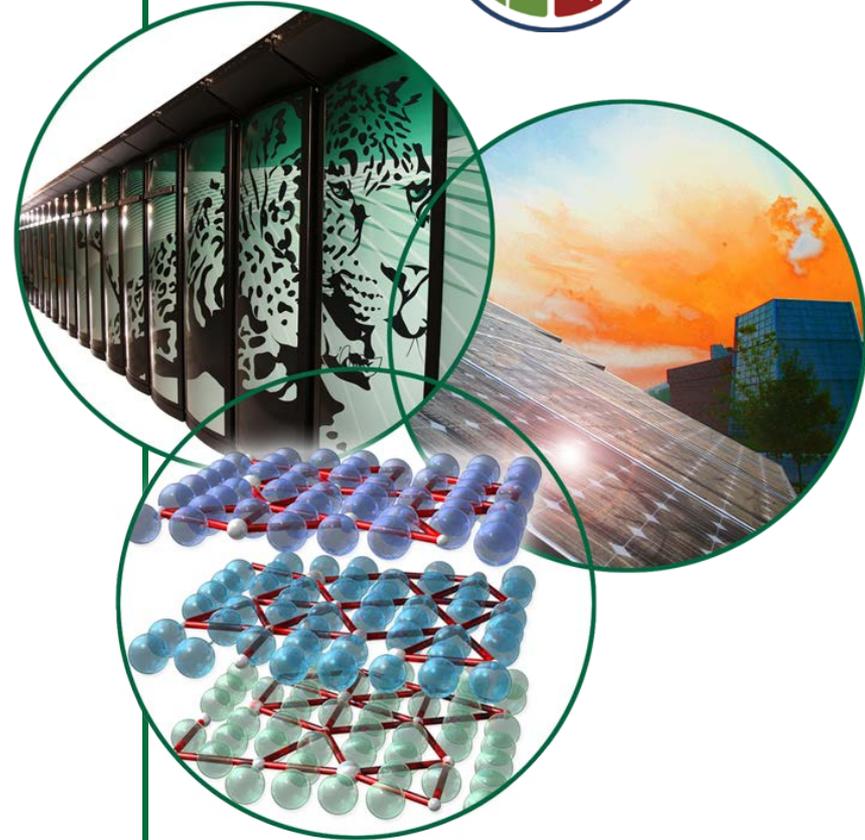


Ensuring the Success of Multiple Projects: Managing the Interfaces

Integrated Safety Management Summit

Jeff Smith
Deputy for Operations
Oak Ridge National Laboratory

Knoxville, Tennessee
August 26, 2009



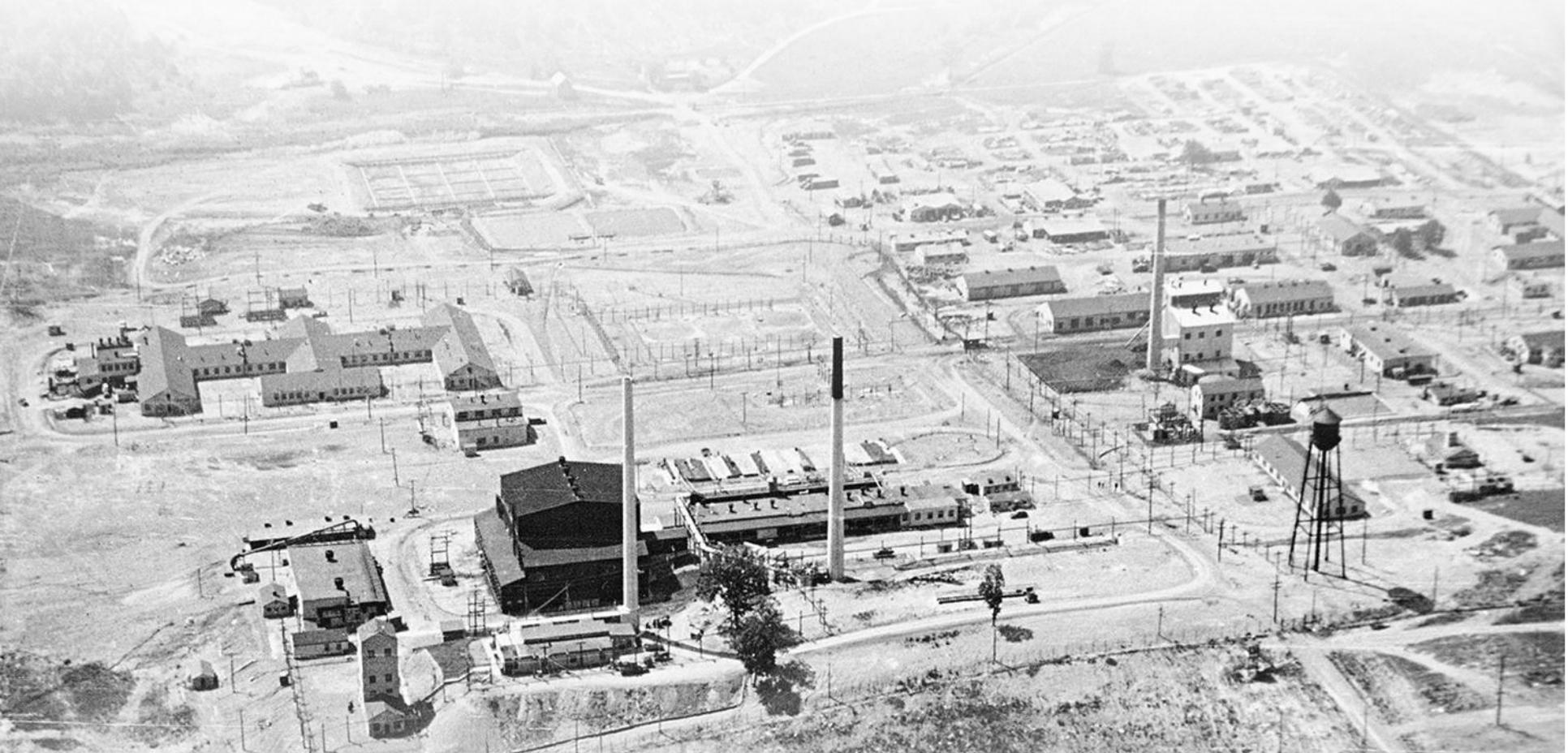
Jeff Smith: Bio slide

As Deputy for Operations at ORNL, Jeff Smith coordinates the Laboratory's operations and support functions. With the Deputy for Science and Technology, he supports the Laboratory Director in the planning, integration, and execution of Laboratory-level initiatives.

Since joining ORNL in 2000, Mr. Smith has led a \$500 million modernization project that has given rise to more new construction at the Laboratory than at any time since the Manhattan Project. Under Mr. Smith's leadership, UT-Battelle developed and deployed an innovative strategy that leverages funding from federal, state, and private-sector partners to transform ORNL into a 21st century research institution.

A native of Logan, Ohio, Mr. Smith graduated from the Ohio State University in Columbus, Ohio, with a bachelor's degree in ceramic engineering. Before coming to Oak Ridge, he was Deputy for Operations at the Pacific Northwest National Laboratory (PNNL), acting as principal advisor to the Laboratory Director on operational matters, and earlier served as Quality Director at PNNL, leading the development of several laboratory management approaches that have been widely implemented at laboratories managed or co-managed by Battelle.

Oak Ridge National Laboratory evolved from the Manhattan Project



ORNL in 1943
The Clinton Pile was the world's first
continuously operated nuclear reactor

Today, ORNL is DOE's largest science and energy laboratory

- \$1.4B budget
- 4,350 employees
- 4,000 research guests annually
- \$500 million invested in modernization

- Nation's largest concentration of open source materials research
- World's most intense pulsed neutron source and a world-class research reactor

- World's most powerful open scientific computing facility
- Nation's most diverse energy portfolio
- Managing the billion-dollar U.S. ITER project



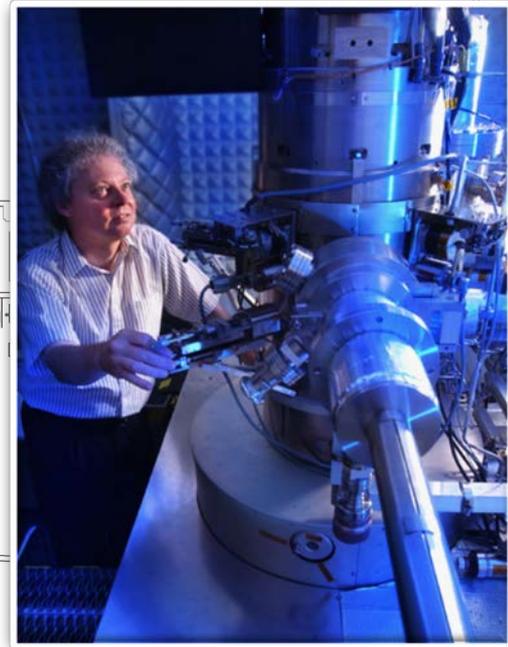
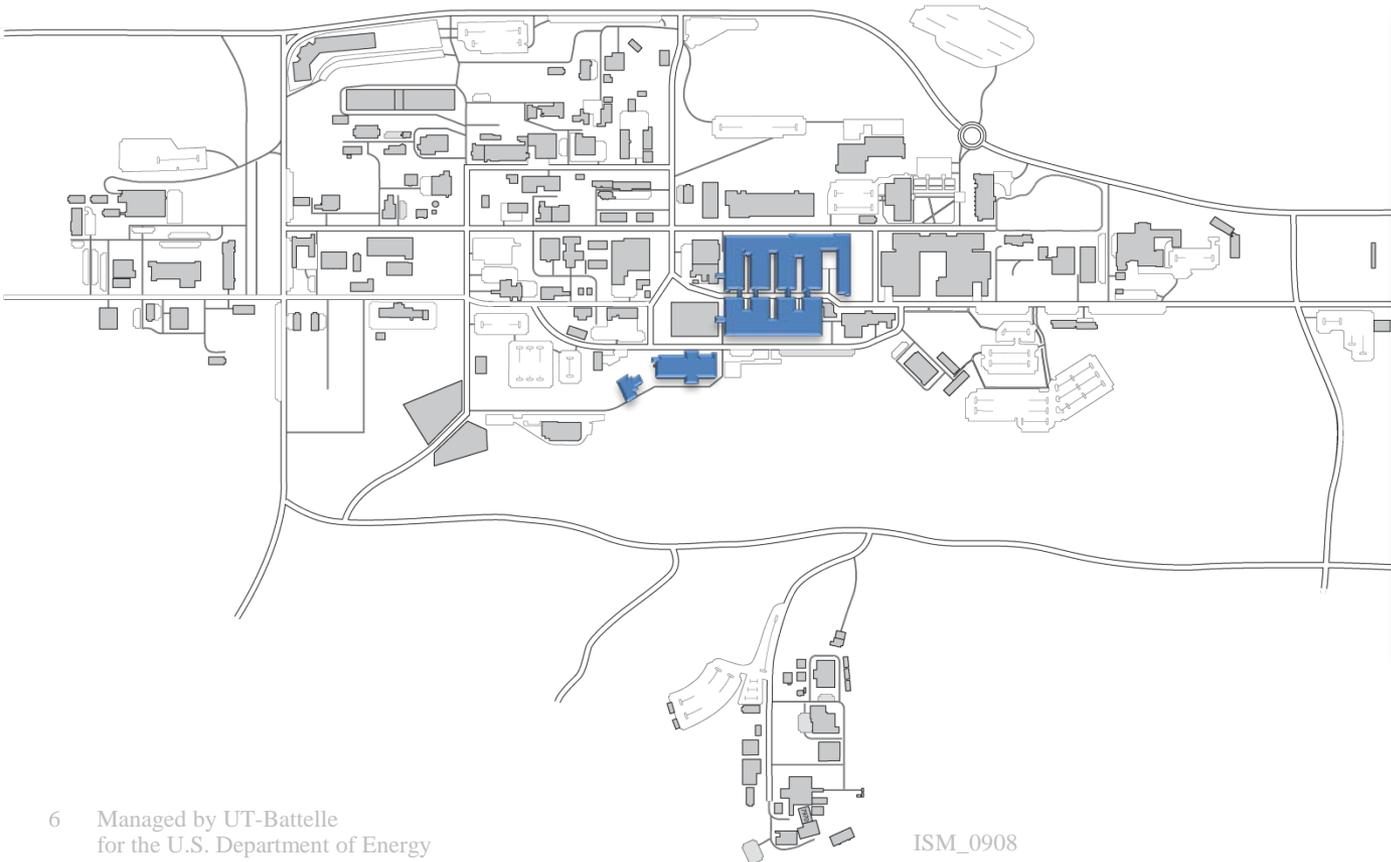
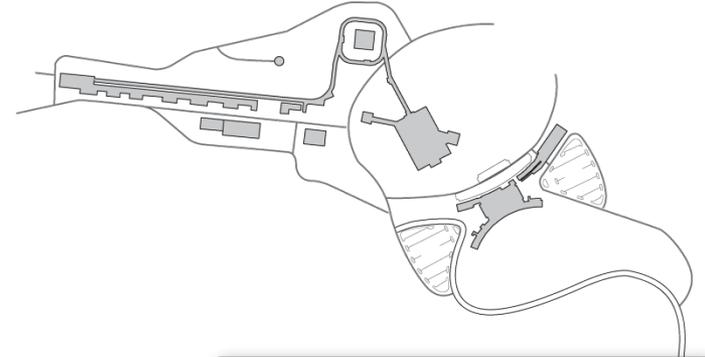
Our scope of activities today has no precedent in ORNL's history

- Ongoing R&D to support critical DOE mission objectives
- Modernization of laboratory facilities and infrastructure
- Creation of a Science and Technology Park to advance technology transfer to the private sector
- Finishing the cleanup of the Cold War legacies



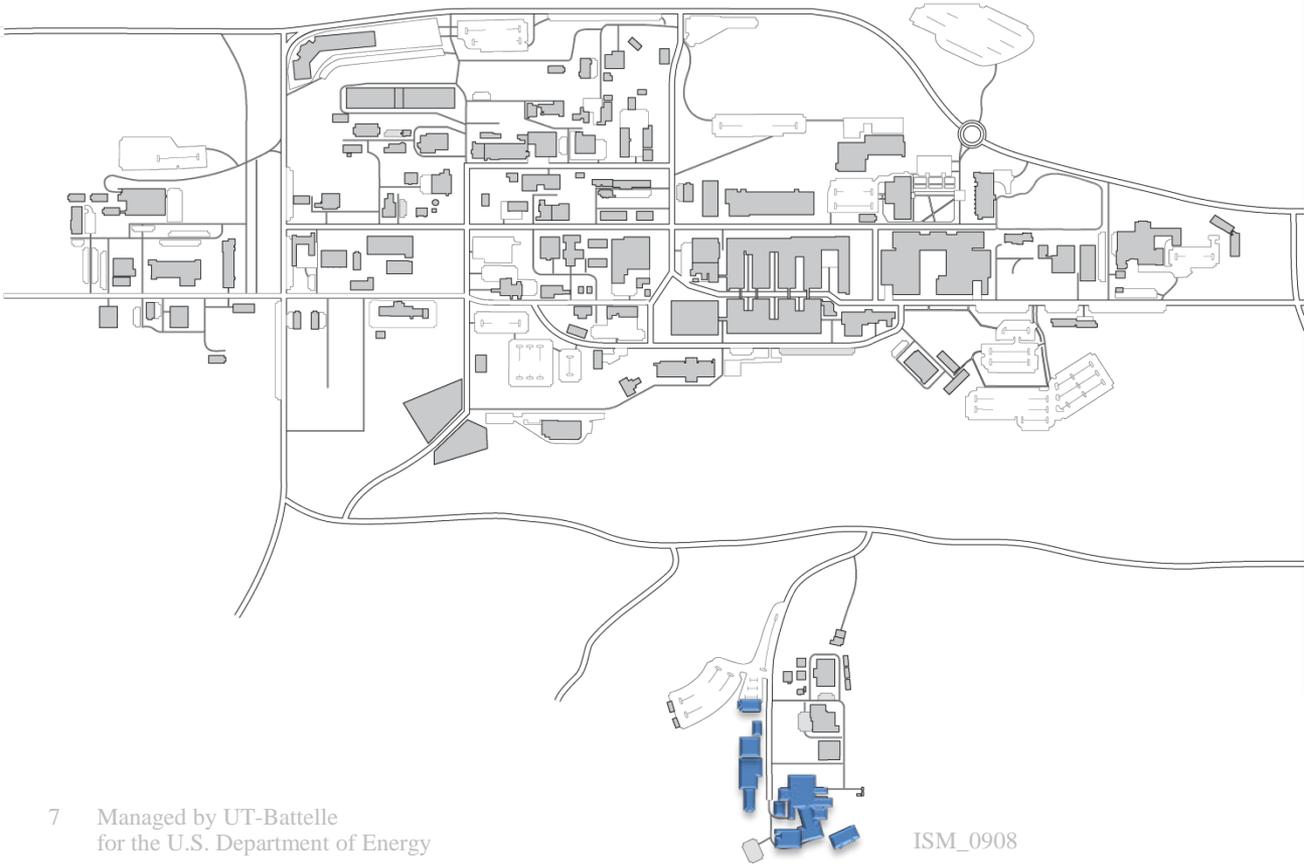
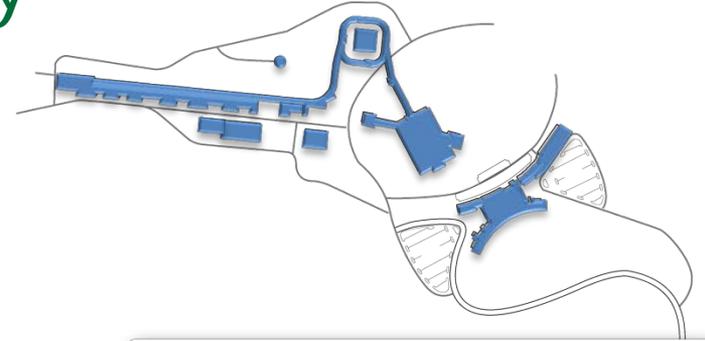
Two DOE Energy Frontier Research Centers

- Defect Physics in Structural Materials
- Fluid Interface Reactions, Structures and Transport



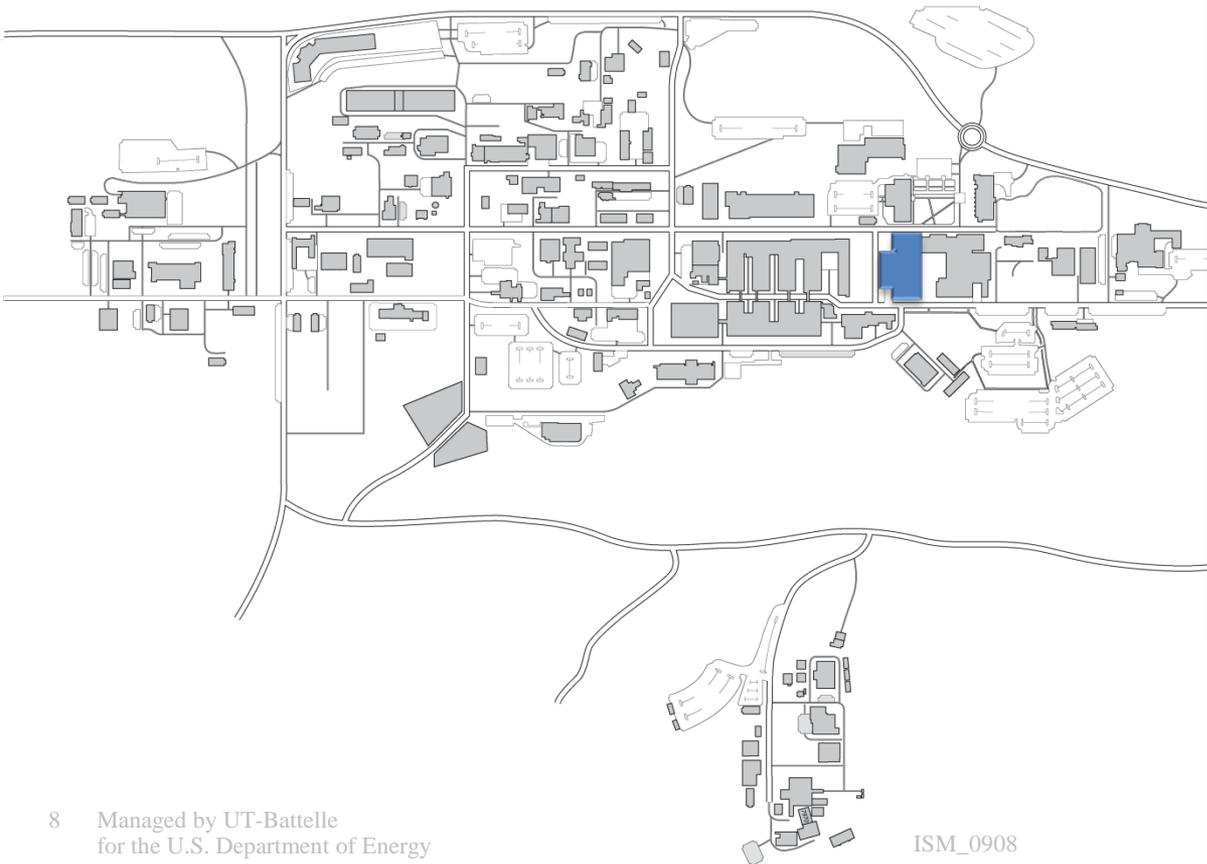
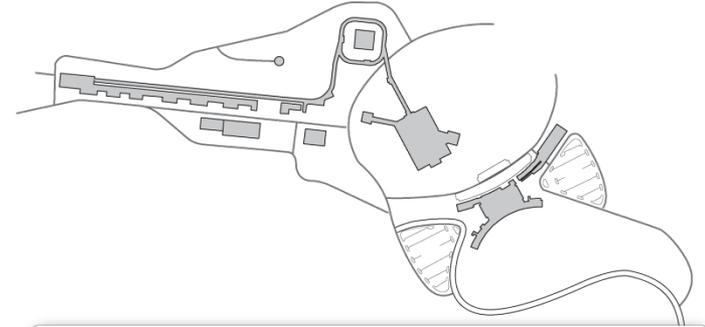
World's leading neutron science capability

- World's most powerful source of pulsed neutrons
- World-leading research reactor
- Joint Institute for Neutron Sciences



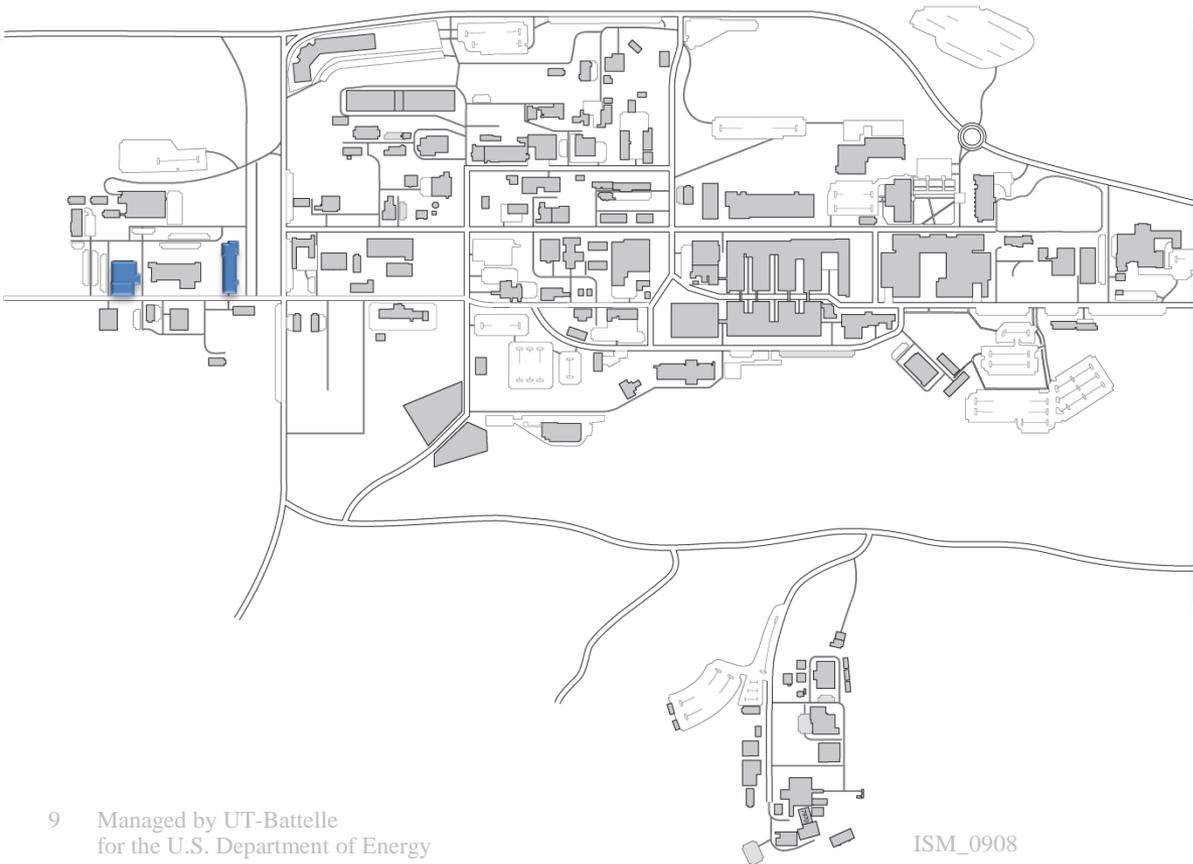
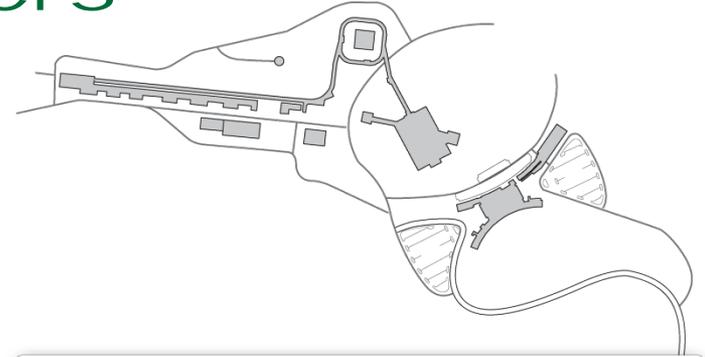
World's fastest open science computing capability

- DOE Leadership Computing Facility
- NSF National Institute for Computational Sciences

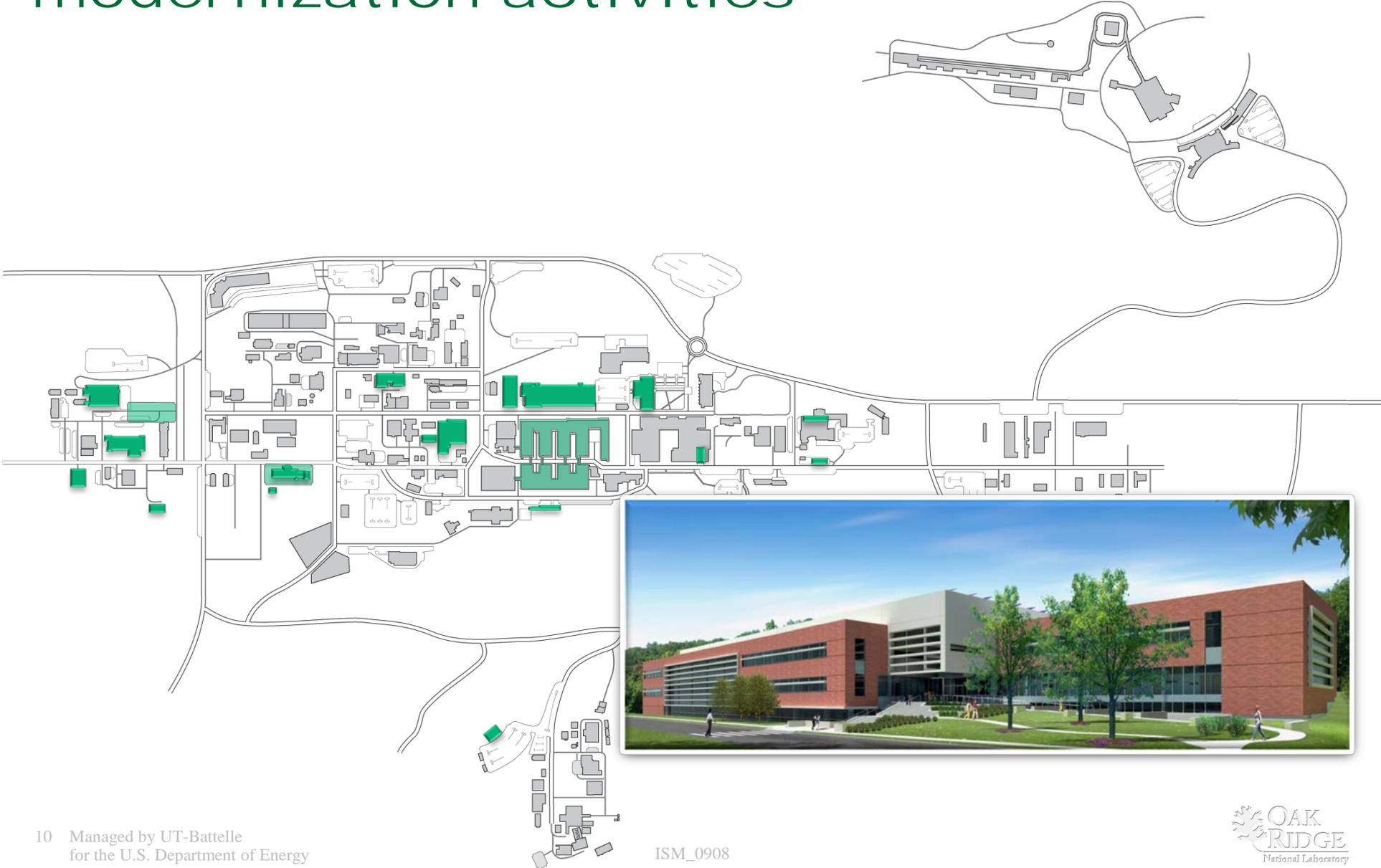


One of three DOE Bioenergy Research Centers

- Solve the recalcitrance of cellulose

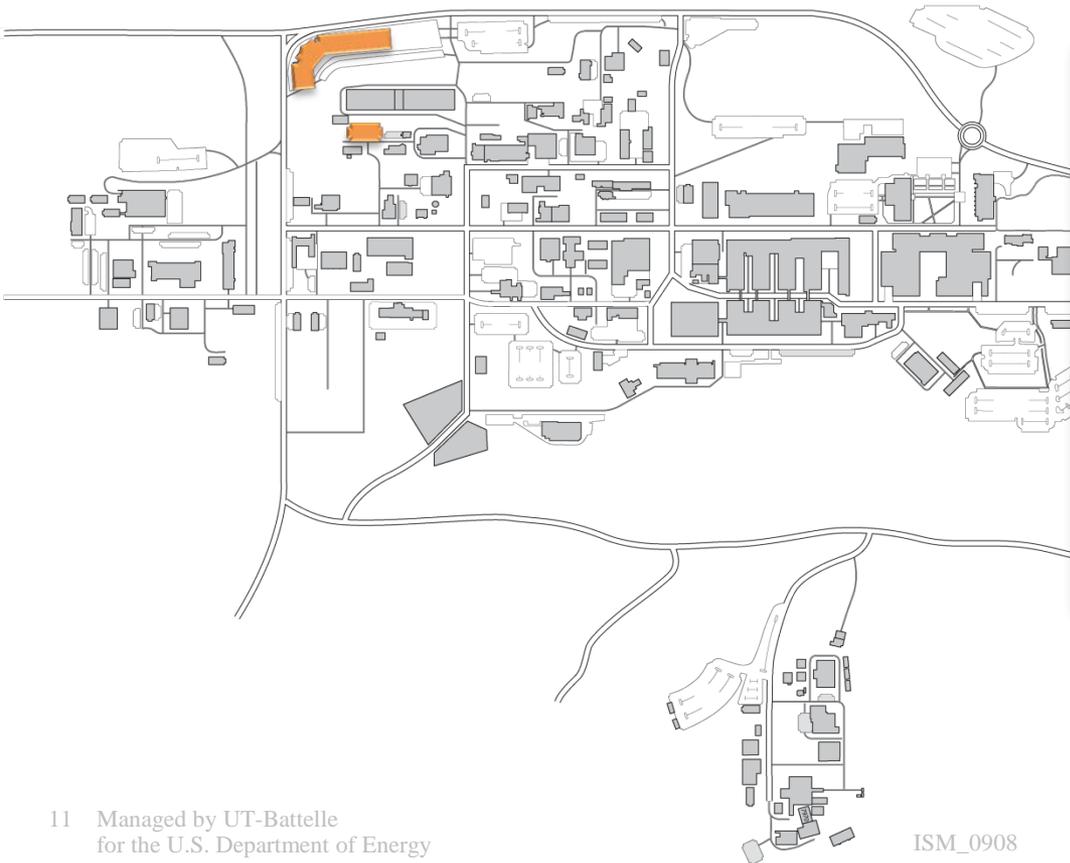
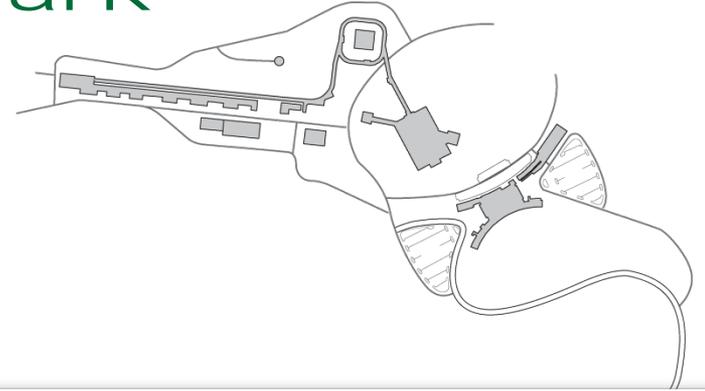


Roughly \$220M of modernization activities



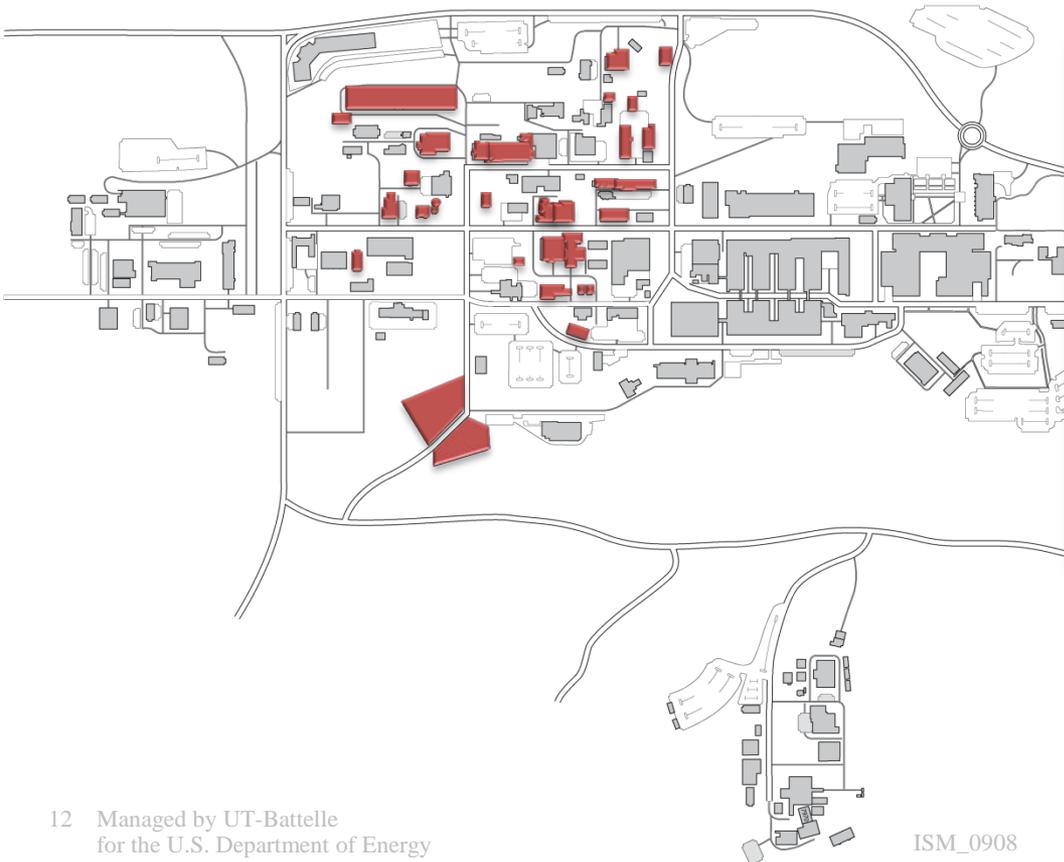
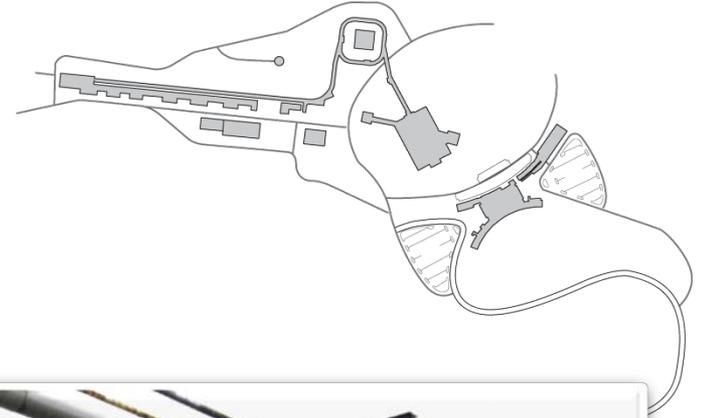
Advancing technology transfer through creation of S&T Park

- \$14M Pro2Serve National Security Engineering Center
- Halcyon Commercialization Center

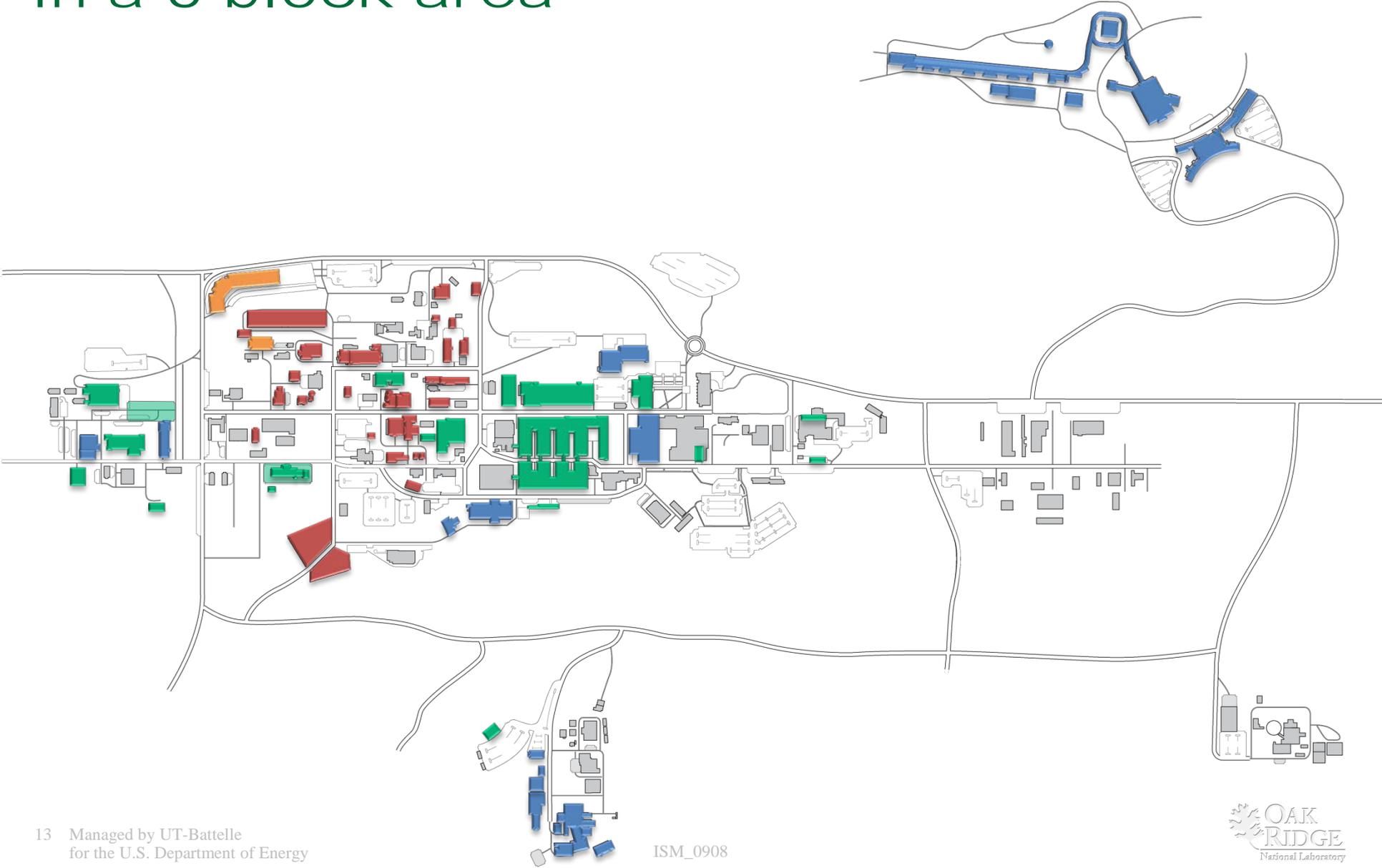


\$270M of cleanup activities

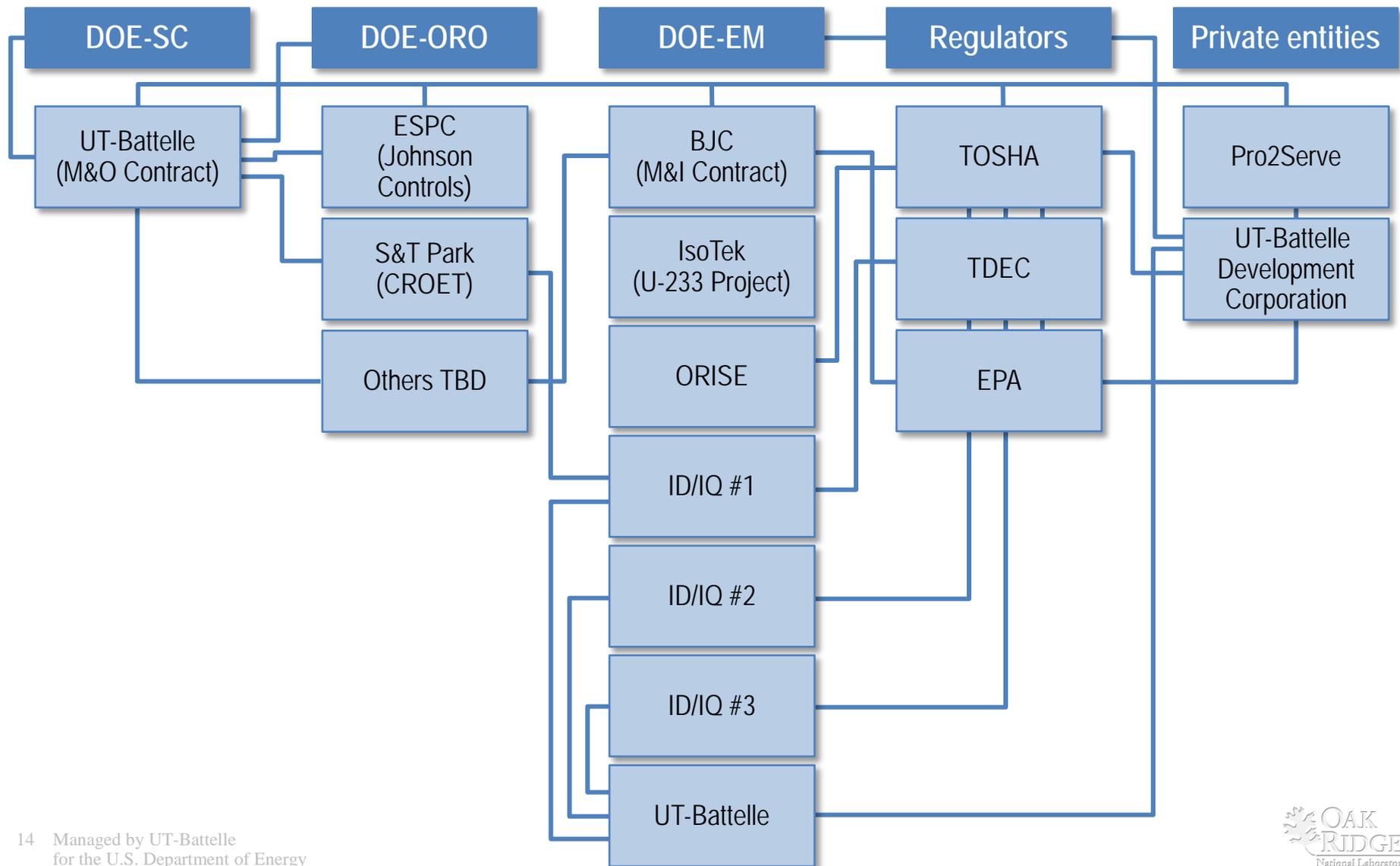
- Demolish 34 facilities
- Remove a highly radioactive underground tank
- Deinventory 2 large “hot cell” facilities
- Cap 2 burial grounds



High concentration of work in a 6 block area



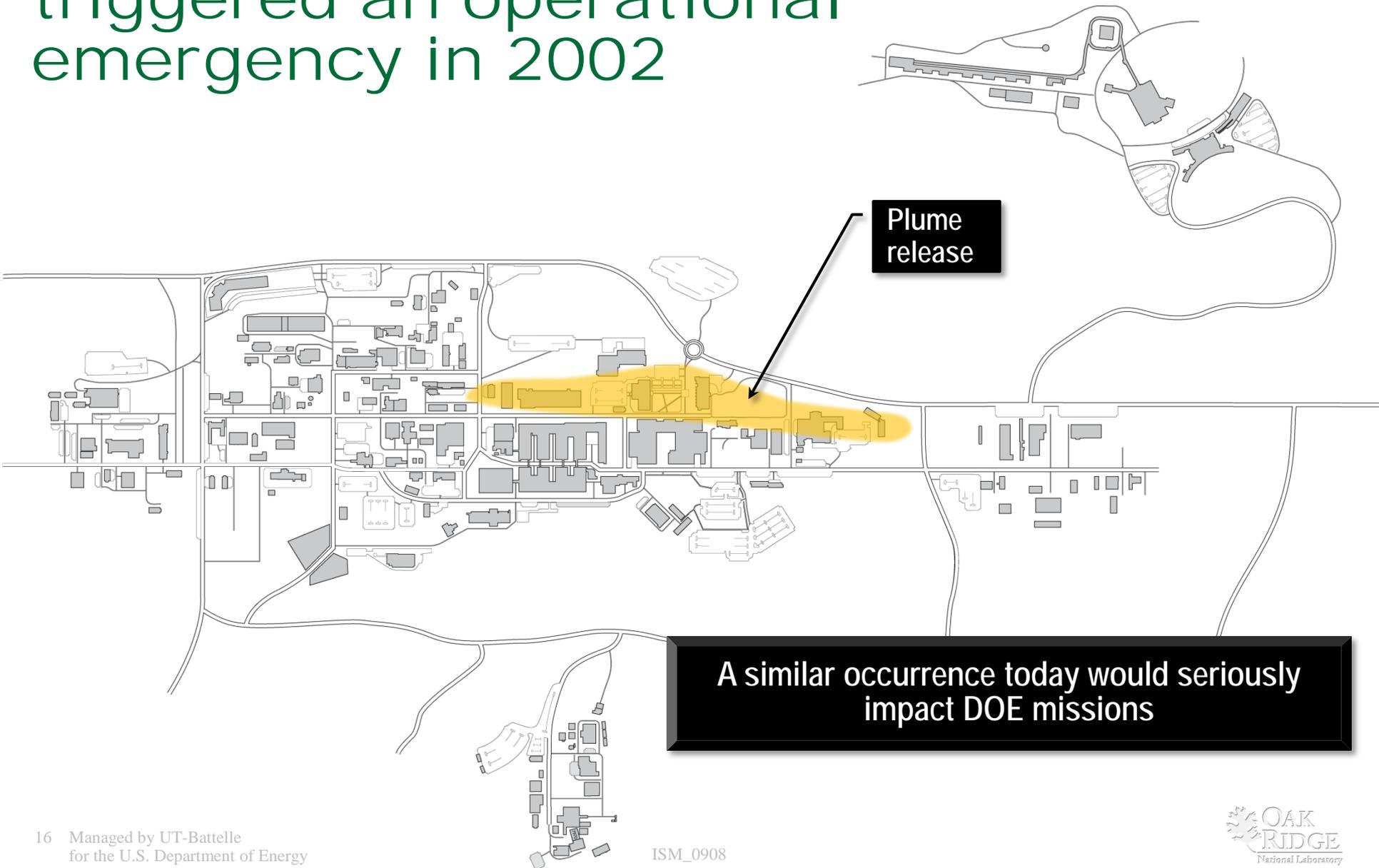
The level of activity and complexity is at an all-time high



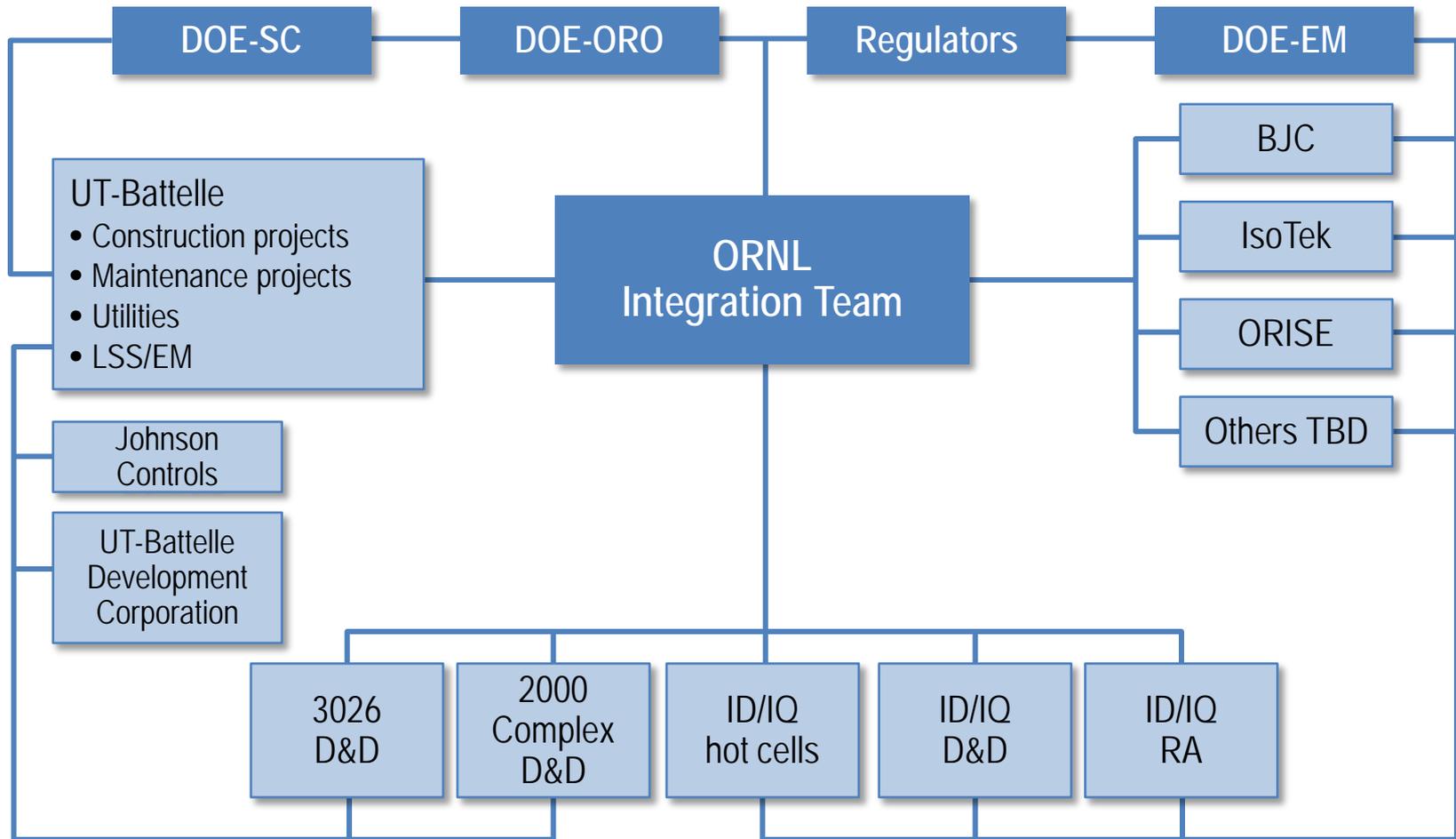
The Challenger
accident highlighted
the importance
of "critical
discussions"
between
organizations



Routine maintenance triggered an operational emergency in 2002

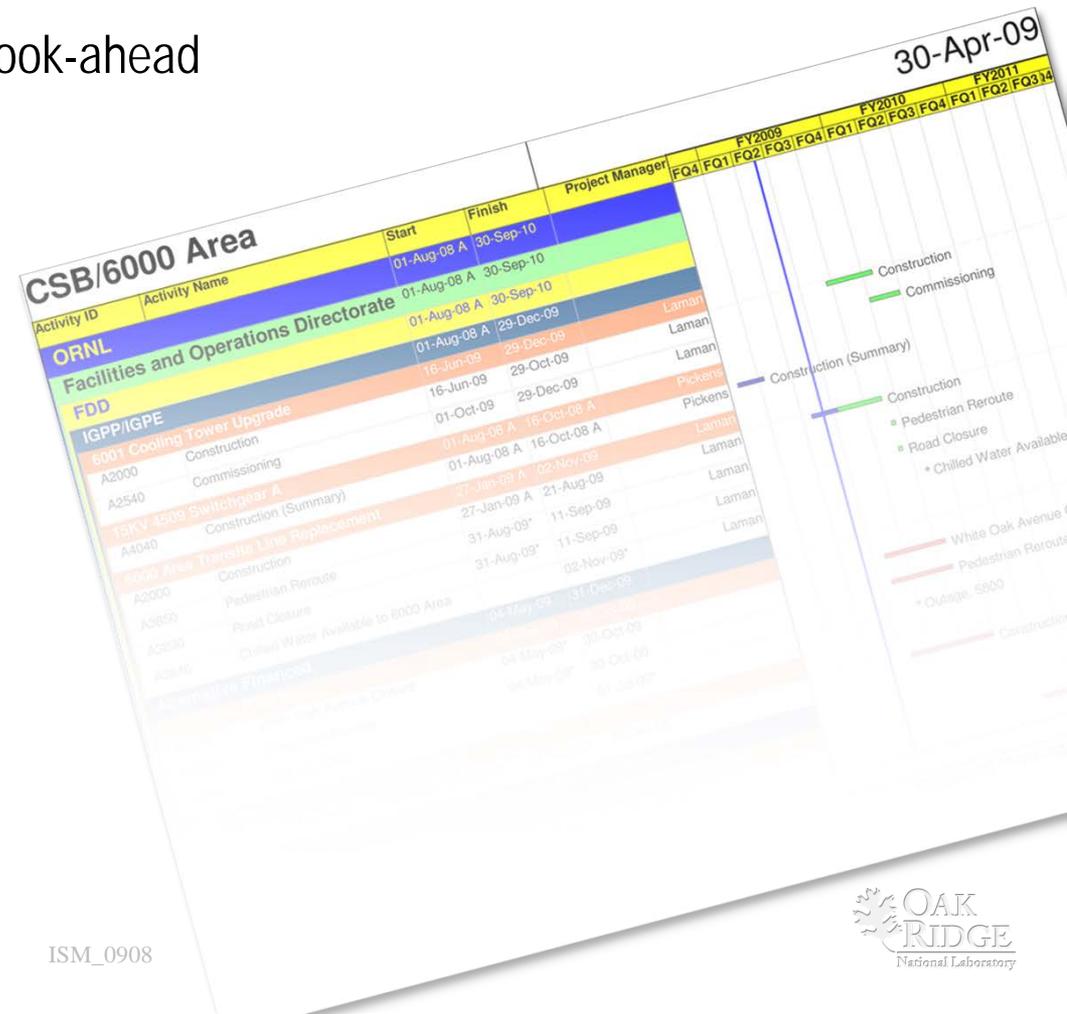


ISM guiding principle: Clear roles and responsibilities



Integration Team meetings have kicked off and are proving valuable

- ORNL Integration Team moving from monthly to weekly meetings as work is ramping up
- “Plan of the Week” format with 3-week look-ahead of major planned activities
 - Among ARRA projects
 - With other projects
- Single integrated planning base for all significant project activities
 - Real estate assignments
 - Outages, road closures, drills, etc.
- Detailed schedules are adjusted, as needed, during project-level “Plan of the Day” meetings



Team approach provides a forum to identify and address interface issues

- Development of Interface Specifications between prime contractors is used to codify agreements
- For the Central Campus where congestion is a major issue, we are establishing a War Room to facilitate real-time communication between contractors
- Project leaders are planning proactively to eliminate “error traps”
 - Provide training specific to ORNL hazards and conditions
 - Use consistent construction signage and barriers
 - Recognize and resolve conflicting mission needs/desires

ISM guiding principle: Competence commensurate with responsibilities

Project Technical Coordinators	IPA to DOE-EM
<ul style="list-style-type: none"> • U-233 Disposition • S&T Park Development • Cleanup • Energy Savings Performance Contract 	<ul style="list-style-type: none"> • Lee McGetrick 

Our strategy adds technical depth that extends to site conditions, emergency interfaces, and regulatory history

“Secretary Chu emphasized the need for project managers for EM projects. He is seeking really good project managers assigned to DOE even for a year.”

Secretary Chu emphasized the need for project managers for the EM projects. He is seeking really good project managers assigned to DOE even for a year.

Cyber-security, governance and operations actions

Secretary Chu asked about the progress on the governance and operations posture. Adam Cohen reported that the COO working group is starting the evaluation and will prepare the recommendations to the NLDC. To date, they are working on an evaluation of the past activities related to external regulations. . . .

NATIONAL LABORATORY DIRECTORS COUNCIL
DOE SECRETARY and NLDC EXECUTIVE COMMITTEE MEETING
APRIL 1, 2009
MINUTES

... recommendations on making the system (Labs and DOE alike) more amenable to the inventors pursuing patents and licenses. ACTION - NLDC provide a set of recommendations on organizational issues and specific activities that could be done at each Lab to enhance technology transfer.

American Recovery and Reinvestment Act (ARRA) Plans and Needs

Tom Hunter reviewed the set of recommendations provided to DOE in a letter forwarded April 1, 2009 to the Secretary. He noted that the NLDC has identified a sub-group of four Lab Directors (Dan Arvizu, Carl Bauer, Tom Hunter, and Thom Mason) who can help mobilize the Lab resources. ACTION - NLDC to set up a telecon between the sub-group and Matt Rogers.

Matt Rogers provided an update for all of the com...

He expects a flood of applications for help in setting up and manning that the proposals can be possible. Rogers also noted that processes are in place to spend

administration and oversight. Currently, DOE is subject to 1/2% cap on how much raised a concern regarding approval of the conflict of interest form and suggested

Summary

This is a time of unprecedented activity at ORNL

Many organizations and programs are engaged in transforming our campus

Managing the interfaces between work groups and companies is key to success

UT-Battelle is working with DOE and other contractors to ensure that projects are integrated and executed safely