Mari Cruz García-Gutiérrez, president of the Spanish Association of Synchrotron Users

Since 2013, the researcher Mari Cruz García-Gutiérrez from the Institute of the Structure of Matter (IEM – CSIC) is the president of the Spanish association of synchrotron radiation users' (AUSE). She has developed her career in the field of soft condensed matter using synchrotron techniques in European and world-wide facilities. Today we discuss with her about the situation of the users' community in Spain as well as its future challenges.

• AUSE has experienced great growth in the last years. In 2013, the association gathered 550 users while this year 2015 it has 1,200 users. In your opinion, which reasons are behind this progress?

First of all, I'd like to mention that those 1,200 users are registered inside the ALBA's Synchrotron database meaning that 1,200 Spanish users have performed experiments in ALBA from 2012 till 2015. But not all of these users are members of AUSE. However, it is true that both, the number of AUSE members and the number of Spanish users, have considerably grown in the last years. In my opinion, the reasons are the great effort of AUSE getting to know the possibilities of the synchrotron light and attracting students and young scientists and, without any doubt, the start-up of the ALBA Synchrotron.

Synchrotron light will evolve not only including new scientific disciplines, but also improving its techniques.

• Is the Spanish community of users mature enough in comparison with countries like Germany, England or France with more experience?

There are Spanish groups who have used synchrotron light for decades. Those groups, with a wide experience, have been the grounds for AUSE and the ALBA Synchrotron. The Spanish community has been using synchrotron facilities in other countries and the Spanish demand of beamtime has surpassed its quote of the 4% at the ESRF for years. The main difference between Spain and Germany, England or France is that they have one or more synchrotron facilities with about 30 operational beamlines in each of them and, in Spain, we have available ALBA with 7 operational beamlines from 2012. This is the main reason why the Spanish community of synchrotron users grows slower than the community from other countries.

• Synchrotron techniques are available for a wide range of scientific disciplines. However, do you think there are still some unexplored scientific areas with potential to use synchrotron radiation? Which?

I totally agree that synchrotron techniques are applied to a wide range of scientific disciplines: physics, chemistry, biology, materials science, cultural heritage, medicine, environment, geology, nanotechnology, food science, ... just to mention a few. I do also agree that there could be other scientific disciplines with potential to use synchrotron light. However, I see a clearer evolution of the synchrotron light in the seek for improving the techniques, solving the problem of radiation damage of samples and the development of sample environments and the combination of techniques which let investigate processes in real time and real conditions.

• Which are the main needs of the Spanish community of synchrotron radiation users'?

The main need is to have enough investment and planning this investment at medium and long term. Researchers who

have proposed new beamlines for the ALBA Synchrotron - that have been positively evaluated by the SAC - will find rewarded their effort with the construction of new beamlines till reaching the nearly 30 beamlines that ALBA can host. This fact, together with an operation planning of SpLine beamline at the ESRF, will guarantee a sustainable growth of the user's community with the access of students and new users.

• Which has been the influence or impact of the ALBA Synchrotron in the Spanish community?

The positive impact of the ALBA Synchrotron inside the Spanish community of synchrotron users is obvious. As we mentioned at the beginning of the interview, the number of users has substantially grown in the last years coinciding with the operation of ALBA. A large facility like the ALBA Synchrotron creates an important synergy in the Spanish scientific community and also in the local industry and the research centres located at the Synchrotron area.

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