How Pacific Northwest National Laboratory Can Help Your Business Succeed

Every year at Pacific Northwest National Laboratory, we are privileged to help hundreds of businesses ranging from entrepreneurial startups to multi-national corporations. Here they can tap into thousands of experts to help them solve perplexing technical problems, develop new technology products, obtain the rights to technologies and software, and receive specialized assistance for competitive advantage.

As a U.S. Department of Energy national laboratory, PNNL helps businesses that support national missions and strengthen U.S. economic competitiveness.

**HOW YOUR BUSINESS CAN TAP INTO THE NATIONAL LABORATORY**

» Collaborate on technology development to transform technologies into customized products for your business
» Obtain new technologies and other intellectual property available for licensing
» Access nationally and internationally known, entrepreneurial-minded staff who understand the fast-paced, solution-focused culture of industry
» Receive technology assistance—at no cost—for qualifying businesses
» Connect to a vast entrepreneurial ecosystem for specialized expertise

The UniEnergy Technologies team, shown here, commercialized PNNL’s flow battery technology to create a breakthrough product. By storing solar and wind energy for when it’s needed later, the Uni-System™ battery helps power generators meet peak electrical requirements and improve grid reliability.

“PNNL’s impact on the competitive longevity of my company is unmatched.”

– Benjamin Peng President, XL Sci-Tech, Inc.

“...and more”
QUESTIONS BUSINESSES ASK

Q: What are the ways my business can work with PNNL?

The table on the opposite page shows ways we can work with you. Our experts will help you determine the best approach for your needs.

Q: How will you protect my proprietary information, and what rights do I have for any resulting intellectual property?

Businesses can use a nondisclosure agreement to protect their own proprietary information before the work starts. U.S.-based companies can often obtain rights to resulting inventions and proprietary information, depending on the agreement type.

Q: What’s the difference between Strategic Partnership Projects (SPPs) and the Agreement for Commercializing Technology (ACT)?

SPPs are based on federal terms and conditions, advance payment is required, and the sponsoring company is responsible for any risks. Under ACT, the terms are commercial, the risk is shared, and payment terms are negotiable. However, businesses can’t use federal funding, such as grants, to pay for ACT research.

Q: Where can I find your technologies available for licensing?

Browse http://availabletechnologies.pnnl.gov to see technologies and software in more than 20 portfolio areas. We can also work with you to adapt these specifically for your business.

Q: How can I offer my products and services to PNNL?

You can list your company in our Acquisition Supplier Portal System, search solicitations, and see bid results. See more at www.pnnl.gov/contracts.

OPTIONS FOR WORKING WITH PNNL

<table>
<thead>
<tr>
<th>Collaboration Type</th>
<th>Agreement</th>
<th>Financial Terms</th>
<th>Resulting Intellectual Property (IP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsored research. PNNL conducts work for Company using specialized DOE facilities, services, and technical expertise</td>
<td>Strategic Partnership Projects (SPP)</td>
<td>- Company funds all costs - Most agreement terms are negotiable - Advance payment required - Company assumes all risk</td>
<td>- Company can own all IP unless federal funds are used for the SPP; Government retains a royalty free, non-exclusive right to IP - Must comply with DOE reporting requirements - DOE can take back patents if obligations not met - PNNL can generate proprietary information for Company unless federal funds are used</td>
</tr>
<tr>
<td>Sponsored research. PNNL conducts work for Company using specialized DOE facilities, services, and technical expertise Not available for companies using U.S. federal funding</td>
<td>Agreement for Commercializing Technology (ACT)</td>
<td>- Terms and conditions are commercially based and negotiable - Payment terms are flexible - Risk may be shared</td>
<td>- Either U.S. party can take the lead on IP - If Battelle (PNNL) leads, PNNL will address the patenting cost and reporting obligations, and provide the Company with access to license the IP - Government retains a royalty free, non-exclusive right to IP</td>
</tr>
<tr>
<td>Collaborative research. Company and PNNL conduct R&amp;D together under a joint statement of work</td>
<td>Cooperative Research and Development Agreement (CRADA)</td>
<td>Each party to the CRADA funds its own effort and contribution to the joint statement of work</td>
<td>- Battelle can own IP - IP can be licensed to Company - PNNL and Company each can get copyrights to sole and joint data - Proprietary info can be protected for 5 years</td>
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<tr>
<td>Licensing. Company obtains rights to PNNL patents and technologies, copyrighted software, or open-source tools</td>
<td>License or option to license</td>
<td>Terms are negotiable - Typically includes % of sales and recovery of PNNL patent costs</td>
<td>n/a</td>
</tr>
<tr>
<td>Technology assistance. Company receives a week’s worth of technology assistance annually from PNNL</td>
<td>Simple 2-page form</td>
<td>No cost to businesses with U.S. jobs and up to 500 employees - Assistance can’t be readily available in private sector</td>
<td>Company can get a royalty-free, non-exclusive license for IP</td>
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<tr>
<td>Facility use. Company conducts research in BMAL, a DOE scientific user facility at PNNL, or APEL</td>
<td>User agreement</td>
<td>Company funds all costs for proprietary research; typically no costs for standard, competitive, non-proprietary research</td>
<td>IP belongs to inventor/Company; non-proprietary users expected to publish results</td>
</tr>
</tbody>
</table>

Notes
- Companies must manufacture resulting products substantially in the U.S., or in the case of technology assistance, have U.S. jobs. Terms vary for non-U.S. companies.
- Companies also can seek space in APEL, a high-tech incubator; see www.apel.org.
- The government retains nonexclusive rights to IP, software, and data generated.

For improved fuel economy, DOE, PNNL, General Motors, Alcoa, and TWB Company LLC created a 62% lighter and 25% less costly car door panel.

“The team demonstrated how friction stir welding supports vehicle lightweighting, giving GM a competitive advantage for the future.”

—Blair Carlson, GM Research and Development, Manufacturing Research Systems Lab