“The Oak Ridge Institute at the University of Tennessee is an inspired idea that will meet head-on one of the most strategic needs of our country by creating a pipeline of American-trained scientists and engineers to help the United States compete in the global economy.”

- Senator Lamar Alexander
Generational Challenge

How does Tennessee become the “go to” destination for top-level talent development and discovery?

Leverage Tennessee’s distinctive assets to:
• Catalyze world-leading innovation
• Tie it to sustainable economic development
• Benefit all 95 counties and beyond
Innovation Landscape

The graph illustrates the growth of publications in the Web of Science from 2000 to 2018. The data is categorized by country, including the USA, United Kingdom, England, Germany (Federal Republic of Germany), and China Mainland. The trend shows an overall increase in publications across all regions, with the USA leading significantly in terms of publication numbers.
“Over and over again it has been demonstrated that the whole can be greater than the sum of its parts, that good people from diverse fields working together can make major scientific discoveries that are denied geniuses working in isolation.”

Dr. Alvin Weinberg, ORNL Director from 1955 to 1973
Timeline for Rollout & Implementation

**CONCEPT DEVELOPMENT**
June - August 2019
- Establish ORI@UT by action of the UT Board of Trustees.
- Create mission and vision with UT and ORNL leadership.
- Appoint Steering Committee.

**STEERING PROCESS**
September - December 2019
- Develop common understanding of Mission, Vision, and Objectives.
- Develop and prioritize work plan.
- Deliver recommendations of the Steering Committee to senior leadership.

**PROGRAM REVIEW & PLANNING**
December 2019 - June 2020
- Assess Joint Programs.
- Create plan to maximize Joint Programs within the framework of ORI@UT.
- Appoint or recruit Director and initial management team.

**LAUNCH**
July 2020 - June 2021
- Conduct the initial ideation process.
- Appoint/recruit ORI Fellows.
- Begin recruitment of new faculty/researchers.

**GROWTH**
July 2021 - July 2025
- Hire 60 new faculty/researchers, matched by 60 complementary hires at ORNL.
- Grow the collaborative graduate programs to 500 students.
- Attract large, interdisciplinary program funding.
Progress to date

Reviews:
- Joint Institute Reviews
  - Phase 1 – self study
  - Phase 2 – presentation and review committee feedback
  - Phase 3 – combined next steps
- Bredesen Center APR

Agreements and Appointments:
- MOU between UT and ORNL
- Appointed interim co-Directors
- Interim education, operations and strategic program directors
  - Developing full position descriptions for the initial team
- ESE, DSE and GST directors
Progress continued

New Funding:
• UT System – launching commitment ($2M/year for ten years)
• DOE-EERE cooperative agreement – workforce development project ($20M/5 years)
• Two GC positions in data/computational sciences (with startup support)

Administrative Processes:
• ORI Advisory Board invitations and bylaws
• Student/Mentor Access Form and Process for access to ORNL facilities
• First ideation session and seed funding opportunity for UT and ORNL released
DOE-EERE Workforce Development Project

Project Goal

Develop a national model for collaborative interdisciplinary research and workforce development from the technician to graduate level in areas that align with emerging fields related to the DOE-EERE mission.
Expected Outcomes of the WFD Project

1. **New and enriched partnerships**
   - Expand the Joint Ph.D. Program Enrollment
   - Develop new modular curriculum options
   - Expand industry engagement
   - New partnerships with other universities and national labs

2. **Engage students where disciplines converge**
   - New team-science initiatives and research
   - New ideation and seed funding opportunities
   - Engage the community in efforts
   - Develop leadership skills and professional development
   - Increase the diversity of participants

3. **Build computational literacy**
   - Include DSE and leadership as foundational knowledge options for all ESE, DSE and GST students
   - Recruit two senior-level faculty hires
   - Develop community-based experiences and talent sharing programs

4. **Operate with transparency and accountability**
   - New framework to provide coordination and streamlining
   - Advisory board
   - Enhanced assessment and evaluation to promote faster course corrections
Complementary Research Themes of the WFD Project

Theme 1: Autonomous, Smart, Secure and Resilient Energy Systems

Theme 2: Electrochemical Energy Systems

Theme 3: Advanced Science and Engineering of Materials and Manufacturing

Theme 4: Predictive Systems Biology for Circular and Sustainable Economies
Seed Proposals

- Open to all UT faculty and ORNL staff
- Proposal teams must include at least two UT faculty and two ORNL scientists
- $150 – 200K awards (total costs) + up to three GRAs for one year.
  - PIs accepting a GRA must commit to the student beyond the program period through the completion of their program.
  - Year two funding (at similar levels) may be available to teams who are deemed to have successful performance.
Submission Instructions

• LOI - Due by September 19, 2020
  • GRA support for proposal development
• Proposal - Due by October 26, 2020 at 5:00 p.m.

• Further details – https://utk.infoready4.com/

• Questions: please contact Betty Carmon at bcarmon@utk.edu
Questions?