

## Box 2: Spurring Innovation through Prizes and Challenges

In his September 2009 *Innovation Strategy*, President Obama called on all agencies to increase their use of prizes and challenges to mobilize America's ingenuity to solve some of our nation's most pressing challenges.

From the 1714 Longitude Prize that stimulated the development of the world's first practical method to measure a ship's longitude to the Orteig Prize that inspired Charles Lindbergh to fly nonstop from New York to Paris to the X Prize given to the inventor who creates a car that can deliver over 100 miles per gallon, prizes have a long record of spurring innovation. In the 21st century, unprecedented levels of connectivity have given rise to a renaissance for prize competitions. A recent McKinsey report found that private sector investment in prizes has increased significantly in recent years, including \$250 million in new prize money between 2000 and 2007.

As the Wall Street Journal recently concluded, "These prizes have proliferated because they actually work." Under the right circumstances, prizes have a number of advantages over traditional grants and contracts. Prizes allow the sponsor to set an ambitious goal without selecting the team or approach that is most likely to succeed, to increase the number and diversity of minds tackling tough problems, to pay only for results, and to stimulate private-sector investment that is many times greater than the cash value of the prize (Orteig competitors collectively spent \$400,000 to win the \$25,000 purse).

Since September 2009, the Obama Administration has taken important steps to accelerate public-sector adoption of these innovative tools. In March 2010, the Office of Management and Budget issued a formal policy framework to guide agency leadership in using prizes to advance their core mission. In September 2010, the Administration launched Challenge.gov, a one-stop shop where entrepreneurs and citizen solvers can find public-sector prizes. Throughout, the Administration built a community of practice for agencies to share best practices and lessons learned. As a result, in its first 4 months alone, Challenge.gov has featured nearly 60 challenges from more than 25 agencies across the Executive Branch, generating novel solutions for childhood obesity, advanced vehicle technologies, financing for small businesses, Type 1 Diabetes, and many other national priorities.

Another example is a challenge launched on the NASA Innovation Pavilion for a forecasting algorithm to protect America's astronauts from radiation exposure in space. Over 500 problem solvers from 53 countries answered NASA's call. Expecting no solutions for this long intractable problem, NASA received a solution that exceeded their requirements from a retired radio-frequency engineer in rural New Hampshire. The winner had never before responded to a government request for proposals, let alone worked with NASA. Yet, his winning approach forecast solar proton events with 85% accuracy, a result NASA dubbed "outstanding."

Prize competitions like these mark a dramatic departure from business as usual and – thanks to newly-enacted legislation – will soon become a standard tool in every federal agency's toolbox. On December 21st, Congress passed the America COMPETES Reauthorization Act of 2010, providing broad prize authority to all federal agencies. By giving agencies a simple and clear legal path, the America COMPETES Reauthorization Act will make it dramatically easier for agencies to use prizes and challenges. In the months to come, the Obama Administration will work closely with key agencies to leverage the new authority for ambitious prizes in areas of national priority.