



Member Networks Annual Report Form

Reporting events held in 2018 and those planned for 2019

In line with the rules for member networks and to enable us to better support our networks and their activities all member networks (Local Sections, Interest Groups and Analytical Division Regions) are asked to complete this form and return it to networks@rsc.org or by post to: Networks Team, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF.

Deadlines

Deadline for receipt of Financial Accounts by RSC Finance Team: **8th February 2019**

Deadline for receipt of Annual Report by Networks Team: **25th February 2019**

If there is any reason that your committee will **not** be able to meet either or both of these deadlines please inform networks@rsc.org as soon as possible.

This report will be uploaded to your web page to share with the members of your network. Staff will also share a digest of all member networks activities taken solely from these annual reports with appropriate staff and governance boards and committees including Division Councils with similar interests.

Committee	Formulation Science and Technology Group
Completed by	Dr Helen Ryder
Date	Monday, 25 February 2019

Please list below the dates of all of your planned committee meetings and, if held, AGM.

Annual General Meeting (if being held)

Date	Friday, 13 December 2019
Venue	Burlington House

Proposed Committee Meetings Dates

Date	Venue
Thursday, 24 January 2019	Teleconference
Wednesday, 27 February 2019	Teleconference
Monday, 25 March 2019	Teleconference
Tuesday, 30 April 2019	Teleconference
Wednesday, 22 May 2019	Face-to-face, Manchester
Tuesday, 18 June 2019	Teleconference
Wednesday, 24 July 2019	Teleconference
Thursday, 26 September 2019	Teleconference
Tuesday, 22 October 2019	Teleconference
Wednesday, 27 November 2019	Teleconference
Tuesday, 10 December 2019	Teleconference



2018 Events

Please report below on activities undertaken in the past year. Please select the type of event and target audience from the drop-down menus. For example, a workshop for Early Career members can be categorised as “Training/ Workshop” for “Early Career Members”.

The categories are as follows:

Event Types:

- Award Lecture
- Education Event
- Networking Event
- Outreach Event
- Public Lecture
- Scientific Meeting (half-day, one-day or multi-day)
- Social Event
- Training/ Workshop
- Other

Audience:

- Academics
- Consultants
- Early Career
- Industrialists
- Members of the public
- Postgraduates & PhD students
- Retired members
- School students
- School teachers
- Technicians & Support staff
- Undergraduates

If you wish to include more detailed information about any particularly successful events or advice to share please do so in the provided space. Please append electronic copies of any meeting reports, newsletters or relevant materials to this report.

For additional events please copy and paste the table and continue as necessary.

Event Name	Powder Flow 2018: Flow of Cohesive Powders, <i>London</i>
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Start Date	12 April 2018
End Date	12 April 2018
No. Attendees	25-50
Comments	<p style="text-align: center;">Powder Flow 2018 - 12th April, London</p>  <p style="text-align: center;">Cohesive Powder Flow #pf18cohesive</p> <p>This one day meeting focussed on cohesive powders to provide an understanding of the key properties, how to measure / model them and their influence on powder flow so to optimise product performance and robust powder manufacture. The meeting highlighted the major progress that has been made in the understanding of cohesive powders over the last 10 years, moving from art to science, and suggested that the next advances in the field will come from a closer integration of modelling, sophisticated microstructural characterisation and experimental measurements, rather than the development of more complex powder measurement tools.</p> <p>A spin off event 'Control of Cohesive Powder Flow' is planned for January 2019 at Centre for Process Integration – National Formulation Centre.</p> <p>This event was targeted at both industrialists and academics.</p> <p>Conference website with summary of meeting and links to presentations can be found here: https://www.formulation.org.uk/conferences/past-conferences/2018/powder-flow-2018.html</p>

Event Name	Future Formulation II, Nottingham
Event Type	Scientific Meeting - One-day
Audience	Academics
Start Date	16 May 2018
End Date	16 May 2018
No. Attendees	50-100
Comments	<p>This was the second meeting in the series and a chance for the recipients of the seven grants awarded under the EPSRC's "Future Formulation of Complex Products" call (2016). This meeting provided an opportunity for the seven project leads to update on progress in their projects, which have been running for over a year now and have started tackling some of the difficult formulation challenges across a diverse range of applications.</p> <p>The meeting was hosted by the Centre of Additive Manufacture in Nottingham (one of the project leads) and included a tour of the facilities for all delegates.</p> <p>Conference website with summary of meeting and links to presentations can be found here: https://www.formulation.org.uk/conferences/past-conferences/2018/future-formulation-2.html</p>

Event Name	X-rays: A Clever Characterisation for Smarter Formulations, Diamond Light Source, Harwell
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Start Date	19 June 2018
End Date	19 June 2018
No. Attendees	25-50
Comments	<p>This was a spin-off event to our Clever Characterisation for Smarter Formulation series enabling scientists to share and discuss modern characterisation techniques. This event was organised with, and hosted by, Diamond Light Source and focused on the big facilities at Diamond and their application to formulation. The event had both industrial and academic talks as well as a panel discussion and tour of Diamond.</p> <p>This event was targeted at both industrialists and academics.</p>

Event Name	Personal Care: Advances in Anti-ageing for Skin, <i>London</i>
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Start Date	18 September 2018
End Date	18 September 2018
No. Attendees	25-50
Comments	<p>This is the third meeting on personal care and focused this year on skin science, the effects of ageing and anti-ageing actives. The lectures were on formulation, regulation, encapsulation/delivery, and UV damage and there was plenty of time to network.</p> <p>This event was targeted at both industrialists, formulators and academics.</p> <p>Conference website and links to presentations can be found here: https://www.formulation.org.uk/conferences/past-conferences/2018/advances-in-anti-ageing-for-skin.html</p>

Event Name	MiBio 2018: Stability of Biopharmaceuticals – From Molecular Interactions to Successful Products, <i>Cambridge</i>
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Start Date	15 November 2018
End Date	15 November 2018
No. Attendees	50-100
Comments	 <p>MiBio 2018 was organised jointly with the Joint Colloids Group (RSC/SCI) and the Academy of Pharmaceutical Sciences (APS). This was the eighth annual MiBio conference and engaged world-leading experts from academia and industry in a discussion about the latest advances in understanding molecular interactions that can be harnessed to improve formulations of biopharmaceutical products.</p> <p>This year's talks focused on the challenges surrounding (and the</p>

	<p>strategies to overcome) the increasing demand for formulation of therapeutic proteins, growing competition in the market, patient-centric product strategies, and the variety of products in development and more complex regulatory requirements and dosage forms.</p> <p>This event was targeted at both industrialists and academics.</p> <p>Conference website and links to presentations can be found here: https://www.formulation.org.uk/conferences/past-conferences/2018/mibio2018.html</p>
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Event Name	Formulation 4.0, London
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Start Date	12 December 2018
End Date	12 December 2018
No. Attendees	50-100
Comments	 <p>This meeting concentrated on the application of Industry 4.0 approach to formulated products, in particular where digital principles are being applied to help formulation. Talks concentrated on the development of new academia and industry approaches to improve the manufacture of formulated products and we heard from EPSRC's Connected Everything project, Industrial Systems in the Digital Age who provide tools to enable Industry 4.0.</p> <p>This event was targeted at both industrialists and academics.</p> <p>Conference website and links to presentations can be found here: https://www.formulation.org.uk/conferences/past-conferences/2018/f4.html</p>



FSTG supporting other formulation related meetings throughout 2018:

FSTG supported the launch of the **SCI's Formulation Forum** (17-18 January 2018). Their aim is aligned with the FSTG to provide industry-academic link, foster collaboration and hold 2-day workshops. The forum is focused on networking (rather than technically orientated events) and the FSTG have been involved to support this initiative and help us reach a broader audience and network.

<https://www.soci.org/interest-groups/technical-groups/formulation-forum>

FSTG supported the **National Formulation Workshop: The Future of Formulation @ MIF (Materials Innovation factory)**, Liverpool (14 June) which explored the possible impact of utilising formulation techniques across a range of scientific areas. The meeting included an overview of formulation, and then looked at specific areas such as manufacturing, Pickering emulsions, encapsulation, and high throughput, before explained how can use new formulation techniques to transfer to sustainable materials. A tour of the MIF was a good opportunity to see some of the equipment available prior to the overview of capabilities (within the Henry Royce Institute, National Centre for Advanced Materials).

<https://www.liverpool.ac.uk/events/event/?eventid=88544>



Awards and Bursaries

Please list any awards or bursaries presented by your committee in the past 12 months and indicate any that will be open for nomination/application in the next calendar year.

Please also include information about the application/nomination and selection processes.

Please ensure that **all** members of your network are notified of any awards or bursaries for general application. These notifications can be sent via e-alert through networks@rsc.org.

Award	Gordon J. Tiddy Travel Bursary Scheme
Award Type	Bursary
Audience	Academics
Nomination/ application deadline	Open award – no deadline
Number of nominations/ applications	One for 2018
Award winner(s) and institution(s)	MHD Bashir Alsirawan, University of Bradford
Comments	Attendance to 11th World Meeting on Pharmaceuticals, Biopharmaceutics and Pharmaceutical Technology, Granada, Spain. Poster presentation. Awarded £500.

Travel Bursary Scheme

The Gordon J. Tiddy bursary is an award made for the purpose of assisting in travel to non-FSTG conferences in the UK and overseas. Bursaries are provided solely to offset the costs of travel and accommodation and are normally limited to a maximum of £500. Note the bursary scheme does not cover meetings organized wholly by the FSTG within the UK, for which alternative grant or discount schemes may be organised by the meeting committee as it sees appropriate.

Full details on the applicant eligibility and the application process are available the FSTG website: <https://www.formulation.org.uk/awards-bursaries.html>

Award

The Elizabeth Colbourn Memorial Lecture in the Application of Advanced Computer Techniques to Formulation. This is an occasional lecture that will be incorporated within appropriate meetings of the FSTG following the generous donation received by the Royal Society of Chemistry in 2015 in memory of Dr Elizabeth Colbourn.

Further details about Liz and this legacy can be found on the FSTG website: <http://www.formulation.org.uk/awards-bursaries/awards.html>

Other forms of Recognition provided by your committee: Currently none



Other information/comments:

Working for our members ...

... Through Conferences

The primary role of FSTG is to run conferences for the UK formulation science and technology community and 2018 was another active year for the FSTG. Our conferences have all had good attendance (ranging from small (n=40 delegates) meetings to larger (n=100+ delegates) events and received positive feedback. We recognise that formulation means different things to different people and by working collaboratively with other committees (e.g. SCI) and jointly organising events (e.g. MiBio2018) we are able to bring formulation to a broader audience than we would have achieved alone.

We are looking forward to hosting Formula X in Manchester. Formula X is a three day international event and will attract ~200 delegates. NanoFormulation2019 will run alongside it. This event has been three years in the planning and we have been using our conferences/events to shape sessions, develop networks, create bigger engagement and identify sponsors & contacts (industry/SME/academics).

... Through Communication

Communication with our members has continued via our website, email updates and our active LinkedIn Group. We do however recognise we need to do more to connect through various network channels and social media and are keen to learn from others to support us in this. Our terms of reference outline our promise to act as an international forum at all stages of product formulation and to be a key point of reference for professionals in the field of formulation science and technology. The FSTG remains committed to supporting, and contributing to, identifying best practices, promoting innovation and raising awareness of developments for the benefit of the scientific community. We ensure presentations from past events are available on the FSTG website, alongside a short conference report.

FSTG website: <http://www.formulation.org.uk>

... Through Networks

The FSTG was set up 20 years ago in the belief that formulation was a transferrable skill from industry to industry. The FSTG works closely with a number of different interest groups, research institutes and other agencies to deliver events. We have played an active role throughout 2018 to bring scientists, industrialists and academics together to be part of another exciting year for formulation science and technology. Many of our committee members are also members of other key committees helping us to connect with the broader formulation community.

Throughout 2018 we have worked closely with stakeholders and explicitly helped the initiatives of other national players in formulation; for example our relationship with the CPI National Formulation Centre has continued to grow; we have continued to engage with the SCI's Formulation Forum; and we have re-aligned our activities in line with the Industrial Strategy and hosted our first Formulation 4.0 event. For 2019 and beyond we will continue to broaden our networks further and look forward to hosting our first early-careers event, Formative Formulation. The FSTG will continue to address the technical challenges in formulation, and work alongside the Royal Society of Chemistry to advance the chemical sciences together.



Future Activities

When planning any activities please remember to ensure that all events are logged on our events database and ensure that all contracts are sent to our Legal Team with enough time for amendments and, where necessary, approval by the Board.

Please outline any activities already in planning for the next calendar year. Please include the type of event and the target audience.

For additional events please copy and paste the table and continue as necessary.

Event Name	Integrated control in Powder Formulation, <i>Sedgefield</i>
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Proposed Date	17 th January 2019
Comments	The meeting will cover are multi-scale modelling, the application of PAT control to powder processing, Models Based Control and the industrial applications of these combined formulation technologies; highlighting how they can be used to deliver high-quality powder products in an efficient and agile way. Conference Website: https://www.formulation.org.uk/pf

Event Name	Formative Formulation, <i>Cambridge</i>
Event Type	Scientific Meeting - One-day
Audience	Early Career
Proposed Date	18 th March 2019
Comments	Early career meeting for academic and industrial researchers in all aspects of formulation and colloid science. Conference Website: https://www.formulation.org.uk/form

Event Name	Future Formulation III, <i>Leicester</i>
Event Type	Scientific Meeting - One-day
Audience	Academics
Proposed Date	4 th April 2019
Comments	This will be the third meeting and an opportunity to hear about the progress made by the grants awarded under the EPSRC's "Future Formulation of Complex Products" call. Conference Website: https://www.formulation.org.uk/ff

Event Name	Formula X, <i>Manchester</i>
Event Type	Scientific Meeting - Multi-day
Audience	Academics
Proposed Date	24-27 June 2019
Comments	<p>The Formula conference series covers the whole of traditional formulation science and technology, from the most fundamental and theoretical to the most applied aspects. The headline of the conference “Understand Formulate Innovate” highlights the direction of travel for the formulating industries where more research and development is now aimed at developing the understanding before formulation occurs, which is driving new types of innovation.</p> <p>The first Formula Conferences were initiated and organized by the French Chemical Society (SCF - 1987) and later (Formula IV, 2005) they expanded with the incorporation of various European Societies including the FSTG. The FSTG was (and remains) part of the organised the International Advisory Board and organised the NanoFormulation2016 event which formed part of the Formula VIII programme. Formula X offers the chance for the formulation science and technology community to see what’s new, learn how to change formulation practice, meet practitioners from a wide range of industries and start new collaborations.</p> <p>Formula X will be held in Manchester with FSTG as the lead organiser. Note that this meeting is aimed at both academics and industrialists with an expected 50:50 attendance split. Expected attendance of 150-200 people.</p> <p>Conference Website: https://www.formulation.org.uk/fx</p>

Event Name	Formulating Functional Films and Coatings, <i>London</i>
Event Type	Scientific Meeting - One-day
Audience	Academics
Proposed Date	October 2019
Comments	<p>This is the second meeting in the series aiming to highlight advances in the functionality that is brought through formulation to films and coating.</p> <p>Aimed at both industrialists and academics.</p>

Event Name	MiBio2019, TBC
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Proposed Date	November 2019
Comments	<p>This one day conference will be the ninth in the MiBio series and will engage world leading experts from academia and industry in a discussion about the latest advances in understanding molecular interactions that can be harnessed to improve formulations of biopharmaceutical products.</p> <p>Aimed at both industrialists and academics.</p> <p>Topic: TBC</p>

Event Name	Formulation 4.1, London
Event Type	Scientific Meeting - One-day
Audience	Industrialists
Proposed Date	November 2019
Comments	<p>After Formulation 4.0, this will be a second chapter of the story of bringing digital to all aspect of formulation.</p> <p>Aimed at both industrialists and academics.</p>

Committee

This information will be used to update our membership database and your web page. Please ensure that any changes to the committee are sent to networks@rsc.org as soon as possible.

Position	Name	Dates on committee (20xx – 20xx)
Chair	Simon Gibbon, AkzoNobel	2012 – present
Secretary	Helen Ryder, The University of Manchester	2012 – present
Treasurer	Bernadeta Pochopien, BP	2019 – present (co-opted 2017 & 2018)
Ordinary Members	David Higgins, Higgins Consultancy Ltd	1999 – present (Chair until Dec 2011)
	Matthew Giles, Innospec Ltd	2006 – present (Treasurer until Dec 2014)
	Flor Siperstein, The University of Manchester	2008 – present (Deputy secretary in 2016/17)
	Kevan Hatchman, StarBrands Ltd	2012 – present
	Jan Jezek, Arecor	2012 – present
	Vivek Trivedi, University of Greenwich	2013 – present
	Cuross Bakhtiar, Harley Street Cosmetic Ltd	2015 – present
	Roslyn Holmes, Lambson	2016 – present
	Graeme Cruickshank, Centre for Process Innovation	2017 – present
	Emmanuel Ajayj, Nalco Champion	2017 – present
	Christopher Ness, University of Cambridge	2018 – present
	Caroline Kelly, Centre for Process Innovation	2019 – present
	Alison Savage, University of Liverpool	2019 – present
	Shashi Ravi Suman Rudrangi, Bristol Laboratories Limited	2019 – present
	Philip Gill, Cranfield University	2019 – present
	Sam Peel, International Flavors and Fragrances (Belgium)	2019 – present
	Nikolaos Daskalakis, Centre for Process Integration	2019 – present
	Vivian Christogianni, FormFormForm	2019 – present
Co-opted member(s)	Ian Howell, Unilever	2018 – present
	John Jones, Bristol Myers Squibb	2018 – present



Diversity & Inclusion

Please ensure this section is completed

Our trustees are aiming to embed diversity and inclusion in all of our activities and networks. Section 8 of our [online network handbook](#) contains more information to support our networks in achieving this and our Diversity team have [online Guides for Networks](#) that include actions and considerations for committees, and guides for inclusive communications and running inclusive events.

Please comment on how your group is showing that it has embraced Diversity and Inclusion within its practices. If you have diversity data from your events or activities, please include this information above.

Our committee membership currently has 14 men and seven women (plus 2 co-opted men). Two of the three key roles are held by women; Secretary and Treasurer.

Our committee members come from a diverse range of backgrounds, cultures, and age ranges. We have recently appointed early career formulation scientists to our committee and we are running our first early career event *Formative Formulation* in March 2019.

The work-life experience of our committee members is varied; caring responsibilities, flexible working and both single and dual career families. One of our committee members is currently on maternity leave. One of our committee members is abroad and we ensure committee meetings are held at convenient times considering time-zone differences.

As we organise meetings we review the gender balance of speakers and aim to have at least one female invited speaker at all events, as well as a 50:50 balance for contributed talks. Female speakers are always on are short-list for invited talks.

For all meetings held in 2018 the scientific committees featured both men and women from the FSTG committee. The same is true for 2019.

Our events are aimed at both industrialists and academics – this is reflected in our committee membership with 10 industrialists (+2 co-opted industrialists), two consultants, six academics and three government network members.

Our international conference, *Formula X*, is looking to attract 150-250 delegates. The FSTG organising committee is 2F (1BAME), 1M. They join the International Advisory Board (7F, 9M). The six plenary slots available have a 50:50 gender balance.

We will continue to embrace diversity and inclusion within our activities here.