

SCALE 6.3

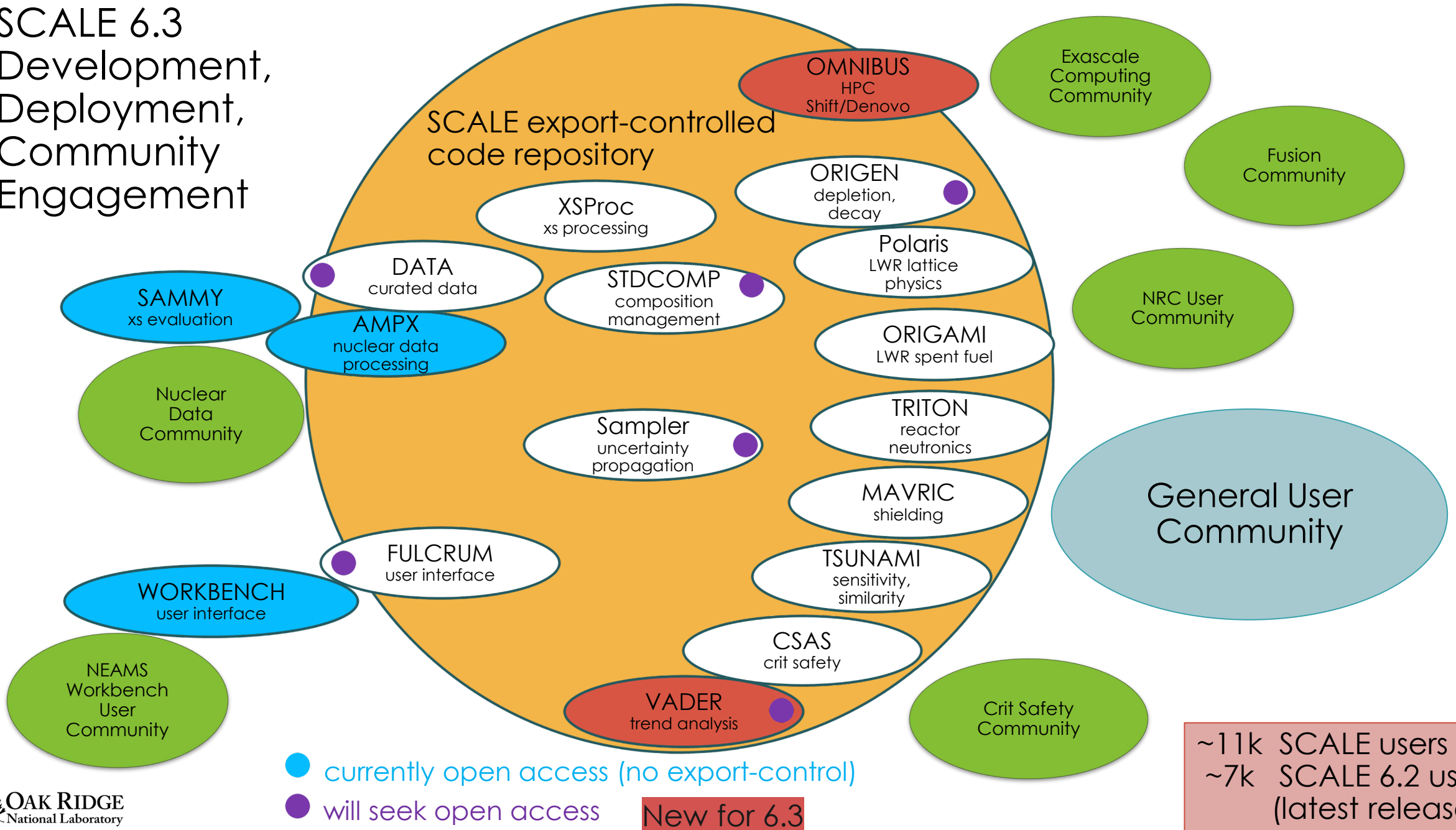
Presenter: W. Wieselquist
Director, SCALE Code System

SCALE Users' Group Workshop 2022
Oak Ridge National Laboratory

ORNL is managed by UT-Battelle, LLC for the US Department of Energy

SCALE 6.3

Development, Deployment, Community Engagement



~11k SCALE users
~7k SCALE 6.2 users (latest release)

New Features in 6.3 At A Glance

- **General**

- Fulcrum 3D visualization
- Online manual
- More HDF5 results files

- **Polaris**

- Speed improvements (3x or more)
- ORIGEN library generation (.f33)
- Output improvements

- **ORIGEN**

- Library building modernization
- Depletion sensitivity
- OBIWAN command line

- **XSPROC**

- High-temperature graphite improvements

- **TRITON**

- Shift integration
- New flow block (for liquid fuel systems)

- **CSAS**

- Shift integration
- Additional tally flexibility

- **MAVRIC**

- Shift integration (enables parallel calculations not available in MAVRIC in 6.2 and earlier)

- **Sampler**

- New sensitivity metrics
- Kinetics (delayed neutrons) uncertainty propagation

- **TSUNAMI**

- Shift IFP method
- Speed/memory improvements

- **AMPX**

- Modern nuclear data format (GNDS) reading
- Numerous maintenance updates

- **Nuclear Data**

- ENDF/B-VIII.0 libraries
- New kinetics data resource
- Gd recoverable energy update

- **OMNIBUS**

- New Python-based front end to SCALE Exascale computing capabilities

- **VADER**

- New trending analysis sequence

2022 SCALE Team

Director
Will Wieselquist

Leadership Team

Production Coordinator
Rob Lefebvre

User Support Coordinator
Germina Ilas

Release Coordinator
Shane Hart

Sponsor Representatives
Seth Johnson, HPC
Ugur Mertuyurek, NRC
B.J. Marshall, NCSP

Advisors
Matt Jessee, NEAMS Reactor Physics Lead
Bob Grove, Section Head: Nuclear Software Development
Doug Bowen, Section Head: Radiation Shielding & Criticality

Project Management
Marsha Henley

Logistics
Sandra Poarch

Product Owners

AMPX -
CSAS Kursat Bekar
DATA -
FULCRUM Rob Lefebvre
MAVRIC Cihangir Celik
OMNIBUS Seth Johnson
ORIGAMI Steve Skutnik
ORIGEN Will Wieselquist*
POLARIS Matt Jessee
SAMPLER Ugur Mertuyurek
STDCOMP Rob Lefebvre*
TRITON Rike Bostelmann
TSUNAMI Jordan McDonnell
VADER Shane Hart
XSPROC Kang Seog Kim
*Interim owner

Dev/Testing/Analysis

Brian Ade	Jianwei Hu
Arzu Alban	BK Jeon
Goran Arbanas	Nicholas Kucinski
Jin Whan Bae	Alex Lang
Mark Baird	Brandon Langley
Ben Betzler	Austin Lo
Elliot Biondo	Jordan McDonnell
Jesse Brown	Paul Miller
Joey Burns	Tara Pandya
Chris Chapman	Douglas Peplow
Riley Cumberland	Marco Pigni
Gregory Davidson	Georgeta Radulescu
Mathieu Dupont	Joel Risner
Tom Evans	Kat Royston
Tarek Ghaddar	Jose Perez
Travis Greene	Alex Shaw
Steven Hamilton	Peter Stefanovic
Donny Hartanto	Ryan Sweet
Briana Hiscox	Ben Taylor
Israel Huff	Erik Walker

Program Manager **NRC Projects Office**

Bruce Bevard
Business Ops Manager
Lindsey Aloisi

NCSP Execution Manager **NCSP Management**

Doug Bowen
Business Systems
Marsha Henley