Assessing gap analysis will address system application needs and technology development goals.

Planning for programs and projects will lay out the timelines and roadmaps for future research.

**Technology Project Goals**

- **Sandia National Laboratory**
  - New Light Sources
  - Transport capability, low-overload testing, capturing gases, temperature...
- **Ohio State University**
  - Health Environment Optorlization Sensors
  - Development of novel sensor designs
  - Various forms of sensing
- **Solid State Micro Sensor Arrays**
  - Multifunctional MONOLITHIC solid-state sensors
  - Based on conventional automotive sensor technology
  - High sensitivity:
    - Increased spatial resolution
    - Enhanced safety

**Technology Requirements Traceability**

- System/Subsystem/Application
  - Design Variables
  - Temperature
  - Pressure
  - Flow
  - Chemical
  - Requirements
  - Measured
  - Goals & Thresholds

**Technology Road Map (Summary Chart)**

- **AR Sensors and Controls**
  - Integrated Micro Sensor (Temperature and Pressure)
  - Hollow Core Fiber Gas Sensor
  - Combustion Control and Diagnostics Sensor (CCADS)

**AR Project Goals Tailored to System Application Needs**

Advanced Research