

UK Fluids Network Special Interest Groups: second call for proposals

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The UK Fluids Network (UKFN) is a 3-year EPSRC-funded network of academic and industrial research groups, focused on innovative developments and applications in fluid mechanics. Activities started in September 2016 and include funding Special Interest Groups (SIGs) and Short Research Visits, developing and maintaining a website, providing online technical resources and engaging with the public.

Funding for the first round of SIGs was awarded in November 2016, and the UKFN is now pleased to invite proposals for a second round. This note gives the context of the call and sets out the information you should provide in your proposal. Results and analysis of the first round are on the UKFN website, <https://ukfluids.net/sig>.

What is a Special Interest Group?

- A SIG is a group of up to 40 UK-based researchers with a shared interest in a specific aspect of fluid mechanics.
- The special interest could be based around, for example, an industrial or societal challenge, an interdisciplinary problem, an application, a method, or a facility.
- In each case, its core members will be academics, but there can also be members from industry and other interested parties where appropriate to the topic.
- For SIGs with an industrial focus, a particular aim is to expose academic researchers to industry's most pressing needs and to expose industry to rapidly-advancing areas that may lead to new business opportunities.

What could Special Interest Groups do?

- SIGs will typically meet twice a year to present current research, refine ideas, propagate them within the research community, critically review joint research possibilities, and then propose carefully-targeted research projects to funding bodies and, where appropriate, to industry.
- SIGs could produce researcher resources for the UKFN website, such as best practice documents, tutorials and graduate courses, hints and tips, and videos
- SIGs could think strategically about their research area, compiling a reasoned list of capital facilities, equipment, and infrastructure that is required for long term sustainability.
- SIGs could, if appropriate, develop a list of grand challenges in their area to stimulate funding bodies, the public and industry.
- SIGs should encourage PDRAs and PhDs to play an active role, and could aim to expand into ERCOFTAC SIGs by including European partners.
- SIGs with industrial involvement should aim to scale up collaborations between academic and industrial researchers so that they evolve into a critical mass of activity, with multiple points of contact, a clear framework and a longer-term horizon.

What will the UK Fluids Network fund?

- The UKFN will typically fund 6 meetings of approximately 40 SIGs over a 3-year period. A total of 26 SIGs have already been approved for funding following the first call.
- The UKFN will typically contribute £2k per SIG meeting for the venue, lunch during meetings, and overnight accommodation if required, as outlined in the relevant section of the proposal's Justification of Resources*. SIG members will be expected to pay some of their costs - e.g. for travel.
- The amount of funding requested should reflect the size of the SIG, in line with the JoR*. The UKFN will fund no more than 40 members in a single SIG event.

* "We have based the budget on 40 SIGs, each meeting 6 times during the network, with the network contributing £2000 per meeting. This figure is based on meetings that last for 24 hours, starting at lunchtime on Day 1 and ending at lunchtime on Day 2, with the network paying for the venue, two buffet lunches, and accommodation for 10 non-local researchers. Attendees would pay for their own travel and evening meals. We realise, however, that SIGs will vary and that this model will need to be flexible. For example, some larger SIGs may require attendees to pay for their own accommodation or may wish to fund a plenary speaker from overseas. The general administrative guidelines will be that the network receives a single bill from the venue in order to minimize administration and that costs and contributions will be agreed before meetings."

How will the SIGs be chosen?

- The Executive Committee, overseen by the Advisory Board, will prioritize SIGs that have the highest potential to achieve the aims of the network. These aims are:
 - **To initiate novel and creative fluid mechanics research, within and across discipline boundaries;**
Is the subject area engaging? Does the SIG contain an appropriate mix of people? Will the SIG distil existing knowledge in the field, plan research directions and define research challenges?
 - **To provide a forum for the UK fluids community to speak collectively to research councils;**
Will the SIG members work together to identify funding needs, write proposals, submit proposals? Will it proactively engage with Research Councils?
 - **To maximize the impact of EPSRC's recent investment in fluid mechanics;**
Will the SIG help the sharing of UK resources? Will it hold training events? Will it involve graduate students and early career researchers? Will it engage with the public?
 - **To maximize the utility and value of applied projects by engaging as a group with UK industry;**
Will the SIG encourage engagement between industry and academia? If appropriate, has it assembled a group of industrial users?
 - **To keep the UK an international focal point for creative, innovative, and relevant fluids research.**
Will the SIG raise the profile of the research area, create training resources, create researcher resources? Will it involve researchers from outside the UK?
 - **Overall:**
Has the SIG clearly defined a set of productive activities and useful outputs? Will it have a worthwhile legacy in 5-10 years' time?

Proposals are encouraged to use the suggested criteria to self-screen their activities and outputs, to encourage better alignment with the aims of the network (see also the list of activities and outputs in the workbook *UKFN_SIGs_Call1_summary.xlsx*, downloadable from <https://ukfluids.net/sig>).

- The EC may also take into account the degree to which the SIG overlaps with other proposed SIGs, as well as its complementarity relative to existing networks and groups in the same area.
- For SIGs with industrial involvement, we particularly encourage applications involving SMEs that have not engaged with university research before.

Proposal format

A proposal should contain the following four items.

1. *Title*
2. *Overview of SIG (up to 50 words)*
Please give a brief description of the subject/scope of the SIG.
3. *Proposed members*
Please list the researchers who will participate, their affiliation, and their broad area of expertise. At least three academic institutions should take part. For SIGs with industrial involvement, we would suggest typically three participants from industry. Please nominate a SIG leader, who will be the point of contact with the UKFN, and a co-leader from a different organization.

4. *Description of SIG (up to 500 words, excluding titles)*

Please describe the following aspects of the SIG:

- a. Subject and scope
- b. Proposed activities and outputs
- c. Industry involvement, if appropriate
- d. Funding requested from the UKFN

Submission details

Applications should be sent to sig@ukfluids.net by 31 January 2017. The results will be announced by 28 February 2017, and the SIGs chosen for this round will formally start on 1 March 2017.