

Pacific Northwest
NATIONAL LABORATORY

Proudly Operated by **Battelle** Since 1965

Pacific Northwest National Laboratory

2016 Tri-Cities Regional Economic Outlook



January 20, 2016

Dr. Steven Ashby, Laboratory Director

DISCOVERY

in action



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A national laboratory with global impact

PNNL strives to understand, predict and control complex adaptive systems

EARTH

- ▶ Clouds and Aerosols
- ▶ Water Cycle
- ▶ Microbial Communities

ENERGY

- ▶ Energy Storage
- ▶ Energy Conversions
- ▶ Control and Security

SECURITY

- ▶ Ultra-Trace Detection
- ▶ Novel Signatures
- ▶ Data-Driven Discovery

....shedding light on droughts



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2011



Lake Oroville, CA



2014

...informing global climate negotiations


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...creating the grid of the future



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...developing fuel-efficient vehicles



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...ensuring safe air travel



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...supporting nuclear nonproliferation



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Iran nuclear
negotiations



North Korea
claims H-bomb



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A national laboratory in the Tri-Cities

PNNL is a local economic engine



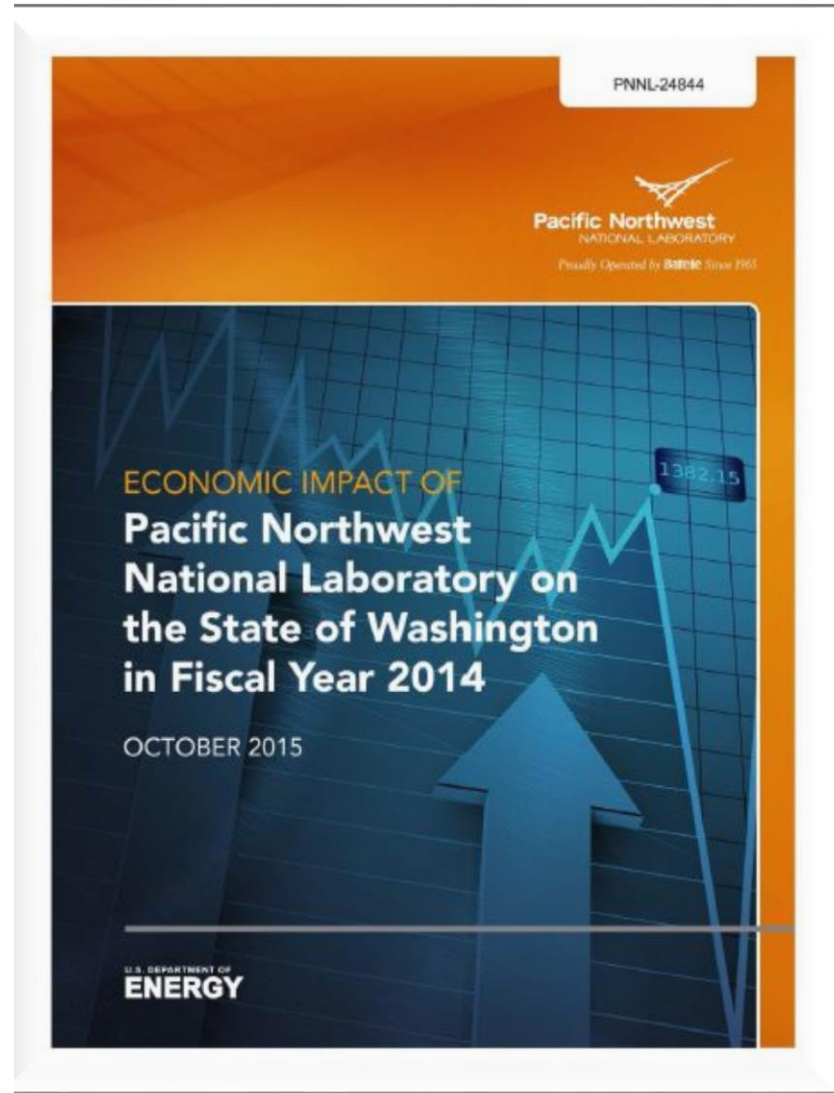
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\$2.6B

TOTAL ANNUAL
ECONOMIC OUTPUT



PNNL employees, Tri-Cities neighbors


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4,308
EMPLOYEES



TOTAL PAYROLL
\$402M



\$22.5M
STATE/LOCAL TAXES

PNNL collaborators, Tri-Cities visitors



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2,000+

VISITORS
ANNUALLY



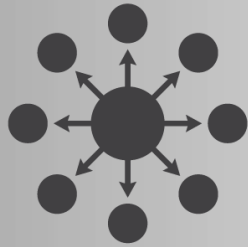
**New Collaboration Center will host
scientific meetings for which Tri-Cities
was not previously considered**

Creating new companies and jobs



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99

71 IN WA

OPERATING
SPINOFF
COMPANIES



UniEnergy Technologies has
largest capacity flow battery in
North America and Europe

Helping local companies



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55

TECHNICAL
ASSISTANCE
PROJECTS
(2014)



CHAMPION Technologies



XL SciTech



Carbitex

Giving back to our community



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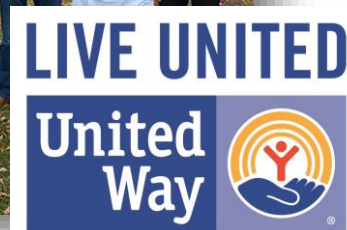
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\$875K

BATTELLE/PNNL/STAFF
CONTRIBUTIONS

43,000 employee hours
donated in 2015



United Way of
Benton & Franklin Counties





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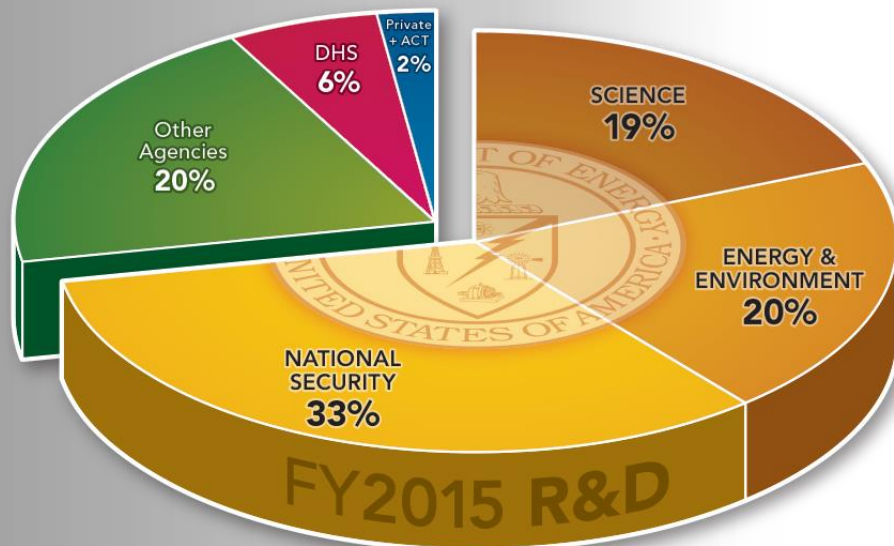
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A national laboratory with many opportunities

PNNL serves diverse set of sponsors



4,400 staff
\$955M budget

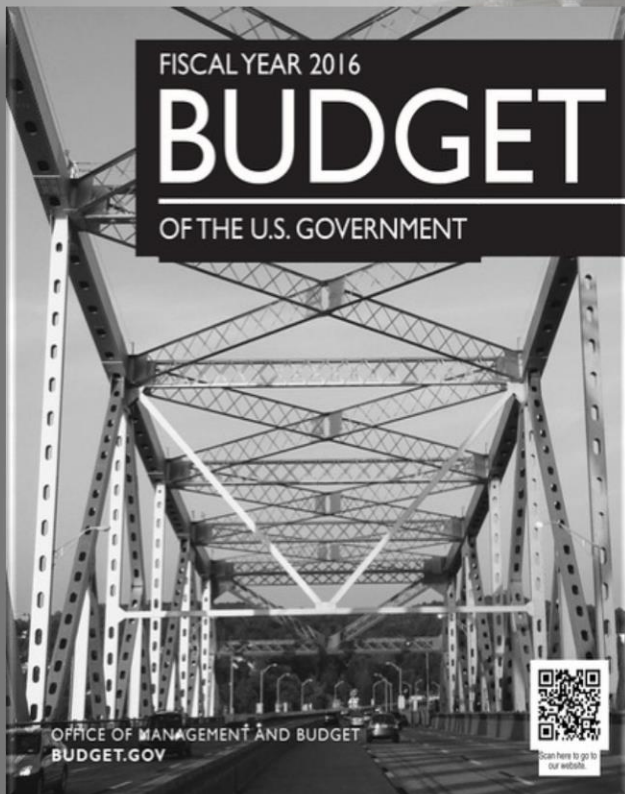
Major sponsors

- ▶ Office of Science
- ▶ Energy Efficiency & Renewable Energy
- ▶ Environmental Management
- ▶ National Nuclear Security Administration
- ▶ Department of Defense
- ▶ National Institutes of Health
- ▶ Dept. of Homeland Security

FY2016 presents many opportunities

New opportunities

- ▶ Grid modernization
- ▶ Buildings control
- ▶ Energy storage
- ▶ Materials science
- ▶ EM-focused R&D
- ▶ Cyber and data



Investing in our future...



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Collaboration Center

Office Building

General Purpose
Chemistry Laboratory

Systems
Engineering
Building

...one building at a time



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**Systems Engineering
Building**
occupied



**General Purpose
Chemistry Lab**
under construction



Office Building
contract awarded



The Collaboration Center
conceptual design complete



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A national laboratory with a bright future!



PARTNERSHIP