

## Minutes

### **NIRAB inaugural meeting**

January 30<sup>th</sup> 2014, 11.00 – 16.00

Royal Academy of Engineering, London

#### Attendees:

##### MEMBERS

Dame Sue Ion	Chair	John Lillington	AMEC
Tim Abram	University of Manchester	Andrew Sherry	University of Manchester and NAMRC
Andrew Carlick	DBD Ltd	Paul Stein	Rolls-Royce
Steve Cowley	CCFE	Neil Thomson	EdF Energy
Graham Fairhall	NNL	Mike Tynan	NAMRC
Mick Gornall	Springfields Ltd	Laurence Williams	CORWM
Malcolm Joyce	Lancaster University	Peter Wylie	Sellafield Ltd
Bill Lee	Imperial College		

##### OBSERVERS

Derek Allen	TSB	David Mackay	DECC
Jason Green	EPSRC	Darrell Morris	NDA
Robin Grimes	FCO	John Perkins	BIS
John Jenkins	ONR		

##### OFFICIALS

Paul Hollinshead	DECC	Si Dilks	DECC
Dominic Scullard	BIS	Juan Matthews	UKTI

##### SECRETARIAT

Gordon Bryan	NIRO	Andy Howarth	NIRO
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#### Apologies:

##### MEMBERS

Richard Clegg	Lloyd's Register
Paul Harding	Urenco
Neil Hyatt	Sheffield

##### OBSERVERS

Sir Mark Walport	GOScience
Melanie Brownridge	NDA

## Agenda item 1 - Welcome and introductions

The Chair set out the aims and objectives for the meeting.

## Agenda item 2 - Background to NIRAB

The sponsoring Government departments, BIS and DECC, presented an overview of the background to NIRAB, including the Nuclear Industrial Strategy (NIS) policy context, Government's ambitions for NIRAB, and its relationship to Government and stakeholders.

## Agenda item 3 - Terms of Reference

The Chair presented the draft Terms of Reference and Ways of Working for NIRAB stressing the need for members and observers to contribute fully to meetings and inviting comments on the draft.

**Terms of Reference** - The Terms of Reference were accepted subject to an amendment to clarify the meaning of 'landscape' to include all aspects of capability, portfolio and capacity.

**Membership** - Current membership was considered to fully represent the UK civil nuclear sector, and that it is not appropriate to extend to international organisations at this stage.

It was suggested it would be useful for NIRAB to observe the operation of the NDA Research Board. It was however noted that there is an existing interface between the NDA Research Board and NIRAB through common membership of organisations and individuals on both Boards. NIRAB was informed that the NDA Research Board is due to review its ToR as part of its annual review and in light of the formation of NIRAB.

**Sub-groups** – It was agreed that sub-groups should be established to develop draft recommendations for consideration by the whole of the Advisory Board. Sub-groups and chairs were agreed as follows:

- Academic – co-chaired by Andrew Sherry and Bill Lee
- Industry – chaired by Mike Tynan
- Advanced Systems – chaired by Graham Fairhall

It was agreed that participation in these sub-groups should not be limited to members of NIRAB, and that it will be desirable to have cross representation between the sub-groups.

## Agenda item 4 - R&D and innovation landscape

### a) Public funders:

A series of updates were given by BIS, DECC, TSB, Research Councils and NDA on funding commitments made since the publication of the Nuclear Industrial Strategy in March 2013. The following additional point was made:

- The Nuclear Research Coordination Group plans to stand down in light of the formation of NIRAB.

### b) NIRAB member R&D funding:

Each NIRAB member provided a brief summary of their organisation's research and innovation activities.

### c) Update from NIRO - Progress against NIS actions, UK R&D coordination and international engagement

NIRO presented a summary of progress against the objectives and actions from the Nuclear Industrial Strategy and the R&D Roadmap highlighting those that NIRAB is tasked with progressing. The following new actions were placed:

- **Action 1 (NIRO):** R&D Coordination - need to get the full picture across the UK and identify areas where it can be rationalised if appropriate.
- **Action 2 (NIRO):** International engagement - need to clarify what international agreements are in place and why, what funding lies behind them, and what activity is taking place.

### Agenda item 5 - Challenges to delivering Nuclear Industrial Strategy aspirations

A discussion took place during which members offered views on potential priorities and factors to be taken into account when developing recommendations for the further work required to ensure the aims and objectives set out in the NIS could be met. Key points raised by Members included:

- It will be important when prioritising to identify what the UK is good at and what we want to be good at. Having an appropriate focus will avoid attempting to spread resources too thinly. One way of doing this would be to identify areas where international companies or countries want to work with the UK and where such collaboration will be beneficial to the UK.
- It will be necessary to identify which objectives are discretionary and which are compulsory (e.g. regulation).
- The main challenge associated with the commercialisation of Small Modular Reactors is likely to be manufacturability, not reactor physics.
- It is important to maintain a spent fuel recycle capability – this will be needed to support management and disposal of current spent fuel, as well as being relevant to a range of potential future fuel cycles.
- There is currently significant international activity in modelling and simulation, for example the US is spending \$100m/yr and the EU is investing to upskill in this area to overcome challenges relating to ITER. Modelling and simulation offers synergy between fission and fusion, for example in the areas of neutronics, and the effect of radiation on materials.
- Research and innovation into ongoing reactor lifetime extension is an important international issue.
- There is a need to increase the competitiveness of UK manufacturing.
- Having access to supporting information, such as nuclear data, will be a crucial enabler to achieving many of the objectives.

### Agenda item 6 - Discussion of R&D and innovation priorities

The remit of the three sub groups is to identify R&D and innovation gaps and priorities that need to be addressed in order to meet the objectives set out in the Nuclear Industrial Strategy. The sub-groups were charged with presenting prioritised recommendations to the Advisory Board which identify opportunities to redirect funding to better meet objectives and projects that should be funded if sufficient funds are made available. It will be important to articulate how the recommended actions would contribute to achieving the NIS objectives.

### **Agenda item 7 - Next steps**

- For sub-groups to convene in February and identify new research and innovation areas for discussion at the next NIRAB meeting in March.
- To develop business cases and for NIRAB to agree a list of priorities by mid June to be able to feed into the Autumn Statement.

Future meeting dates are:

- Wed 26th March
- Tue 1st July
- Tue 21st October

### **Agenda item 8 - AOB**

- It was noted that there is an opportunity for NIRAB to contribute to a forthcoming public consultation on national priorities for investing in science and research infrastructure.