

## EPSCoR in New Hampshire

### SPACE SCIENCE

#### Instruments For Small Space Satellites

Using new chambers specially designed to simulate the environmental conditions of space, teams of scientists, engineers and students are developing sensitive instruments for small satellites. The thermal-vacuum chamber has enabled UNH to lead an international team of seven institutions in a NASA instrumentation mission. Dartmouth teams are studying the Earth's aurora (northern/southern lights).



### NANOTECHNOLOGY

#### Thin films for use in energy and manufacturing

New lab instruments have enabled university scientists to explore methods for creating ultra-thin materials for use in sensors, semiconductors and high-performance textiles.



#### Company Aims to Bring Research to Market

Discovery of a new organic light-emitting material could lead to low-energy solutions for lighting. UNH licensed the technology to Innovacene, a spin-out company, to commercialize the technology.

### INDUSTRY

#### Research Partnerships

Small businesses are the lifeblood of NH's economy. Leveraging state



funds for partnerships with universities, EPSCoR funds have assisted 23 companies looking for ways to improve products or manufacturing processes.

### ENVIRONMENTAL FLUID DYNAMICS

#### Measuring the Forces of Wind

NH is now home to the world's largest wind tunnel which will allow an international community of scientists to study turbulent air movement in a controlled setting. This work will advance research in environmental pollution, national defense, aerodynamics, and even endurance testing of Olympic athletes.



### INSPIRING YOUNG SCIENTISTS

#### From 'Engineeristas' to Post-Doctoral Associates

A career in science can start with a scholarship to Tech Camp's new "Engineeristas" week-long program for middle-school girls. Employed in EPSCoR funded projects: 8 post-docs or young research scientists, 31 graduate students and 27 undergraduates.

### NH EPSCoR/IDeA AWARDS FY 2005-2010

The following is a summary of awards granted from EPSCoR or IDeA programs to New Hampshire academic, private and public institutions since FY 2005, when NH gained EPSCoR status. It does not include IDeA awards from NIH to Dartmouth College prior to 2005.

#### EPSCoR/IDeA awards FY 2005-2010

	NSF	Defense	Energy	NASA	NIH	Total
<b>UNH</b>	\$9,528,008	\$1,395,292	\$2,851,783	\$1,037,468	\$2,922,733	<b>\$17,735,284</b>
<b>Dartmouth</b>	\$3,252,070	\$1,630,819	\$1,160,120	\$250,000	\$28,162,399	<b>\$34,455,408</b>
<b>PUIs * (6)</b>	\$322,776	\$0	\$0	\$201,799	\$8,044,322	<b>\$8,367,098</b>
<b>Community colleges (3)</b>	\$149,997	\$0	\$0	\$0	\$710,000	<b>\$859,997</b>
<b>Industry (21)</b>	\$1,191,080	\$0	\$0	\$162,644	\$0	<b>\$1,203,724</b>
<b>Nonprofit</b>	\$0	\$0	\$0	\$144,648	\$0	<b>\$144,648</b>
<b>National Lab</b>	\$0	\$0	\$0	\$202,500	\$0	<b>\$202,500</b>
	<b>\$14,443,931</b>	<b>\$3,026,111</b>	<b>\$4,011,903</b>	<b>\$1,999,059</b>	<b>\$39,839,454</b>	<b>\$62,968,659</b>

PUI - primarily undergraduate institution: Plymouth State University, Keene State College, St. Anselm College, New England College, Franklin Pierce University, Colby-Sawyer College

*Sources: UNH Office of Sponsored Research, Dartmouth Office of Sponsored Programs, NSF, and personal communication with award recipients.*

As a result of cyberinfrastructure planning efforts initiated by the NH EPSCoR program and catalyzed by NSF and NIH grants Network New Hampshire Now, a coalition of public and private partners led by UNH, received an NTIA Broadband Technology Opportunity Program award of \$44,480,992 to build new fiber optics networks and connect to existing middle-mile fiber in all 10 counties in the state. Federal funds will be matched by \$22 million in cash and in-kind funding. The program will be managed by the UNH Information Technology Department.