MISSION: To curate a suite of proxy applications that are representative of the intended characteristics of their respective parent applications and easy to use and obtain. Characteristics include hardware bottlenecks (e.g., memory, computation, communication) and programming models.

**Curation**
- Improve quality of ECP proxies
- Maximize Benefit from their use
- ECP Proxy App Suite
  - Composed of Proxies Developed or Maintained by ECP Projects
  - Represent most important features and pain points of exascale applications
  - Held to a high set of standards with a focus on maximizing utility to all parties
  - Distributed via Spack and Proxy Apps Website
- Current Proxy Apps Suite
  - v1.0
  - Expected to be updated every 6 months

**Quantitative Assessment**
**Goal:** Understand how well proxies represent parent applications quantitatively at hardware level future better proxies
- Representative problems/sizes
- Detailed profiling
- Quantitative characterization
- Statistical proxy/parent app comparison

**Profiling** to (1) better understand proxy, (2) determine qualitative similarity to parent
**Characterize** to understand bottlenecks using hardware performance counters and mpiP

**Statistical comparison** to parent app to understand representativeness:
- Performance counter and mpiP data
- Principal Component Analysis
- Clustering Algorithm

**PathForward Engagement**
**Proxy App PathForward representatives**
- AMD: Jeanine Cook, jecook@sandia.gov
- Cray: Christoph Junghans, junghans@llnl.gov
- HPE: David Richards, richards12@llnl.gov
- IBM: Shirley Moore, mooresv@ornl.gov
- Intel: Hal Finkel, hfinkel@anl.gov
- Nvidia: Thomas Uram, turam@anl.gov

**Engagement process:** Work with vendors to provide appropriate proxy apps and input sets for evaluating work packages
- Vendor informs representative of requirements
- Proxy app team determines if current proxy app suite can meet requirements
- Recommend proxy app development or full app with specific input sets if necessary