

Examples of projects that might be funded:

- Product yield optimization and production efficiency
 - Downhole/surface IoT data acquisition and control
 - Artificial lift operation, pipeline operation automation
 - Enhanced seismic data acquisition, real time reservoir history match
 - Real time 3D imaging, fracturing optimization, reservoir optimization
 - Optimization using artificial intelligence
 - Data analytics
- Value creation and operational efficiency
 - Scenario modeling, arbitrage, trading, product value realization
 - Smart contracts, project execution optimization
 - Simulation, production planning, projections
 - Precision agriculture
 - Optimization using artificial intelligence
 - Data analytics
- Project execution and predictive maintenance
 - Shutdown reduction, integrity issue avoidance
 - VR/AR/visualization - digital twins and project execution
 - IoT sensor analogs, computer vision, cameras
 - Integration with existing operational data; SCADA, fluid samples etc.
 - Innovative data collection technologies
 - Optimization using artificial intelligence
 - Data analytics
- Health, safety and environment
 - IoT for connectivity, communication
 - VR/AR/visualization - training, construction management, HR processes
 - Cameras, motion sensors, image recognition, video analysis; computer vision
 - GIS mapping, surveys, maintenance in difficult access/remote access areas
 - Workplace health and safety through sensors, analytics, dashboards and predictive learning

- Optimization using artificial intelligence
- Data analytics

- Environmental monitoring and public health
 - Remote monitoring and automation for reclamation, remediation, closure
 - Machine learning and IoT sensors to manage air quality, water quality
 - Optimization using artificial intelligence
 - Data analytics

- Automation
 - IoT sensors, edge controllers; automated optimization
 - UAVs and LIDAR, mapping and satellite technology
 - Self-driving haulers, autonomous mining, autonomous transportation
 - Optimization using artificial intelligence
 - Data analytics

- General digital project examples
 - Development of innovative hardware for data collection, analysis and management
 - Development of innovative software for data analytics, interpretation and prediction
 - Development of innovative predictive models
 - Development of innovative data workflows using existing data sources
 - Application of machine learning to specific data sets
 - Development of new ML/AI workflows
 - Implementation of AI workflows for process automation