## Rebuild America's Research Infrastructure

A comprehensive initiative to restore our highways and bridges and modernize our nation's critical research infrastructure is needed.

America's infrastructure is aging and needs revitalization. Our highways, bridges, tunnels, mid- and large-scale research facilities, dedicated laboratory buildings and advanced scientific equipment – some of which were built more than 50 years ago – desperately need upgrading.

Basic scientific research is a pillar of America's innovation ecosystem. The breakthrough discoveries and innovations stemming from basic research drive economic growth, increase our competitiveness, enhance our national security, and improve the quality of life for all our citizens. These successes are enabled by a research infrastructure – located at national labs, universities and research facilities across the country – that is as fundamental to our economy and security as roads, bridges and tunnels.



During the mid-20<sup>th</sup> century, the U.S. government began developing a research infrastructure unrivaled by other

nations. Unfortunately, the nation has failed to maintain this infrastructure and many of our research facilities no longer meet the needs of modern research, jeopardizing our competitiveness and the jobs that go with it.

America's research infrastructure is essential to our economy. While our counterparts in Asia and Europe aggressively invest in modern facilities, attracting some of the best researchers from around the world, some U.S. laboratories and university research facilities that were once considered world-class are becoming dangerously obsolete.

For America to remain a leader in science, technology and innovation, we must upgrade our research facilities and scientific equipment.

## **Guiding Principles for Investment**

The nation's research infrastructure can be restored. The national labs, universities and federal science agencies – including DOD, DOE, NASA, NIST and NSF – have the plans; the technology is available; and construction can begin immediately. To maximize taxpayer value, two principles can guide the investment:

- **Public Value:** research infrastructure projects must provide a broadly shared benefit
- Essential: research infrastructure projects must be central to the mission of the sponsoring agency and fit within its envelope of activities and operations

Investing a portion of a new infrastructure initiative to rebuild America's research infrastructure will promote our nation's short-term and long-term economic growth.