

# Research Councils UK Energy Programme

## Nuclear Fission Portfolio

### UKNADM 2017

Neil Bateman

*For a Low Carbon Energy Future*

# Changes to the Energy Team



- ☛ **Jim Fleming: Head of Programme, delivery.**
- ☛ **Kathryn Magnay: Head of Programme, ISCF.**
  
- ☛ **Sarah Ashwood:** Nuclear Fission, Whole energy systems
- ☛ **Neil Bateman:** Nuclear Fusion, ISCF wave 1, NNUF, International Strategy.
- ☛ **Mamiko Ohno:** Offshore renewables, GCRF, ISCF wave 2
- ☛ **Luke Davies:** *Senior Energy Manager*, End Use Energy Demand
- ☛ **Derek Craig:** *Senior Energy Manager*, Hydrogen and other Alternative Energy Vectors, Fuel Cell Technology, ISCF
- ☛ **Vacancy:** Energy Networks, Nuclear Fission
- ☛ **Vacancy:** SUPERGEN scheme, End Use Energy Demand (Buildings)
- ☛ **Elizabeth Bent:** Bioenergy, Solar, Carbon capture and storage, Conventional generation, Unconventional hydrocarbons, Geothermal.

# Nuclear Fission Portfolio



Sarah Ashwood

- Manchester CDT
- LCICG nuclear sub group
- UK-India interaction
- UK-USA interaction
- Nuclear Champion group
- EPSRC InnovateUK interaction
- BWR Steering group
- PACIFIC

TBA

- Imperial CDT
- NIRAB representation
- UK-Japan interaction
- UK- South Korea interaction
- NNUF lead
- DISTINCTIVE
- RATE EPSRC representation
- Irradiated materials archive group

Neil Bateman: Nuclear Fusion

# Nuclear research areas – current portfolio

*from April 1<sup>st</sup> 2015 to April 1<sup>st</sup> 2016*



Theme	No. of projects	Value (£M)
Training; CDT, IDC	2	9.3
Nuclear systems	10	9.2
NNUF, Networks + Nuclear Champions group	4	16.2
Safety	3	1.5
Fuel	9	6
Decommissioning, Waste Geodisposal	17	10.9
Environment	3	7.7
Materials	30	18.5
Supply Chain	2	0.25
RAS and Sensors	4	8.2
<b>Total</b>	<b>84</b>	<b>88</b>

# Responsive Mode statistics

## Aug 14 to Aug 15

Applications (3)	Value (£)
Authorised: 1	0.8 M
Unsuccessful: 2	0.5 M
33 %	61 %

### Other Research areas:

Applications (353)	Value (£)
Authorised: 94	38 M
Unsuccessful: 259	86 M
27 %	30 %

## Aug 15 to Aug 16

Applications (6)	Value (£)
Authorised: 4	2.4M
Unsuccessful: 2	2 M
66 %	55 %

### Other Research areas:

Applications (319)	Value (£)
Authorised: 97	29 M
Unsuccessful: 222	71 M
30 %	29 %

## Aug 16 to Aug 17

Applications (4) 12 in system	Value (£)
Authorised: 2	2.1M
Unsuccessful: 2	1.1 M
50 %	65 %

### Other EPSRC Research areas:

Applications (867)	Value (£)
Authorised: 244	123 M
Unsuccessful: 623	302 M
28 %	29 %

# Fellowship statistics

## Aug 14 to Aug 15

Applications (6)	Value (£)
Authorised: 2	0.95 M
Unsuccessful: 4	1.7 M
33 %	35 %

### Other Research areas:

Applications (22)	Value (£)
Authorised: 6	3 M
Unsuccessful: 16	8.3 M
27 %	26 %

## Aug 15 to Aug 16

Applications (9)	Value (£)
Authorised: 3	1.7 M
Unsuccessful: 6	5.2 M
25 %	26 %

### Other Research areas:

Applications (24)	Value (£)
Authorised: 5	4.5 M
Unsuccessful: 19	12 M
23 %	26 %

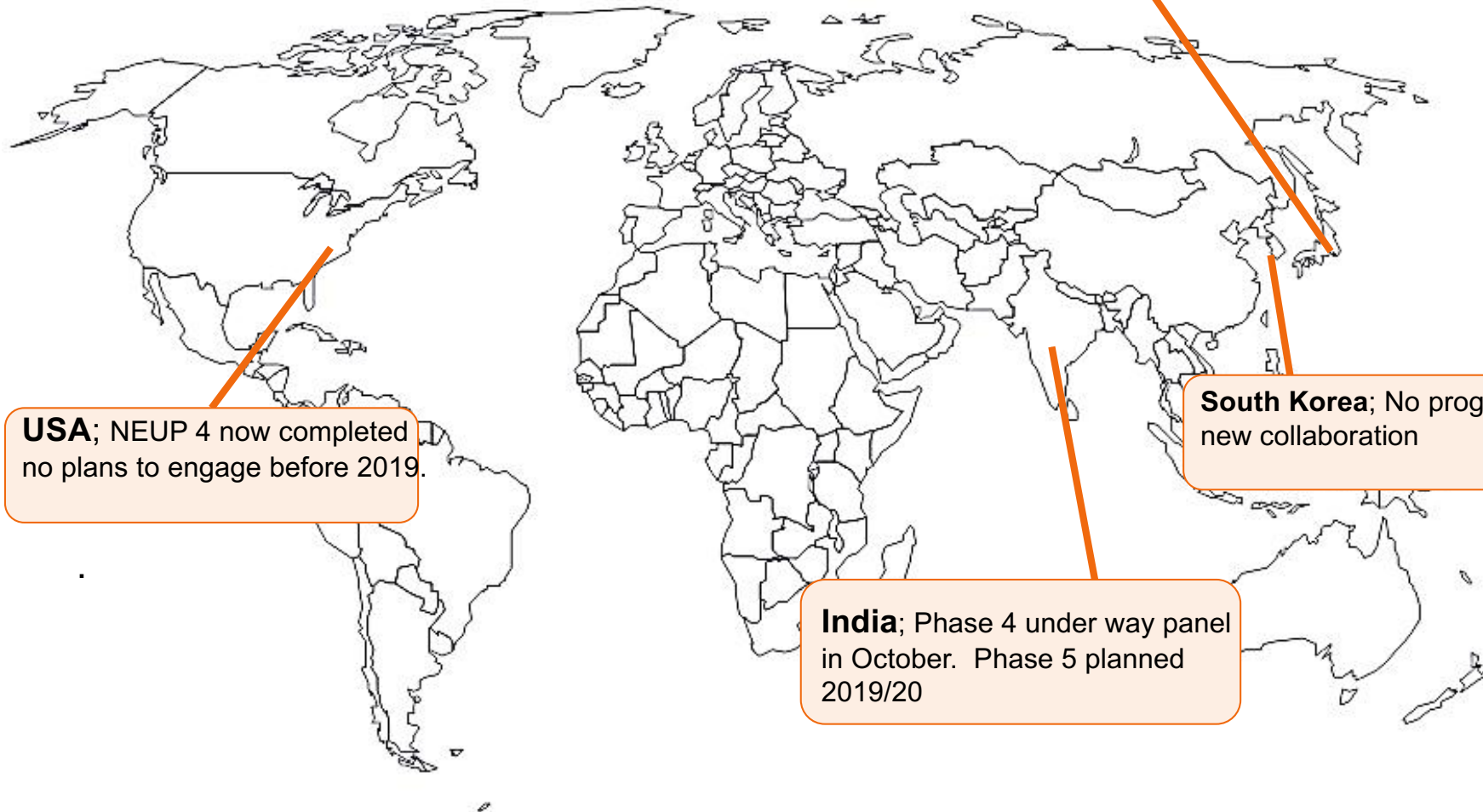
## Aug 16 to Aug 17

Applications (5) 3 in progress	Value (£)
Authorised: 1	0.4 M
Unsuccessful: 1	0.3 M
50 %	57 %

### Other EPSRC Research areas:

Applications (155)	Value (£)
Authorised: 31	20.3 M
Unsuccessful: 124	89 M
20 %	18.6 %

# International Collaborations



**USA;** NEUP 4 now completed no plans to engage before 2019.

**Japan;** Phase 4 call completed, announcements shortly. Next stage planned for 2019, to be discussed with MEXT

**India;** Phase 4 under way panel in October. Phase 5 planned 2019/20

**South Korea;** No progress on new collaboration

# Recent Activities / Funded



- UK USA NEUP collaboration
  - 5 proposals funded. £1.5m committed.
- UK JAPAN civil Nuclear
  - Panel 12<sup>th</sup> September. £0.5m to commit
- UK INDIA Civil Nuclear
  - Panel 4<sup>th</sup> October. £2.5m to commit
- Prosperity Partnerships
  - Delivering Enhanced Through-Life Nuclear Asset Management  
£2.1M



# Summary of developments



- **NNUF:** Near final iteration of business case with BEIS. State of funding when released is as yet uncertain.
- **PACIFIC / Distinctive.** Workshops planned for the 18<sup>th</sup> and 9<sup>th</sup> September respectively. EOIs have closed (4<sup>th</sup> Sept). To scope the next stage of these strategic programmes..
- **Programme Grants** – these are encouraged for large projects. Process available on EPSRC website. Applications will be tensioned against other nuclear programme grants.
- **Responsive Mode:** please submit applications
- **UK-US Collaboration:** Current NEUP cycle now open for full applications (check EPSRC/DOE websites). Intention to maintain this collaboration on an annual basis.



**EPSRC**

Engineering and Physical Sciences  
Research Council



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<https://www.epsrc.ac.uk/research/ourportfolio/researchareas/nuclearfission/>