

# Supporting users for the long term

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The historical implementation of scientific computing infrastructure within the Diamond Light Source has been to support the initial stages of data acquisition, from immediate sample validation, to the first stages of data processing. For many users, once the visit period had completed there was little if any continued interaction with the data stored at Diamond.

As data volumes increase it has become increasingly not viable for users to take the data home with them, or to transfer the data to other compute facilities to further proceed with data analysis. As a result Diamond is now working to address how best to separate the data collection and analysis associated with the actual visit, and the continued requirement to post-process data at some point in time after the visit has concluded. This is leading to investigations of offsite, cloud-like, resources and to work closer with activities such as the developing IRIS e-Infrastructure, a compute and storage platform across multiple sites to support STFC funded facilities.

As Diamond has stored all data produced over the last 11 years of operation, it is also now looking at how any future data archive should be provisioned to potentially enable open access to future data sets. Access to data, the implications on software for analysis, implications on infrastructure from storage to network and where best to locate the data for future post-processing compute requirements are all current topics being investigated in order to provide a facility that supports its users for the long term, and not just during their visit.

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