

Meeting of UKFN Advisory Board

16:00, Wednesday 29 March 2017
via Webex

MINUTES

Present:

Matthew Juniper (Chair)
Nick Daish
Simon Bittleston
Ton van den Bremer
Ann Karagozian
David Standingford

Apologies:

GertJan van Heijst

MJ noted that this was an *ad hoc* meeting, in between the scheduled annual AB meetings, to review progress over the first 6 months.

1. Minutes of last AB meeting (21/9/16)

The AB unanimously accepted the minutes from the last AB meeting.

2. Outstanding actions from previous EC and AB meetings

- (a) There were two outstanding actions from the last EC meeting (9/9/16), both ongoing:
- ND continues to pursue further series of talks to list on the website Talks page (see also Item 3)
 - MJ and ND will shortly approach project partners for supplementary funds (see also Item 6)
- (b) There were two outstanding actions from the last AB meeting (21/9/16), both ongoing:
- ND will shortly conclude the application to acquire the *fluids.ac.uk* domain name.
 - Web developer to add Jobs page, but this is a lower priority.

There were no further comments from the AB.

3. Website

MJ reported on the current status of the website under the headings of Home, Registration, SIGs, SRVs, Talks and Admin. MJ also reported on the next main developments for the website.

MJ noted two actions from the recent EC meeting, namely (i) to investigate browser issues raised by Neil Sandham (EC member assigned to monitor website), and (ii) to add more information on the *raison d'être* of the UK Fluids Network in the home page Welcome panel.

SB commented that a greater range of talks would be welcome. TvdB gave several suggestions for minor improvements¹:

¹ Provided offline, by email.

- Add an 'About' menu item, giving pictures and bios of the management team, to give the network a 'human dimension'
- 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)
- Add more functionality to the SIG pages, such as
 - Show which SIGs a logged-in user belongs to
 - Add a 'Join SIG Mailing List' button on the SIG's Home tab. This would allow anyone to follow what that SIG is doing, and increase participation in the SIGs across the network. SIG leaders could post, for example, meeting minutes to the mailing list.

4. Special Interest Groups

MJ noted that there had been two rounds of SIG proposals, and there were now altogether 41 SIGs in operation². Many of these had either planned or already held their first meetings. The focus now was to be on two operational aspects of the SIGs: (i) monitoring their spending, in particular whether they would under-spend, and (ii) sharing best practice between SIGs.

Spending plans

MJ reported that the EC had agreed on a mechanism to handle possible under-spending by SIGs, namely they would be asked to provide a spending plan, which would be reviewed periodically by the EC: the SIG leader would be notified if an under-spend appeared likely, and if corrective action could not be taken the unused funds would be reallocated, either to existing SIGs or to fund a small number (e.g. 2-5) of new SIGs in a third round. MJ noted that it was probably unlikely this would be invoked, since the spending plan would encourage full utilisation of funds, but it was important to have a mechanism in place. A draft email explaining this to the SIG leaders had been prepared, and would be sent shortly.

In response to a question by AK, MJ noted that the spending plan would allow SIGs to choose when they spent funds allocated to them, and would not be penalised for spending more near the end of the project, provided it was laid out in their plan.

In response to a question by TvdB, MJ noted that the SIGs rejected in the second round were either too expensive per member or did not have clear outputs, despite being well-thought-out scientifically. If there was a third round it would be an open call, allowing re-applications once more.

The AB agreed that the SIG leaders could be notified of the mechanism to monitor spending, as outlined.

Sharing best practice between SIGs

MJ noted that each SIG had been allocated to a specific EC member, who will therefore be responsible for 8 or 9 different SIGs. The purpose of this was principally to encourage sharing of best practice between SIGs, but, at this stage, it was not clear how this would be implemented, and it would be a matter of seeing what worked best. The situation across all the SIGs would be reviewed in 6 months' time.

² In the 1st round, 26 out of 46 SIGs were approved for funding. The 20 unsuccessful applications all received feedback, and 15 of these re-applied in the 2nd round, together with 4 new proposals: this time, 15 out of 19 were approved for funding, with 2 re-applications and 2 new proposals unsuccessful.

MJ and SB both noted that one problem was how to get the SIG members to come to the meetings. One option might be to require all those who attend to contribute to the meeting through a presentation, etc. A record of who has and has not attended meetings could be useful.

SB enquired whether other areas also had SIGs. MJ noted EPSRC (Mike Ward) viewed SIGs as a good idea but not common; some EPSRC networks had SIG activities, but on a much smaller scale than UKFN.

5. Short Research Visits

MJ reported the first batch of SRVs had been allocated, 5 in all, which was the expected average rate, and noted they are all academic to academic visits so far. TvdB commented greater diversity would be welcome, which in turn would probably need SRVs to be publicised more widely. SB suggested a review of the visits after the scheme had been in operation for one year.

MJ noted that Items 1-5 were largely reporting on setting up the major focus of the network (website, SIGs, SRVs) while Items 6-8 were focused on making the best use of what is now in place.

6. Supplementary funds

MJ gave an overview of discussions at the EC meeting on possible uses of supplementary funds pledged by the project partners, focusing on prizes and outreach/public engagement.

(a) Concerning prizes, the EC had agreed to pursue three lines:

- Prizes for best image and video (with short description) submitted to website. The AB agreed this was an excellent idea.
- Prize for best presentation and poster by Early Career Researchers at the UK Fluids Conference. The amounts would be discussed with the conference organisers but a provisional figure might be £1000 total per year.
- Prize for best doctoral thesis, where examiners nominate outstanding dissertations. This would emulate the Acrivos prize in the US, with the winner giving a plenary talk at the following year's UK Fluids Conference.

MJ/ND were in the process of discussing the second and third of these with the UK Fluids Conference organisers. Again, the AB agreed these were both very good ideas, as ways to recognise and appreciate ECRs.

(b) Concerning outreach/public engagement, the EC had agreed several options worth further investigation:

- UKFN would work with EPSRC on publicity highlighting Continuum Mechanics, which is an area they want to grow.
- Paul Linden, from the EC, together with MJ are to meet with Cambridge University Press/Journal of Fluid Mechanics to discuss producing a revised Album of Fluid Motion and, in the longer term, a re-make of the NSF fluid mechanics films. In both cases, there had been significant advances in experimental techniques, e.g. PIV, numerical simulations, which could now be exploited. SB commented such updated versions were long overdue.
- Following publication of their book on climate change book, the Ladybird Expert series could be amenable to fluids-related titles. SB commented it would need the right person

in each case; MJ noted the titles would need to be commissioned, with appropriate remuneration.

- Paul Linden would also follow up with the BBC's "Naked Scientists" for a radio article about fluids.
- Public events (e.g. science festivals, public lectures, school visits) would be considered further at future meetings.

MJ/ND were drafting a 1-page document to send to institutions to accompany the request for their pledged contributions.

SB reported that he had been approached for ideas for this year's Royal Institution Christmas Lectures, and that a fluids-related theme could be suggested if this had not already been covered in previous years.

Action: MJ/ND to check if fluid mechanics has provided the theme in previous RI Christmas Lectures, and report back to SB³.

There were no further comments.

7. Engagement with other UK activities

MJ noted UKFN was in discussions with both ERCOFTAC⁴ and konfer⁵. The meeting discussion focused on ERCOFTAC. In particular, it was noted that the EC had agreed UKFN would take over responsibility of the UK Pilot Centre (UKPC) from DS/Zenotech. DS commented this was a natural and appropriate linkage, and was supportive of the transfer.

MJ noted that the important points were:

- MJ would attend ERCOFTAC meetings, in spring and autumn, giving a direct route into an established European fluids network;
- Annual Osborne Reynolds Day to be organised – noting that it did not currently seem feasible to combine this with the UK Fluids Conference due to timing issues;
- Industry Day to be organised;
- ERCOFTAC runs the QNET Wiki, a repository of test cases aimed at CFD. UKFN SIGs could submit materials to QNET, and there may be opportunities for researchers from UKFN SIGs to provide sub-editing support.
- MJ agreed to continue as coordinator of the UKPC independently of the future of UKFN.

The AB members were in agreement.

8. Liaising with EPSRC

MJ reported that Mike Ward of EPSRC (Mathematics Portfolio Manager) had been present at the recent EC meeting, and had outlined some future aspirations:

- Continuum mechanics was earmarked for growth

³ A list is available at https://en.wikipedia.org/wiki/Royal_Institution_Christmas_Lectures, showing the only lectures with "fluids" in the title was in 1899 ("Fluids in Motion and at Rest" by Charles Vernon Boys), while there were some aspects of flight in 1983's "Machines in motion" by Leonard Maunder, plus various other topics on sound, vibration and waves. The answer therefore appears to be "no".

⁴ European Research Community on Flow, Turbulence and Combustion (<http://www.ercoftac.org/>).

⁵ <https://konfer.online/>.

- More researcher-led proposals (as opposed to managed calls) were likely
- More networks encouraged (reflecting well on UKFN)

MJ would arrange a meeting with EPSRC in about 3 months' time to discuss what is coming out of the SIGs, with the hope this would become a regular event.

SB reported that he had recently met with a government representative, who was interested in business engagement with academia. The UK Fluids Network was mentioned as an example of this, and there may be an opportunity to raise the profile of UKFN in this arena through sharing UKFN's discussions with EPSRC.

The question of the current level of industrial involvement in UKFN SIGs was raised. ND reported that, based on the named individuals on SIG proposals, 15% of the current totals were non-academic (120 out of 818); however, a number of proposals had named businesses but not individuals, so their number was likely to be somewhat higher. Nevertheless, the AB agreed there was a need to increase industrial participation. The ERCOFTAC Industry Day could be used to encourage the industrial contacts of the UKFN SIGs to play a more prominent role.

9. Any other business.

MJ noted that UKFN had encouraged SIGs to respond to the recent call for EUROMECH⁶ Colloquia for 2018, and that some had indeed submitted proposals. In addition, at the EC meeting Paul Linden (who is on the EUROMECH Council) had offered to screen them for correct input.

There was discussion about preparations for a CDT proposal, should there be a call in the lifetime of the UKFN. The SIGs would be the obvious nuclei for bids; MJ noted that 3 SIGs had explicitly put the creation of a CDT in their research area as one of their goals. SB noted that early preparation was essential.

10. Next meeting

It was agreed the next AB meeting would be scheduled for 6 months' time (September 2017).

Action: ND to poll AB members in July 2017 for possible dates.

⁶ European Mechanics Society (<http://www.euromech.org/>).