

ICFA to publish recommendations on “the Data Lifecycle”

September 2025

At its recent meeting on 24 August 2025, ICFA – the International Committee for Future Accelerators – heard a presentation by Kati Lassila-Perini (Helsinki), the chair of the ICFA Panel on the “Data Lifecycle”, initiated in January 2024 (see [here](#) for the ICFA statement on the establishing of the panel).

Following its mandate, the panel and the [editorial group consisting of a wide range of stakeholders](#) spent considerable effort to prepare [best-practice recommendations for data preservation and open science in high-energy physics](#) (also published on [arXiv:2508.18892](#)).

In accordance with the FAIR principles for scientific data management and stewardship (“Findable, Accessible, Interoperable, and Reusable”), the recommendations emphasize the significant long-term scientific value of experimental data and the importance of supplementary information and knowledge necessary for their understanding and (re)use. They also highlight the importance of analysis software and analysis workflow descriptions as integral parts of the research outcome.

The recommended actions require a shift in current working practices. Data preservation aspects – including not only the data themselves, but also metadata and supplementary material – must be considered at every stage of the data lifecycle. Analysis software and workflows must be preserved as a detailed record of the research process, maintaining the knowledge and procedures leading to published results. Furthermore, the development of the software skills needed to support these practices should be recognised as an important part of a research career.

ICFA endorses and promotes the recommendations prepared by the “Data Lifecycle” panel as they provide roadmaps for audiences ranging from policymakers to practitioners, with actions spanning policy to daily analysis work. Their stepwise application will lay the foundation for an efficient future reuse of high-energy physics (HEP) research products and thus offers additional prospects for HEP and other scientific fields.