

## Meeting of UKFN Advisory Board

16:00 GMT, Monday 27 November 2017  
via Webex

### AGENDA

1. Approve the **Minutes** of the last AB meeting (29/3/17).
2. Review **outstanding actions** from last AB meeting.
3. Note and discuss the **website** (<https://fluids.ac.uk/>).
4. Note and discuss progress within the **Special Interest Groups (SIGs)**.
5. Note and discuss the **Short Research Visits (SRVs)**.
6. Note and discuss the uses of **supplementary funds**.
7. Note and discuss **engagement with other fluids-related bodies**.
8. Note and discuss **ways to continue UKFN** beyond the end of the grant
9. Any other business
10. Approximate date of next meeting

NOTE: Minutes of recent EC meetings are available via the UKFN website ([30/6/17](#) and [22/9/17](#)).

*NCD/MPJ, 22/11/17*

## Item 2: Outstanding actions

### AB meeting 21/9/16

- ND and MJ to explore how a Jobs section could be included in the website.

Jobs are routinely advertised via Twitter, so they also appear in the Twitter feed on the website home page, which has therefore effectively become the 'jobs page'. Job announcements received are also listed in the monthly Newsletter.

### AB meeting 29/3/17

The following were minuted as suggestions and not actions per se:

- Make the institutions marked on the map interactive: for example, clicking a marker highlights the institution name (on the left) and the SIGs with members in that institution (on the right)
- On the SIG pages, show which SIGs a logged-in user belongs to

These suggestions have been added to the list of possible additions. However, note they would not be straightforward to implement for mobile devices – this is an issue because the website is responsive, so the layout depends on the viewing device.

### Item 3: Website

#### Domain name

Following the suggestion by the AB to replace *ukfluids.net* with an academic *.ac.uk* domain name, UKFN successfully acquired *fluids.ac.uk*, and has ported the website.

#### Current status

The website currently has the following main sections.

- Home
  - \* What's New and What's On list, respectively, additions to the website and conferences, workshops, etc.
  - \* Twitter feed (@UKFluidsNetwork) used for job adverts and items of general interest.
- SIG
  - \* Main page with list of SIGs and map showing member institutions for each one
  - \* Individual page for each SIG, editable by leader/co-leader/key personnel.  
**Note:** some SIGs have opted to have their own external website
  - \* Calendar of SIG meetings (link on map page)
- SRV
  - \* List of SRVs approved so far, with summary of each (based on its proposal)
  - \* Entries for completed visits include the visit report
- Talks
  - \* Lists of Future, Recorded and Past fluids talks
  - \* *Future talks* shows upcoming talks from a set of RSS feeds including Cambridge, ICL, Warwick and Manchester. They can be filtered by feed
  - \* *Recorded talks* is a growing archive of fluids seminars. They can be searched by title and speaker
  - \* *Past talks* lists all the seminars that have appeared in the listings. They can be filtered by feed
- Researcher resources
  - \* Resources are shared courses, workshops, etc aimed primarily at graduate students in fluids
  - \* A 'resource' consists of a set of modules, each of which may include videos, presentation slides, notes or code
- Directory
  - \* Lists everyone who has registered on the website, i.e. entered their details, including research interests. There are currently 476 registered users.
  - \* Search by fluids area and institution
- Competition
  - \* Competitions are advertised, entries are presented for voting and winning entries are displayed (see also Item 6)
  - \* Follow-up articles on competition entries will be added (see also Item 7)
- Connect
  - \* Main contact form
  - \* UKFN people
  - \* Repository of documents about UKFN, including minutes and reference
- All pages
  - \* 'Sign-up to mailing list' adds addresses to list receiving monthly newsletter. There are currently 790 on mailing list (620 with *.ac.uk* addresses)
  - \* Social media – follow UK Fluids Network on Twitter, YouTube and Facebook

### *Future plans*

The website is essentially complete in terms of functionality, but we need to expand its content and begin to plan for its maintenance after the end of the grant (August 2019).

- New functionality
  - \* Individual mailing lists for SIGs
  
- New content
  - \* More researcher resources
  - \* More talks (RSS feeds)
  - \* Encourage SIG leaders to develop their SIG pages
  - \* Encourage SIG members to register
  
- Updating
  - \* The website has been set up as a 'content management system', so it can be edited through a high-level interface. Currently, SIG leaders update their own pages, ND updates everything else
  - \* After the end of the project, it would require someone to add (non-SIG) new content

Would the AB comment on:

- Any other functionality not already included or planned
- Which sections are most in need of additional content
- Updating/maintenance plans

## Item 4: Special Interest Groups

### Overview

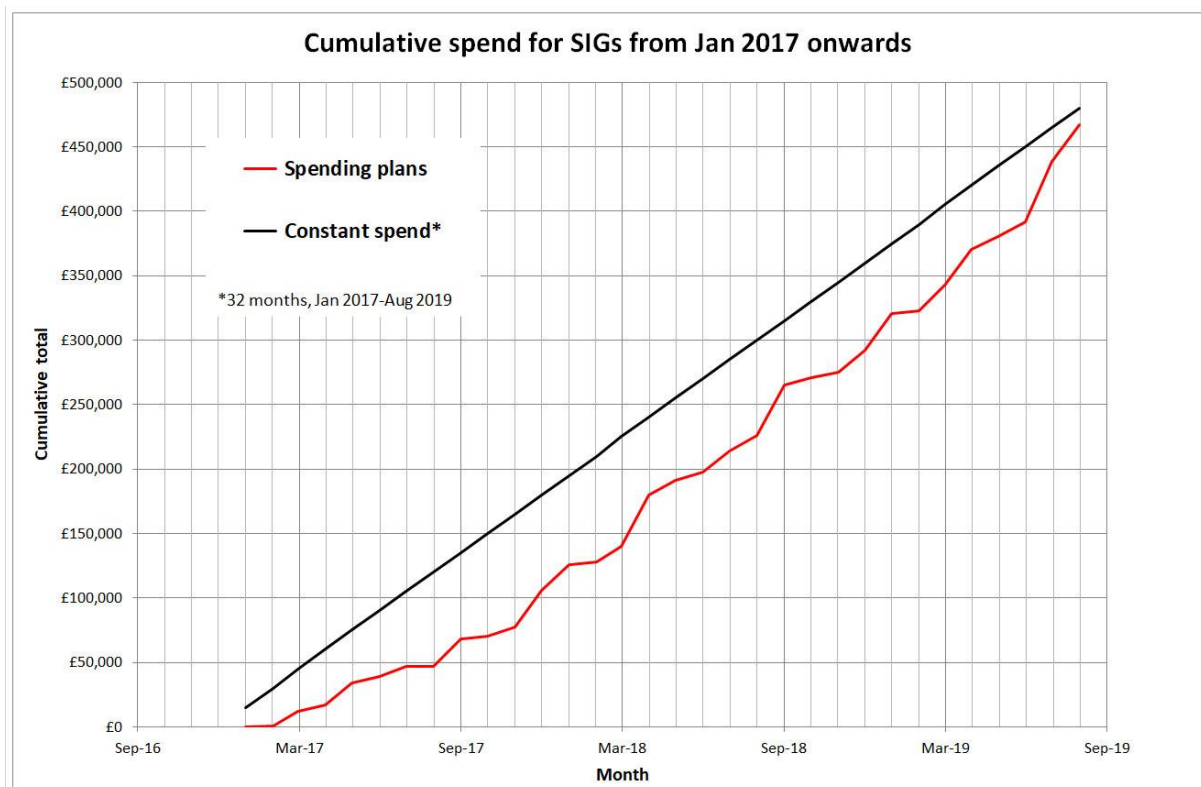
A total of 41 SIGs were set up in two batches (under calls for proposals ending 31/10/16 and 31/1/17). A total of 698 distinct academics from 63 institutions were named on the proposals.

### Spending

The total of requested funds was £300,930 (26 Batch 1) + £178,900 (15 Batch 2) = £479,830. The total allocated in the grant proposal was £480,000, based on supporting 40 SIGs.

The requested funds are used to cover meeting costs associated with venue hire, catering, accommodation and travel only.

All SIGs were asked for a spending plan, listing the meetings they had planned and the approximate cost of each. The results were aggregated to give a spending profile for SIGs, and the results are shown in Figure 1.



**Figure 1:** Cumulative spend by SIGs from January 2017 to August 2019 based on spending plans.

Overall, the spending rate begins low, becomes approximately constant and ends on a high value due to a concentration of SIG meetings in the last 2 months. The current total spend (paid or payment in progress) is £54,700 (note the difference between this figure and the spending plan total of £77,700 for November 2017 is due mainly to expenses yet to be reclaimed).

The slow start is due to a number of SIGs taking a while to hold their first meeting. If this persists, the loading towards the end of the project may become more acute with time. At some point, say around March 2018, it is therefore planned to review the spending plans with SIG leaders to ascertain whether they anticipate an underspend. If so, there may be scope to launch a third call. Note that there is currently estimated to be an overall underspend of approximately £13,000, which derives mostly from about 6 specific SIGs.

### *Monitoring*

Over the summer, the EC members, together with MJ, talked to all the SIG leaders about their experiences in planning and running SIG meetings. The results have been distilled into a document 'Special Interest Group Manual', which has been shared among the SIG leaders. This is a very useful output from the project, and has been welcomed by many SIG leaders (and elsewhere – see Item 7, *Acoustic network*). In the future, MJ plans to take over liaising with SIG leaders on a regular basis.

### *Outputs*

It is relatively early to identify outputs from the SIGs since three-quarters of the SIGs have held just one meeting. However, the Low-energy ventilation SIG is actively discussing details of possible EPSRC proposals and a number of SIGs have scheduled workshops aimed at PhD students and ECRs.

### *Industrial involvement*

Many SIGs have industrial involvement. Some SIGs have suggested facilitating industrial involvement through the RAEng and other professional societies such as IMechE.

■ Would the AB comment on SIG spending and monitoring.

## Item 5: Short Research Visits

### Overview

Calls for SRVs are issued every 4 months and the proposals assessed in batches. In the three calls to date, there has been a good range of applicants (PhD students to experienced PIs) and subjects (experimental, numerical and theoretical).

There are currently three active batches:

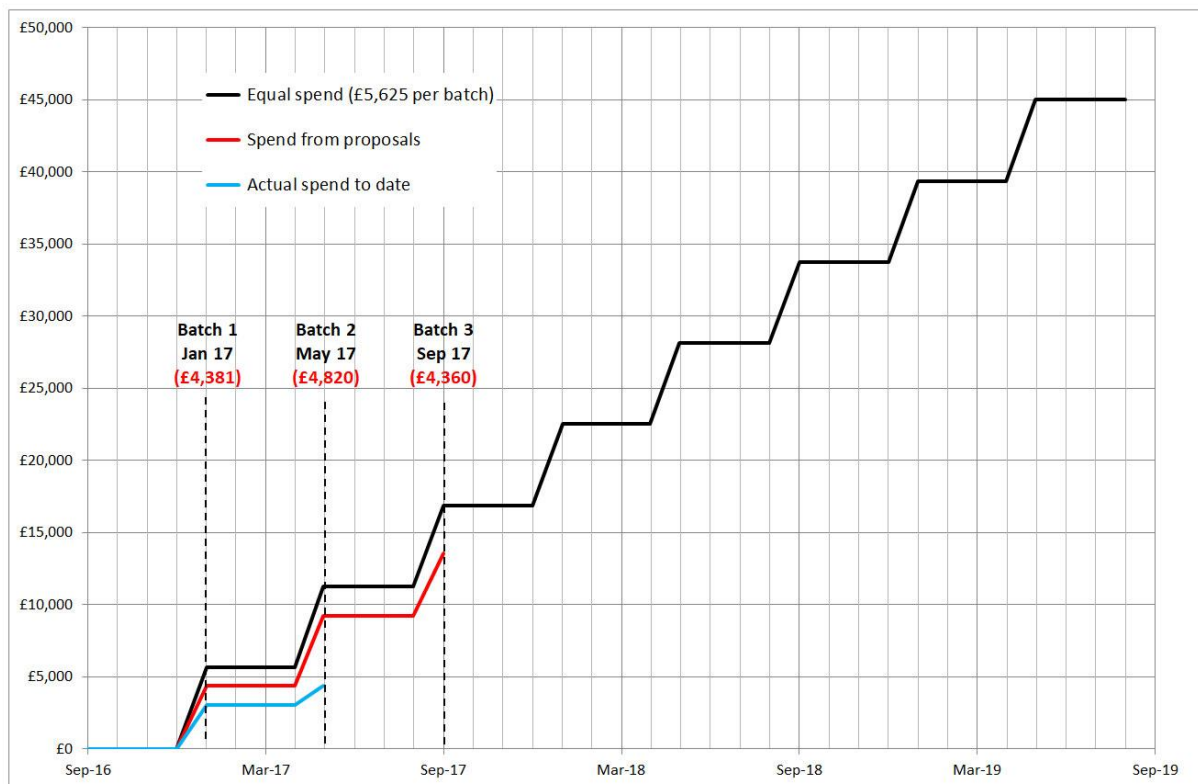
- Call ending 31/1/17: 5 SRVs allocated; 4 complete, 1 ongoing
- Call ending 31/5/17: 6 SRVs allocated; 2 complete, 1 ongoing, 3 yet to start
- Call ending 30/9/17: 5 SRVs allocated; 5 yet to start

Several of the SRVs in (b) were put back, delaying timely conclusion of the visits. Currently, this is tolerable, but later in the grant scheduling of visits will need to be prompt.

### Spending

The grant proposal allocated £45,000 for SRVs, at £1,000 per visit. There is realistically only time for 8 calls, with the last in May 2019, giving an average of £5,625 available per batch.

SRV spending is shown in Figure 2. There is currently an underspend of around £4,300, which includes unused funds from completed visits.



**Figure 2:** Cumulative spend on SRVs from January 2017 to August 2019.

Possibilities to address the underspend, either now or later on, include:

- Becoming more responsive by increasing the frequency of calls, e.g. to every 2 months, since applicants might be put off by a wait of up to 4 months
- Increasing the maximum available per visit beyond £1,000
- Allowing/encouraging follow-on visits by successful applicants

| Would the AB comment on suggestions to narrow the spending gap.

*Outputs*

The visits completed so far have led to one MSc project and one PhD studentship, as well as plans to publish work in three cases. This is likely to be typical of future visits.



## Item 6: Supplementary funds

A number of institutions pledged a financial contribution to the network in their letters of support for the grant proposal. These were broadly of two types:

- (i) 12 offered specific amounts per year, totalling £8,500 p.a.
- (ii) 8 offered 'up to' a specific amount or a range, totalling (max) £7,500 p.a.

We have initially targeted institutions in (i), while those in (ii) will be contacted to fund specific activities, as required.

### *Income*

A total of £5,000 from 7 institutions has been received to date, consisting of £4,000 in Year 1 contributions, plus £1,000 in advance for Years 2 and 3 from one institution. There is also £2,500 pending from two further institutions.

### *Outgoings*

A total of £700 has been spent to date, all on competition prizes:

- 2 × £200 website photo/video competition
- 2 × £150 student presentation and poster prizes at 2017 UK Fluids Conference

### *Other ideas*

- Dissertation prize  
UKFN plans to launch a new prize for the best fluids-related doctoral thesis, and for the winner to give a plenary talk at the UK Fluids Conference. UKFN is in discussion with the organisers of the next UKFC (Manchester, Sep 2018) to this effect.

The provisional plan for the first competition is for dissertations submitted during 2017 to be eligible, for nominations by examiners to be made by end March 2018, and for the winner to be decided by end April 2018. This would tie in well with UKFC's timeline. The prize amount has not been fixed yet, but would be in the range £300-£500. There would be honourable mentions for runners-up.

- In general, we foresee supplementary funds of up to £5k being available for further prizes or general discretionary funding in the future. For example, UKFN is sponsoring Tom Crawford's visit to APS (see Item 7): in this instance, we decided to use funds in the general travel and subsistence budget, since this is likely to underspend, otherwise this would have been the kind of discretionary use envisaged.
- Other publicity/outreach activities outlined previously, including published material (articles, books, films), events (lectures, schools) – further suggestions?

Would the AB comment on the use of supplementary funds so far, and discuss ideas for future spending.

## Item 7: Interactions with other fluids-related bodies

The UK Fluids Network has several ongoing associations with others having an interest in fluid mechanics.

### *ERCOFTAC<sup>1</sup>*

UKFN has agreed to take over the running of ERCOFTAC's UK Pilot Centre, formerly run out of Zenotech Ltd by AB member DS. MJ attended the 2017 Autumn Festival at TU Delft last month, and met many of those involved.

UKFN will work with ERCOFTAC's UK administrative staff to promote the organization and, in collaboration with University of Manchester, organize the Osborne Reynolds Day meeting each July.

This development will provide a valuable opportunity to connect with an important part of the European fluids community.

### *Journal of Fluid Mechanics/(Naked Scientists)*

UKFN has teamed up with Tom Crawford, formerly of BBC's Naked Scientists radio programme and currently social media editor for the Journal of Fluid Mechanics, to publicise UKFN through publishing stories online about fluids research being carried out by UKFN members.

Along with Nicole Sharp of the FY Fluid Dynamics blog (<http://fyfluidynamics.com/>), Tom covered the recent APS-DFD meeting, interviewing speakers and other conference-goers from the UK to feature in the JFM blog and on the UKFN website. In the near future, Tom will also advertise winners and participants in the various UKFN-sponsored competitions, to tell the story behind the images and videos.

JFM have agreed to help publicize UKFN, and in return UKFN will provide JFM with a route into the UK fluids community, for example to canvass opinion on new ideas for the journal.

### *EPSRC*

UKFN has initiated a dialogue with EPSRC on possible ways that the network could provide input on fluid mechanics. Michael Ward, former portfolio manager in Continuum Mechanics under the Mathematics theme, discussed options with MJ/ND (27/7/17):

- Outputs from UKFN SIGs could be used to promote fluid mechanics/continuum mechanics (designated a growth area under Mathematics), e.g. EPSRC blog, *Pioneer* magazine
- There is a move to increase community-led proposals from 55% to 60%, and UKFN SIGs would be in an excellent position to respond
- The UKFN photo/video competition could propose a theme promoting continuum mechanics, such as 'the interface between solid and fluid mechanics'

Further discussions will be held when the SIGs have generated some outputs, while in the short term a themed photo/video competition has been launched on the UKFN website as suggested.

### *Government Office for Science*

MJ attended a workshop between policy makers and scientists at the Cambridge Centre for Science and Policy (CSaP). One of the comments from the Director of the Government Office for Science, Dr. Rupert Lewis, was that his office would like to have access to a network of experts who can respond to questions at short notice. MJ is exploring, through CSaP, whether and how the UKFN could act as such a network.

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<sup>1</sup> European Research Community on Flow, Turbulence and Combustion, <http://www.ercoftac.org/>.

*Acoustics network*

The UK Acoustics Network (<http://gow.epsrc.ac.uk/NGBOViewGrant.aspx?GrantRef=EP/R005001/1>) has recently been funded by EPSRC and formally started 6/11/17. We have had discussions with the organisers to share our experiences running UKFN, which they have found very helpful.

- Would the AB comment on how UKFN could get the most benefit from these opportunities.

## Item 8: Maintaining UKFN

The UKFN grant ends 31/8/19, by which time all planned activities, in particular SIG meetings and SRVs, must have been completed. Although the project is less than half-way through, it is worthwhile to begin now planning how to maintain UKFN after the end of the grant.

The most important parts of UKFN to maintain are the website and the SIGs.

- (a) The website has been set up to be straightforward to maintain without detailed coding knowledge, so the main issue here is finding new content to add and someone to add it.
- (b) The SIGs would ideally continue to meet at regular intervals and develop further their activities to define research objectives in their area, stimulate collaborations and assist PhD students and ECRs to engage with the research community in their area.

Costs for (a) would be relatively minor, typically £100 per annum for web hosting and maintaining the domain name.

Costs for (b) would be more substantial, and SIGs would be expected to arrange their own sources of continuation funding. This could be by subscription from member institutions or industrial partners.

EPSRC is about to launch a new call for Centres for Doctoral Training, which will start in Summer 2019 and accept their first students in October 2019. A CDT proposal may well be strengthened by linking into existing SIGs within the UK, so that PhD students become aware of research in their area at other institutions in the UK and are therefore more likely to stay in the UK after their doctoral training. We could explore the options of a CDT adding a relatively small amount of money to their proposal to support SIG meetings for the next 5-8 years. The UKFN could broker links between SIGs and new and existing CDT proposals

Would the AB comment on the choice and funding of UKFN activities after the grant ends.