Extending I-CORPS to HEP

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The Department of Energy's (DOE's) Energy I-Corps couples teams of researchers to industry mentors for a rigorous two-month training program, in which the researchers define technology value propositions, conduct customer discovery interviews, and develop viable market pathways for their technologies. Researchers return to their respective laboratories with a framework for industry engagement to guide future research and inform a culture of market awareness.

Energy I-Corps was modeled on the National Science Foundation's (NSF's) Innovation Corps (I-Corps) program. Started in 2011, I-Corps is a nationally-recognized training program that helps prepare scientists and engineers to extend their focus beyond the lab. Energy I-Corps builds upon the I-Corps model while adapting it to the unique features of the national labs and DOE's mission space.

Energy I-Corps has supported laboratory scientists across all EERE technology offices as well as from the Office of Nuclear Energy (NE), the Office of Fossil Energy (FE), the Office of Electricity Delivery and Energy Reliability (OE), the Office of Environmental Management (EM), and the National Nuclear Security Administration (NNSA). However, a significant gap remains within the Office of Science, High Energy Physics.

High Energy Physics research yields earlier stage technologies than those produced by the multi-program laboratories, which have stronger emphases on applied energy solutions. As a result, DOE's HEP labs must pitch their comparatively early-stage technologies to the applied program offices for the opportunity to participate in Energy I-Corps. There is a need for HEP-supported I-CORPS funding to facilitate the customer discovery process at this early stage— while the technologies are moved along the maturation curve— in order to produce better and more viable solutions once they reach the application stage.

The authors propose extending the DOE Energy I-Corps program to the Office of Science, High Energy Physics to facilitate the transition of technologies developed through basic research.