## Innovate 2.0 – Day 1 Report (September 9, 2025)

**Location:** Oak Ridge National Laboratory

Focus: Early to mid-career engineers from the DOE National Lab complex

**Theme:** Career Development and Collaboration Across Laboratories

# Overview of Day 1

The Innovate 2.0 workshop kicked off with a focus on fostering collaboration among engineers from various Department of Energy (DOE) laboratories. Key objectives included career development, configuration management, and sharing engineering best practices.

The day emphasized the importance of preparing early to mid-career engineers to take leadership roles as senior engineers approach retirement. Attendees were encouraged to network, share challenges, and collaboratively explore solutions.

# Agenda Highlights

# **Morning Session: Welcome and Introduction**

• Speaker: Rob Saethre

Rob Saethre introduced the Innovate 2.0 initiative, explaining its goal of establishing a network of engineers and facilitating knowledge sharing between labs. He emphasized the importance of passing best practices to the next generation of engineers.

Key points from his speech:

learning to adapt to advancements in the field.

- The initiative targets early to mid-career engineers to ensure long-term growth and sustainability.
- Collaboration between different DOE labs is essential for addressing both technical and process-related challenges.
- Keynote Speaker: Christo Liebenberg, CEO of LIS Technologies Inc.
  Mr. Liebenberg, an accomplished leader with extensive expertise in state-of-the-art laser and optical systems, shared insights from his 30 years of technical and management experience. His talk explored the future of engineering in the nuclear fusion and fission sectors, as well as innovations in small modular reactors. He provided a forward-looking perspective and stressed the value of continuous

# **Breakout Session 1: Career Development Groups**

Participants were divided into small groups (3-5 individuals) for interactive breakout discussions. Topics included:

- **Staff Retention:** Strategies to retain engineering talent and build a supportive work environment.
- **Recruitment and Onboarding:** Creative approaches to finding and integrating new engineers into teams.
- **Mentorship:** The importance of mentoring programs to bridge the gap between senior and junior engineers.
- Networking and Education: Building internal and external professional networks, and encouraging lifelong learning.

Each group summarized their discussions and shared recommendations with the larger audience.

#### **Post-Lunch Activities**

### 1. Graphite Reactor Tour (Optional):

Participants were given the opportunity to tour the historic Graphite Reactor at Oak Ridge National Laboratory. The tour highlighted groundbreaking research achievements and innovations that have shaped modern engineering.

#### 2. Dinner and Networking:

The day concluded with an informal dinner that provided attendees with additional opportunities to network with peers.

### **Outcomes of Day 1**

#### 1. Collaboration Focus:

Participants acknowledged the significance of creating stronger connections between labs to foster consistency and partnership in addressing national engineering challenges.

# 2. Actionable Insights on Recruitment and Retention:

Groups identified key steps for improving workforce development, including

implementing stronger mentorship programs, enhancing recruitment strategies, and fostering a culture of continuous learning.

# 3. Exposure to Technical Leadership:

Insights from Christo Liebenberg's keynote provided a strategic outlook on the future of nuclear fuel production, challenges the nation has with providing a domestic source, and the potential of creating those facilities in Oak Ridge Tennessee.

# 4. Knowledge-sharing:

Breakout sessions allowed participants to exchange insights, share experiences, and uncover commonalities across laboratories.

# **Next Steps for Day 2**

Day 2 will build on the themes of collaboration and professional development with the following highlights:

- A new keynote speaker, Fulvia Pilat of the ORNL Accelerator Institute on workforce development.
- Presentations from different labs on configuration control process challenges.
- Breakout Session 2, focusing on configuration management processes, where attendees will discuss engineering tools, standards, and data management strategies.
- Frontier Supercomputer tour (optional).

## Conclusion

Day 1 of Innovate 2.0 successfully set the tone for a collaborative and productive workshop. Participants left with insights and strengthened connections, ready to continue refining and sharing their engineering practices on Day 2.