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## An Emerging National Neutron Strategy in Canada

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The Canadian neutron beam community is aligning around an emerging strategy to rebuild Canadian capacity for materials research and development with neutron beams.

On December 15 and 16, 2020, leading scientists from across Canada gathered virtually to shape this “national neutron strategy” at a roundtable organized by the [Canadian Neutron Initiative \(CNI\)](#) and [CIFAR](#), with support from the European Spallation Source and the Fedoruk Centre.

The roundtable was a culmination of extensive consultation since 2015, when it became clear that Canada’s only neutron source, the NRU reactor, would close permanently in 2018, jeopardizing the future for research with neutron beams by Canadians. Ideas and feedback were invited on key elements of the strategy, including the needed infrastructure and associated programs, domestic and foreign, spanning the near-term to the long-term.

Neutron beams are irreplaceable tools to generate knowledge and advance materials for 21<sup>st</sup> century challenges such as ensuring a clean and sustainable environment, and protecting the health and safety of our communities. (See <http://cins.ca/discover/>.)

The national neutron strategy encompasses infrastructure and a governance framework enabling Canadians to address these challenges with world-class tools. Roundtable participants were optimistic about prospects for partnership with foreign neutron facilities, for developing the neutron beam lab at the McMaster Nuclear Reactor, and for exploring our options for neutron sources, each of which are elements of the strategy.

The meeting confirmed that there is broad support for the proposed national neutron strategy and specifically for the creation of a national coordinating organization, Neutrons Canada, which would be charged with governing and managing the strategy’s major activities as a coherent program.

More details will be provided in the official meeting report to be posted at <http://neutrons.ca>.

### Photo caption:

The glowing core of the McMaster Nuclear Reactor is the source of neutrons for the neutron beam lab currently under development. Building on existing domestic capabilities, including full exploitation of the McMaster Nuclear Reactor (MNR), a medium-brightness neutron source, is one of the four key objectives of the national neutron strategy. (Photo by McMaster University)

