



Pacific Northwest
NATIONAL LABORATORY

Proudly Operated by **Battelle** Since 1965

The Future of the Pacific Northwest National Laboratory

Presented at
TRIDEC'S 52ND ANNUAL MEETING

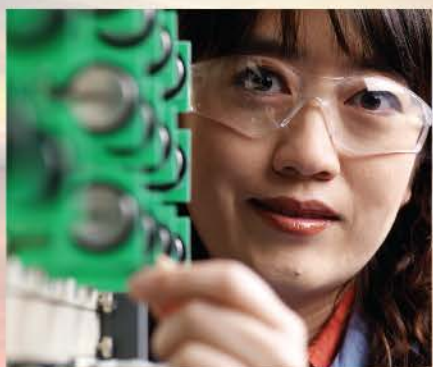


April 20, 2015

Dr. Steven Ashby, Laboratory Director

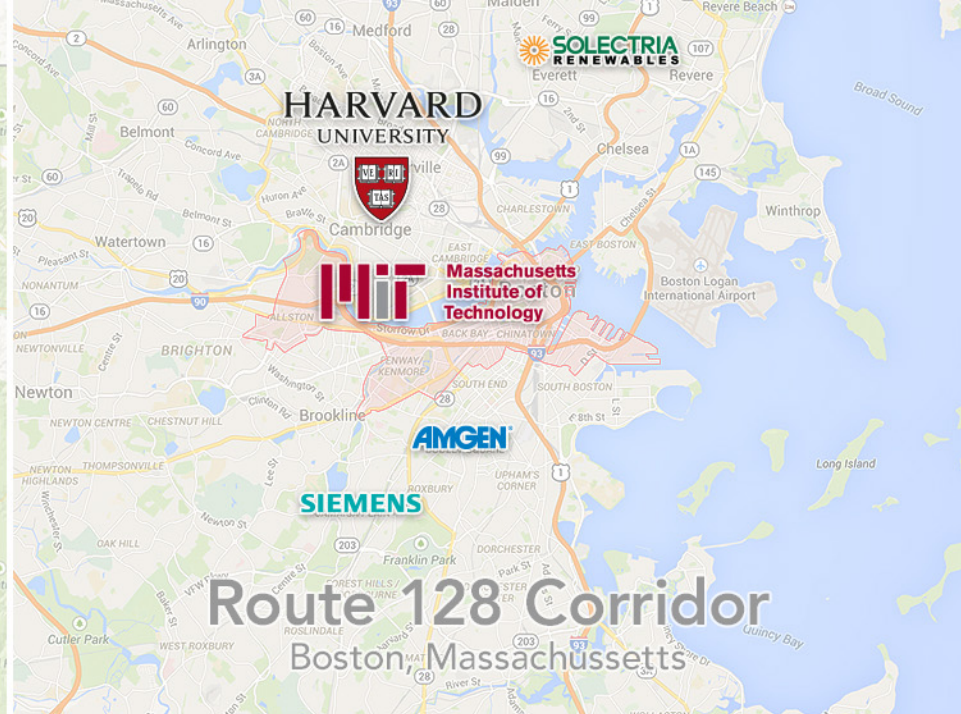
DISCOVERY

in action



PNNL's Richland Campus





PNNL leverages its science base to provide national leadership



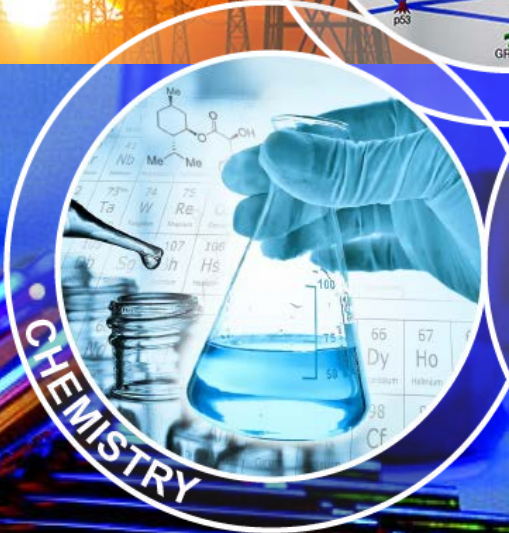
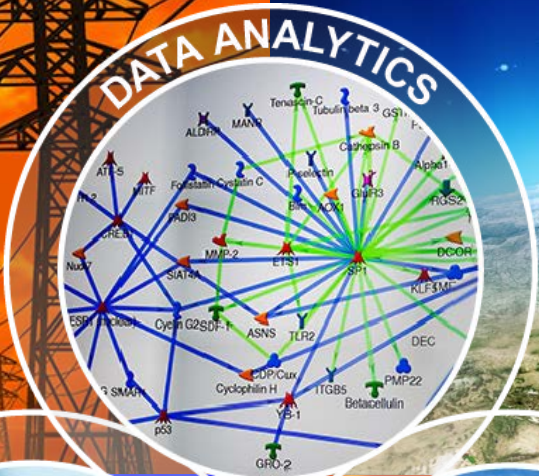
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Grid

Climate



Nonproliferation

Remediation

PNNL science vision: Understand, predict, and control complex adaptive systems



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EARTH

- ▶ Clouds and Aerosols
- ▶ Water Cycle
- ▶ Microbial Communities

ENERGY

- ▶ Energy Storage
- ▶ Energy Conversions
- ▶ Control and Security

SECURITY

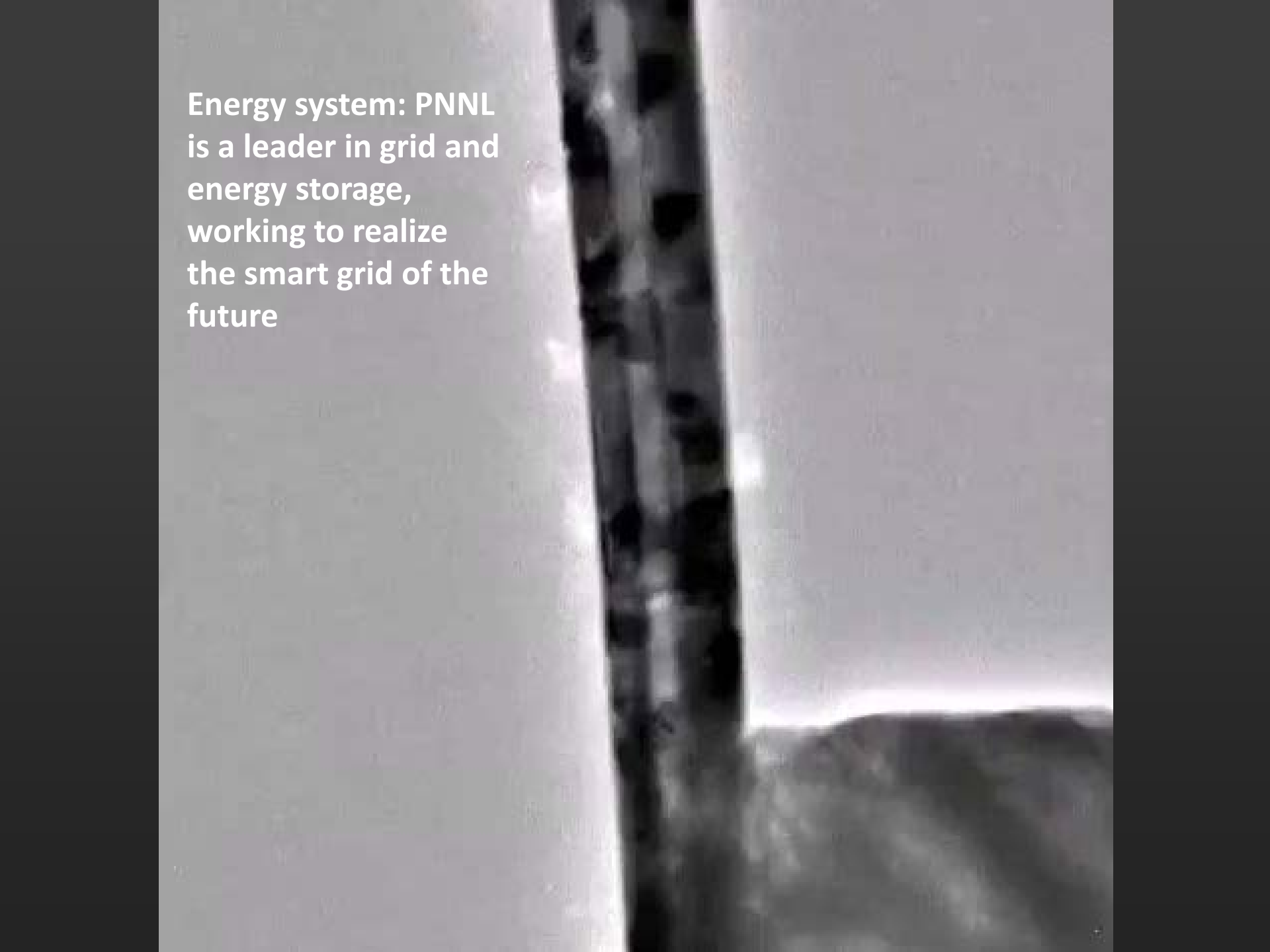
- ▶ Ultra-Trace Detection
- ▶ Novel Signatures
- ▶ Data-Driven Discovery

Security Systems: PNNL is a leader in nonproliferation and technologies used to verify the Comprehensive Nuclear Test-Ban Treaty

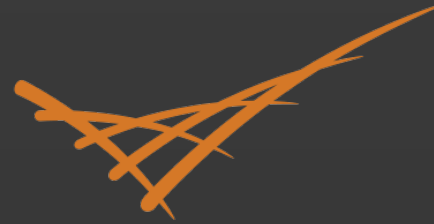




Earth System: PNNL focuses on understanding the carbon cycle and its role in the climate




**Energy system: PNNL
is a leader in grid and
energy storage,
working to realize
the smart grid of the
future**



Pacific Northwest
NATIONAL LABORATORY

WASHINGTON STATE
 UNIVERSITY

 **industrial**
PARTNERS

BONNEVILLE
POWER ADMINISTRATION



U.S. DEPARTMENT OF
ENERGY

Battelle
The Business of Innovation



**Pacific Northwest
SMART GRID
DEMONSTRATION PROJECT**

VAISALA

AVISTA



WASHINGTON STATE
UNIVERSITY



Portland General Electric

ALSTOM



ENERDEL

IBM

Peninsula Light Co.
The power to be...

Itron



Since 1889

spirae

Your Co-op
Flathead Electric
Community...Integrity...Reliability



Idaho Falls Power

QualityLogic
Putting Technology to the Test

**NorthWestern
Energy**

EATON
Powering Business Worldwide

LOWER VALLEY ENERGY

SEABOURNE

W
UNIVERSITY of WASHINGTON

The Systems Engineering Laboratory will support Data Analytics research





- Access to Market
- Commercial Need



Pacific Northwest
NATIONAL LABORATORY

- Scientific & Technical Expertise
- Unique Facilities



- Land/Buildings
- Investor Networks



PARTNERSHIP