

ONAMI
OREGON NANOSCIENCE AND
MICROTECHNOLOGIES INSTITUTE



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**ONAMI TESTIMONY TO THE OREGON STATE LEGISLATURE
JOINT WAYS AND MEANS COMMITTEE
MARCH 13, 2013
ROBERT (SKIP) RUNG, PRESIDENT AND EXECUTIVE DIRECTOR**

ONAMI turns technical ideas and talent into investments and jobs in Oregon. Our field is “nanotechnology”, which really means advanced materials and manufacturing processes for almost every economic sector. Commercializing research is a hot topic, and the leading professional society - the State Science and Technology Institute - named ONAMI as the best in the US last October. The same month, I was appointed by the National Science Foundation to its Small Business Innovation Research Advisory Council.

I’ll briefly cover the three pillars of the ONAMI model, why we do them, the impact they are having, and how we measure success - quantitatively.

- I. **Commercialization Gap funding** that positions high-potential Oregon startups for investment and growth is our flagship program. We’ve done 31 gap projects since 2006. Our portfolio companies have collectively raised over \$112M in leveraged funding, and today employ 120 Oregonians. Every one of these companies is still small, with plenty of breakthrough potential yet to be realized. I wish I had time to tell you about all of our companies, but here are five diverse examples:
 - a. Supra Sensor Technologies in Eugene connected basic research at UO to solve a problem we learned about in Hermiston: how to monitor soil nitrate levels in real time to save farmers money and reduce environmental impact.
 - b. ZAPS Technologies in Corvallis uses light to detect contaminants in water. This is 100 times more accurate and 1,000,000 times faster than beaker chemistry. This is starting to revolutionize waste water treatment in three countries so far, and that’s just the first application.
 - c. OnTo Technology in Bend is the world’s expert in recycling battery materials, and used ONAMI funding to show they could build even better batteries with recycled material. This is a huge need and opportunity, particularly as vehicles go electric.

- d. Energy Storage Systems in the PSU Business Accelerator just won \$1.725M from the U.S. Department of Energy to advance their low cost, environmentally benign flow battery that helps small businesses reduce electricity costs and at the same time helps integrate renewable energy sources into the grid.
 - e. Pacific Light Technologies is both a nanotechnology “pure play” and a revolutionary advance in clean technology. You’ll hear from PLT’s CEO Ron Nelson in about 3 minutes about what it does, but there’s a good chance you’ll own their product before long.
- II. **World class facilities** that support Oregon businesses and help keep them here. Oregon is loaded with talent and creativity, but sparsely populated. We need to share high-tech infrastructure to compete. Oregon universities are leaders at opening core facilities for use by businesses which can only exist in places that have such access. ONAMI-supported facilities do about \$1M/year in external billings from 128 external users so far this biennium. The ONAMI “High Tech Extension” has also received national recognition. As a result of that recognition, I was invited by NSF last April to help plan the next generation national nanotechnology infrastructure network.
- III. **Growing Research Capacity and Revenue.** This is not research for research’s sake, but is the starting point for whole new industries like semiconductors, lasers and advanced medicines. This is also the **only** way to train the advanced degree talent that Intel and other high-wage employers demand. ONAMI builds teams and supplies critical cost-sharing for major federal funding opportunities. Our fondest dreams came true in late 2011 when OSU and UO together won the \$21.5M NSF Center for Sustainable Materials Chemistry. CSMC supports over 26 graduate students and 10 postdocs and already has two spinout companies. ONAMI measures research success in terms of new awards and contracts to ONAMI member researchers at OHSU, OSU, PSU and UO. This is running at about \$35M/year, about 4 times higher than when we started.

Now Pacific Light Technologies CEO Ron Nelson will tell you how small beginnings can open up a huge global opportunity.