



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Charge to NSAC To Produce a New Long Range Plan for Nuclear Science

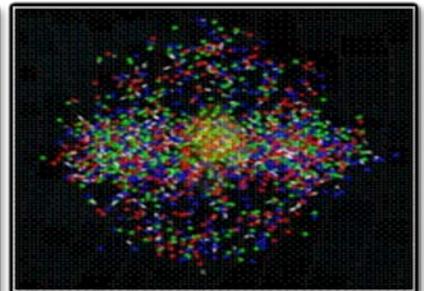
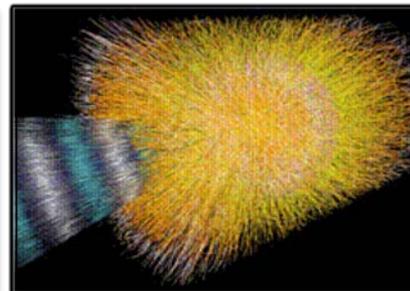
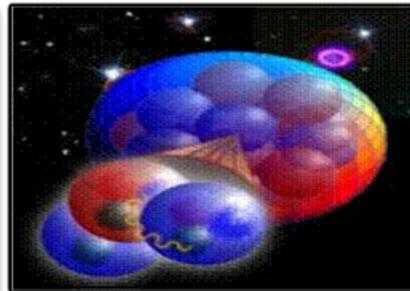
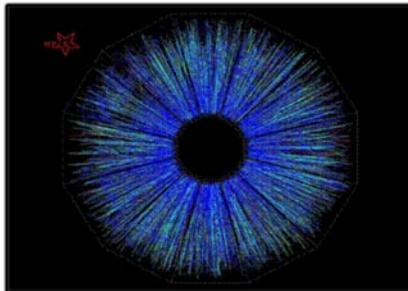
Nuclear Science Advisory Committee Meeting

April 24, 2014

Dr. T. J. Hallman

Associate Director for Nuclear Physics

DOE Office of Science



Charge to NSAC to Develop a New Long Range Plan



U.S. Department of Energy
and the
National Science Foundation



Dr. Donald Geesaman
Chair
DOE/NSF Nuclear Science Advisory Committee
Argonne National Laboratory
9800 South Cass Avenue
Argonne, Illinois 60439

Dear Dr. Geesaman:

This letter requests that the Department of Energy (DOE)/National Science Foundation (NSF) Nuclear Science Advisory Committee (NSAC) conduct a new study of the opportunities and priorities for United States nuclear physics research and recommend a long range plan that will provide a framework for coordinated advancement of the Nation's nuclear science research programs over the next decade. This exercise should exclude the DOE Isotope Program managed by the DOE Office of Science's Office of Nuclear Physics, for which a dedicated strategic planning exercise will be convened.



Charge to NSAC to Develop a New Long Range Plan

The new NSAC Long Range Plan (LRP) should articulate the scope and the scientific challenges of nuclear physics today, what progress has been made since the last LRP, and the impacts of these accomplishments both within and outside of the field. It should identify and prioritize the most compelling scientific opportunities for the U.S. program to pursue over the next decade and articulate their scientific impact. A national coordinated strategy for the use of existing and planned capabilities, both domestic and international, and the rationale for new investments should be articulated. To be most helpful, the LRP should indicate what resources and funding levels would be required (including construction of new facilities, mid-scale instrumentation, and Major Items of Equipment) to maintain a world-leadership position in nuclear physics research and what the impacts are and priorities should be if the funding available provides for constant level of effort from the FY 2015 President's Budget Request into the out-years (FY 2016-2025), with constant level of effort defined using the published OMB inflators for FY 2016 through FY 2025. A key element of the new NSAC LRP should be the Program's sustainability under the budget scenarios considered.

The extent, benefits, impacts and opportunities of international coordination and collaborations afforded by current and planned major facilities and experiments in the U.S. and other countries, and of interagency coordination and collaboration in cross-cutting scientific opportunities identified in studies involving different scientific disciplines should be specifically addressed and articulated in the report. The scientific



Charge to NSAC to Develop a New Long Range Plan

impacts of synergies with neighboring research disciplines and further opportunities for mutually beneficial interactions with outside disciplines, should be discussed.

In the development of previous LRP's, the Division of Nuclear Physics of the American Physical Society (DNP/APS) was instrumental in obtaining broad community input by organizing town meetings of different nuclear physics sub-disciplines. The Division of Nuclear Chemistry and Technology of the American Chemical Society (DNC&T/ACS) was also involved. We encourage NSAC to exploit this method of obtaining widespread input again, and to further engage both the DNP/APS and DNC&T/ACS in laying out the broader issues of contributions of nuclear science research to society.

Please submit your report to DOE and NSF by October 2015. The agencies very much appreciate NSAC's willingness to undertake this task. NSAC's previous LRP's have played a critical role in shaping the Nation's nuclear science research effort. Based on NSAC's laudable efforts in the past, we look forward to a new plan that can be used to chart a vital and forefront scientific program into the next decade.

Sincerely,



Patricia M. Dehmer
Acting Director
Office of Science



F. Fleming Crim
Assistant Director
Directorate for Mathematical
and Physical Sciences

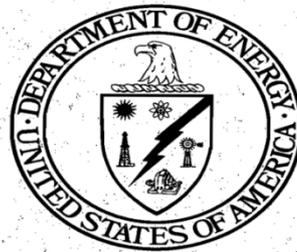


A Long Tradition of Partnership and Stewardship

A LONG RANGE PLAN FOR NUCLEAR SCIENCE

A Report by the
DOE/NSF Nuclear Science Advisory Committee

DECEMBER 1983



A Long Tradition of Partnership and Stewardship

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A Long Tradition of Partnership and Stewardship

Nuclei, Nucleons, Quarks *Nuclear Science in the 1990's*

A Long Range Plan by the
DOE/NSF Nuclear Science Advisory Committee

December 1989



U.S. Department of Energy • Office of Energy Research
• Division of Nuclear Physics

National Science Foundation • Division of Physics
• Nuclear Science Section

Nuclear Science: A Long Range Plan

The DOE/NSF Nuclear Science Advisory Committee



February 1996

U.S. Department of Energy
Office of Energy Research
Division of Nuclear Physics

National Science Foundation
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U.S. DEPARTMENT OF
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A Long Tradition of Partnership and Stewardship

OPPORTUNITIES IN NUCLEAR SCIENCE
A Long-Range Plan for the Next Decade

April 2002

The DOE/NSF Nuclear Science Advisory Committee
U.S. Department of Energy • Office of Science • Division of Nuclear Physics
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The Frontiers of Nuclear Science

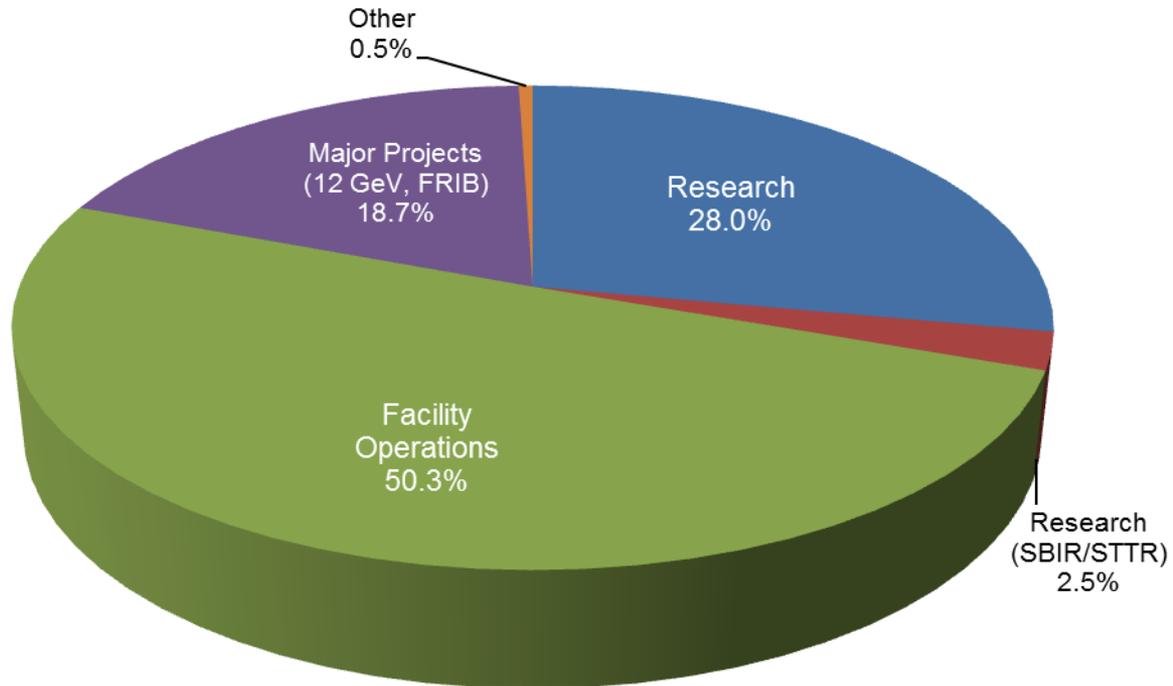
The Frontiers of Nuclear Science
A LONG RANGE PLAN

December 2013

Nuclear Physics

FY 2015 President's Request – By Function

~69% of the FY 2015 NP budget supports operations or construction of facilities
The percentage devoted to major projects is almost 19% in FY 2015



**FY 2015 President's Request
Total = \$593.6M**



A Long Tradition of Partnership and Stewardship

There has been a long tradition in Nuclear Science of effective partnership between the community and the agencies in charting compelling scientific visions for the future of nuclear science.

Key factors:

- 1) Informed scientific knowledge as the basis for recommendations
- 2) Mutual respect among scientific sub-disciplines
- 3) Commitment to the great good of nuclear science as a discipline
- 4) Meticulously level playing field leading to respect for the process and its outcomes
- 5) Appreciation for the wisdom of Ben Franklin

