

# UKAEA Board Meeting

## Meeting Reference UKAEA(23)A4

**Date** Monday 3rd July 2023

**Time** 1030-1700

**Location** Diamond/Launchpad room  
Quad Two  
Rutherford Avenue  
Harwell Campus  
OX11 0DF

**Members** David Gann (Chair) Eithne Birt Adam  
Ian Chapman Luc Bardin Baker  
Stephen Barter Sue Gray (DESNZ)  
Richard Hookway Stephen Hillier  
Ruth Elliot  
Tim Bestwick

### Apologies

**Attendees** Lyndsey Mooring (Sec)  
Justin Kingsford  
Phillip Sharman (PAC Outcomes)  
William Morris (Fusion Pathways)

## Agenda Items

1. **Chair's opening remarks** led by D Gann: Chair congratulated TB on his OBE and announced their own new appointment as Chair of UKIFS. As such, DG will be stepping down at the end of July and confirmed EB will become interim Chair of UKAEA board.

Recruitment for the science and innovation NED role has progressed to a short list of 4 candidates and interviews commence next week with a recommendation to go to the Minister shortly thereafter.

**Declarations: None declared**

2. **Minutes and Actions Review, UKAEA(23)M3** led by D Gann:

Minutes review:

- UKAEA(22)M3
  - swap and replace committee for Board
  - P & RemCo is formal nomenclature
  - pg 3 2<sup>nd</sup> bullet clarified

- pg 5 Rotherham plots spelling correction

Regarding pg 7 13.3 light touch review discussion noted:

- NED 1:1 feedback conducted in interim
- Light touch review via questionnaire to be conducted

**Actions:**

Action ID	Section	Action Items	Owner(s)	Target time
UKAEA(23)4/1	3	Board light touch review via questionnaire	RE	End of Aug

- Action review:
  - i. UKAEA(22)4/2 on agenda, closed
  - ii. UKAEA(22)5/1 action moved to JK, progress identified further steps, recommend rolling action to later meeting, moved to Jan 24
  - iii. UKAEA(23)3/1 observer arrangements in progress, closed
  - iv. UKAEA(23)3/2 verbal update provided by Executive, Board discussed at great length the implications of the update – science and engineering for the ITER programme, wider future plans including STEP as well as political implications; action kept as ongoing
  - v. UKAEA(23)3/4 Comms action discussed – what will UKAEA messaging be when ITER rebaseline is concluded; political opportunity noted by Board, closed
  - vi. UKAEA(23)3/5 included in July pack for approval, closed
  - vii. UKAEA(23)3/6 Agenda item in July meeting, closed

**3. Executive Board report, UKAEA(23)4 Board report, led by I Chapman, T Bestwick, J Kingsford, R Elliot:**

Exec highlighted the following to Board:

- IC likely to be called to Departmental Select Committee on 12<sup>th</sup> July.
- Office for Shadow SoS has reached out to arrange a visit via policy team.
- Euratom Association updates since report written provided verbally by Exec and DESNZ to Board.
- Board encouraged to attend Fusion Energy Conference, of particular interest are likely to be overview talks, round table sessions and evening receptions.
- UKIFS chief executive role recommendation has gone to SoS, expecting approval to launch recruitment ahead of recess.
- Impact of reduced delegation for new Department regarding PIC approval and therefore Treasury approval point discussed by Board.
- ALB review progress and Board’s involvement discussed; it is unlikely to progress to deep dive based on anticipated recommendation to Secretary of State.
- Recruitment updates given regarding Director of Legal, Head of Pensions, second round interviews for deputy in Procurement.

- Heavy storm 12<sup>th</sup> June impacted central buildings, the financial implications and impacts were discussed, loss adjusters, costs and £0.5m excess, work in progress. Lessons learnt regarding storm damage is being held next week.
- Harwell JV re-financing facility now in place, opportunity noted.
- Safety headlines noted traffic near misses; as of today, reduction of speed limit on Culham campus from 30 to 20 mph with an exception in place for autonomous vehicle testing outside standard working hours.
- Behavioural safety training update noted the strategic approach being taken to complete mandatory training. Online courses have been utilised as well as live sessions to clear backlog. Comparison with Harwell site approach considered.
- People update noted the grade minimum offering for talent acquisition is now live.
- Strategic workforce plan has identified roles of interest. Next step is to link into Fusion Skills Council work to develop a collaborative approach. Wider consideration given by Board to the needs of private sector, ITER and other international programmes. Context of Alternatives plan and implications given by executive to Board. Sector wide overview of skills need has now completed as an initial piece of work, delivered by Fusion Skills Council, confirming the expected need of 3000 people across sector in the next 5 years and where government interventions and private sector opportunities lay.
- ITER slow down and opportunities regarding workforce discussed by Board. Implications for UK nationals noted.
- Head of EDI and wellbeing now in place. Reporting action update given, this has identified further necessary steps, Board agreed to have further steps progressed via P & RemCo sub-committee and then on to Board in Sept.
- Innovation update noted an aspect not in the paper - investment in fusion, 18 months ago flurry of investments at scale. The landscape has now reduced in activity, impacting more recent investment rounds. Strategies are being altered in response, investment community trends indicate fusion funds via basket approach and public/private partnerships. Potential plans of 3 new fusion focused funds discussed by Board.
- How to provide technology of an appropriate size for investment was considered by Board.
- Paper on financial landscape requested by Board.
- IP metric discussed, in particular patent applications and the leverage they provide, concluding the aim to increase these. Board requested targets to be considered, made fit for purpose and implemented.
- Communication update noted SOFE conference next week and FEC in Oct.
- BD - approach to managing private fusion company relationships noted.
- JET 40<sup>th</sup> birthday celebrations congratulated.
- Risk dashboard – noted as discussed at ARAC.

**Actions:**

Action ID	Section	Action Items	Owner(s)	Target time
UKAEA(23)4/2	3	IC to share letter sent to PM	IC	Sept meeting
UKAEA(23)4/3	3	Review will be conducted by chair with each member (1 hr slots)	DG	End of Aug

UKAEA(23)4/4	3	Paper on financial/investment landscape requested by Board	RE/TB	Nov meeting
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#### 4. Sub-committee updates:

**ARAC** led by R Hookway: Risk dashboard reflects many items are exogenous. Appropriate grading of control health considered by ARAC and fed back to UKAEA. Drew Board's attention to Annual Report and Accounts, particularly pollical party conference impacting timeline to submission.

Internal audits and deep dives overview given – power pinch points, each building has allocated limit, these are aggregated for site wide allowance. Discussion with SSE regarding transfer of ownership was positive. 4 steps identified – OFGEM agreement; H&S check; legal; transfer associated price agreement. Aim to enact these within this financial year.

Next deep dive will focus on UKIFS governance, progress update given to Board on preparing for 1<sup>st</sup> April as beginning of entity trading.

Regarding Lifetime Plan (LTP) of JDR programme, Board noted substantial change – “reciprocal statement” discussed.

**P & RemCo** led by E Birt: 4 main areas – objectives review of executive, high performance team; pay remit and plans for longer term; EDI networks and PSED plans.

**Property** led by S Barter: resourcing needs for this sub-committee was discussed.

#### 5. STEP approvals update, UKAEA(23)4 STEP approvals, led by C Price: CP provided an overview of the paper, covering the areas of focus – Technical progress; outline business case; commercial strategy; programme reviews Commercial Assurance Board and Infrastructure and Projects Authority; UKIFS maturity assessments and gateways; recruitment.

Board noted the progress updates presented and the items that are intended to return to Board for further approval in autumn regarding competitive dialogue stage and outcomes/next steps from the maturity assessment.

Selection questionnaire and subsequent Competitive Dialogue timelines drive approvals towards November Board meeting.

Board noted the importance aligning these approvals and their timings across both the UKAEA and UKIFS Boards. Mitigations for risks associated with the commercial strategy were discussed.

#### 6. Property Strategy, UKAEA(23)4 Property Strategy, led by R Elliot and S Peck: The strategy was introduced, it has been through the Property Sub-committee with the requested changes incorporated. Board was requested for its review and approval. Observations and further considerations the strategy could consider included:

- UKAEA Campuses and Sites - has 5 sites, each with a different focus and subsequently varying burden on UKAEA, as well as different level of control by UKAEA. Two focused on fusion and core mission; 1 an innovation park.
- The relevance of the different sites to UKAEA's purpose and the appropriateness of them all remaining within UKAEA group; Board considered UKAEA's mission and goals and leveraging expertise.
- How far the strategy goes to answer the decisions and next steps to make it a fulsome strategy.
- The issues and benefits associated with all five sites
- Alternative approaches to the overall property portfolio and the implications of potential changes
- UKAEA noted as an important tenant in Whitehaven owing to investment planned and alignment to the levelling up agenda.

**7. PAC Outcome, UKAEA(23)4 PAC outcomes presentation, UKAEA(23)4 PAC report - final, led by P Sharman:** The Board introduced themselves to PS, he reciprocated and introduced the Programme Advisory Committee, moving on to then give a presentation to Board regarding the outcomes of the latest committee 3-day meeting. The presentation covered:

- Recent changes to the committee, including nomenclature, broadening of the membership, changes of the members, international representation, and gender balance.
- PAC meets twice a year for a 3-day meeting in May, and a 1 day catch up day in November.
- The charges issued to the committee and request to highlight 5 key recommendations; charges focused on:
  - Post-JET closure strategies and maximising value.
  - Strategy to establish divisions.
  - Strength and international position across the technical programme.
- Best practice from other government entities, UK and internationally, were discussed, alongside taking what has worked within UKAEA.
- Board considered targets and metrics that could be used to check progress against recommendations.
- The significant changes to the structure of UKAEA owing to creating divisions were highlighted by Board, the cultural impact is, and will continue to be, significant.
- The committees' review of the current plans was raised by Board, discussion covered the maturity of the divisions and their associated plans, some variance in efficacy and cohesion had been noted by PAC.
- Board noted that at present not all areas have entities that are "leading and globally unique" at present for specific fusion areas; opportunities noted from some UKAEA technical areas as they come online for example H3AT.
- Visibility on all international players is not consistent.
- Emerging readiness to build a reactor and how that aligns across maturity assessment of technical areas considered, noting some mirror whilst others do not.
- PAC membership - Board endorsed progressing nominations.
- Delay decision on PAC chair being new science and innovation NED or an independent until recruitment completed.

**Decisions:**

**UKAEA(23)D4/1** PAC membership - Board endorsed progressing nominations.

**8. Finance update, UKAEA(23)4 Finance, led by A Brown:** Points highlighted included:

- Fusion Foundations and Fusion Industry Programme rephasing.
- P2 and Forecasting focus.
- Board noted the requirement to improve phasing; this has already been briefed to programmes.
- Discussion noted that trend of upticks in spend should still be within a forecast as well as driving future funding planning; plan a continuum yet balanced with Spending Review cycles.
- Planning for Spending Review is aiming for ExCo approval in January and Board approval in March 24.

- 9. Fusion Pathways, UKAEA(23)4 Fusion Pathways, led by I Chapman, T Bestwick and W Morris:**  
Context given regarding delivery of STEP via UKIFS and the wider delivery of powerplants that come after the STEP demonstrator. As such, the ecosystem, what is required and what the National Lab needs/provides.

Delivering fusion on rapid timeline results in considering two types of programmes – a focused one (STEP) and a broader one (Authority). Organisational design between the two will be key, as will digital strategy.

Regarding the presentation overview in the meeting pack, this is a description and understanding of the environment, as opposed to standard roadmap. Risk appetite will change from prototype to fleet stage, and therefore the accompanying programme at the National Lab is better placed to support that deployment. Use of digital modelling to reduce iterations from prototype to fleet, and the reciprocal validation of modelling via the prototype noted as aim to accelerate pace of the deployment phase.

The usefulness of “deployability factors” noted by Board, early stage of thinking and worth pursuing. UKAEA having expertise across enabling functions of fusion concepts is appropriate for a National Lab, as is considering co-generation and ways to enter the market. Partnering and further special purpose vehicles are in consideration, as are varying relationships between UKAEA and partners, even those with the same entity.

The gaps of any STEP consortia are anticipated to be picked up by UKAEA.

Capturing some of the points raised in the planned UK Fusion Strategy (planned for Autumn refresh).

Guidance from Board to UKAEA is to continue to work at pace and the portfolio that signals value, i.e. IP.

**13. Any Other Business** led by D Gann;

- i. P & RemCo ToRs – endorsed.
- ii. Opportunity for Fusion Film noted.
- iii. Educational provider would like to support schools’ communications.
- iv. Membership of Property Sub-committee needs expanding.

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**End of Minutes**