

## TechConnect Ventures

### Sprint Challenge Brief:

## AI Methods To Optimize Asset Integrity Maintenance and Inspection

### BACKGROUND

All industrial processes aim to reduce operating expenditures, avoid unplanned downtimes, improve efficiency, and enhance safety. New approaches to asset maintenance and inspection use AI as a key enabler to achieve these goals. Computer vision technologies have been a key area for AI contribution for analysis of visual inspection data thus far, but the role of AI is expected to grow into other areas, such as facilitating automated and autonomous inspection and intelligently managing multiple data streams.

This sprint will identify AI-based tools and methodologies that can be applied to asset integrity maintenance and inspection. We seek AI-enabled solutions, as opposed to hardware such as sensors, drones, or other inspection vehicles. We welcome submissions and novel concepts from individuals and organizations at all technology readiness levels (TRLs), including the academia, research, commercial and government sectors.

We encourage solvers submitting an entry to highlight key innovation areas in their submission, that address the following:

- Enhanced visual inspection for defect, damage, and failure identification;
- Tools to enable automated inspection analysis and reporting;
- Verification tools for object identification;
- Sensor fusion and management; and/or
- Optimize asset performance

### BUSINESS OPPORTUNITY FOR SOLVERS

TechConnect Ventures will include all complete and eligible entries in an exclusive innovation opportunity report that we will present to our consortium of innovation-seeking clients and partners. Our clients may also contact solvers with well-matched capabilities directly to discuss potential partnership opportunities. We will invite top-rated entries to register or participate in an upcoming TechConnect Ventures event or pitch program.

### PARTICIPATION RULES & GUIDELINES

Solvers are encouraged to review the [Rules](#) and [Guidelines](#) provided on the Sprint page for details about participation, including submission criteria, eligibility information, and more.

**QUESTIONS?** Contact us at [challenge@techconnectventures.com](mailto:challenge@techconnectventures.com)