

# Economic Development and Technology Commercialization Support from Pacific Northwest National Laboratory

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**Washington Workforce & Economic Development Conference**

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# PNNL: a national treasure in the Northwest

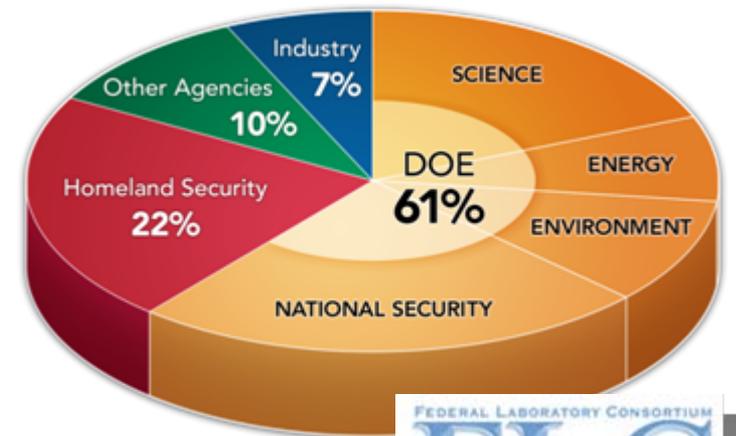
We deliver solutions to America's most intractable problems in energy, national security and the environment. Through the power of our interdisciplinary teams, we advance science and technology to make the world a better place.

- ▶ Proudly operated by Battelle since 1965
- ▶ More than 4,300 staff



# Over the years, our portfolio has diversified and grown...and been recognized

- ▶ \$1.1 billion in 2008 sales
- ▶ 93% of annual sales is in support of federal agencies
- ▶ More than 50% homeland and national security
- ▶ Less than 15% Hanford
- ▶ 1,664 U.S. and Foreign Patents (33 Domestic / 30 Foreign in 2008)



**Pacific Northwest**  
NATIONAL LABORATORY

Proudly Operated by **Battelle** Since 1965

# PNNL is focused on four mission outcomes



**Strengthen  
U.S. Scientific  
Foundations  
for Innovation**



**Increase U.S. Energy  
Capacity and Reduce  
Dependence on  
Imported Oil**



**Prevent and Counter  
Terrorism and  
Proliferation of Weapons  
of Mass Destruction**



**Reduce Environmental  
Effects of Human  
Activity and Create  
Sustainable Systems**



# PNNL innovations with everyday impact

Holography



Optical digital recording



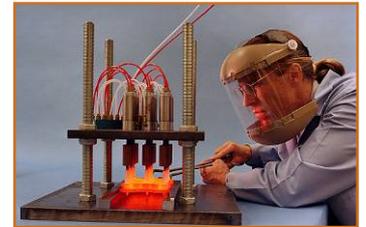
Implant coating



Chevy Malibu Maxx lift gate



Improved spark plugs



# Bioproducts, Sciences & Engineering Laboratory (BSEL)

- ▶ \$24 million, 57,000 square-foot facility jointly occupied by PNNL and WSU
- ▶ Developing technology to convert biomass into fuels and value-added chemicals
- ▶ Co-located interdisciplinary research and teaching laboratories
- ▶ Engineering development lab to provide industry-relevant data



WASHINGTON STATE UNIVERSITY  
TRI-CITIES  
*World Class. Face to Face.*

**BSEL**  
Bioproducts, Sciences & Engineering Laboratory

  
Pacific Northwest  
NATIONAL LABORATORY

  
Pacific Northwest  
NATIONAL LABORATORY  
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# Contracting Mechanisms

Agreement	Description	Use
Direct Contract (Use Permit)	Directly fund and negotiate contract R&D through a private contract with Battelle	<ul style="list-style-type: none"> <li>▶ Leverage core lab S&amp;T on an exclusive basis</li> <li>▶ Flexible contract and payment terms</li> <li>▶ Teaming for a competitive contract</li> </ul>
User Facility Agreement	Provide access to dedicated DOE lab facilities	Provides access to non-PNNL researchers to use specialized lab equipment at PNNL
Work for Others	Leverage PNNL's R&D capabilities on a full cost-recovery basis	<ul style="list-style-type: none"> <li>▶ Non-competitive contracts</li> <li>▶ Work done under terms of Battelle's DOE contract</li> </ul>
CRADA	Industrial or non-federal partners to collaborate with PNNL on a cost share or 100% funded basis	▶ Collaborative R&D that benefits the goals of each partner

# Characteristics of Successful Licensees

## ► Companies that are:

- Well-funded
- Experienced in the market and with solid contacts
- Equipped with an experienced management team
- Possess domain knowledge (technically savvy)
- Pursuing demand-driven innovations

# Tri-Cities Innovation Partnership Zone Master Plan



# PNNL's Technology Entrepreneurship Program

- ▶ Multidisciplinary teams of graduate-level students investigate the feasibility of taking laboratory developed technologies to market
- ▶ University Partners
  - Washington State University
  - University of Oregon
  - University of Washington
- ▶ Program Elements
  - Feasibility Analysis
  - Business Model Development
  - Business Plan Development
  - Business Plan Competitions



# Technology Entrepreneurship Program Outcomes

- ▶ Students' employment opportunities enhanced
- ▶ New students attracted to northwest universities
- ▶ University reputations for entrepreneurship are strengthened
- ▶ PNNL and the university tech transfer offices obtain valuable insights into the commercial potential of their technologies
- ▶ 8 teams have won \$180K
- ▶ 7 company launches

## Program Profile:

# Technology Assistance

- ▶ Several days of technology assistance for businesses at no charge
- ▶ A business must request assistance
- ▶ Competition with the private sector is to be avoided
- ▶ Each firm eligible to receive technology assistance once per fiscal year



<http://www.pnl.gov/edo/assistance/techassist.stm>

## Program Profile:

# Small Business Innovation Research Alerting Service

- ▶ Automatic notification of changes and updates for the Small Business Innovation Research Program and the Small Business Technology Transfer Program
- ▶ Alerts include solicitations, training, conferences, tips, and contact information with web addresses
- ▶ E-Mail alerting approximately every other week
- ▶ Cost: free subscription via website

<http://www.pnl.gov/edo/opportunities/sbir.stm>

# Questions?

