# NEW INITIATIVES AND ALTERNATIVE TECHNOLOGY COMMERCIALIZATION PROGRAMS

## NEW WAYS TO WORK WITH DOE LABS

### Agreements for Commercializing Technology (ACT) Program

A more flexible contracting framework for sponsoring research with negotiated intellectual property (IP) rights to

- Move technology from the laboratory to the marketplace more efficiently
- Facilitate labs working together to address complex technological challenges of mutual interest
- Enable partnerships between contractors operating national labs and businesses using terms better aligned with industry practice

Next step: Pilot ACT program in 2012

### New SBIR/STTR Tech Transfer Initiative

Mechanism to assist with transferring DOE Lab technologies to small businesses. The program

- Makes DOE National Lab technologies available to SBIR Topic Managers as a topic choice
- Utilizes existing SBIR / STTR programs to fund small businesses proposing innovative applications of available DOE Lab technologies
- Offers licensing rights to small businesses to perform R&D for a selected technology during the Phase I and Phase II award periods and an option agreement to obtain commercial IP rights

Next step: Program starts in 2Q of 2012


### The Energy Innovation Portal
### http://techportal.eere.energy.gov/

Originally developed by the National Renewable Energy Laboratory (NREL) for DOE's Energy Efficiency and Renewable Energy website to

- Provide access to more than 15,000 DOE-funded patents and published patent applications for DOE's 17 national labs
- Showcase descriptions of nearly 600 technologies available for licensing
- Track the 1,000-plus business leads generated to date
- Facilitate licensing of bundled IP

Next steps: Potential collaborations with DOE, DOD, NASA, the Naval Research Laboratory, and other agencies to expand the technologies available for licensing.

## ALTERNATIVE TECHNOLOGY COMMERCIALIZATION PROGRAMS

Dan Neal of Wavefront Sciences with iDesign, a wavefront aberrometer providing high-resolution eye measurements to replace five different ophthalmic instruments.

### Entrepreneurial Separation To Transfer Technology (ESTT)

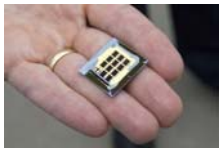
A program instituted by Sandia National Laboratories (SNL) that allows SNL employees to leave the Labs to start up new technology companies or help expand existing companies. Entrepreneurs are guaranteed reinstatement by SNL if they return to the Labs before the agreement expires.

Over 277 jobs have been created and 92 companies have benefited from the program, including Wavefront Sciences, a New Mexico company co-founded by Dan Neal based on a licensed SNL optics technology. Wavefront Sciences grew from three employees to 54, became part of publicly traded Advanced Medical Optics, and was ultimately acquired by Abbott Laboratories.

### Privately Funded Technology Transfer Program

This program uses non-federal funding to cover the costs of moving a federally-funded invention through the patenting, marketing, and licensing process and making it available to the private sector in the form of new products or processes. PNNL, NREL and ORNL have active programs.

NREL has expanded their program to cover 27 technologies in 10 distinct portfolios. Among them, an inexpensive, one-step process to reduce solar cell costs and increase solar cells' ability to absorb radiation, called Black Silicon Nanocatalytic Wet-Chemical Etch, was licensed to Natcore Technologies and 7AC Technologies with the goal of rapid commercialization.



"Black Silicon" Nanocatalytic Wet-Chemical Etch emerged from work by NREL photovoltaic researchers that demonstrated that "black silicon" solar cells, which have been chemically etched to appear black, can better absorb the sun's energy.

### Consulting and Other Outside Professional Activities

Scientists and engineers at Lawrence Berkeley National Lab (LBNL) can offer their expertise in a private capacity by

- Consulting for any size company
- Serving on advisory boards and committees
- Conducting entrepreneurial activities

Activities are reviewed by the employer's management and LBNL's Conflict of Interest Advisory Committee. In one of the many successes, an LBNL principal investigator who invented a duct sealing process successfully founded Aeroseal LLC to commercialize the technology while continuing his thermal energy building research activities.

The Aeroseal technology injects aerosolized vinyl polymer particles into a pressurized duct system. The particles stay suspended in the air stream until they reach leaks, where they are deposited and build up at the leak edges until the leaks are sealed.