

## ETSF-I3 (project number 211956)

### D4.6 – Final User Project Management Report

#### Executive Summary

D4.6 reports on the management of user projects under ETSF-I3. The management of user projects aims to ensure **smooth implementation** of the user projects and to **reach the projects' objectives** as defined between the users and the ETSF. Each project individually is managed by an ETSF researcher called the **ETSF scientist in charge** of the user project. The ETSF administration monitors the implementation of the projects.

The **user monitoring process** was designed to:

- ensure smooth project implementation;
- reveal and solve problems as quickly as possible to the satisfaction of the user;
- produce statistics for publicity needs;
- collect information for ETSF-I3 IT2 needs (team in charge of WP2, Foresight for Improvement);
- track expenditure for ETSF-I3 financial allocations and reporting.

On top of this, **the users' satisfaction was monitored through an anonymous questionnaire**. More than half of the users who had submitted a proposal to the ETSF call since 2007 answered the questionnaire, which shows their interest in ETSF services. Although on the whole users have expressed their satisfaction with their ETSF user projects (97% consider that their project brought new knowledge and /or competences to their research), the results show a margin for improvement, in particular with regard to industrial users.

In general, **a user project is considered successful** in the following situations:

- agreement between the simulated spectra and the experiment, and analysis of the comparison
- disagreement between the simulated spectra and the experiment, and analysis of the disagreement
- guidance to the user
- opening of new scientific questions
- creation of longer term collaborations
- high impact publications

Several problems were identified that caused a delay to the completion of user projects (like a lack of human and computer resources, a difficult contact with the user or too ambitious objectives). Other problems dampened the success of some projects. For each identified problem, a solution was sought to avoid them in future user projects. **91% of completed user projects are considered as fully successful.**

Thanks to data gathered from the **104 completed user projects under ETSF-I3**, it is possible to draw a picture of a typical user project, although they are very different one from another. For example, on average, an ETSF collaborative research project lasts for 11 months, requiring 5.5 p/m and 41,000 hours of computer time. It is funded for 50% by an ETSF node's institution, for 30% by the European Union and for 20% by national funding.

Broadly speaking, ETSF projects most often fall into the range of **Materials science and/or nanoscience**; they are usually projects of physics or chemistry. In addition, biophysics is an important topic. As crucial subdomains emerge surface science, photovoltaics, and optoelectronics. However, many more subdomains could be mentioned since ETSF projects span from mineralogy to gas turbine materials, from LEDs to molecular magnets. This is indeed one of the **strengths of the ETSF: to provide general theory that can reach out to users in extremely varied fields!**

The ETSF beamlines that cover at the same time widely used spectroscopic techniques and areas of actual technological application have received most of the user projects. These are **Optics** (think of areas as different as surface characterization, photovoltaics, or the colour of materials) and **Photo-emission** (where a fundamental quantity, namely the bandstructure of materials or energy levels of molecules and nanostructures, is at the centre of interest). This should not hide the importance of the other ETSF beamlines. They sometimes contain forefront (and therefore sometimes less used) techniques. They sometimes add precious knowledge to other beamlines (think of the interpretation of satellites in photoemission which requires information gained in the ELS beamline). And last but not least, **theoretical support from an ETSF beamline can help an experimental technique to develop and become more widespread.**