

# Sustainability Studies for Future Linear Colliders

*Friday 19 July 2024 16:00 (15 minutes)*

Sustainability has become a prioritized goal in the design, planning and implementation of future accelerators; approaches to improved sustainability include overall system design, optimization of subsystems, and operational concepts. A direct quantification of the ecological footprint, is currently performed only sporadically, with Lifecycle Assessments (LCA) emerging as a more comprehensive approach.

Two large electron-positron linear colliders are currently being studied as potential future Higgs-factories, CLIC at CERN and ILC in Japan. These projects are closely collaborating on methods to reduce the power consumption of accelerator components and systems, and smart integration of future accelerator infrastructure with the surrounding site and society. In a recent, common study an LCA of the construction of tunnels, caverns and shaft of both accelerators was conducted. This contribution will present this and other current results and future activities.

## Alternate track

### I read the instructions above

Yes

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