to future quantum computing capabilities is also being explored at a high level.

ii. A recruitment exercise for a director level post reporting to MAT is currently underway. MAT will report on progress at the next Council meeting.

### 3.14 Programme Funding Opportunity  STFC (UKRI) 19/21

i. MAT sought Council’s advice on pursuing a potential funding opportunity for the allocation of a significant saving on one astronomy project (LSST- approximately £1m pa for the next 10 years) within the Astronomy Programme. Council heard that a funding scenario was drawn up to potentially enable participation in two priority projects: the Simons Observatory (SO) for CMB observation and the Gravitational-Wave Optical Transient Observer (GOTO); this scenario was presented to Science Board.

ii. Council engaged in a brief discussion, there were arguments for and against “project” v “exploitation” with a slight preference toward the funding to remain within astronomy. However, Council did not feel they could offer definitive advice at this stage and recommended that both projects should be put through PPRP in the normal way.

### Lunchtime session

Over lunch Council received a presentation from the SciTech Daresbury Joint Venture partners on future plans for the Daresbury Campus and also heard from members of the Business and Innovation Team on some of the work they are doing that links into the skills agenda and other major public initiatives.

### Chair, Mark Thomson

4. **Hartree Phase 4 Update**

4.1 Council members welcomed Kate Ronayne (KR) and Alison Kennedy (AK) to the meeting.
### 4.2 Council heard the main aims for Hartree Phase 4 as follows:

- Potential to support UK Industrial strategy vision for a transformed economy as related to AI solutions at scale
- Uniquely bridge the gap between AI science research and applied AI in industry and government
- Combining domain specific knowledge in engineering, life science, chemistry, materials, and computational and numerical methods with HPC and AI expertise to convert research excellence into scalable solutions to industry challenges

### 4.3 KR and AK briefly outlined the commercially sensitive negotiations which have taken place over the last year between senior IBM and STFC/UKRI/BEIS officials on the nature of the Hartree Phase 4 investment and business case. Council is supportive of the direction of travel and asked to be kept updated. KR and AK left the meeting.

### 5. Particle Physics Department (PPD) - STFC (UKRI) 19/17

#### 5.1 Council members welcomed Professor Dave Newbold (DN) to the meeting.

#### 5.2 DN began by describing the challenges faced by the department in meeting its main mission to support all aspects of the UK Particle Physics and Astrophysics programme in a way that is complementary and supportive to the work of the universities and other stakeholders. These were:

- A low hiring/turnover rate over a prolonged period has led to a top heavy somewhat stagnant staff profile
- Flat cash since 2011 has resulted in a budget insufficient to support the required volume of activity across projects. A series of reviews over the past 10 years have all failed to resolve the question of fulfilling the mission within available funding
- More recently, no well-defined process for peer review or community engagement in the definition of PPD scientific strategy and no process of balancing budget allocations against the real long-term cost of the approved programme
- Lack of meaningful engagement with some key stakeholders in university groups

Despite these challenges DN emphasised the significant strengths in the department including a strong brand in the international PP/PA community and a keen appetite to embrace new challenges in the core programme and impact generation.

#### 5.3 Executive Board recently agreed a number of actions which have developed into a short term strategy for PPD. These actions included establishing a
scientific advisory committee (now set up and chaired by Prof Nigel Smith). Additionally, there are ongoing actions to; (i) agree the 2022/23 baseline budget, (ii) replace senior staff who are taking VE or retiring, (iii) engage with STFC management to define a process for regularly reviewing the PPD programme and ensuring it is sustainably funded. In answer to questions from Council members DN confirmed a robust succession/mentoring process is in place to ensure knowledge and experience is passed on to new staff joining the department.

5.4 Council also discussed DN’s medium and longer-term strategy which focussed on the development of a sustainable science programme that reflects the current and future needs of the UK PP/PA community and expanding the department’s activities in training, industrial engagement and interdisciplinary research. Council was generally supportive of these future plans and advised DN to clearly articulate PPD’s unique capabilities and contribution to the delivery of the agreed science programme in the development of his strategy. DN left the meeting.

6. **Update from Finance and Governance Committee**

6.1 Peter Noble (PN) and Mark Affonso (MA) joined the meeting for this discussion.

6.2 **Risk Management Update**
PN presented the latest version of the STFC Corporate Risk Register, noting a new entry for Estates strategy and the development of a new risk around environmental sustainability, an increasingly important issue. Council endorsed the inclusion of the Estates risk, and the advice given by the Finance and Governance Committee that the risk should also reflect the wider issue around the sustainability of STFC’s Large Scale Facilities and Estates. Council was also pleased to note the general improvement in risk management, from better documentation of risks and the increased use of EasyRisk across the organisation.

6.3 **Planning for Deep Dive - HR Risk**
The Risk and Assurance Committee identified the HR Recruitment and Retention risk as the first to be subject to a deep dive discussion at the September meeting of Council. The Finance and Governance Committee (FGC) endorsed this decision, agreed the methodology for establishing the outcomes and outputs of the exercise, and will discuss at their meeting in September.

6.4 **Finance Update**
Council was pleased to hear that, since the last Council meeting, new colleagues had been appointed to key roles on the Finance team. MA then provided Council with an update on the latest STFC’s current budget allocations and latest outturn forecast for 2019/20 and explained that the Finance team is preparing for a flat cash allocation and associated challenges around sustainability and continuous improvement. Council noted other challenges such as the future model of procurement and new Finance/HR system which will replace Oracle in March 2021.
Council discussed the work of the Finance and Governance Committee more generally and agreed that the committee had already done much to improve processes and documentation in the monitoring of risk, financial planning and oversight of STFC’s stewardship return. PN and MA left the meeting.

### 7. Skills Factory update  STFC (UKRI) 19/19

#### 7.1 MAT opened this item by highlighting that some members of the UKRI Board had shown an active interest in the Skills Factory proposal when it was bought up during their recent visit to CERN, MAT then invited AO to lead the discussion.

#### 7.2 AO presented the draft report which defines the concept of the Skills Factory and how it will address the joint issue of creating a highly skilled workforce to underpin both the UK Government’s Industrial Strategy commitment to reach 2.4% of GDP for R&D by 2027 and STFC’s critical need surrounding the supply and retention of a technically skilled workforce in some areas of its facilities and programmes.

#### 7.3 AO explained that the Skills Factory is not a single training centre but a programme geographically distributed around STFC’s facilities and involving local training providers, universities and industry. It is based on a funnel model, with community engagement at the wide end of the funnel to ensure as diverse and broad participation in the programme as possible.

#### 7.4 Programme elements include Engineering apprenticeships and significant expansion of the Engineering Graduate Fellow programme, New Masters Level Knowledge Transfer partnership programme, the creation of new and innovative post-PhD Fellowships involving industry and the creation of a new support programme to upskill new STFC entrants. Over the four-year period of the pilot phase the following new starts to STFC’s workforce would be targeted:

- 300 apprentices at Levels 3-6
- 285 Engineering Graduate Fellows
- 80 Masters KTP entrants
- 40 Post-PhD industrial fellowships.

#### 7.5 AO explained that next steps for the Skills Factory was to secure/request circa £80k to enable a full scoping project. The scoping project will include: identification of partners, analysis of local industrial strategies near STFC facilities, detailed scoping of STFC’s own internal programmatic skills requirements, a review of existing and planned training schemes and a host of other actions which will ensure the landscape is well understood before the scheme is rolled out in full.

#### 7.6 Council discussed the Skills Factory proposal and the proposed scoping exercise and agreed it was an excellent concept which could transform how technical training is carried out in the UK. There was a very strong steer from
Council that funding for the initial scoping project to develop this concept further was essential and should be treated as a matter of priority.

### 8. Report from Science Board  STFC (UKRI) 19/20

| 8.1 | MAT invited Jayne Lawrence (JL) to give an update on the most recent meeting of Science Board. |
| 8.2 | Science Board was deeply saddened by the recent death of Professor Chris Hawes; Council members extended their condolences to family, friends and colleagues of Professor Hawes. |
| 8.3 | JL reported that the June meeting of Science Board had been very busy and provided Council with an overview of the three PPRP reports and two Statements of Interest which had been discussed at the meeting (Further details can be found in the paper). For the DiRAC PPRP Report, Council particularly noted Science Board’s advice to ensure that any funding for e-infrastructure was sustainable. |
| 8.4 | This was followed by a lengthy discussion of the first cycle of the prioritisation methodology, initiated a few years ago, namely Programme Evaluations in the various STFC Science areas followed by a cross-area Balance of Programme exercise. Council recognised the scientific robustness of this approach, but were not convinced that this was the most efficient/effective method in the current funding environment and recommended that some consideration should be given to trying a different approach. |

### 9. AOB

| 9.1 | No AOB items were raised |
| 9.2 | MAT thanked Council members for their contribution. The next meeting of Council is at the UK ATC in Edinburgh on the 23/24 September. Day one will be a joint session with Executive Board with the Council meeting being held on day two. |