

# Defense & Intelligence

Dealing with growing and changing security threats, MoD's and agencies need a ready and adaptable force, the ability to predict, prevent and respond to disrupting events and a strong connection to the citizens and industry (ecosystem).

## Data Science and AI Use Case: Predictive Maintenance for Mission Readiness

**Challenge:** In the mission readiness space, there are countless operational realities and mission objectives that leaders are having to content with, placing downward pressure on budgets and intensifying the operational tempo. Teams are having to deal with more demanding mission environments using more sophisticated machines than ever before, but not having the right trained, equipped or experienced personnel to manage this equipment. This impacts at all levels of mission readiness: tactical, operational and strategic.

*Matériel readiness is a major concern for Defense organizations.*

### Data Science Use Cases:

- Early Failure Prediction for mission critical equipment.
- Leverage IBM Decision optimization to optimize maintenance personnel schedules for mission critical equipment.
- Forecast and optimize inventory levels and reordering policies for repair parts

### Cloud Pak for Data Value:

Collect: to sensors, reports and manuals, and devices of mission critical equipment

Organize: Standardize data to a machine readable format

Analyze: Data Scientists train models to predict failures and remaining life at component level and optimize schedules and inventory policies

Infuse: Models are deployed into production to be integrated into supply chain management systems and Maintenance personal portals

