

# The environmental impact of LHCb

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The environmental impact of the LHCb experiment and its upgrade has been estimated in terms of CO<sub>2</sub> equivalents. We take into account the effects of travel (conference and collaboration weeks), electricity usage (magnet and online computing), flour-carbon gas leaks, and the lifecycle impact of new muon shield to be installed for the upgrade. This talk will present an overview of the preliminary results of this study. The Framework Technical Design Report for LHCb's future upgrades (mainly during LS4) will include a chapter on the environmental impact of the planned detector design and its operation, informed by these studies.

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