

# Bulletin – November 2024

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## Linked-in page:

Royal Society of Chemistry Consultancy Group

RSC: <https://my.rsc.org/groups/home/157>

## The Consultancy Group

The Group is one of the Royal Society of Chemistry's many Interest Groups. The Interest Groups are member-driven groups which exist to benefit RSC members, and the wider chemical science community, in line with the RSC's strategy and charter.

The Group provides a forum for RSC members who are consultants. The Group arranges meetings and workshops to provide networking opportunities and training in aspects of setting up and running a consultancy business.

## Consulting Opportunities in East and South East Asia

*Peter Clarke*

Thriving domestic economies, rapid industrial development, and a strong engineering sector are generating substantial demand for overseas technical expertise in East and South-East Asia. The world's appetite for raw hydrocarbons to feed demand for transport fuels and chemical products, especially plastics, shows no signs of diminishing in this region,

while new sectors such as the hydrogen economy and carbon capture and storage are gaining momentum. Increasing prosperity is also facilitating increased interest in environmental protection, as "development at any cost" is gradually giving way to a focus on sustainability.

Foreign experts are often held in high regard, especially if they can bring theoretical and practical knowledge of international best practice, standards and guidelines. For example, Samsung Electronics is hungry for international specialists for its huge semiconductor factory construction project in South Korea, as they bring prestige and help the company to demonstrate best practice. It will generally be easier to find opportunities to work with private companies compared with state-owned companies and government, as the latter may have more restrictions on the use of overseas services, or more onerous registration requirements, especially in Malaysia.

Certification is not as important as a strong CV showing extensive experience, although certification can help to smooth the path to obtaining a work permit for longer international assignments.

Language can be a difficulty in some countries such as China, Japan and Vietnam, where local scientists and engineers are less experienced in working in English. In countries such as South Korea and Thailand, use of English is less of a problem as the local staff in large companies are more used to international projects, while in Singapore, Malaysia and India, language barriers are slight or non-existent due to widespread familiarity with English.

Overseas specialists wanting to find opportunities in Asia may find it easiest to start by partnering with established consulting firms such as DNV, Lloyds Register, and TÜV companies. These firms often use freelancers to supplement in-house staff and to support larger, especially long term, projects.

*Peter Clarke*, [peter.clarke@xsericon.world](mailto:peter.clarke@xsericon.world). Can also be reached through the 'Contact us' page of [www.xsericon.world](http://www.xsericon.world).

## Pan-Industrial impacts of the proposed EU ban on “PFAS” materials.

Nick Tyrell

Large-scale manufacture of PFAS (Per- & Poly-Fluorinated Alkyl Substances) began around 1950.

There are various “consumer” uses of PFAS substances including skin creams and cosmetics, car and floor polish, ski waxes, frying pans, outdoor clothing and shoes. “Industrial” uses of PFAS include inert PTFE components of all kinds, e.g. harsh-duty plastics, reactor components and seals.

A plan has been developed for the reduction in the use of these compounds.

2006: “EPA Global stewardship” initiative aimed for 95% reduction of PFOA emissions by 2010, and elimination from emissions & products by 2015

2011: end of permitted use of PFOS in fire-fighting foams (world-wide)

Use of PFOA-based foams remains permitted in many places

2013: Goretex eliminate use of PFOA in their fabrics

2015: Eight “global” companies report compliance with EPA target

2019: EU Restriction on PFOA introduced

2022: 3M announces withdrawal from entire “PFAS” market by end 2025

2023: Goretex advertise “PFAS-Free” garments

So, why is there still a problem? There has been a discovery of severely polluted sites in Europe and a history of suppression of “corporate knowledge” both for health effects and discharge practices with a steep rise in the use of shorter-chain perfluoroalkyl compounds.

At present there is a lack of safety data for replacement compounds and formulations whilst with a proliferation of “PFAS” compounds – now ca 5,000 to 10,000 there are too many to legislate individually.

### Commission restricts use of a sub-group of PFAS chemicals (Oct 2024)

**Undecafluorohexanoic acid (‘PFHxA’) and PFHxA-related substances.** These sub-groups of per- and polyfluoroalkyl substances (‘PFAS’) are very persistent and mobile in water, and their use in certain products poses an unacceptable risk to human health and the environment.

There will also be a ban on the sale and use of PFHxA in **consumer textiles**, such as rain jackets; **food packaging**, like pizza boxes; **consumer mixtures** such as waterproofing sprays; **cosmetics** like skin care products; and in some **firefighting foam applications** like for training and testing, without compromising safety. It does not affect other applications of PFHxA, for example in semiconductors, batteries or fuel cells for green hydrogen.

Despite Brexit, UK and EU industry remain intimately linked by economies of scale and proximity Any UK firm wanting to sell into the EU must comply with EU law. If unaltered, the current proposal would bring about the end of (at least) pharma and biopharma manufacture in Europe as substitute chemicals have not yet been developed.

Additional information is available at:

<https://www.rsc.org/globalassets/04-campaigning-outreach/policy/environment-health-safety-policy/pfas-evidence-report.pdf>

<https://www.rsc.org/news-events/opinions/2024/11-november/pfas-limits/>

<https://pubs.acs.org/doi/10.1021/acs.oprd.3c00199>

Nick Tyrell, Almac Sciences can be contacted through [Nick.Tyrell@AlmacGroup.com](mailto:Nick.Tyrell@AlmacGroup.com)

### Upcoming Event

What's in that Perfume? - “The Chemistry behind an iconic Christmas gift” taking place on 03 December 2024.

<https://www.rsc.org/events/detail/79813/whats-in-that-perfume-the-chemistry-behind-an-iconic-christmas-gift>

For registration enquiries please contact [events@rsc.org](mailto:events@rsc.org)

Further event information can be found by contacting the RSC using the following details:

Royal Society of Chemistry,  
Tel: +44 (0) 1223 432509  
Fax: +44 (0) 1223 423623  
Email: [eventsdatabase@rsc.org](mailto:eventsdatabase@rsc.org)

The author of an article published in this bulletin will receive a £25 Amazon gift voucher.

## Directory of Consultants

The Royal Society of Chemistry has a list of consultants that are registered with them. It can be found at:

<https://www.rsc.org/membership-and-community/directory-of-consultants/>

The Directory is a service provided by the Royal Society of Chemistry to members, professionals and the public. The information supplied in this directory, and the services offered and delivered, are entirely the responsibility of the consultants themselves, and not the Royal Society of Chemistry.

The consulting experts listed in this directory are all full members of the Royal Society of Chemistry and are bound by the RSC [Code of Conduct](#).

The Royal Society of Chemistry is not responsible for the content of external websites.

If you wish to be added to the Directory, please complete the application forms found on the RSC webpage above.

## Member Articles

The members of the Consultancy Group come from a wide range of industries, as can be seen from the list of areas of expertise outlined above. Is there an area of your knowledge and expertise that you think might be of interest to others in the Group?

The Group is keen to encourage information dissemination and networking to provide a background to consultancy activities.

If you have, or could write, a 200-300 word piece which outlines aspects or anecdotes that you think will be of interest to other members, please contact the Secretary via the following link:

<https://www.rsc.org/membership-and-community/connect-with-others/through-interests/interest-groups/consultancy/#contact>