

STAP CHARGE – Sample and Users - 2 & 3 May 2022

In view of ESS current challenges and in view of our path towards Hot Commissioning and First Science, the STAPs are invited to comment and to provide advice.

Common Topics:

- Considering the new baseline plan and long timeline to First Science, how do we operate labs, maintain scientific expertise, keep users & collaborators engaged in ESS and interested in using our services (deuteration, chemistry, life science, materials)?
- How to build a line organisation with capabilities to tackle the operational challenges?
- How to best attract and execute externally funded collaborative projects and how to sustain the resulting capabilities?

Scientific Coordination and User Office

- Challenge to engage internal stakeholders in developing the user journey so we can put software tools in place to meet the need – great opportunity to get tools in place before they are needed but we lose this advantage if all stakeholders prioritise elsewhere. How do we give a sense of urgency with a long timeline to First Science?
- How can we best engage with future academic and industrial users and future partners without setting up a huge disappointment that the wait is still so long?
- How should we work to build a vibrant science community at ESS right at the time the instrument scientists are most occupied with delivering instruments on time? If we don't start well ahead of Hot Commissioning we won't have the position in the local, national and international community to get that vibrance at First Science. This is not all SCUO work, but SCUO should be supporting and underpinning developments.
- The RI landscape is changing; of particular note are the increase in remote access and the inception of new call types (i.e. more rapid/quick access options and industrial action with payment being decided after data collection). How can ESS best keep up with current practise so that we are not out-of-date with our first users?

Deuteration Services

- How do we demonstrate that our services are relevant and useful to the user communities, and how do we show “value added” to the scientific profile of ESS - not only to our user communities but also to ESS upper management?
- Reflecting on the first three pilot calls published: what worked well/not so well?
- Looking forward to the period 2024-2027: should we continue with pilot calls or move to a rolling access scheme?
- What scientific areas should DEMAX prioritise/specialise in now to best benefit future ESS neutron users? What time percentage should be dedicated to established, robust procedures vs. method development? One idea is to split between ‘services catalogue’ (offered every call) and ‘new’ (rolling access).
- How do we incorporate workload from regular proposal rounds with longer-term projects (e.g. hosting postdocs, PhD students)? Should we incorporate long-term deuteration proposals for projects that run year after year, as opposed to submitting the same proposal year after year?
- With the exception of the planned recruitment of a deuteration chemist in 2023, staffing will continue to be flat in the foreseeable future. How do we set expectations from ESS and the users for when and how much support we can provide?

Sample and User Lab Services

- After finishing the E-building installation, we are now starting to progress towards installation of the D-buildings. How do we best split our equipment and team members across 3-4 buildings while maintaining our functionality?
- Our support capabilities to the ESS project are recognized and ramping up. How do we balance between more research-heavy support that will increase the SULF capabilities (e.g. development of luminescence coatings with the beam diagnostics group) and the easier, but work-intensive basic support that is necessary but will not further develop our capabilities (e.g. check pH/conductivity for waste water tanks)?
- What can we do better when continuing to operate the growing labs and supporting the ESS with limited staff?