

industry—one of the largest net export industries in the United States—at the cutting edge in the years to come.

Support the Long-Term Competitiveness of American Manufacturing. The Administration proposes \$149 million, an increase of \$39 million above the 2012 enacted level, for research at NSF targeted at developing revolutionary new manufacturing technologies in partnership with the private sector. This advanced manufacturing research is part of a larger \$225 million research initiative aimed at transforming static systems, processes, and infrastructure into adaptive, pervasive “smart” systems with embedded computational intelligence that can sense, adapt, and react. The Administration also proposes \$708 million, \$86 million above the 2012 enacted level, for NIST labs to expand research in areas such as bio-manufacturing and nano-manufacturing, and \$21 million for a new Advanced Manufacturing Technology Consortia program, a public-private partnership that will support road maps and research to address common manufacturing challenges faced by private sector businesses. In addition, the Administration proposes \$290 million—more than double the amount in 2012—for the Advanced Manufacturing Office at the DOE Office of Energy Efficiency and Renewable Energy. This Office will fund activities on innovative manufacturing processes and advanced industrial materials that will enable U.S. companies to cut the costs of manufacturing by using less energy, while improving product quality and accelerating product development. In total, the Budget provides \$2.2 billion for Federal advanced manufacturing R&D, a 19 percent increase over 2012.

Accelerate Innovations from the Laboratory to the Market. One of the most difficult challenges facing an inventor or entrepreneur is taking a new idea from the laboratory or drawing board to market. While the knowledge gained from Government-supported basic and applied research frequently advances a particular field of science or engineering, some results also show immediate potential for broader applicability and impact in the business world. The Administration

proposes \$19 million for the new public-private “Innovation Corps” program at NSF aimed at bringing together the technological, entrepreneurial, and business know-how necessary to bring discoveries ripe for innovation out of the university lab.

Bring About a Clean Energy Economy and Create the Jobs of the Future. Moving toward a clean energy economy will reduce air and water pollution and enhance our national security by reducing dependence on oil. Cleaner energy will play a crucial role in slowing global climate change, meeting the President’s goals of cutting greenhouse gas emissions in the range of 17 percent below 2005 levels by 2020, and 83 percent by 2050. Just as important, ensuring that the Nation leads the world in the clean energy economy is an economic imperative. The clean energy industry, which was in its infancy just a few years ago, is now growing by leaps and bounds. Across the globe—from Europe to Asia to South America—countries are making significant investments in clean energy technologies. The Administration supports a range of investments and initiatives to help make the United States the leader in this industry and bring about a clean energy economy with its new companies and jobs:

- *Double the Share of Electricity from Clean Energy Sources by 2035.* The President’s proposed Clean Energy Standard is the centerpiece of the Administration’s strategy to ensure strong American leadership in the clean energy economy. To support this goal, the Budget increases funding for renewable energy research and development; supports advances in fossil energy technologies that reduce carbon emissions from coal-fired power plants; supports nuclear energy; and promotes the expansion and use of clean energy across the country including rural areas. The Budget also extends key tax incentives to encourage investment in wind energy and clean energy technology.
- *Put One Million Advanced Technology Vehicles on the Road by 2015.* In 2008, the President set an ambitious goal of having

one million advanced technology vehicles on the road by 2015. To reach this goal and become the first in the world to do so, the Budget builds on Recovery Act investments and continues to support electric vehicle manufacturing and adoption in the United States through new consumer rebates, investments in R&D, and competitive programs to encourage investment in advanced vehicle infrastructure.

- *Save Manufacturers Money by Improving Energy Efficiency.* The President's Advanced Manufacturing Partnership invests in a national effort to develop and commercialize the emerging technologies that will create high quality manufacturing jobs and enhance our global competitiveness. By coordinating across Federal agencies and collaborating with the private sector, it will provide the platform for inventing new manufacturing technologies, speeding ideas from the drawing board to the manufacturing floor, scaling-up first-of-a-kind technologies, and developing the infrastructure and shared facilities to allow small and mid-sized manufacturers to innovate and compete.
- *Reduce Buildings' Energy Use by 20 Percent by 2020.* The 80 billion square feet of non-residential building space in the United States present an opportunity to realize large gains in energy efficiency. In 2010, commercial buildings consumed roughly 20 percent of all energy in the U.S. economy. The President's Better Buildings Initiative will, over the next 10 years, seek to make non-residential buildings 20 percent more energy efficient by catalyzing private sector investment through a series of incentives to upgrade offices, stores, universities, hospitals and commercial buildings. These programs build on the Administration's commitment to improving efficiency in residential and Government buildings, particularly through Recovery Act investments. The Budget proposes to encourage the use of the Small Business Administration's 504 Certified Development Company loan guarantee program to support energy efficiency retrofit investments in commercial buildings. The Administration continues to call on Congress to pass the HomeStar bill, which would create jobs by encouraging Americans to invest in energy saving home improvements. The Budget also supports increased R&D in innovative building efficiency technologies and the continued introduction of appliance efficiency standards that save consumers and companies money while improving performance.
- *Pursue Responsible Oil and Gas Production.* Even as we develop next generation energy technologies, we will continue to rely on oil and gas. As was underscored by the tragic 2010 explosion of the Deepwater Horizon and the oil spill that followed, we must take immediate steps to make production safer and more environmentally responsible. In the wake of the spill, the Administration focused on implementing more rigorous safety and environmental standards than ever before, and making structural reforms within the Department of the Interior to increase oversight of offshore drilling, including greater independence for the new environmental enforcement agency that has now been created through the restructuring. The Budget proposes \$368 million to fund the two new bureaus that oversee offshore oil and gas development, the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement. These funds will be used to: hire new oil and gas inspectors, engineers, scientists, and other key staff to oversee industry operations; establish real-time monitoring of key drilling activities; conduct detailed engineering reviews of offshore drilling and production safety systems; and implement more aggressive reviews of company oil spill response plans. The Budget also includes \$45 million for the Department of Energy, the Environmental Protection Agency, and the U.S. Geological Survey for a coordinated effort among these agencies to conduct an R&D program aimed at reducing the potential health, safety, and environmental risks of hydraulic fracturing

for natural gas and oil production from shale formations.

Reform Our Tax Code to Create Jobs Here at Home and Foster Innovation and Competitiveness. Over the nearly three decades since the last comprehensive reform effort, the tax system has been loaded up with revenue-side spending such as special deductions, credits, and other tax expenditures that help well-connected special interests, but do little for middle-class families or our Nation's economic growth. Now more than ever, when we want to compete and win in the world economy, we cannot afford a tax code burdened with special interest tax breaks. Successful comprehensive tax reform is a long process, often taking several years, but even though it is a daunting task, we cannot afford to shirk from the work. In an increasingly competitive global economy, we need to ensure that our country remains the most attractive place for entrepreneurship and business growth. That is why this Budget proposes a number of measures to keep America competitive and to make sure that our tax system encourages jobs to be created here rather than abroad. In addition to these changes to the current tax code, the President is calling on the Congress to immediately begin work on corporate tax reform that will close loopholes, lower the overall rate, encourage investment here at home, and not add a dime to the deficit.

Improve the Patent System and Protect Intellectual Property. The Budget proposes to give the U.S. Patent and Trademark Office (USPTO) full access to its fee collections and strengthen USPTO's efforts to improve the speed and quality of patent examinations through reforms authorized by the America Invents Act. This will provide USPTO with more than \$2.9 billion in resources in 2013. The Budget also supports strengthened intellectual property enforcement domestically and overseas as set out in the Intellectual Property Enforcement Coordinator's Joint Strategic Plan required by Prioritizing Resources and Organization for Intellectual Property Act of 2008 (Pro-IP).

Building a 21st Century Infrastructure

From the Erie Canal to the transcontinental railroad, from the interstate highway system to the Internet, infrastructure has been critical to the economic growth and competitiveness of the American economy. For too long, we have neglected our Nation's infrastructure, its roads, bridges, levees, ports and waterways, communications networks, and transit systems. To compete in the 21st Century, we need an infrastructure that keeps pace with the times and outpaces our rivals. Manufacturers and other companies are looking to expand in the places with the best infrastructure to ship their products, move their workers, and communicate with the rest of the world. To attract those businesses to the United States and grow them here at home, we need to invest today. That is why, in the Recovery Act, the Administration made the largest one-time investment in our Nation's infrastructure since President Eisenhower called for the creation of an interstate highway system. Now, we must build on those efforts, and we must do so responsibly by paying for what we build. We cannot strengthen our economy with a modern infrastructure if at the same time it weakens our fiscal standing. To build the infrastructure we need to compete in the 21st Century, the Budget proposes to:

Enact an Historic \$476 Billion, Six-Year Surface Transportation Reauthorization and Better Allocate Those Dollars to Get Results. Recognizing the importance of a modern transportation infrastructure to the growth and competitiveness of the economy, the President proposes a \$476 billion, six-year surface transportation reauthorization package—expanded to include inter-city passenger rail transportation. Together with an additional \$50 billion investment in 2012 to jumpstart critical transportation infrastructure projects, the proposal is an increase of more than 80 percent above the inflation-adjusted levels in the previous six-year bill plus annual appropriated funding for passenger rail during those years. The proposal is not just a historic commitment of funds, but also seeks to reform how transportation dollars are spent so that they are directed to the most effective programs