The SAFe Toolset

Software Verification and Validation are often considered expensive activities not producing a lot of results.

This is a false and unfortunately widespread opinion - here are some facts:

1. The majority of the total cost of software projects is associated with finding and fixing defects.
2. Usually, defects finding/fixing occurs too late in the lifecycle of a project.
3. No single remedy for the so called "software crisis" has been found - but empirical data gathered on several software projects have shown that Code Inspection allows for defects prevention and early defects detection and removal.
4. Code Inspection is significantly facilitated by Static Analyzers - many of which are available under free and open source licenses.
5. The analysis results produced by Static Analyzers can be easily reviewed with the relevant code parts shown - by freely available Code Quality platforms like SonarQube.
6. Code Quality platforms simplify the management of the Issues found by Static Analyzers, allowing the execution of Software Verification and Validation in a seamless and continuous way.

And this is exactly what the SAFe (Static Analysis Framework) Toolset did - it created an Ubuntu Virtual Machine, pre-packaged with:

1. open source Static Analyzers;
2. relevant cross compilers for our target niche (SPARC, ARM, etc);
3. the Code Quality Platform SonarQube (freely available community edition).

In this presentation, SAFe will be showcased - demonstrating that Code Inspection (and therefore Software Verification and Validation) can be performed in an effective and productive way.