

Emerging digital skills

Examples of skills mapped out for workers in the energy, chemicals and utility industries.



Technicians

Skill description	Knowledge	Proficiency
Analysis of data and trends: Identify trends in data and detect problems; visualise data effectively	Data visualisation on tools like Tableau, Qlikview, QlikSense, Microsoft Power BI, Sisense	Expert
Automation management: Monitor and interpret system performance metrics; look at how to integrate more automation	Process control; plant design and simulation packages	Expert
Industrial cyber-security management: Understand cyber-security risks; use and interpret installed tools and systems to detect, manage and respond to incidents	Digital identity of 'things'; encryption types and security infrastructure; incident response triage	Intermediate



IT-specialist engineers

Skill description	Knowledge	Proficiency
Big data management: Synthesise data across entire plants for monitoring and process improvement	HDFS; Abache Cassandra, DocumentDB, MongoDB; Hadoop MySQL, MS-SQL, SQLite; Oracle DB	Expert
Simulation and modelling: Understand temporal statistics, classical statistics, spatial statistics; analysis of structured and unstructured data	Forecasting, time-series analysis; ANOVA; SQL, JSON, XML; statistical graphics	Expert
Industrial user interface/experience design: Create wire frames, illustrations, renderings, 3D models, functional mock-ups	Adobe Photoshop, Illustrator, InDesign	Intermediate