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## Broader Impacts of Muon Collider R&D

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A next generation particle collider would be a powerful tool for addressing many of the unanswered questions in particle physics that shape our current science drivers, including the full exploration of the Higgs sector and the nature of dark matter. Muon colliders are a particularly exciting option that could enable access to 10+ TeV energies in an extremely compact, relatively power-efficient, and timely way compared to electron and proton alternatives; however, significant research and development is still required. I will argue that providing support for such R&D over the next decade will also provide an unique opportunity to help train the next generation of collider physicists in instrumentation for very-large-scale experiments once the HL-LHC upgrades are finished. This research and development could enable significant broader impacts beyond just the energy frontier, in areas such as accelerator physics, detector design, real-time data processing, large-scale computing, and beyond.

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