

# User Survey Summary

EMSL is committed to continually improving the users' experience. Although change cannot always be implemented overnight, we rely strongly on the input received from our user community and encourage you to continue providing feedback to our technical staff, our [User Support Office](#), and through the bi-annual survey. Users can also provide comments and feedback to the [User Executive Committee](#) and should feel free to contact anyone on the committee at any time.

Currently, user surveys are administered biannually for experimental users and are sent only to those individuals who have accessed our resources during the prior six months or annually for computational-only users and are sent only to those individuals who have accessed computing resources during the prior year. The results of the most recent survey are posted here with management responses to concerns or issues identified by our user community.

## April 2014 Survey

Surveys Submitted Between April 11, 2014, and May 2, 2014.

Survey Satisfaction: 94.3 %

Survey Responses: 115

Surveys Sent: 476

Survey Response Rate: 24.2%

### 1. How satisfied were you with the availability of facilities and equipment?

- 77 Very Satisfied
- 34 Satisfied
- 4 Neither Satisfied nor Dissatisfied
- 0 Dissatisfied
- 0 Very Dissatisfied
- 0 Not Applicable

### 2. How satisfied were you with performance of facilities and equipment (e.g., were they maintained to specifications for your intended use, ready when scheduled, etc.)?

- 72 Very Satisfied
- 38 Satisfied
- 3 Neither Satisfied nor Dissatisfied
- 1 Dissatisfied
- 0 Very Dissatisfied

- 0 Not Applicable

### **3. List additional capabilities that you think EMSL should have.**

User comments to this and other survey questions are below.

### **4. With the new knowledge gained at EMSL, I expect to (check all that apply):**

- 103 Disseminate new knowledge via publication in peer-reviewed open literature
- 85 Disseminate new knowledge via presentations at professional society meetings
- 14 Acquire a patent
- 56 Further Department of Energy mission(s)
- 68 Facilitate collaborative interactions (e.g., stimulated new ideas for future experiment; increased work; etc.)
- 51 Train students (undergraduate, graduate or postdoctoral associate)
- 59 Use data for a future proposal
- 53 Establish or grow network and/or further collaboration
- 3 Other

### **5. How satisfied were you with the assistance provided by the EMSL technical staff?**

- 80 Very Satisfied
- 30 Satisfied
- 3 Neither Satisfied nor Dissatisfied
- 0 Dissatisfied
- 1 Very Dissatisfied
- 1 Not Applicable

### **6. How satisfied were you with the assistance provided by the EMSL administrative staff?**

- 74 Very Satisfied
- 30 Satisfied
- 5 Neither Satisfied nor Dissatisfied
- 0 Dissatisfied
- 0 Very Dissatisfied
- 5 Not Applicable

### **7. How appropriate and user friendly were the training and safety procedures?**

- 46 Very Satisfied
- 43 Satisfied
- 6 Neither Satisfied nor Dissatisfied
- 2 Dissatisfied
- 1 Very Dissatisfied

- 15 Not Applicable

## 8. How satisfied were you with the proposal process (e.g. submission & review)?

- 35 Very Satisfied
- 35 Satisfied
- 7 Neither Satisfied nor Dissatisfied
- 3 Dissatisfied
- 0 Very Dissatisfied
- 31 Not Applicable

## 9. How did you learn about EMSL?

- 21 Scientific meeting/conference
- 8 Internet search
- 13 Journal publication
- 34 Previous EMSL use
- 36 Colleague
- 74 PNNL staff member
- 1 Other

## USER ENDORSEMENTS AND COMMENTS

Although not all comments are shown, below is a representative sampling of the positive user comments received.

- I'm more than satisfied. I appreciate the fact that I can request additional resources from the pool of unused time from other users when I need it!
- Cascade is amazing.
- All equipment is in tip top shape. EMSL is an amazing resource.
- The technical staff are the driving force for utilizing EMSL. Their expertise and collaboration has been essential.
- I am envious of the support staff they have at EMSL!
- I requested NWChem code improvements to the developers and they did them right away. They were very helpful and made my research much better and faster as a result. I am grateful on my own behalf and that of the user community.

### EMSL's Response

Our goal has always been to provide an environment that inspires and engages our user community. We appreciate your comments that recognize our goals for an outstanding facility, a stellar suite of instruments and dedicated scientific, technical and administrative staff. We especially want to call out Pam Stevens and the NWChem team who received special recognition for their outstanding help to our users.

## User Concerns and Suggestions

While user satisfaction rates very highly, we carefully review any comments in which users expressed concerns or suggestions for improvement. These have been compiled into several topical areas and representative comments are provided below, along with EMSL's response.

### USER COMMENTS

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#### OVERSUBSCRIBED INSTRUMENTATION OR STAFFING

- You need more staff.
- More access to the scientists would be really helpful. We were set up with a post-doc who was very good but we are already quite knowledgeable ourselves. We have similar equipment to EMSL. We were hoping to get access to the knowledge and experience of one of the staff scientists.

#### EMSL'S RESPONSE

We agree. We try to estimate the best level of support possible but we do so within budgetary limits. As a result, we rely greatly on the information we receive from the proposal team regarding staff support needed. For example, an expert user may appear to need only initial guidance/orientation support that a postdoc can provide. If more collaboration is desired and our evaluation of your needs is in error, please contact your host or User Support Office staff to discuss your project needs in further detail.

### USER COMMENTS

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#### TRAINING

- I am not happy with the training part. Safety part is fine.
- For the training, I have often felt as though I don't recall many items once I am on site. My interpretation of the new quiz idea is to try and improve trainee retention of information. I didn't feel like it improved my retention, but just caused me to re-do some parts of the training multiple times. I would love to know all the information in the training and have more in the forefront of my mind when at EMSL. However, I don't think the current quiz system improves retention but causes me to use more time that I think could be used to train in better ways. I wish I had some suggestions for improvement, but I don't at this time.

## EMSL'S RESPONSE

Over the years, we have identified instruments that can or should have operating manual or procedures to enable more independent operation by users. If you use an instrument that you think falls into this category, please contact the User Program Services Manager with details.

We want to especially thank the user who provided the detailed response about the current design for delivering training material. PNNL is in the process of redesigning course delivery to ensure it uses the most appropriate mechanism for a broad audience, and this information is very helpful for their implementation team.

## USER COMMENTS

### TRANSPARENT PROCESSES AND COMMUNICATION

- Proposal process needs to be lighter weight or more infrequent. I have a PNNL staff member on my DOE projects whose analytical capabilities happen to reside in EMSL. I appreciate EMSL and the facilities it provides, but if I already have a funded DOE project, the EMSL proposal process is just another formality that wastes time and effort. The project itself is thoroughly reviewed every year by DOE and independent reviewers. In cases like ours, we should get a pass on the EMSL proposal. Are you really going to turn down paying work that the DOE wants to fund and staff want to perform? If not, then why go through the motions of a proposal?
- The proposal requirements and submission process are fine. However, I REALLY hated having to list ALL of our collaborators on the EMSL proposal! Instead, just ask the panel members if they know the proposal authors, like they do in grant review panels. If they know you, they just leave the room for a few minutes.

## EMSL'S RESPONSE

A majority of the user projects conducted in EMSL are funded by the Department of Energy, and 99% of all projects are funded by government agencies (including DOE) who conduct annual reviews of progress. That criterion alone is not sufficient to identify the science that best meets the mission of this facility. EMSL can be confusing for PNNL staff because they normally work across directorates and buildings without additional requirements. However, as a national user facility, we are required to follow guidelines established by the Office of Science, which includes granting access through a peer-reviewed proposal process. In addition, as a BER-sponsored user facility, all proposals (whether from PNNL staff or external non-staff) compete for access based not only on the science but on the fit to BER's and EMSL's mission and science directions. The proposal process allows us to use a panel of experts to review and select the best research that falls within these guidelines.

In the proposal cycle, our goal is to conduct a thorough review in the least amount of time. This allows us to notify authors of decisions as early as possible for their planning purposes—whether that includes preparing samples or finding alternate resources for their research needs. The list of collaborators, which is a normal requirement in BER proposal calls, allows us to identify where the significant conflicts are prior to assigning reviews. Assigning them to reviewers who then have to decline based on conflicts adds significant delays to this cycle.

## USER COMMENTS

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### OPERATIONAL DELAYS OR DOWNTIME

- This is a two-part answer - the nanoSIMS instrument was ready and convenient, but we have not been able to access the laser ablation AMS system, partly because the AMS had been diverted for another use, maybe in the field. However, the term of the grant is not yet over, so this may not be an issue.
- Liquid He tank was low and I was only able to complete one EPR run at low temperature.

### EMSL'S RESPONSE

The AMS was deployed long-term for BER's GoAmazon project. Users who were allocated instrument time are being allocated time on high resolution FTICR instruments if feasible for the scientific question. Also, to address both on-site and longer term deployment, acquisition of a new updated AMS system is in process. We are working with users on a case-by-case basis to identify alternative paths forward.

Unfortunately, we cannot prevent downtime on instruments, although we do everything possible to minimize it. The liquid helium used for the EPR must be ultra-pure (not vendor provided), and the purification is done in-house using our helium liquefaction system on a 6-week cycle. We try to mitigate scheduling conflicts with users' experiments in advance, but we don't always know if the ultra-low temperature experiments will be required. However, if users encountered restricted access after discussing their needs in advance for ultra-low temperatures, we encourage you to contact Nancy Washton, Capability Lead for NMR & EPR with further details.

## USER COMMENTS

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### ADDITIONAL CAPABILITIES REQUESTED BY THE USERS

- Electron microscopes with atomic resolution EELS capacity with high stability
- A new ultra-high field NMR spectrometer to replace the retired 900MHz NMR. We need this in order to make EMSL unique in NMR resources.
- X-CT NMR for multi-phases flow properties in porous media visualized experiments.

### EMSL'S RESPONSE

We often find that users suggest instruments that are already available. For example, our Scanning TEM is equipped with an EELS spectrometer that is able to look at a single column of atoms. However, the suggestions for new capabilities are provided to the Capability Leads to evaluate as part of our annual capital planning. For example, in response to user community demand, we are in the process of purchasing a GC time-of-flight-mass spectrometer to enable metabolic flux analysis. This new instrument should be available for use in March 2015. For details of available instruments or to provide more information of instrument needs to support the experiments you have in mind, we encourage you to talk to the appropriate Capability Lead

(<http://www.emsl.pnl.gov/contacts/>) or your host.