



The nuclear industry in Tennessee

Jim Campbell, November 19, 2019



WARRIORS
GIRLS

A graphic design where the words "WARRIORS" and "GIRLS" are written in large, bold, white letters. The letters are filled with black and white photographs of military personnel. The top row, "WARRIORS", features a soldier in a garrison cap, a woman in a military uniform, a soldier in a garrison cap, a woman in a military uniform, a soldier in a garrison cap, a woman in a military uniform, and a woman in a military uniform. The bottom row, "GIRLS", features a woman in a military uniform, a soldier in a garrison cap, a woman in a military uniform, a woman in a military uniform, and a woman in a patterned dress.

EAST TENNESSEE'S NUCLEAR INDUSTRY



JACOBS Omega ETE Lynx Supply, Inc.

IA ENERCON NAVARRO Energy Solutions

GILMARTIN Engineering, Inc. leidos ch2m WAI S&M

UCOR Edgewater LWA NSPS AMETEK

UT-BATTELLE ATC Nuclear BESCO Centrus fts ARMEC PHDS

RSI OAK RIDGE U.S. DOE OFFICE Dade Moeller UNITECH TETRA TECH

OAK RIDGE ASSOCIATED UNIVERSITIES msti ENERGY SOLUTIONS

BES RECHTEL ATKINS BWXT CANBERRA S&M

EAST TN TECHNOLOGY PARK AECOM Y-12 NATIONAL SECURITY COMPLEX SCI

SAIC ENERGX AVANTech TELEDYNE BROWN ENGINEERING

ORTEC MERRICK & COMPANY CNS consolidated nuclear security, llc BARNHART eem Technologies, Inc.

STREET LEGAL Spectra Tech OAK RIDGE NATIONAL LABORATORY PermaFix StrataG

HME, INC ingenium DELTA CORPORATION Pro2Serve

FE&C AMI MCL M&I CBI

Attention ES&H SIEMENS ALLIANT CADRES

Mesa BWSC A M S INVENTURE

MILLENNIUM TEK EnerNex PHILLIPS & JORDAN, INC.

BEI TEC

AMARC LLC

dcs Electronics, Inc

EXITECH

TVA

G

CDM Smith

KNOXVILLE

UNIVERSITY OF TENNESSEE

James E. Carter Associates

S&M

ProNova

MCGEES TYSON AIRPORT

FireWater

MARYVILLE

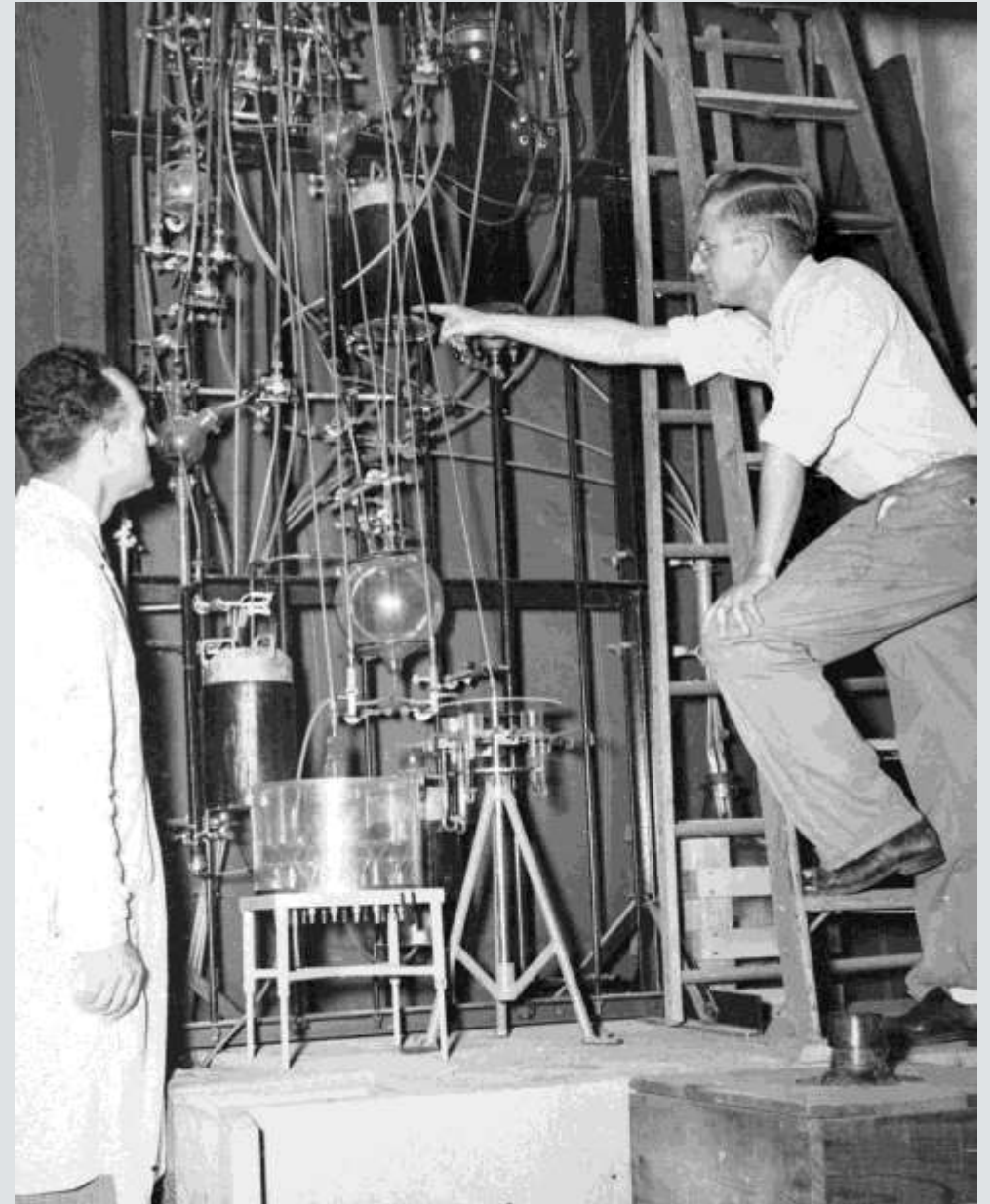
STATE OF TENNESSEE TRENDS:
\$3.275 BILLION IN REVENUE
8,969 JOBS IN WORKFORCE
WIS SURVEY

Atoms for Peace

Providing enriched uranium to supply the world's power needs

Radioisotope production for medicinal and industrial needs

Developing new materials through neutron analysis



Nuclear Medicine



“If at some time a heavenly angel should ask what the Laboratory in the hills of East Tennessee did to enlarge man’s life and make it better, I daresay the production of radioisotopes for scientific research and medical treatment will surely rate as a candidate for first place.”

**Alvin Weinberg, Director,
Oak National Laboratory, 1955-1973.**

America Calls

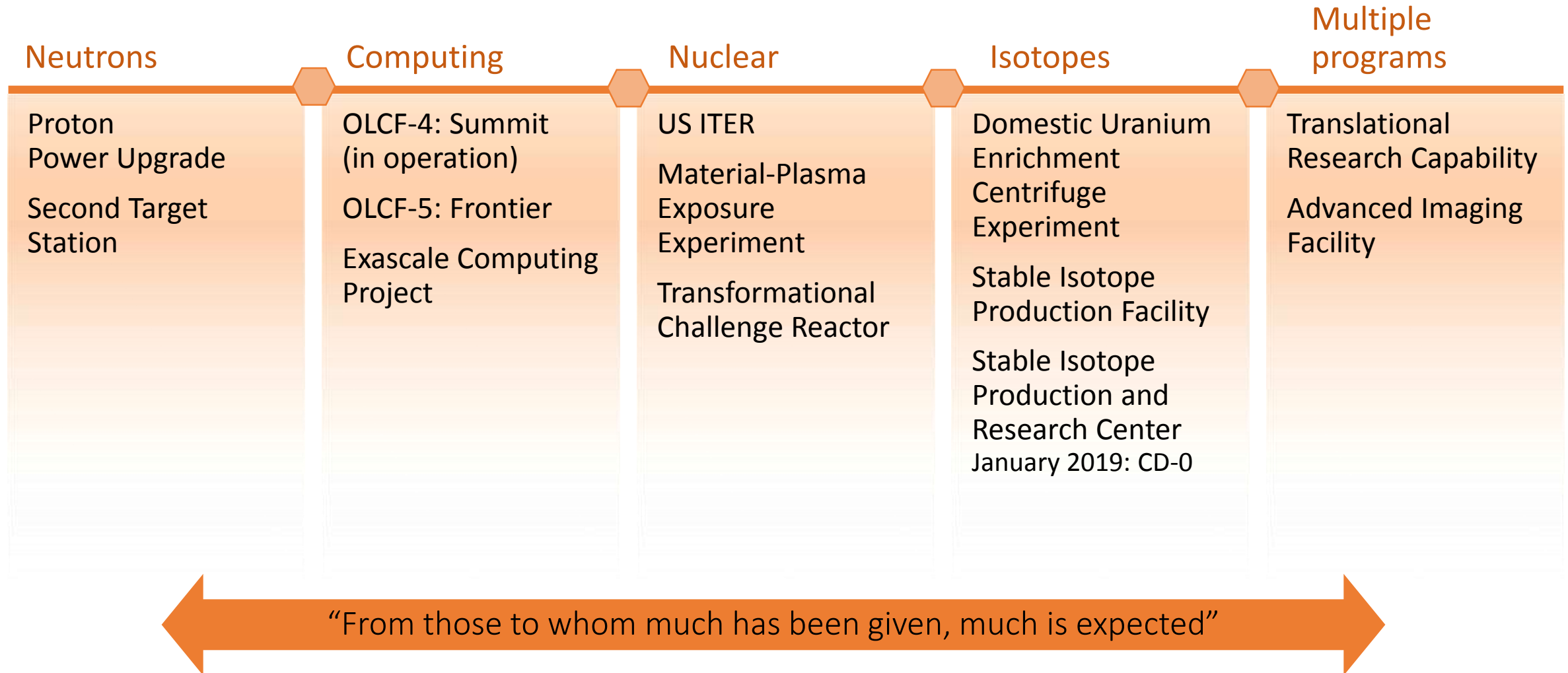
What is Oak Ridge today

- World renown nuclear science
- The heart of America's nuclear security enterprise
- A pace setter in DOE's environmental remediation
- A leader in STEM education

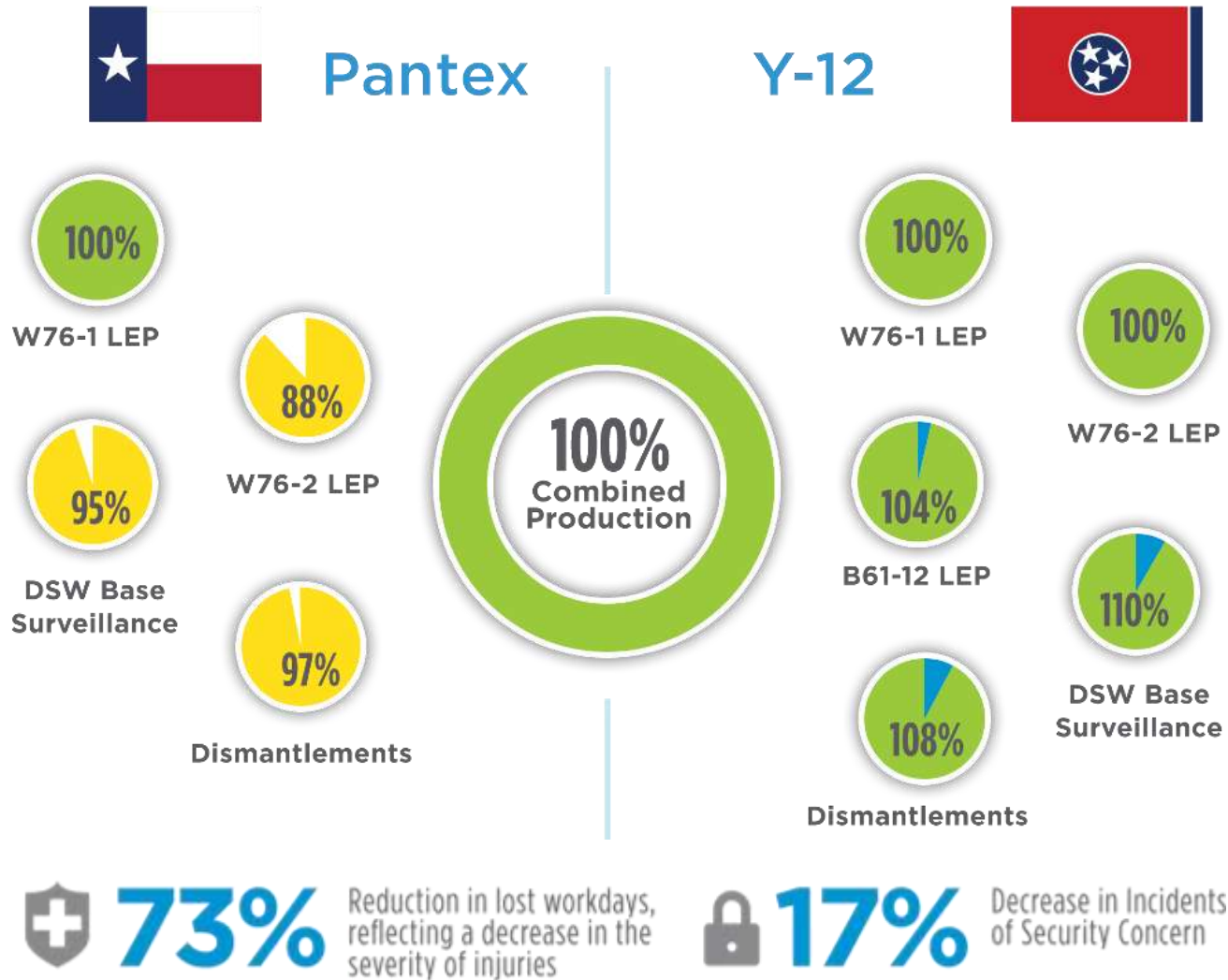


Oak Ridge National Laboratory

Confidence in our ability to execute has brought us a host of new projects



Y-12 Delivering the Mission Together



- Completed the decade-long W76-1 Life Extension Program
- Completed 240% of the W76-2 Initial Operating Capability
- Produced all necessary components under our control for B61-12 and W88 Alt 370 First Production Units



Progress toward reclaiming properties

Environmental Cleanup

- Demolished 5.5 million square feet of facilities and structures

Waste Disposition

- Disposed of 28+ million cubic yards of waste with no NOVs or spills
- Managed/treated 782+ million gallons of low-level wastewater

Federal Land Reuse

- K-31 site for CNS/UPF project
- K-1065 warehouse complex for CNS shipping and receiving

Brownfield Delivered

Transferred 1,200+ acres for redevelopment/reuse

- o Duct Island parcel for Coqui
- o ED-10 to UniTech



The opportunities for the future

- Factory built Small Modular and next generation reactors
 - 3D printing reactor parts that are “born” certified
 - Redeveloping the supply chain for nuclear qualified parts
- Restarting the enrichment industry in America
 - New types of nuclear fuels that burn more efficiently
- Radioisotope production
- Safety and training of the next generation nuclear workforce
- The cleanup work is far from done