UAV

McMinnville-based Northwest UAV is the largest unmanned aerial vehicle engine manufacturer in the U.S., producing over 4,500 engines, and a critical supplier for Boeing's ScanEagle drone.

Driven to meet new federal regulations that require a 35 percent reduction in exhaust emissions, NWUAV set out to develop a unique fuel injection system that can handle heavy jet fuels. But doing the research in-house was expensive. Without help, NWUAV would need to go outside Oregon to find the sophisticated R&D needed to improve its engines.

NWUAV used Oregon InC's shared labs in Corvallis to design a new fuel injector using ink jet technology; a prototype was demonstrated at an unmanned aerial vehicle show only 3 months after the project began. The new design promises not only increased fuel efficiency and flight times with reduced emissions – but may have applications in the lucrative home market in lawn mowers and leaf blowers.

OREGON'S R&D ADVANTAGE

Oregon InC's network of shared labs and 450 researchers gives businesses access to cutting edge R&D, clean rooms, prototyping and testing without the added cost of in-house staff or facilities. More than 227 companies have taken advantage, including companies as diverse as solar cell manufacturer Spectra Watt and industry leader Intel.

Oregon InC clients include:

SolarWorld –
world leaders in solar power technology

Micro Systems Engineering –
producing medical microelectronics

Hewlett-Packard – global tech company

ON Semi – semiconductor fabrication

Floragenex –
developing new DNA sequencing systems

Home Dialysis+ -
creating portable kidney dialysis machines.

Creating The Next Generation of Oregon Jobs

Why Oregon InC?

Oregon InC's mission is to create jobs, create companies and bring outside dollars back to Oregon. It does that by harnessing private sector leadership with Oregon's universities to commercialize cutting edge research; revitalize established industries and make them more competitive; help start-ups access capital, and provide Oregon businesses with access to otherwise out-of-reach R&D labs and researchers.

What's the return on investment so far?

In only three years of funding, Oregon InC's six initiatives have captured $197.5 million in federal and private grants for the state, and are on track to generate more than $7 for every dollar the Legislature has invested so far. Oregon InC created or retained 666 jobs in the first biennium, and is on track to create or retain 616 jobs in the second biennium. It has incubated 15 new companies, and its 11 shared labs have been used by more than 227 businesses to perfect ideas as diverse as portable kidney dialysis machines and new malaria-fighting drugs.

How do I know this money is well spent?

Each initiative is audited quarterly by the Oregon InC Audit Committee, made up of private sector leaders and four legislators. If an initiative is falling short, funding can be immediately suspended or stopped. Initiatives continue only as long as they show a profit to the state.

Is this just high tech or does it help everyone?

Oregon InC's programs represent a diversified portfolio that boosts Oregon industries. Food processing initiatives have revitalized industries along the coast and in rural communities. Wave energy is creating manufacturing jobs for welders as well as boat captains and technicians along the coast. An electric vehicle initiative will need workers with manufacturing skills.

Why this in a down economy?

Innovation keeps existing businesses competitive by continually developing and improving products and services. It helps train the next generation of skilled workers. It incubates emerging industries and provides the capital they need to grow, diversifying and expanding the economy. It leverages state dollars invested with private and federal grants. And while maintaining core services now, Oregon also must invest in future opportunities that will enable it to emerge from this economic downturn stronger and more diversified.

2011-13 Oregon Innovation Plan

Oregon InC received 22 creative ideas from throughout the state for inclusion in the 2011-13 Innovation Plan. After a 3 month review, Oregon InC recommends $18.95 million in Lottery Funds be invested in a portfolio that continues Oregon's leadership in nanoscience and green building materials, clean energy and bioscience – and creates an exciting new opportunity establishing Oregon as a world leader in the design and manufacture of electric vehicles and components.

ONAMI (Oregon Nanoscience and Microtechnologies Institute)

Oregon's first Signature Research Center is now a nationally recognized collection of laboratories and researchers helping create a new generation of companies like Zaps Technologies, which uses nano-materials to test polluted waters for multiple contaminants at once rather than the current one-at-a-time method – saving time and money. ONAMI has helped start-ups raise more than $70 million in private capital.

2011-13 Request: $5.5 million

OTRADI (Oregon Translational & Drug Discovery Institute)

OTRADI is working with researchers and biotech companies in areas as diverse as oncology, neuroscience, medical devices and infectious diseases. Drug screening and analysis that once would have taken a researcher six months now can be finished in a week in OTRADI's lab. OTRADI, for instance, confirmed that the chemicals designed by PSU-spinoff DesignMedix are effective not only against malaria, but also the dangerous E. coli bacteria and Staph. Aureus – data helping DesignMedix expand operations in Oregon.

2011-13 Request: $3.5 million

IPC (Northwest Food Processing Innovation Productivity Center)

IPC is recharging an industry that employs 200,000 Oregonians, helping food processors tap into new ideas and new ways of doing business. IPC has helped create software that allows processors to meter and track water, air, natural gas, electricity and steam usage, as well as greenhouse gas emissions. It's helped Bear Creek in Jackson County (the owners of the iconic Harry & David's) evaluate its production and warehousing efficiency, and Boardman Foods in Umatilla County streamline its onion processing operations. At the end of this biennium, IPC will phase out state funding and become supported by the industry it is helping remake.

2011-13 Request: $500,000

Oregon BEST (Oregon Built Environment and Sustainable Technologies Center)

With national priorities – and funding – focused on renewable energy and green buildings, Oregon BEST research is leading to new technologies, new products and new jobs. Oregon BEST's 140 faculty researchers, for instance, are measuring the insulating capacity of high-tech paints and using recycled Styrofoam as building insulation. And Oregon BEST is helping the building industry embrace green principles, with R&D projects ranging from eco-districts to solar awnings; micro wind turbines to green roofs.

2011-13 Request: $4.5 million

OWET (Oregon Wave Energy Trust)

A 150-foot buoy about to be launched off Reedsport is the first step toward providing clean, renewable energy to thousands of Oregon homes. OWET is helping create this new industry, bringing together federal, state and local resources, while making sure coastal residents and fishermen have a voice in decision making. OWET-funded research has built a regulatory roadmap that is attracting wave energy developers from around the world. And the buoys that make it all work are providing good paying jobs not only to engineers, but to welders and sea captains, technicians and drivers along the coast.

2011-13 Request: $2.5 million

Drive Oregon

More than 40 Oregon companies are currently working on electric vehicle-related technologies, from batteries to motors, charging stations to electronic components. Drive Oregon takes advantage of this momentum by driving commercialization efforts in the clean tech, advanced manufacturing, software and high tech sectors; helping researchers and companies compete for billions in new federal grants, and leverage areas where Oregon is uniquely positioned to lead.

2011-13 Request: $2.5 million