

Berlin, 17.11.2023

Update on the cyber-attack at Helmholtz Zentrum Berlin für Materialien und Energie

Dear Users of BESSY II,

First of all, please let us emphasize that we are very sorry for the loss of beamtime, and experimental opportunities caused by a criminal cyber-attack against our centre. The targeted attack that hit HZB in June 2023 led to massive and in some cases long-lasting operational disruptions at all levels. We are fully aware that your scientific work is also highly affected. This very unfortunate situation gives us a particular incentive to find fast but also sustainable ways to an expeditious return to user-operation at BESSY II light source.

Immediately after the attack, however, appropriate measures had to be taken to prevent and minimise damage:

- all connection points of HZB to the internet were disconnected
- all server systems were shut down
- employees were instructed not to connect any systems to the network
- BESSY II light source was shut down in a controlled manner

One direct consequence was the loss of all communication channels including email and telephone and a disruption of all network-based services. The latter entailed a stop of research operations at BESSY II and in the laboratories. In addition, the work of the entire administration was no longer possible. Forensic teams spent two months analysing our network and during this time nothing new could be set up to avoid disrupting the investigations. The analysis revealed that several hundreds of computers were affected and needed to be re-installed or even replaced.

In the meantime, everyone at the centre is committed to give their best to alleviate the situation and to build a sustainable operation of HZB.

A temporary HZB webpage has been set up and can be accessed at **www.helmholtz-berlin.de**. Although some functions have not yet been restored, regular updates on the resumption of operations will be available in the “BESSY User” section (www.helmholtz-berlin.de/bessy-users).

Status of BESSY II operation:

Already in July, the operation of the BESSY II accelerator was re-established. Thanks to their independent beamline IT infrastructures, PTB and BAM (the National Metrology Institute and the Federal Institute for Materials Research and Testing) were able to resume their experimental programmes.

In June, a task force 'Restart BESSY II' was set up to develop a concept for the recommissioning of all beamlines of BESSY II on the basis of an indispensable paradigm shift of the IT infrastructure.

Two pilot beamlines – one dipole, one undulator - are currently being transferred into a robust, full-featured new IT structure. They serve as blueprints for all remaining beamlines, which will gradually be brought back into operation. First beamlines are expected to be operational soon.

Users of restarting beamlines (with a cancelled execution from 2023) will be contacted by the beamline scientists and invited to resume the planned experiments, while HZB's User Coordination is giving the utmost to facilitate user operation even if the normal workflows via GATE have not yet been restored.

Beamtimes cancelled due to the cyber-attack will be compensated in the first half of 2024. A regular call for proposals for 2024/II is envisioned with the usual deadline on 1 March.

We apologise that you have had to wait so long for an official letter from us, but it was very important to us to provide you with concrete updates so that you know how the operation of BESSY II is progressing.

We kindly ask for your understanding in this difficult situation, which was brought to us by criminals and which we combat using all available resources and means.

We look very much forward to welcoming you back at BESSY II as soon as possible.

On behalf of the whole BESSY II team



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