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PRESIDENT'S INFORMATION TECHNOLOGY ADVISORY COMMITTEE RELEASES NEW REPORT
COMPUTATIONAL SCIENCE: ENSURING AMERICA'S COMPETITIVENESS

The President's Information Technology Advisory Committee (PITAC) today released a new report *Computational Science: Ensuring America's Competitiveness* that finds that computational science is one of the most important technological fields of the 21st century, because it enables investigation of extremely complicated phenomena and processes – such as nuclear fusion, folding of proteins, the atomic organization of nanoscale materials, and the global spread of disease – that other methods cannot characterize fully if at all.

"Computational science – the use of advanced computing capabilities to understand and solve complex problems – is now critical to scientific leadership, economic competitiveness, and national security," said John H. Marburger III, Science Advisor to President Bush and Director, Office of Science and Technology Policy. "PITAC provides a valuable service by looking at how improvements in computational science can be leveraged to advance important scientific and technical priorities."

In its report, the PITAC calls on Federal research and development (R&D) agencies and universities to make coordinated, fundamental changes to their research and education structures to promote and reward collaborative approaches essential to computational science. The PITAC recommends that the Federal government should commission a fast-track study to recommend changes and innovations in Federal R&D roles and portfolios that will more effectively support advances in computational science, remove organizational silos, and address the need for innovative, multidisciplinary approaches to R&D based on computational science.

Computational science planning and coordination are characterized by a short-term orientation, limited strategic planning, and low levels of cooperation among the participants. To address these deficiencies, the PITAC recommends that the Federal government, through the National Academies and in partnership with academia and industry, create and execute a multi-decade roadmap for computational science and the diverse fields that increasingly depend upon it.

The report also recommends that the Federal government establish national software sustainability centers; provide long-term support for computational science data and software repositories; support national high-end computing leadership centers; implement coordinated, long-term computational science programs to connect these centers and repositories; and rebalance R&D investments to focus on the most pressing needs of computational science – improved software, new hardware architectures, and sensor- and data-intensive applications.

To request a copy of this report, please complete the form at http://www.nitrd.gov/pubs/, send an e-mail to nco@nitrd.gov, or call the National Coordination Office for Information Technology Research and Development at (703) 292-4873. *Computational Science: Ensuring America's Competitiveness* can also be downloaded as a PDF file by accessing the link at http://www.nitrd.gov/pubs/.

About PITAC
The President's Information Technology Advisory Committee (PITAC) is appointed by the President to provide independent expert advice on maintaining America's preeminence in advanced information technologies. PITAC members are leaders in industry and academia whose reports on key issues in Federal networking and information technology research and development help guide the Administration's efforts to accelerate the development and adoption of information technologies vital for American prosperity in the 21st century.

About the Office of Science and Technology Policy
Congress established OSTP in 1976 with a broad mandate to advise the President and others within the Executive Office of the President on the impacts of science and technology on domestic and international affairs. The 1976 Act also authorizes OSTP to lead an interagency effort to develop and to implement sound science and technology policies and budgets and to work with the private sector, state and local governments, the science and higher education communities, and other nations toward this end. The Director of OSTP serves as co-chair of the President's Council of Advisors on Science and Technology and oversees the National Science and Technology Council on behalf of the President. For more information visit www.ostp.gov.

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