Paper	Use Case
A Cyber-Physical Production System Framework of Smart CNC Machining Monitoring System	Wear and tear monitoring
A fog computing-based framework for process monitoring and prognosis in cyber-manufacturing	Anomaly detection and predictive maintenance
A framework to guide the selection and configuration of machine-learning-based data analytics solutions in manufacturing	Fault diagnostics
A Generic Data Analytics System for Manufacturing Production	Wear and tear monitoring
A Hybrid Machine Learning Approach for Predictive Maintenance in Smart Factories of the Future	Anomaly detection and predictive maintenance
A methodology for the semi-automatic generation of analytical models in manufacturing	Manufacturing monitoring, cost and power consumption
A Predictive Maintenance System Design and Implementation for Intelligent Manufacturing	Anomaly detection and predictive maintenance
A systematic development method for cyber-physical machine tools	Wear and tear monitoring
An intelligent decision support system for production planning based on machine learning	Other/unclear
An Intelligent Maintenance Planning Framework Prototype for Production Systems	Other/unclear
Architecture Model for a Holistic and Interoperable Digital Energy Management Platform	Manufacturing monitoring, cost and power consumption
CAAI—a cognitive architecture to introduce artificial intelligence in cyber-physical production systems	Manufacturing monitoring, cost and power consumption
Cloud-based big data analytics platform using algorithm templates for the manufacturing industry	Wear and tear monitoring
Cognitive analytics platform with AI solutions for anomaly detection	Anomaly detection and predictive maintenance
Computer Vision Toolkit for Non-invasive Monitoring of Factory Floor Artifacts	Machine Vision
Data analysis and visualization framework in the manufacturing decision support system of COMPOSITION project	Other/unclear
Developing a big data analytics platform for manufacturing systems: architecture, method, and implementation	Manufacturing monitoring, cost and power consumption
Expert System for the Machine Learning Pipeline in Manufacturing	Wear and tear monitoring
Integrating human cognition in cyber-physical systems: A multidimensional fuzzy pattern model with application to thermal spraying	Wear and tear monitoring
KOI: An Architecture and Framework for Industrial and Academic Machine Learning Applications	Manufacturing monitoring, cost and power consumption
ML Pro: digital assistance system for interactive machine	Wear and tear monitoring
MOMIS Dashboard: A Powerful Data Analytics Tool for Industry 4.0	Manufacturing monitoring, cost and power consumption
Patented intelligence: Cloning human decision models for Industry 4.0	Other/unclear
Scalable Data Analytics from Predevelopment to Large Sc	Other/unclear
Supporting Data Analytics in Manufacturing with a Digital Assistant	Fault diagnostics
Towards a cognitive assistant supporting human operators in the Artificial Intelligence of Things	Machine Vision
Towards a connected factory: Shop-floor data analytics in	Manufacturing monitoring, cost and power
Towards big industrial data mining through explainable automated machine learning	Anomaly detection and predictive maintenance

Validation of PERFoRM reference architecture demonstrating an application of data mining for predicting machine failure	Anomaly detection and predictive maintenance