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Just for us?

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It is a regrettable decision by Karlsruhe Institute of Technology that ANKA, the Angströmquelle Karlsruhe, is terminating its external synchrotron user support program. ANKA has an excellent performance review grading sheet and has been a valuable source and resource to international users for over a decade. There is concern among users that ANKA's decision could become an example for other synchrotrons as well.

A May 2015 news release from the ANKA synchrotron in Karlsruhe, Germany, shows how their novel superconducting undulator provides first X-ray light at ANKA. Congratulations, this is a great advancement in synchrotron technology. Probably, and unfortunately, it will not be of service for the users. Last month, on 2 April, ANKA users were caught off guard by an unpleasant email from their Users Office, stating that the Executive Board of the Karlsruhe Institute of Technology (KIT) decided on 23 March 2015 that ANKA is going to terminate its external users program.

ANKA (Moser *et al.*, 1995; Moser, 1997; Einfeld *et al.*, 2000) is a National User Facility of the German Helmholtz Association and takes pride in running an international user program like virtually every other large-scale scientific facility on the globe. Following the surprising decision of ANKA shutting down (for the bulk of the users this equals a shutdown) I have learnt that ANKA recently received excellent grades in its annual performance review. In short, ANKA is a great user facility.

KIT is an amalgamation of the University of Karlsruhe and Forschungszentrum Karlsruhe. Almost ten years ago KIT became a national center of excellence with international acclaim, which was awarded with the competitive elite school bonus of EUR 20 million per year for five years in a row. Excellence turned into magnificence.

Now, according to their letter dated 2 April 2015, ANKA is supposed to assist Helmholtz Association's technology-based research mission only. The external user program will be abandoned. As ANKA writes, it has the 'goal to still allow collaborative research groups, partners in the BMBF-Verbundforschung, as well as contractual and cooperation partners, the opportunity to continue the ongoing projects'. And it wants to avoid particular hardships for some of the remaining users. I am not aware of any consultation by ANKA with the users or user representation.

When I was a PhD student, I researched on glassy carbon supercapacitors and came across some materials problems which I learnt should be best addressed with small-angle X-ray scattering (SAXS). New to SAXS, I eventually learnt about synchrotron radiation and received, by fortunate coincidence, generous SAXS beam time and instruction from the founder of the JUSIFA beamline at HASYLAB, without proposal and without request for any compensation. This personal experience of the spirit of sharing (the beam is for free!) was decisive for my further scientific career, which led me to become a regular, passionate and productive user at all major US synchrotrons and many synchrotrons in Europe, and to a lesser extent also at neutron sources.

My first negative experience with synchrotrons was at a place in Europe where I visited a beamline for its ARPES capacity. It turned out that the gate to the beamline was kept by the desire of having PLD samples only, preferably *in situ* grown. Well, this beamline actually had a PLD chamber right next to it. So I said '... that's great, can I then use this PLD chamber?'. The answer of the beamline scientist was 'No. This is not for the users. It is just for us.'

To me, the ANKA case is the first time that I hear that an entire synchrotron is closing its doors for general external users. While I am personally not affected by this decision as



I am not an active ANKA user, I am very concerned about potential repercussions after KIT's decision to take ANKA off-line for external users. Other synchrotrons or beamlines could follow ANKA's example and restrict access for external users for whatever reasonable sounding purpose.

We do not know the reasons for KIT's decision to terminate the user program. To be fair, and looking at Fig. 6 of Moser (2001), ANKA maybe was never meant to be a typical user facility. A publication from 2000 (Götttert *et al.*, 2000) underlines the service and business character of what was then called ANKA GmbH (GmbH is German for PLC or Ltd), notwithstanding the use by universities and other research organizations (Saile & Czolk, 2000). Technology-oriented research does not rule out an external user program. After all, ANKA produced a successful user programme in the wake of its establishment. While ANKA@KIT may in future still team up with hand-picked external users and strive towards even more excellence by doing so, I am afraid it may be sacrificing its status of magnificence over this turning point.

I am aware of one synchrotron which has recently imposed a reduction in force because of national budget issues. Naturally, the operation for users could be affected by this reduction of force. However, there was no mention that this facility should become prioritized and closed for external users, despite the budget hardships.

On this occasion the thousands of users worldwide shall be reminded how necessary and how valuable the free access to large-scale facilities is for all of us. As I do not own a diffractometer or an XPS instrument in my research group, I depend like many others on the mercy of those who do. Therefore I am grateful for the peer-reviewed *pro bono* user

programs, access to which is entirely based on the scientific merit of the users. It is maybe because of the user programmes why quite a number of synchrotrons have their share in the credit from Nobel prizes. And maybe this is part of the difference between excellence and magnificence.

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